THE HENRY L. STIMSON CENTER

The Politics of Nuclear Renunciation:
The Cases of Belarus,
Kazakhstan, and Ukraine

William C. Potter

Occasional Paper No. 22 April 1995





Copyright © 1995 by The Henry L. Stimson Center 21 Dupont Circle, NW Fifth Floor Washington, DC 20036 (202) 223-5956 Fax (202) 785-9034

Contents

Preface	i
List of Abbreviations	<i>v</i>
List of Tables and Figures	vii
The Soviet Nuclear Weapons Legacy	
Belarus	2
Kazakhstan	
Ukraine	8
From Nuclear Inheritance to Renunciation	10
The View from Minsk	12
The View from Almaty	16
The View from Kiev	19
The Politics of Nonproliferation	27
Belarus	
Kazakhstan	35
Ukraine	$\dots 42$
Conclusion	50

Preface

The division of the Soviet Union's nuclear arsenal in late 1991 among four independent republics inspired deeply troubling visions of unchecked nuclear proliferation and, possibly, nuclear confrontation. Three years later, these nightmare scenarios appear to be behind us. Belarus, Kazakhstan, and Ukraine have acceded to the Nuclear Non-Proliferation Treaty (NPT) as non-nuclear states and are now transferring Soviet missiles and warheads to Russia for dismantlement on a strict schedule.

Importantly, these three former Soviet republics are not the only states with significant nuclear assets to renounce nuclear weapons. While international attention has tended to focus on notable exceptions to the non-proliferation norm—Israel, India, and Pakistan—a significant number of states have discontinued programs to develop nuclear weapons: Sweden, South Korea, and Taiwan in the 1970s, Argentina and Brazil in the 1980s, and South Africa in the 1990s. These notable instances of restraint prove that decisions to move toward nuclear acquisition are not unalterable, but may be subject to reversal in light of new international, regional, or domestic constraints and pressures. The march toward a more proliferated world is neither inexorable nor inevitable.

The examples of Belarus, Kazakhstan, and Ukraine, like those of other nuclear abstainers, offer hope for a future in which nuclear danger is progressively reduced. While the mechanisms to enforce the norm of non-proliferation—primary among them the Nuclear Non-Proliferation Treaty—may at times prove inadequate to the task, a large number of states appear to have concluded that the risks of nuclear possession outweigh the supposed benefits, particularly when the costs include diplomatic isolation and the loss of access to the economic, technological, and other benefits that go along with full participation in global markets and the international community.

While these cases of nuclear restraint are heartening, they coexist with discouraging signs. A number of countries clearly continue to see great military or political benefit in the possession of nuclear weapons, and are willing to risk international isolation and even condemnation to achieve that goal. The effectiveness of the Nuclear Non-Proliferation Treaty needs to be strengthened, as is apparent from the evasive action taken by Iraq and North Korea. A new "grand bargain" needs to be struck by the nuclear and non-nuclear weapon states, reaffirming their mutual obligation to progressively reduce nuclear danger. The international community, in short, appears to be approaching a decisive point in the evolution of the non-proliferation regime, with the future leading either to temporizing steps or to the progressive de-legitimization of weapons of mass destruction.

At issue is the future role of nuclear weapons in national policies and in international relations. While many argue that nuclear weapons in the past helped to prevent war between the United States and the Soviet Union and thus contributed to international stability, there is little agreement today about the future contribution of nuclear weapons to national or international security. What is the relevance and effectiveness of nuclear deterrence today between nuclear weapon states or between strong and weak states? What role, if any, do these weapons play in deterring "rogue" states or the use

ii Preface

of chemical and biological weapons? What political and military benefits, if any, does the possession of nuclear weapons entail? What should be the long-term objective of future arms control and disarmament efforts? Most importantly, what are the benefits and risks of continuing to rely on nuclear weapons for security, and how do they compare with the benefits and risks of the progressive reduction of the shadow cast by these weapons?

The Henry L. Stimson Center's Project on Eliminating Weapons of Mass Destruction seeks to encourage a national and international debate on the long-term nuclear future. It is based on the premise that the end of the Cold War, dissolution of the Soviet Union, and grave dangers of proliferation provide both reason and opportunity to reexamine fundamental assumptions regarding the relative benefits and risks associated with weapons of mass destruction. Through research and public education efforts, the Center seeks to explore the obstacles to, and implications of, the progressive elimination of all nuclear, chemical, and biological weapons from all states, and to consider measures that might bring all states closer toward that goal. The project is funded by the Ford Foundation and the Rockefeller Foundation.

A central focus of the project's research efforts are evolving national and international perceptions of the benefits, costs, and risks associated with weapons of mass destruction. Understanding the motivations for proliferation in the post-Cold War environment is essential to this task. Equally important, however, is an examination of cases of nuclear forbearance, which may hold valuable lessons for future non-proliferation efforts.

This study is the first in a series that examines decisionmaking in countries that have chosen to back away from the nuclear threshold. Using a common framework of analysis, these studies seek to assess the relative influence of international, regional, and domestic factors in helping to change perceptions of the utility and/or the cost of nuclear weapons, and to examine closely the implementation and verification of decisions to forego the development of nuclear capabilities. The studies are authored by experts with extensive expertise in non-proliferation issues and, importantly, in the domestic and regional politics of the countries under review.

This essay by Dr. William Potter examines the three former Soviet republics. As Potter notes, prior to the Soviet Union's dissolution, little attention had been paid to the possibility that states might "inherit" nuclear weapons through a change in political authority over the territory on which nuclear weapons were located. As the Soviet Union lurched toward collapse, the specter of "instant proliferation" loomed larger. Though the USSR's nuclear arsenal and infrastructure were concentrated in the Russian Republic, the Soviet Union's demise in late 1991 left Belarus, Kazakhstan, and Ukraine with significant nuclear assets on their respective territories. As Potter's study highlights, little thought had been given in the new national capitals to the implications of this dubious windfall.

Although all three states, to a greater or lesser extent, shared concerns about Russia's evolution, in the end, the economic, political, and military costs of nuclear possession proved too high. First Belarus, then Kazakhstan and, finally, Ukraine, agreed to transfer their newly obtained arsenals to Russia for dismantlement and to accede to

Preface

the NPT as non-nuclear states. In each case, the fear of international isolation and political and economic reprisals played a significant role in the decisions to de-nuclearize.

In the post-Cold war world, Potter concludes, nuclear policy could not be considered in isolation of other important national goals, particularly those related to economic growth and technological advancement. The story of nuclear forbearance in Belarus, Kazakhstan, and Ukraine, the author observes, "is indicative of the significant array and potency of proliferation disincentives that operate in the post-Cold War world." As such, his account holds valuable lessons for future non-proliferation efforts.

The Stimson Center is grateful to the Ford Foundation and the Rockefeller Foundation, whose funding makes this work possible. We are particularly grateful to Shepard Forman and Geoffrey Wiseman of the Ford Foundation, and Peter Goldmark and Tom Graham of the Rockefeller Foundation for their continued support. We also wish to thank the project's director, Cathleen Fisher, and Christine Wormuth for their comments, and editorial and administrative support. As always, Jane Dorsey provided invaluable assistance in the preparation of the final product.

Michael Krepon President The Henry L. Stimson Center

		R	
		9	
6			
6			
			ž!
		9	
é			

List of Abbreviations

ALCM Air-launched cruise missile

CIS Commonwealth of Independent States

CSCE Conference on Security and Cooperation in Europe

(now the Organization on Security and Cooperation in Europe)

FSU Former Soviet Union

HEU Highly-enriched uranium

IAEA International Atomic Energy Agency

ICBM Intercontinental ballistic missile

LEU Low-enriched uranium

MIRV Multiple independently targetable reentry vehicle

MOU Memorandum of Understanding

NATO North Atlantic Treaty Organization

NPT Nuclear Non-Proliferation Treaty

SRBM Short-range ballistic missile

START Strategic Arms Reduction Talks

UN United Nations

List of Tables and Figures

Table 1:	NIS Nuclear Profiles as of January 1992	3
Table 2:	Possible Proliferation Determinants	29
Figure 1:	Underlying Pressures and Constraints on Proliferation	30
Table 3:	Summary of Proliferation Determinants	52

The Politics of Nuclear Renunciation: The Cases Of Belarus, Kazakhstan, And Ukraine¹ William C. Potter

The literature on nuclear proliferation reveals that national decisions to "go nuclear" are not always discrete events. The Soviet decision to develop an atomic bomb, for example, is better viewed as a sequence of three decisions taken by a number of individual and institutional actors in 1940, 1942, and 1945. Each of these decisions was influenced by different incentives and constraints.

Much less is known about national decisions to renounce nuclear weapons. One should not assume a priori, however, that they are any more confined in time or irreversible than are decisions to proliferate. This caution is merited especially if one conceives of decision making as a sequential process involving a number of analytically distinct phases, including those of policy initiation or agenda setting and policy implementation.³

The purpose of this essay is to examine the calculus of nuclear decisionmaking in those post-Soviet states that have inherited nuclear weapons but renounced their claims to them and moved to implement their decisions. Particular attention will be given to the assessment of the relative impact of domestic and external factors in the nuclear decisionmaking process. An effort also will be made to compare the significance of proliferation incentives and disincentives for the post-Soviet states with those of other states that have chosen either to acquire nuclear weapons or to foreswear their possession.

The Soviet Nuclear Weapons Legacy

The Soviet Union at the time of its disintegration in December 1991 possessed an enormous arsenal of nuclear weapons and a sprawling military industrial complex devoted to their design, production, testing, and maintenance. The nuclear weapons stockpile usually is reported to have numbered approximately 27,000 nuclear warheads, including 15,000 tactical nuclear weapons that were disbursed in at least fourteen of the

^{1.} The author is grateful to Sarah Jacobson and Mark Skootsky for their research assistance, and to Allene Thompson for her typing and editorial support. He wishes to thank Dastan Eleukenov, Cathleen Fisher, Sergei Galaka, James Goodby, Rose Gottemoeller, Oumirseric Kasenov, Valery Kuchinsky, Vyachaslau Paznyak, Alexander Pikayev, Mitchell Reiss, Roland Timerbaev, and numerous unnamed government officials from Belarus, Kazakhstan, Russia, Ukraine, and the United States for their comments on earlier drafts of this manuscript.

^{2.} See David Holloway, "Entering the Nuclear Arms Race: The Soviet Decision to Build the Atomic Bomb, 1939–45," Working Paper No. 9, The Wilson Center International Security Studies Program (Washington, DC, 1979). See also Holloway, Stalin and the Bomb (New Haven: Yale University Press, 1994).

^{3.} For a discussion of this conception of decision making with reference to the Soviet Union see William Potter, "The Study of Soviet Decisionmaking for National Security: What is to Be Done?" in Jiri Valenta and William Potter, eds., Soviet Decisionmaking for National Security (Boston: Allen & Unwin, 1984), 298–307.

Soviet republics. ⁴ It is estimated that as many as 900,000 individuals in the former Soviet Union had clearance to work with nuclear weapons in some capacity, although fewer than 7,000 scientists and engineers are likely to have been directly involved in weapons design, uranium enrichment, or plutonium production. The Soviet nuclear archipelago also included a parallel and at points overlapping research and production complex geared to the civilian nuclear sector.

Much of this nuclear complex, including over 70 percent of the warheads and all of the dedicated nuclear weapons production and design facilities, was located within the Russian Federation.⁵ All of the remaining strategic nuclear weapons, most of the highly-enriched uranium outside of the weapons sector, and nearly all of the nuclear fuel cycle facilities and production sites for controlled nuclear commodities were concentrated in Belarus, Kazakhstan, and Ukraine (see Table 1).

Belarus

Belarus was one of the most heavily-armed republics at the time of the collapse of the Soviet Union. Although a small state about the size of Kansas with a population of 10.3 million, Belarus was the deployment site for approximately five percent of all Soviet military forces. Nearly ten percent of the territory of Belarus was occupied by military installations, in contrast to about two percent for the Soviet Union as a whole. Included among these military sites were two bases for the single-warhead, land mobile SS-25 "Sickle" ICBMs (Russian designation: RS-12M "Topol") at Mozyr and Lida, and over one thousand tactical nuclear warheads. According to the START I Memorandum of Understanding, as of September 1990 54 SS-25s were deployed on Belarusian territory. An additional 27 SS-25s reportedly were deployed subsequently. This concentration of military might was a function of Belarus' geographical location and Soviet military doctrine and war plans, which regarded the republic as a forward line of defense.

^{4.} See Robert S. Norris, "The Soviet Nuclear Archipelago," *Arms Control Today*. (January/February 1992), 24–31. Turkmenistan may not have had any nuclear weapons on its territory.

^{5.} Ibid., 25. Norris estimates that 20,750 warheads, or 77 percent of the total Soviet stockpile, were located in Russia.

^{6.} Vyachaslau Paznyak, "Belarusian Nuclear Policy and the Control of Nuclear Weapons" (Paper presented at the Conference on Multilateral Security: Eurasia and the West, Russian Littoral Project, Barnett Hill, England, July 1994), 3–4.

^{7.} The bases at Lida and Mozyr previously supported SS-20 missiles. See Steven Zaloga, "Strategic Forces of the SNG," *Jane's Intelligence Review* (February 1992), 79–85, and Robert S. Norris and William M. Arkin, "Where the Weapons Are," *Bulletin of the Atomic Scientists* (November 1991), 48–49. Norris and Arkin estimate the breakdown of tactical nuclear weapons as 270 with ground forces, 125 with air defense forces, 575 with air forces, and 150 with naval forces. It is not apparent where the naval weapons would have been deployed in land-locked Belarus.

^{8.} Radio Free Europe/Radio Liberty Daily Report (23 December 1993). See also Arms Control Association Fact Sheet (January 1994), and Nuclear Successor States of the Soviet Union: Nuclear Weapon and Sensitive Export Status Report, Carnegie Endowment for International Peace and Monterey Institute of International Studies (May 1994), 4. The SS-25 typically is deployed in groups of nine launch vehicles, each of which has an associated fixed structure (Zaloga, 84).

^{9.} Paznyak (3) cites Belarusian Military District Commander Colonel - General Anatoliy Kostenko's parliamentary testimony reported by Belarusian television on 15 November 1991.

	Armenia	Azerbaijan	Belarus	Estonia	Georgia	Kazakhstan	Kyrgyzstan	Latvia	Lithuania	Moldova	Russia	Tajikistan	Turkmenistan	Ukraine	Uzbekistan
Strategic Nuclear Weapons			+			+					+			+	
Power Reactors	a					+			+		+			+	
Research Reactors			+		+	+		+			+			+	+
Uranium Enrichment Plant											+				b
Plutonium Production Facility											+				
Nuclear Weapons Design Center											+				
Warhead Fabrication											+				
Fuel Fabrication						+					+				
Heavy Water Production	?										+	?		+	
Uranium mining/milling				+		+	+				+	+		+	+
Nuclear Test Site						+									
Nuclear Research Center	+		+	+	+	+		+			+			+	+
Party to the NPT											+				

Table 1: NIS Nuclear Profiles as of January 1992*

Despite its substantial nuclear weapons force—fourth largest in the former Soviet Union and also one of the most modern—Belarus lacked indigenous nuclear weapons or missile production facilities. It also was without a nuclear weapons testing site and a missile flight-test range. Such facilities, critical for the development of a nuclear weapons and missile delivery program, were confined to Russia and Kazakhstan. Belarus, however, did possess one node of the Soviet Union's phased-array early warning system located near Baranovichi. ¹⁰

Belarus' nuclear inheritance from the Soviet Union was not limited to nuclear weapons. It also includes a four megawatt (thermal) research reactor at the Institute of Power Engineering Problems (previously known as the Institute of Atomic Energy) at Sosny, near Minsk, and an experimental reactor and two critical assemblies, also located at Sosny. Between 33 and 35 kilograms of highly enriched uranium (HEU) of weapons

a. Two nuclear power reactors in Armenia were shut down in 1989. Plans have been made for their restart.
b. Although most Western reports indicate that all uranium enrichment facilities are in Russia, my interviews with former Soviet nuclear scientists and recent reports in the Russian press indicate that a uranium enrichment plant previously may have been in operation in Uzbekistan. A gas centrifuge factory also may be located in Kyrgyzstan.

^{*} A more detailed treatment of the nuclear assets of the former Soviet Union appears in William Potter, Nuclear Profiles of the Soviet Successor States (1993).

^{10.} Ibid., 5.

^{11.} For more detail on Belarus' nuclear power program, see Potter, Nuclear Profiles of the Soviet Successor States, 6–8.

grade is present at the Sosny institute, along with much larger quantities of fresh fuel of lower enrichment levels. To date, this material has not been subject to IAEA safeguards, or adequate material accounting and control procedures, and is not adequately protected. 13

It is not possible to identify accurately the size of the nuclear-trained work force in Belarus, which probably has diminished after plans to construct two 1000 megawatt electricity (MWe) power reactors were cancelled following the 1986 Chernobyl accident. The pool-type research reactor at Sosny also was shut down in 1988. Most nuclear-trained personnel in the civilian sector appear to be affiliated with the Institute of Power Engineering Problems at Sosny and the Scientific Research Institute of Nuclear Problems at Belarus State University in Minsk. The size of this work force may expand if Belarus carries out its plan, announced in December 1992, to build a nuclear power station. ¹⁴

In addition to its limited nuclear infrastructure, Belarus is reported to have approximately five percent of the former Soviet defense-industrial base, including 120 plants that employed about 370,000 people. Belarus was a major contributor to the Soviet Union's production of military vehicles and electronics, and Minsk was a center for research on ballistic missile defense and for the design and production of Soviet computers and computer-based command and control systems. Belarus, however, was and still is largely dependent on the other republics of the former Soviet Union for most of its strategic materials. It has no indigenous uranium ore reserves and no meaningful production capability for heavy water or other key nuclear weapons-related components.

Kazakhstan¹⁷

The Central Asian republic most closely identified with the nuclear assets of the former Soviet Union is Kazakhstan—a state that encompasses an area of more than one million square miles (larger than Western Europe) and shares a long border with both

^{12.} Personal interviews with senior staff from the Institute of Power Engineering Problems at Sosny and Minsk, October 1993 and June 1994. There are approximately 1.5 tons of fresh fuel, of which 485 kilograms are enriched to 30 percent or more. There also are roughly 41 kilograms of U–235 in spent fuel.

^{13.} Personal interviews in Minsk, June 1994. See also A.N. Batalov, I.G. Serafimovich, and A.P. Iakoushev, "The Problem of Control and Physical Protection of Nuclear Materials in the Republic of Belarus" (Paper presented at the meeting of the Monterey Institute of International Studies CIS Nonproliferation Project Working Group on Export Control, Physical Protection, and Safeguards, Minsk, 9–10 June 1994).

^{14.} See William C. Potter, "The Future of Nuclear Power and Nuclear Safety in the Former Soviet Union," *Nuclear News* (March 1993), 61–67. See also "Belarus looks to nuclear for its power," *Nuclear Engineering International* (November 1993), 8, and "Belarus Widens Sphere of Contacts in Bid to Get Nuclear Reactors," *Nucleonics Week* (13 October 1994), 1, 11–12.

^{15.} The Defense Industries of the Newly Independent States of Eurasia, CIA Directorate of Intelligence (January 1993), 9.

^{16.} Ibid.

^{17.} This section draws upon material in Oleg Bukharin and William Potter, "Kazakhstan - A Nuclear Profile," *Jane's Intelligence Review* (April 1994), 183–187.

Russia and China. The most visible signs of Kazakhstan's nuclear inheritance were 104 SS-18 ICBMs (Russian designation: RS-20) and 40 Tu-95 MS "Bear H" bombers.

The SS-18s were deployed in launch control groups of either ten or six silos, 52 of which were located at both Derzhavinsk and Zhangiz-Tobe. ¹⁸ Each of the SS-18s carried ten warheads for a total of 1,040. The Tu-95 strategic bombers were based at Semipalatinsk and were armed with AS-15 "Kent" cruise missiles. According to the START Memorandum of Understanding, 370 air-launched cruise missiles were in Kazakhstan. The nuclear weapons at the Semipalatinsk air base, as those in Belarus, remained under the operational control of Russian forces.

Kazakhstan also hosts the former nuclear weapons test site at Semipalatinsk. Semipalatinsk was the site of the first Soviet atom bomb explosion in 1949, the first Soviet hydrogen bomb detonation in 1953, and over 450 other nuclear tests.

Kazakhstan's declaration of sovereignty in October 1990 included a prohibition against further nuclear testing on its territory. This declaration was followed on 29 August 1991 by a presidential decree closing down the Semipalatinsk nuclear test site. The only serious challenge to the ban was the discovery of a small undetonated nuclear device that is buried at the Degelen district of the test site. The device was installed in May 1991 for the purpose of a physical irradiation experiment. Because domestic political considerations likely preclude the detonation of the device in place, Kazakhstani and Russian experts currently are studying the feasibility of extracting the charge. ¹⁹

The sprawling test complex at Semipalatinsk also houses a major nuclear research program at a variety of locales. The administrative center of the test site is the city of Kurchatov (Semipalatinsk–21), which is located near the Irtysh river. During the 1960s and 1970s, a number of experimental facilities were set up at Semipalatinsk by the Russian-based Research and Production Association "Luch" as part of the Soviet Union's program for testing rocket engines, space-based nuclear power propulsion plants, and their components. These facilities included the Baikal–1 Reactor Complex, located 65 km south of Kurchatov, and the IGR Reactor Complex, located 50 km southwest of the city.

The Baikal-1 facility houses two research reactors, a water-cooled and water-moderated reactor which was initially designed as a nuclear rocket engine prototype, and a high-temperature gas-cooled experimental reactor that is used to study the stability of nuclear fuel. The former reactor was redesigned in 1989–90 to test nuclear power reactor fuels. Two additional experimental reactors were reportedly tested at the Baikal-1 facility but were dismantled after the tests.

^{18.} See Zaloga, 79-82.

^{19.} See "Nuclear Bomb to Be Removed from Kazakhstan Test Site." *Komsomolskaya Pravda*, 13 May 1994. According to one recent report, there may be several additional undetonated nuclear charges at Semipalatinsk left over from a series of joint Soviet-US experiments. See "For Nearly Four Years a Nuclear Charge Has Been Lying in Adit #108," *Novaya Ezhednevaya Gazeta*, 9 September 1994.

The IGR Reactor Complex was the site of an impulse graphite-moderated reactor used between 1961 and 1988 for experiments in the development of nuclear rocket engines and nuclear propulsion power plants. The most recent experiments involving the reactor focused on nuclear safety.

At least 22 kilograms of uranium fuel enriched to over 90 percent is located at Semipalatinsk. This fuel is under Kazakhstan's custody and will be subject to IAEA safeguards once the July 1994 safeguards agreement enters into force. Because of its involvement in preparations for nuclear weapons tests, it is likely that Semipalatinsk also has a variety of nuclear weapons-related support equipment, including hot-cells. Additional HEU belonging to Russia has been reported at the site. 20

A 10 MWe research reactor is located at the Institute of Nuclear Physics in Almaty. Prior to its shutdown in 1988, it used fuel enriched to 36 percent; spent fuel from the reactor probably remains in the reactor pond. ²¹ The same institute also houses a critical assembly.

The Soviet nuclear legacy in Kazakhstan extends to other regions of the country beyond Almaty and Semipalatinsk, and is related to uranium mining, fuel fabrication, and nuclear power generation. Uranium mining in the Soviet Union appears to have expanded in the mid–1950s from Kyrgyzstan into Kazakhstan, primarily in the Dzhambul region near the Kyrgyz border. By the end of the decade, larger deposits of uranium were discovered in north-central Kazakhstan and in the Mangyshlak peninsula in the far west. These developments gave rise to the huge Tselinny "Virgin Land" Mining and Chemical Processing Combine at Stepnogorsk and the Prikaspiysky Mining and Smelting Combine at Shevchenko (now Aktau). The mining combines, along with a sister complex in Uzbekistan, were the core of the Soviet uranium production industry. The Kazakhstani mines also were closely integrated into the larger Soviet uranium production complex. In addition to mining uranium for the Soviet nuclear industry, Kazakhstan also was a principal site for special metallurgy and fuel-fabrication activities. These activities were concentrated at the Ulba (Ulbinsky) Metallurgy Plant at Ust-Kamenogorsk in the northeast of Kazakhstan.

The Ulba plant (known as "Mailbox 10" prior to 1967) converts hexaflouride of low-enriched uranium into dioxide (UO2) powder, which is subsequently fabricated into fuel pellets for both basic varieties of Soviet-built reactors (the VVER–440/1000 and the RBMK). The pellets are sent to fuel-fabrication facilities near Moscow (Elektrostal) as well as Novosibirsk for production of fuel rods and assemblies. Historically, the facility at Ust-Kamenogorsk produced nearly all of the UO2 powder and most of the fuel pellets for power reactors in the Soviet Union, and may have fabricated highly-enriched uranium fuel for Soviet naval propulsion reactors. Approximately 600 kilograms of HEU

^{20.} The Russian fuel and equipment is supposed to be removed to Russia. See Nuclear Successor States of the Soviet Union: Nuclear Weapon and Sensitive Status Report (December 1994), 14.

^{21.} Plans have been made to restart the reactor, but are contingent upon IAEA approval of its seismic safety. Interview with Ergali M. Bayadilov, Acting Director of the Kazakhstan Atomic Energy Agency, Almaty (12 October 1994).

was stored at the plant until fall 1994 when it was transferred secretly to the United States. In addition, the Ulbinsky plant was the principal producer in the Soviet Union of the nuclear dual-use metal beryllium and the metal tantalum.

Kazakhstan's nuclear heritage also includes a small but unusual nuclear power program. It features a single liquid metal fast-breeder reactor (a BN-350) at Aktau on the east coast of the Caspian Sea. The reactor, which began commercial operation in 1973, produces 200 MWt for the desalination of water, in addition to 135 MWe power output. Although it usually has been fuelled with uranium enriched to 20–25 percent, it was designed to use uranium-plutonium mixed-oxide (MOX) fuel as well.

Beginning in 1990, a series of experiments was conducted in which weapons grade plutonium-based MOX fuel assemblies were loaded into the reactor. This R&D program, which appears to have been cancelled after Kazakhstan's declaration of independence in 1991, was a forerunner of recent Minatom proposals to introduce plutonium from dismantled nuclear warheads into the civilian nuclear fuel cycle.

There is a substantial nuclear-trained work force in Kazakhstan as well, most of which is ethnically Russian and Ukrainian. It is concentrated at Ust-Kamenogorsk, Semipalatinsk, and the Mangyshlak peninsula. Low salaries, irregular payments, concern over pensions, and the refusal by the government of Kazakhstan to allow employees to maintain dual citizenship have prompted an exodus of skilled personnel from the nuclear industry. ²²

Approximately three percent of defense industries from the former Soviet Union reportedly were located in Kazakhstan. ²⁸ They included a SS–21 SRBM production plant at Petropavlovsk and other production facilities for ballistic missile support equipment, torpedoes, anti-torpedo technology, and many strategic materials such as uranium, titanium, alumina, and magnesium. ²⁴ More then 50 enterprises in Kazakhstan reportedly manufactured military equipment. ²⁵

Kazakhstan also inherited key test ranges for the Soviet Union's missile program. They include a center at Saryshagan for development and flight testing of strategic air defense and ballistic missile defense systems, a center at Emba for testing of tactical air

^{22.} An effort to address the issue of citizenship is provided in the 28 March 1993 "Memorandum on Basic Principles of Resolving Issues Related to Citizenship and the Legal Status of Citizens of the Republic of Kazakhstan Permanently Residing in the Russian Federation and Citizens of the Russian Federation Permanently Residing in the Republic of Kazakhstan." This memorandum was amended in a bilateral accord of 20 January 1995 designed to simplify the procedures for obtaining citizenship by citizens from Kazakhstan and Russia. See *Kazakhstanskaya Pravda*, 21 January 1995 in "Central Asia," FBIS (26 January 1995), 67.

^{23.} The Defense Industries of the Newly Independent States of Eurasia, 13, and Murat Laumulin, "Kazakhstan's Nuclear Policy and the Control of Nuclear Weapons" (Paper presented at the Conference on Multilateral Security: Eurasia and the West, Russian Littoral Project, Barnett Hill, England, July 1994), 40–41.

^{24.} Ibid.

^{25.} Laumulin, 40. The official figure for 1995 is 53. Author's interview with Kazakhstani official, March 1995.

defense missile systems, and the Baikonur (Tyuratam) Cosmodrome used to test liquid-fueled ICBMs and to launch spacecraft.

Ukraine

At the time of its independence, Ukraine possessed the natural resources, population size, and military assets usually associated with at least a regional power. It also retained a large nuclear weapons arsenal that represented as much as 15 percent of the Soviet total. ²⁶ It is estimated that this inventory included over 2,500 tactical warheads, ²⁷ in addition to more than 1,500 strategic nuclear charges. ²⁸

In December 1991, the strategic nuclear weapons arsenal in Ukraine consisted of 130 SS–19 "Stiletto" ICBMs (Russian designation RS–18), 46 SS–24 "Scalpel" ICBMs (Russian designation: RS–22), and approximately 40 strategic bombers. The SS–19s are fourth generation, silo-based, liquid-fueled missiles that carry six MIRV warheads each. They were deployed in launcher groups of ten silos each, nine launch groups in Khmelnytskyy and four in Pervomaysk. ²⁹ The SS–24s are fifth generation, solid-fueled ICBMs that carry ten MIRVs. They were assembled at the Pavlograd Machine Plant in Ukraine for deployment in both silo-based and rail mobile modes. All of those in Ukraine were deployed in silos at Pervomaysk. ³⁰ The strategic bombers in Ukraine's inventory are the Tu–160 "Blackjack" and the Tu–95 "Bear H." They are based at Pryluky and Uzyn. ³¹ Both types of aircraft carry nuclear gravity bombs as well as nuclear-armed AS-15 "Kent" air-launched cruise missiles (ALCMs). It is estimated that over 500 ALCMs were in Ukraine at the time of the collapse of the Soviet Union, along with an unknown number of gravity bombs. ³²

Ukraine's nuclear inheritance was not limited to weapons. Next to the Russian Federation, Ukraine possessed the largest civilian nuclear power program in the former

^{26.} Norris and Cochran, 49, place the total number of nuclear weapons in Ukraine before independence at 4,000.

^{27.} Norris and Cochran, 49, and Walker, 360.

^{28.} See Nuclear Successor States of the Soviet Union (December 1994), 12. The START I MOU lists 1,564 warheads. Assistant Secretary of Defense Ashton Carter reported the presence of 1,734 warheads in Ukraine in January 1994. See his testimony before the Senate Foreign Relations Committee on 4 October 1994.

^{29.} See Martin J. DeWing, "Ukraine: Independent Nuclear Weapons Capability Rising," (Master Thesis, Naval Postgraduate School, Monterey, CA, June 1993), 11. The SS-19s were first deployed in the 1920s and were approaching the end of their normal service life. They were regarded by some analysts as posing a safety hazard. See Dunbar Lockwood, "Nuclear Weapon Developments," SIPRI Yearbook 1994 (New York: Oxford University Press, 1994), 291.

^{30.} See Zaloga, 83, and DeWing, 12. SS-24s typically are deployed in launcher groups of ten silos each, although one of the launcher groups at Pervomaysk has only six SS-24 silos.

^{31.} Most reports place 19 Blackjacks at Pryluky and 21 Bear H's at Uzyn. There also may be two older Bear aircraft at Uzyn. Not more than ten of the Ukrainian bombers are fully operational.

^{32.} See Amy F. Wolf and Theodor W. Galdi, "Nuclear Weapons in the Former Soviet Union: Location, Command, and Control," CRS Issue Brief, October 1994, 1; Nuclear Successor States of the Soviet Union (December 1994), 13; and Bhupenda Jasani, "Ukraine's ICBM Arsenal," Jane's Intelligence Review (March 1994), 120. DeWing, 8, calculates the lower ALCM figure of 416.

Soviet Union. Its 14 nuclear reactors at five power plants placed Ukraine among the world leaders in terms of the number of operational reactors and total capacity of nuclear power plants. 33

Ukraine also possessed a well-developed nuclear research infrastructure that featured a 10 megawatt (thermal) research reactor at the Institute for Nuclear Research in Kiev and a 200 kilowatt research reactor at the High Marines School in Sevastopol. The Sevastopol facility, which also included a subcritical assembly, was one of only two training centers in the Soviet Union for submarine naval propulsion units. Another nuclear research center, the Physical-Technical Institute at Kharkiv, was a leader in the development of automated equipment for nuclear installations and also stored on-site up to 75 kilograms of uranium in bulk form enriched to 90 percent. 34

Although Ukraine lacked two key elements of the nuclear fuel cycle—uranium enrichment and plutonium reprocessing capabilities—it possessed uranium mines in the region of Zheltiye Vody, as well as chemical plants for processing uranium ore at Dniprodzerzhynsk and Zheltiye Vody. Dniprodzerzhynsk also was the site for the Soviet Union's principal heavy water production plant and housed the Pridnedprovsky Chemical Factory that produced a number of nuclear-related dual-use commodities such as zirconium, hafnium, and ion-exchange resins. ³⁵

Ukraine, unlike Belarus and Kazakhstan, inherited a large military industrial base equipped to manufacture ballistic missiles. Indeed, the Southern Machine Building Plant (Pivdenmash) in Dnipropetrovsk was the largest missile factory in the world, employing some 50,000 people. It built many of the Soviet Union's missiles as well as the Zenit and Cyclone space launch vehicles. Ukraine also manufactured solid rocket engines at the Pavlograd Machine Plant and produced ICBM control and guidance systems at the Khartron Scientific and Production Association in Kharkiv. Notably absent in Ukraine, however, were either ICBM missile flight test ranges or a site for nuclear weapons tests. Secondary of the South Secondary in Scientific and Production Association in Kharkiv.

Ukraine's military industrial base extends well beyond that of the nuclear and missile sectors. At the time of the collapse of the Soviet Union, it was estimated to have had approximately 15 percent of the former Soviet defense plants and military R&D facilities. At least 700 plants with half a million employees were employed in the

^{33.} At the beginning of 1994, Ukraine ranked eighth in the world in terms of the number of operational reactors and seventh in total capacity. See Nicolai Steinberg and William Potter, "Nuclear Safety in Ukraine: Current Conditions and Issues" (Unpublished manuscript, 8 August 1994).

^{34.} Potter, Nuclear Profiles of the Soviet Successor States, 87–88.

^{35.} Ibid., 88-90

^{36.} Taras Kuzio, "Ukraine's Military Industrial Plan," Jane's Intelligence Review (August 1994), 352, 355.

^{37.} See Potter, 84, and DeWing, 24-25.

^{38.} Ukraine does possess a "popup" test range for submarine-launched ballistic and cruise missiles. See *The Defense Industries of the Newly Independent States of Eurasia*, 7.

^{39.} The Defense Industries of the Newly Independent States of Eurasia, 7.

defense sector, which was the second largest producer of military hardware after Russia. ⁴⁰ Ukraine has the capability to manufacture a wide range of defense products, including naval vessels, transport aircraft, conventional arms, radars, and missile components. It has the only shipyard in the former Soviet Union for manufacturing aircraft carriers and is a major source of strategic materials for defense plants throughout the post-Soviet states. ⁴¹ Ukraine's defense industry, however, is highly dependent upon Russia for fuel and lacks closed production cycles for many products. Although the inability to manufacture spare parts for certain weapons or to modify existing stocks to new specifications has hampered Ukraine's efforts to export arms, an extraordinary array of Soviet military hardware reportedly is available for sale, including Su–27 and Su–25 fighter aircraft, diesel powered submarines, and a giant aircraft carrier. ⁴²

From Nuclear Inheritance to Renunciation

Prior to the collapse of the Soviet Union, little attention was given to the possibility that war, revolution, or a coup d'etat might suddenly lead to the proliferation of nuclear weapons. One prescient study in 1987, however, did suggest that nuclear inheritance might "pose one of the gravest dangers of the next decade." "Nuclear weapons," it was noted, "can change hands as political control abruptly shifts over the territory where they are located." This kind of proliferation, it was pointed out, actually occurred at France's nuclear test site in Algeria for a brief period in 1961 and may have been threatened in Xinjiang Province, China in 1967–68. Preventing future cases of nuclear inheritance was judged to be extremely costly and complicated, if not impossible. However, the applications of tough nonproliferation controls, particularly IAEA safeguards, to the nuclear assets of potential successor states, it was argued, might mitigate the proliferation dangers of "unintended successions."

Neither the author of this perceptive analysis nor other forecasters of proliferation at that time recognized the relevance of the study's findings for the Soviet Union. Indeed, both the Soviet Union and the United States were slow to appreciate the proliferation implications of the political changes in the USSR. In the case of the United States, this delay was due in part to a failure by policymakers to anticipate that Moscow would allow Kiev to assert its independence. Ironically, the tradition of US-Soviet cooperation for nonproliferation also may have made US policymakers less attentive to the proliferation

^{40.} Ibid. Ukrainian sources place the number of defense industries in 1993 at 1,840 employing 2.7 million people. A much smaller number, however, were devoted exclusively to military production. See Andrew Wilson, "Ukraine: the Economy," in *Eastern Europe and the CIS 1994: A Political and Economic Survey* (London: Europa Publications, 1994), 683.

^{41.} Ibid.

^{42.} A proposed sale of the carrier to China collapsed in part because of Ukraine's inability to equip the vessel to Chinese specifications (Wilson, 683). The Kharkov-based Ukrainian-Siberian Commodities Exchange is a major supplier of Ukrainian military hardware. See Taras Kuzio, "Ukraine's Arms Exports," Jane's Intelligence Review (February 1994), 65.

^{43.} Leonard S. Spector, Going Nuclear (Cambridge, MA: Ballinger, 1987), 17.

^{44.} Ibid., 58.

^{45.} Ibid., 61-62.

risks posed by the diminution of central Soviet authority. For their part, Soviet decision makers began to recognize the vulnerability of their tactical nuclear weapons by early 1990 after the escalation of the Nagorno-Karabakh conflict and the declaration of Lithuanian independence. Although a proposal reportedly was made to remove nuclear forces from the non-Russian republics prior to the collapse of the USSR, this plan was rejected. Only after the failed August 1991 coup did the subject of nuclear inheritance of the Soviet nuclear arsenal gain sustained, high level attention in Moscow and Washington. Even after that, however, new deployments of SS-25s were made to Belarus in fall 1991 and additional Blackjack heavy bombers were sent to Ukraine.

Diminution of control quickly turned to disintegration. On 24 August 1991—the same day that Gorbachev resigned as head of the Communist Party—Ukraine proclaimed itself an independent state. The next day, Belarus declared its independence, followed by Moldova (27 August), Azerbaijan (30 August), Uzbekistan and Kyrgyzstan (31 August), Tajikistan (9 September), Armenia (23 September), Turkmenistan (27 October), and Kazakhstan (16 December).

Corresponding with the dissolution of the USSR and the emergence of newly independent states were efforts to forge new supranational arrangements, especially in the security arena. These efforts yielded an agreement signed in Minsk on 8 December 1991 whereby Belarus, Russia, and Ukraine established the Commonwealth of Independent States (CIS) to replace the Soviet Union. Article 6 of the agreement specified that "Members of the Commonwealth will preserve and support common military and strategic space under a common command, including common control over nuclear armaments, which will be regulated by special agreement." ⁵⁰

Five days later, the heads of state of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan declared their desire to become equal co-founders of the CIS. This declaration was followed on 21 December by the so-called Alma-Ata Declaration in which the CIS states agreed to preserve unified control over nuclear weapons. At the meeting, Belarus, Kazakhstan, Russia, and Ukraine also signed an Agreement on Joint

^{46.} See Alexei Arbatov, "Security Issues in Soviet Successor States," Russia and Her Neighbors Symposium Report, RAND/UCLA Center for Soviet Studies (20 May 1992), 2.

^{47.} Shortly after the failed August coup, on 27 September 1991, President Bush announced that the United States would unilaterally destroy all of its land-based tactical nuclear warheads after withdrawing those based overseas. This step made it possible for President Gorbachev to announce similar measures the following week. Gorbachev also proposed to move air-launched tactical warheads to central storage. The rapid pace with which these redeployments took place indicates prior planning for this contingency on the part of the military.

^{48.} These apparently counterintuitive deployments may have been the result of bureaucratic inertia and the paralysis of the decisionmaking process. They also may be due to efforts by the CIS military command to maintain its authority throughout the former Soviet Union. I am thankful to Alexander Pikayev for calling these deployments to my attention.

^{49.} See *UNIDIR Newsletter*, Nos. 22 and 23 (June/September 1993), 31. Georgia had declared its sovereignty in March 1990. The State Council of the USSR recognized the independence of Estonia, Latvia, and Lithuania on 6 September 1991.

^{50.} UNIDIR Newsletter, 32.

Measures on Nuclear Arms, which confirmed their adherence to the nonproliferation of nuclear armaments. Article 5 of the agreement specified that:

- The Republics of Byelorussia and Ukraine undertake to join the 1968 Nuclear Non-Proliferation Treaty as non-nuclear states and to conclude with the International Atomic Energy Agency the appropriate agreements-guarantees.
- The member states of the present Agreement undertake not to transfer to anyone nuclear weapons or other triggering devices and technologies, or control over such nuclear triggering devices, either directly or indirectly, as well as not in any way to help, encourage and prompt any state not possessing nuclear weapons to produce nuclear weapons or other nuclear triggering devices, and also control over such weapons or triggering devices.
- The provisions of paragraph 2 of this article do not stand in the way of transferring nuclear weapons from Byelorussia, Kazakhstan and Ukraine to the territory of the Russian Federation with a view to destroying them.

Under Article 6 of the agreement, Belarus, Kazakhstan, and Ukraine also pledged "to ensure the withdrawal of tactical nuclear weapons to central factory premises for dismantling under joint supervision" by 1 July 1992.

On 25 December, Gorbachev formally resigned as president of the USSR and turned over the nuclear launch codes to the Russian President Boris Yeltsin. Five days later the parties to the CIS signed the Agreement on Strategic Forces at Minsk, which, among other things, reiterated the need for joint command of strategic forces and the "single control over nuclear weapons," and also set the end of 1994 as the date by which nuclear weapons on the territory of Ukraine were to be dismantled. The rapidly changing political dynamics within and among the post-Soviet states, however, soon gave rise to major challenges to the meaning and practice of "joint command" and "unitary control." As a consequence, policymakers in Washington and Moscow were confronted with the real prospect that control over the Soviet nuclear arsenal would devolve to new custodians.

The View from Minsk

Among the great ironies and little known episodes in the circuitous journeys of the post-Soviet states to nuclear weapons abstinence were efforts by both Belarus and Ukraine in 1968 and again in 1990 to join the NPT as full-fledged parties. The first initiative was vetoed by Moscow; the second, apparently, was rejected by all three of the NPT depository states.

Details about the initiatives remain scanty. What is known is that in June 1968, shortly before the NPT was opened for signature on 1 July, senior officials of Ukraine and Belarus sought approval from Moscow to join the just concluded treaty. This was not an unusual request, since the republics were members of the United Nations and already were parties to the 1963 Partial Test Ban Treaty and other international accords. The Politburo, however, was not prepared to see the republics join the NPT as either

^{51.} For the text of the agreement see UNIDIR Newsletter, 41-42.

nuclear weapon or non-nuclear weapon states. Membership in the former capacity was objectionable on numerous grounds, while the latter options would have entailed acceptance of intrusive international safeguards. 52

A little over two decades later, the republics of Belarus and Ukraine again sought to formalize their non-nuclear weapons status by joining the NPT. The action coincided with decisions taken by the Supreme Soviets in both countries in July 1990 to declare state sovereignty and to foreswear nuclear weapons. These declarations were made about one month before the opening of the fourth NPT Review Conference in Geneva. Prior to the Conference, foreign ministry representatives from Belarus and Ukraine expressed their governments' desires to accede to the NPT as non-nuclear weapon states and to attend the Review Conference as full-fledged NPT parties. These overtures, although considered in earnest by the Soviet government, were opposed by the foreign ministry on the grounds that an unwanted precedent would be set for the more nationalist Baltic states. The United States, when notified of the Belarusian and Ukrainian initiatives, chose not to oppose the Soviet position. The states of the states are states and the states are states as a state of the states and the states are states as a state of the states and the states are states as a state of the states and the states are states as a state of the

These earlier initiatives by Belarus to accede to the NPT are instructive because they indicate a continuity in Belarusian perspectives about nuclear weapons between the Soviet and post-Soviet periods that are distinct from Soviet policy preferences. They also correspond to a number of parallel activities regarding nuclear nonproliferation undertaken by Belarus in the period shortly before and after independence.

Belarus, for example, introduced a proposal at the 45th Session of the UN General Assembly in 1990 to establish a "nuclear-free belt" in Central Europe that would include Belarus, Ukraine, and the Baltic countries. The zone was originally conceived to exclude nuclear power plants as well as nuclear weapons. This anti-nuclear stand was consistent with Article 10 of the Belarus Declaration of State Sovereignty of 27 July 1990, which set the explicit aim of eliminating nuclear weapons from Belarusian territory.

^{52.} Interview with senior Soviet official who drafted the policy recommendations for the Politburo in response to the Ukrainian request, November 1991, Washington, DC

^{53.} The Belarusian Declaration of State Sovereignty was made on 27 July 1990. That of Ukraine was adopted on 16 July 1990.

^{54.} Belarus made two other efforts to gain Moscow's support for its accession to the NPT. The first, in the early 1980s, was dismissed out of hand. The second, around 1988, was given more serious consideration before being rejected by Moscow for reasons similar to those cited by the foreign ministry in 1990. Authors correspondence with Belarusian Foreign Ministry officials, November 1994.

^{55.} Interviews with current and former US Arms Control and Disarmament Agency and Department of Energy officials, and Belarusian Foreign Ministry officials, Washington, DC and Geneva, September 1994. A senior Belarusian official indicated that the United Kingdom also acquiesced to the Russian position.

^{56.} See "Statement by Pyotr K. Kravchenka, Minister of Foreign Affairs of the Byelorussian SSR, on Agenda item 14, 'Report of the International Atomic Energy Agency' at the 45th Session of the United National General Assembly," 23 October 1990.

^{57.} See Paznyak, 6. Exclusion of nuclear power plants was a secondary objective of the original plan. Author's interview with senior Belarusian Foreign Ministry official, January 1995.

Following independence, the Belarusian Supreme Soviet on 2 October 1991 adopted a "Declaration on the Foreign Policy Principles of Belarus." This declaration included the proposal for CSCE parties to declare Europe a nuclear free zone. 58 At approximately the same time, Belarus again advanced the idea before the UN General Assembly of creating a nuclear-free belt from the Baltic to the Black Sea. 59 It also supported the conclusion of a comprehensive ban on nuclear weapons testing.

Belarus' support for the non-nuclear weapons provision of the CIS Agreement of 8 December 1991 and the 21 December 1991 Agreement on Joint Measures on Nuclear Arms already has been mentioned. Subsequent to these agreements, Belarus announced in April 1992 that all tactical nuclear warheads on its territory had been transferred to Russia. Shortly thereafter, on 23 May 1992, Belarus (along with Kazakhstan, the Russian Federation, Ukraine, and the United States) signed the Lisbon Protocol to the START I Treaty, which obliged Belarus, Kazakhstan, and Ukraine to adhere to the NPT as non-nuclear weapons state parties "in the shortest possible time." In connection with the Lisbon Protocol, Chairman of the Belarusian Parliament Stanislas Shushkevich sent a letter dated 20 May 1992 to US President George Bush in which he pledged that Belarus would: (1) "take all measures to achieve the status of a non-nuclear state," and (2) eliminate all nuclear strategic offensive arms on its territory during the seven-year period provided by the START Treaty.

Concrete steps to implement the Lisbon Protocol for Belarus were taken in October 1992 when the Belarus Council of Ministers adopted a decree on Belarus's accession to the NPT, following the recommendations of the Ministries of Foreign Affairs and Defense. It was decided at that time to submit relevant material on NPT accession to the Supreme Soviet for its consideration. ⁶³

In order to assist Soviet weapons dismantlement in Belarus, Kazakhstan, Russia, and Ukraine, the US Congress adopted the Soviet Threat Reduction Act of $1991.^{64}$ The

^{58.} Paznyak, 7.

^{59.} See "Statement by P.K. Kravchenka, Minister of Foreign Affairs of the Republic of Belarus, for General Discussion at the 46th Session of the United Nations General Assembly," 26 September 1991.

^{60.} See Statement by P. Kravchenka, Sovetskaya Belorussiya, 2 November 1991, cited by Paznyak, 7.

^{61.} Statement by Defense Minister Parel Koslovsky on 28 April 1992 cited in "Factfile," Arms Control Today (May 1992), 28.

^{62.} See Arms Control Today (June 1992), 33-34.

^{63.} Sovetskaya Belorussiya (20 October 1992) cited by Vyachaslau Paznyak, "Belarusia De-Nuclearization Policy and the Control of Nuclear Weapons," Unpublished manuscript, November 1994, 8.

^{64.} A separate but related denuclearization initiative launched by the Bush administration in 1992 was a plan to purchase 500 metric tons of HEU from dismantled Soviet warheads. This material was to be blended down to commercial enrichment levels for use as reactor fuel. The plan, which would pay out billions of dollars over a 20-year period, was viewed by US policymakers as "an important incentive to the new republics to return warheads to Russia since they would not receive compensation until they did." James Goodby, "Where the Rules Worked: Nuclear Nonproliferation in the Former Soviet Union," Draft of Chapter 3, The Logic of Peace (forthcoming), 12 September 1994, 10–11. See also Appendix Four, "Synopsis of Negotiations on US Purchase of Russian HEU," in Potter, Nuclear Profiles of the Soviet Successor States, 201–204.

Act, commonly known as the Nunn-Lugar program, authorized the expenditure of \$400 million of Department of Defense funds in Fiscal Year 1992. Before any funds could be expended, however, the Department of Defense required the completion of "umbrella" or "framework" agreements to provide the legal framework for the provision of aid. On 22 October 1992 Belarus signed the umbrella agreement with the United States, which made possible the conclusion of three Nunn-Lugar accords. Additional Nunn-Lugar agreements with Belarus were signed in July 1993 during a visit to Washington, DC by President Shushkevich, and by the end of the year the United States had provided Belarus \$76 million in denuclearization assistance.

Shortly after the conclusion of the umbrella agreement with the United States and the decision by the Council of Ministers to proceed with NPT accessions, Belarus adopted a formal military doctrine that reflected its leadership's preference for a non-nuclear weapons and neutral status. The doctrine also took account of the temporary presence of Russian strategic nuclear weapons on Belarusian territory. No specific timetable for the removal of strategic nuclear weapons from Belarus was noted, however. 68

The next significant development in Belarus' path toward denuclearization occurred on 4 February 1993, when the Supreme Soviet voted overwhelmingly to ratify both the START I Treaty and to accede to the Nuclear Non-Proliferation Treaty as a non-nuclear weapon state. Although the debate reportedly was at times heated during the four hour closed session, there was little serious opposition to either treaty. 69

In June 1993 Belarus adopted a decree "On Measures to Implement the Treaty on the Non-Proliferation of Nuclear Weapons." This decree instructed the State Committee for Safety in Industry and Nuclear Safety (Gospromatomnadzor) to develop material control and accounting measures necessary to fulfill the state's NPT safeguards obligations. One month later, on 22 July 1993, Chairman Shuskevich personally deposited Belarus' instrument of accession to the NPT in Washington, DC⁷⁰ Belarus thereby became the first nation that inherited nuclear weapons to renounce them formally by acceding to the NPT as a non-nuclear weapons state.

^{65.} The agreements provided for the supply of emergency response equipment and training, the creation of a continuous communications link between Belarus and the Untied States and assistance in establishing an export control system to prevent the proliferation of weapons of mass destruction or their components. See Theodor Galdi, "The Nunn-Lugar Cooperative Threat Reduction Program for Soviet Weapons Dismantlement," CRS Report (29 December 1993), 6.

^{66.} Dunbar Lockwood, "Purchasing Power," Bulletin of the Atomic Scientists (March/April 1994), 11.

^{67.} See Paznyak, "Belarusian De-Nuclearization Policy," 5–6 and Roy Allison, "Military Forces in the Soviet Successor States," *Adelphi Paper No. 280* (October 1993), 46.

^{68.} For a discussion of the different timetables adopted and then reused by the Belarus government see Paznyak, "Belarusian De-Nuclearization Policy," 6–7.

^{69.} The vote was 218–1 in favor of the START Treaty and 221–0, with two abstentions, in favor of NPT accession. Personal communication from Vyachaslau Paznyak, 14 December 1994. See also Navodnaya Gazeta, 6 February 1993. The proceedings of the 4 February 1993 Supreme Soviet Session remain closed. The author, however, was able to interview several of the parliamentarians, including the chairman of the Supreme Soviet and the chairman of the Committee for Defense and National Security.

^{70.} Similar instruments of accession were deposited the next day in London and Moscow.

The View from Almaty

Kazakhstan was the last of the non-Russian republics to declare its independence, and its leadership was the most reluctant to see its Union structures, including the integrated Soviet armed forces, unravel. Kazakhstan's officials had very limited experience in international affairs prior to December 1991 and, unlike their counterparts in Belarus, had given little if any attention to the NPT. In fact, an advisor to President Nursultan Nazarbayev confides that during an intermission in the negotiations at the Almaty meeting of 21 December 1991, President Nazarbayev asked him, "What should we do with the nuclear weapons?" Little thought had been given to the question.

The answer President Nazarbayev received to his query was "Let's not be in a hurry." This advice appears to have been followed and was reflected in Kazakhstan's decision to refrain from an explicit commitment to the NPT at that time. Unlike Belarus and Ukraine, which made such a commitment in Article 5.1 of the 21 December 1991 Agreement on Joint Measures on Nuclear Arms, Kazakhstan only endorsed the more vague preamble to the Agreement, in which the four parties confirmed their adherence to the nonproliferation of nuclear armaments. Kazakhstan's reluctance to embrace the NPT was signaled repeatedly throughout the first four months of 1992. During that period, President Nazarbayev and other government officials made a variety of statements to the effect that:

Kazakhstan is entitled to belong to the nuclear club because tests on its territory were made prior to 1 January 1967, the date established by the NPT before which a country must have manufactured and exploded a nuclear weapon or device in order to be considered a nuclear weapons state.

Kazakhstan wants to join the NPT, but as a nuclear weapons state. 76 As a nuclear-weapons state, Kazakhstan will be an equal among other sovereign states. 77

Kazakhstan is temporarily a nuclear weapons state that has embarked upon the road to disarmament.⁷⁸

^{71.} See Roland Dannreuther, "Creating New States in Central Asia," *Adelphi Paper No. 288* (March 1994), 45–46.

^{72.} Kazakhstan maintained a Ministry of Foreign Affairs in the Soviet period, but it served primarily a ceremonial function.

^{73.} Author's interview with member of the Kazakhstan delegation, Almaty, 12 October 1994.

^{74.} In the same agreement, Kazakhstan pledged to ensure the withdrawal of all tactical nuclear weapons for the purpose of dismantling them by 1 July 1992.

^{75.} Interview with President Nazarbayev in *La Stampa*, 20 March 1992 and interview with *Nezavisimaya Gazeta*, 6 May 1994, 5. Nazarbayev did not indicate how Kazakhstan met the "manufacturing" requirement of the NPT definition, although he may have had in mind the assembly of nuclear devices at the Semipalatinsk test site.

^{76.} Interview with Vice President E.M. Asanbayev in *Turkiye*, 10-11 April 1992, translated in "Central Asia," FBIS, 21 April 1992, 42.

^{77.} Interview with Burkutbei Ayaganov, Office of President Nazarbayev, in Krasnaya Zvezda, 26 February 1992.

^{78.} President Nazarbayev in an interview cited by Moscow Radio Rossii, 28 April 1992 in "Central Asia,"

Kazakhstan needs to keep its nuclear weapons for at least 15 years because Russia is not ready to accept the warheads due to financial and technical reasons. ⁷⁹

Kazakhstan may change its stance on nuclear weapons if it receives adequate security guarantees from its nuclear neighbors and the United States. 80

The prospect of change in Kazakhstan's nonproliferation position noted by President Nazarbayev in his May 6th interview was realized later that month during the visit of the Kazakhstani leader to Washington. It followed on the heels of a meeting of the CIS heads of state in Tashkent on 15 May at which Russia, Armenia, and the Central Asian countries signed a collective security agreement obliging them to render military assistance, if necessary, should there be aggression against any party. 81

It is doubtful if the Tashkent Accord provided Kazakhstan with meaningful security assurances. Nevertheless, the accord, along with US recognition of Kazakhstan as an independent participant in the START I process, was cited by President Nazarbayev during his visit to Washington as the main reason for Kazakhstan's change in policy toward the NPT. 82 This change in stance was first indicated publicly on 16 May in a lengthy statement by President Nazarbayev on the "Strategy of the Formation and Development of Kazakhstan as a Sovereign State." The statement noted that Kazakhstan "will be a zone free of nuclear weapons," and that it aspired "to the acquisition of the status of a nuclear-free state and affiliation with the Nuclear Non-Proliferation Treaty."83 The shift in policy also was announced on Moscow radio on 18 May following President Nazarbayev's meeting the preceding day with President Yeltsin during a stopover in Moscow en route to the United States; the change in policy was reiterated by President Nazarbayev in Washington on May 18. It also found expression in President Nazarbayev's May 19th letter to President Bush in which Kazakhstan guaranteed "the elimination of all types of nuclear weapons...located on its territory during the seven-year period of time as provided by the START Treaty."84 Four days later, Kazakhstan signed the Lisbon Protocol to the START I Treaty and pledged to adhere to the NPT as a non-nuclear weapons state "in the shortest possible time."

Kazakhstan's intensive international nuclear diplomacy continued with the conclusion of a Treaty of Friendship, Cooperation, and Mutual Aid between Russia and Kazakhstan. The treaty, signed by Presidents Nazarbayev and Yeltsin in Moscow on 25 May 1992, appears to have formed the basis for Kazakhstan's defense doctrine and specified that each party would come to the defense of the other if it were subject to

FBIS, 28 April 1992, 58.

^{79.} President Nazarbayev in interview with Tokyo NHK General Television, 1 May 1992 in "Central Asia," FBIS, 4 May 1992, 47.

^{80.} Interview with President Nazarbayev in Nezavisimaya Gazeta, 6 May 1992, 5.

^{81.} See ITAR-TASS, "Kazakhstan 'Shall Fully Comply' with START," 18 May 1992 in "Central Asia," FBIS, 18 May 1992.

^{82.} Report on Moscow Radio Rossii, 18 May 1992 in "Central Asia," FBIS, 18 May 1992, 2. See also ITAR-TASS report on 19 May 1992.

^{83.} Kazakhstanskaya Pravda, 16 May 1992, 3-6.

^{84.} See Arms Control Today (June 1992), 33-34.

aggression. ⁸⁵ The treaty speaks of a common "military-strategic space" and provides for the joint utilization of military bases and testing grounds. It also reaffirms Kazakhstan's obligation to join the NPT as a non-nuclear weapons state.

Kazakhstan's parliament ratified the Lisbon Protocol and the START I treaty on 7 July 1992. Although the action preceded that of Belarus by over half a year, it proved more difficult to conclude the framework agreement under which the United States could assist Kazakhstan's denuclearization effort. Such an agreement was only initialed in September 1993. 86

Kazakhstan also was in no hurry to accede formally to the NPT. Although there does not appear to have been any serious discussion in the government after May 1992 about altering its nuclear renunciation decision, Kazakhstan's leadership was not inattentive to Ukraine's nuclear gambit.⁸⁷

In the latter part of 1993 the country's leaders also became increasingly sensitive to the security threat posed by instability in the Russian Federation and by the shrill nationalistic rhetoric in the Russian election campaign. Against this background, Russian Foreign Minister Andrei Kozyrev's public pledge to protect the interests of ethnic Russians in the "near abroad" may have caused renewed deliberations in Kazakhstan about the wisdom of yielding to Russia's monopolistic control over the Soviet Union's nuclear weapons. 88

Notwithstanding these concerns, President Nazarbayev told US Secretary of State Warren Christopher on 24 October 1993 that he planned to introduce to parliament by the end of the year ratification documents for the NPT. This plan was fulfilled on 13 December 1993, during Vice President Gore's visit to Almaty, when the Supreme Kenes (Soviet) voted 238–1 in favor of NPT accession. On the same date, Kazakhstan signed a "nuclear umbrella agreement" and five implementing agreements with the United States, which promised a total of \$85 million in denuclearization assistance. Two

^{85.} Author's interview with Dr. Oumirseric Kasenov, Almaty, 12 October 1994. Other references to the Treaty are provided by Jim Nichol, "Kazakhstan: Basic Facts," *CRS Report for Congress*, 2 August 1994, 5. The text of the Treaty appears in *Kazakhstanskaya Pravda* (23 July 1992). The 1992 Treaty was supplemented on 28 March 1994 by a bilateral Treaty on Military Cooperation. For a text of the 1994 Treaty see *Sovety Kazakhstana*, 19 October 1994 reprinted in "Central Asia," FBIS, 25 October 1994, 56–60. A bilateral accord of 20 January 1995 confirms the March 1994 Treaty and provides for the formation of unified armed forces. See *Kazakhstanskaya Pravda* in "Central Asia," FBIS, 25 January 1995, 40–41.

^{86.} See Laumulin, 54.

^{87.} Author's interviews with senior Kazakhstan Foreign Ministry officials, Almaty, 12,13 October 1994. See also Laumulin, 27–31.

^{88.} These concerns are most clearly articulated in Kasenov et al, "Kazakhstan and the Non-Proliferation Treaty," 8.

^{89.} Cited in "NPT Ratification Papers to be Sent to Kazakhstan Parliament This Year," *Nucleonics Week*, 4 November 1993, 19. Christopher's visit was preceded in September 1993 by a US delegation led by Ambassador James Goodby. At that time, the umbrella agreement and five implementing agreements were concluded, but not signed.

^{90.} Richard L. Berke, "Kazakhstan Signs a Pact on A-Arms," New York Times, 14 December 1994.

^{91.} See Lockwood, 12.

months later, on 14 February 1994, President Nazarbayev presented Kazakhstan's instrument of accession to the NPT to President Clinton in Washington.

The View from Kiev

The path by which Ukraine moved from national independence to NPT accession was by far the longest and most convoluted of any of the post-Soviet states. Here it is feasible only to chart the major events and turning points in the evolution of Ukrainian nuclear policy.

Ukraine's pre-independence efforts in 1968 and 1990 to accede to the NPT as a non-nuclear weapons state, like those of Belarus, clearly involved the desire to gain greater international standing and recognition as a party to an important global regime. ⁹² The initiative prior to the 1990 NPT Review Conference probably also reflected the strong anti-nuclear sentiment in the country that remained after the Chernobyl accident.

The NPT initiative corresponded to the 16 July 1990 Declaration of Sovereignty that was adopted without any major dissent by Ukraine's Supreme Soviet. ⁹³ This declaration stated the Ukraine republic's intention to become "a permanently neutral state...holding to three non-nuclear principles: not to accept, produce, or acquire nuclear weapons." The commitment to non-nuclear status was reaffirmed on 24 October 1991 when the Verkhovna Rada (Supreme Soviet) adopted a declaration "On the Non-Nuclear Status of Ukraine." The statement confirmed Ukraine's intention to adhere to the three non-nuclear principles identified in the Declaration of State Sovereignty and specifically noted its plan to accede to the NPT as a non-nuclear weapons state. ⁹⁵ The Parliament reiterated this general position on 5 December 1991 following the overwhelming approval of Ukraine's Declaration of Independence in the 1 December referendum. In a proclamation "To Parliaments and People of the World," the Rada declared that Ukraine would not be a nuclear power and intended to join the NPT as a non-nuclear weapons party. ⁹⁶ Consistent with these parliamentary statements, Ukraine signed the 21 December 1991 Agreement on Joint Measures on Nuclear Arms, which obliged it to join the NPT as a non-nuclear weapons state.

Despite the public commitment to denuclearization, individual differences of opinion on nuclear weapons by Ukrainian politicians were discernible as early as November 1990.⁹⁷ For the most part, however, prior to fall 1991 these differences did

^{92.} Author's interview with a senior Ukrainian official, Washington, DC, 6 December 1994.

^{93.} The vote was 355 to 4.

^{94.} See "Declaration on the State Sovereignty of Ukraine," Annex 1 in Victor Batiouk, "Ukraine's Non-Nuclear Option," *UNIDIR Research Paper*, No. 14 (1992), 17–20.

^{95.} See "Statement by the Verkhovna Rada of Ukraine on the Non-Nuclear Status of Ukraine," in Batiouk, 22.

^{96. &}quot;To Parliaments and Peoples of the World," Proclamation adopted by the Verkhovna Rada in Batiouk, 24–25.

^{97.} See the speech made by Serhiy Holovaty at the Franz-Josef Strauss Symposium, Munich, 20 November 1990, cited by Bohdan Nahaylo, "The Shaping of Ukrainian Attitudes toward Nuclear Arms,"

not figure prominently in parliamentary debate. Even when the parliament felt obliged to respond to Western proliferation concerns by adopting a non-nuclear weapons policy statement on 24 October, the debate was not over whether or not Ukraine should remove the nuclear weapons on its territory, but over how to do so and when.⁹⁸

By early 1992, however, it was no longer possible to speak of a unitary Ukrainian stance on nuclear weapons. Newly elected President Kravchuk and most, but not all, of the executive branch, articulated one policy fairly consistently, while the parliament advanced a very different, if not necessarily uniform or well-defined, stance on nuclear issues. Although nuclear weapons were not a high priority for most Rada members, a majority of the Rada was not prepared to give the president free rein in charting Ukraine's nuclear future. This bifurcation of national security policymaking—not adequately appreciated by US government officials at the time—was to bedevil US-Ukraine nuclear relations throughout 1992 and 1993.

An early indication that denuclearization in Ukraine would not proceed smoothly was the announcement by President Kravchuk on 12 March 1992 that the withdrawal of tactical nuclear weapons had been suspended, ostensibly because of Ukrainian concern about the ultimate disposition of the weapons. Although the shipments subsequently were resumed, President Kravchuk apparently felt the domestic political need to stand up to the Russians and to attempt to persuade the West to pay more attention to Ukrainian security concerns.

Despite growing strains between Ukraine and Russia over a variety of security issues, ¹⁰⁰ and signs that some members of parliament opposed plans to proceed with denuclearization, ¹⁰¹ President Kravchuk on 7 May reaffirmed Ukraine's commitment to the three non-nuclear principles originally stated in the Declaration of Sovereignty. In a letter to President Bush he also pledged that Ukraine would eliminate all nuclear weapons on its territory during the seven-year period provided for by the START Treaty. ¹⁰² This letter was followed on 23 May by Ukraine's signing of the Lisbon Protocol to the START Treaty. Although the Protocol required Ukraine (and Belarus and Kazakhstan) to adhere to the NPT "in the shortest possible time," it had the effect of extending the time period for Ukraine's denuclearization from the end of 1994 (as

RFE/RL Research Report (19 February 1993), 22.

^{98.} This debate is detailed in Nahaylo, 24-31.

^{99.} See "Statement by the Press Service of the President of Ukraine," Press Release of the Ukraine Permanent Mission to the UN, 20 March 1992, reprinted in Batiouk, 26–27. In his announcement about the suspension of shipments of tactical nuclear weapons, Kravchuk also stated that joining the NPT remained "one of the primary foreign-policy tests for Ukraine." For a discussion of the factors that may have influenced Kravchuk's decision see John W. R. Lepingwell, "Ukraine, Russia, and the Control of Nuclear Weapons," RFE/RL Research Report (19 February 1993), 7–9, and Nahaylo, 31–33.

^{100.} The status of the Black Sea Fleet was particularly contentious.

^{101.} See report by Rada member Serhiy Holovaty, "Ukrainian Views of Nonproliferation" paper presented to the Conference on the Nonproliferation Predicament in the Former Soviet Union, Monterey, CA, 6–9 April 1992. See also Nahaylo, 32–33.

^{102.} Kravchuk made his first official visit to Washington, DC 5–7 May 1992. His letter to President Bush appears in *Arms Control Today* (June 1992), 33–34.

stipulated by Article 4 of the 30 December 1991 Minsk Agreement on Strategic Forces) to seven years after the entry into force of the START Treaty.

Senior US officials remained optimistic throughout 1992 that President Kravchuk would be able to deliver the promises made in the letter to President Bush and in the Lisbon Protocol. The visit of two Ukrainian Rada members to Washington, DC in September 1992, however, revealed the opposition the executive branch would soon confront. In a series of meetings organized by US nongovernmental organizations and also attended by government officials, Parliamentarian Yuri Kostenko disputed the binding nature of the 30 December 1991 Minsk Accord, the Kravchuk letter to President Bush, and the Lisbon Protocol. The Rada, he argued, had never ratified any accord that set a time-table for movement toward a nuclear weapons-free status. Moreover, Kostenko maintained, as a legal successor to the USSR, "Ukraine, together with Belarus and Kazakhstan, [had] become nuclear states on a par with Russia not only de facto but de jure." Resolution of the political-legal issues relating to the liquidation of nuclear weapons in Ukraine, he argued, could only occur "if Ukraine were to obtain the status of a temporary nuclear state pending the destruction of these weapons." 104 Kostenko's reservations about the Lisbon Protocol appeared mild in comparison with those of his fellow parliamentarian, General Volodymyr Tolubko. Tolubko, whose uncle was commander of the Soviet Strategic Rocket Forces, was adamant not only that Ukraine, as one of its legal heirs, was entitled to a share of the Soviet Union's nuclear assets, but that it would be prudent for Ukraine to modernize its nuclear force. 105 Like Kostenko, he also placed no stock in the commitments made to date by Ukraine regarding nonproliferation since they were not ratified by the Rada and were made "by individuals, not states."106

At the same time that some members of the Rada were voicing their opposition to the Lisbon Protocol, the Ukrainian government began to assert that it was implementing administrative management (administrativnoye rukovodstvo) of the nuclear forces and control (kontrol) over their non-use. ¹⁰⁷ Although the precise meaning of these terms was

^{103.} A number of parliamentarians, including Serhiy Holovaty and Stepan Khmara, previously had told Western observers at international conferences about opposition in the Rada to the Lisbon Protocol. See William Potter, Report on Conference on New Perspectives on Ukrainian Security, Kiev, 28–30 May 1992. These and similar warnings were discounted by US government officials.

^{104.} Kostenko, cited by William Potter, "Update on FSU Nuclear Developments" Unpublished manuscript, Monterey, CA, 5 October 1992, 10–11. Kostenko's remarks were made at a meeting on Legislative Control of Nuclear Exports and Nonproliferation of Nuclear Weapons organized by Global Outlook in Washington, DC, 16 September 1992. See also Gennadiy Kostin, "Where Certain Senior Figures Are Taking Ukraine," Krasnaya Zvezda, 25 September 1992, 3. The views presented by Kostenko in Washington were similar to those expressed in a two part article in Holos Ukrainy, 29 August and 1 September 1992.

^{105.} Ibid, 11, Tolubko drew a comparison between Ukraine and France and said that if nuclear modernization was good for France, it should be good for Ukraine.

^{106.} Ibid.

^{107.} See "Talks Held on Nuclear Weapons in Ukraine," Moscow ITAR-TASS, 10 September 1992, in "Ukraine," FBIS, 11 September 1992, 34. On 5 April 1992 President Kravchuk signed a decree which placed strategic nuclear forces in Ukraine under the operational control of the CIS Command. The decree also established administrative organs for them under Ukrainian control. See DeWing, 52.

never clear, Ukraine proceeded to create a Center of Administrative Control of the Strategic Forces of the Ukrainian Ministry of Defense, and sought to incorporate the strategic nuclear forces into the Ukrainian Armed Forces by requiring troops and officers to take the Ukrainian oath of allegiance. The government also sought to extend its control to the troops guarding nuclear warheads. Ompounding Russian concern over what was viewed as a unilateral declaration of nuclear status by Ukraine information that Ukraine was attempting to develop its own launch-codes to circumvent the blocking devices on the ICBMs deployed on its territory.

A confusing set of developments occurred in the latter half of 1992. On the one hand, the Bush administration, citing public pronouncements by President Kravchuk and private assurances from him and senior officials of the Ministry of Foreign Affairs, clung to the belief that Ukraine would soon implement its nonproliferation pledge. To encourage this action, Washington promised Ukraine \$175 million in dismantlement assistance. At the same time, however, one could observe a rise in vocal pro-nuclear and anti–Russian sentiment in the Ukrainian parliament. Especially ominous were reservations about hasty denuclearization that were expressed by a number of parliamentarians who previously had endorsed Ukraine's nuclear weapons-free future, but believed the country was entitled to at least a temporary nuclear weapons status.

Although the Kravchuk government continued to maintain that it was committed to denuclearization, it became increasingly outspoken in its displeasure with what it perceived to be Washington's unidimensional (i.e., nuclear nonproliferation oriented) approach to US-Ukrainian relations. Taking the lead from the Rada, it also began to assert that the missiles deployed on its territory were Ukrainian property. ¹¹⁵ As the new Ukrainian Prime Minister Leonid Kuchma put it in an interview with *Le Monde*, "They [the West] want to leave us to die on our own." Ukraine, he argued, was being asked to hand over its nuclear weapons to Russia "without getting anything in exchange"—neither security guarantees nor material aid, despite many promises to the contrary. If these

^{108.} DeWing, 52–54. See also Alexander Pikayev, "Post-Soviet Russia and Ukraine: Who Can Push the Button?" *The Nonproliferation Review* (Spring-Summer 1994), 31–46.

^{109.} Ibid., 105. Its ability to assert control derived from the fact that it paid the salaries of the missile forces and provided them with housing and other services.

^{110.} Pavel Felgenhaur, "Ukrainian Nuclear Warheads Out of Control," Unpublished paper, February 1993, cited by DeWing, 53. See also Chrystia Freeland, "Ukraine Having Second Thoughts About Giving Up Nuclear Weapons," *Washington Post*, 6 November 1992, A20.

^{111.} The Kharkiv Scientific Center (Monolit) was the likely site of the secret research effort. See William Potter, "Ukraine's Nuclear Trigger," *The New York Times*, 10 November 1992. See also DeWing, 54–64.

^{112.} Author's discussions with senior White House officials in Washington, DC, December 1992.

^{113.} See "Interfax Business Report," 23 December 1992 in "Ukraine," FBIS, 24 December 1992, 25.

^{114.} Author's interviews with Ukrainian parliamentarians in Kiev, October 1992.

^{115.} This idea was aired during a meeting between Ukrainian Deputy Foreign Minister Boris Tarasyuk and US Under Secretary of State Frank Wisner in early October 1992. It followed on the heels of the announcement of US plans to purchase highly enriched uranium from missile warheads in Russia. See ITAR-TASS, 6 October 1992 in "Ukraine," FBIS, 7 October 1992, 41.

problems continued to be ignored, he warned, the Rada's ratification of the START Treaty would become a fiasco for him and for President Kravchuk. 116

Little progress was made in resolving the problems identified by Prime Minister Kuchma during the remainder of 1992 or the first four months of the Clinton administration. ¹¹⁷ As a consequence, the Ukrainian government was unenthusiastic about and unable to deliver the promised START Treaty ratification. Not only was parliamentary debate on START postponed in February 1993, but in late April, 162 parliamentary deputies signed a statement warning that the Rada would not ratify the treaty unless a set of conditions were met. These included acknowledgement of Ukraine's status as the owner of nuclear weapons on its territory and compensation for the nuclear material in the tactical nuclear weapons already shipped to Russia. ¹¹⁸ The statement was endorsed by the leadership of the Rukh nationalist movement as well as the Ukrainian Conservative Republican Party. ¹¹⁹ The inability of President Kravchuk to move the denuclearization process forward in the Rada also was evident in the failure of the government in late April to gain parliament's approval of a non-nuclear military doctrine.

A key turning point in Ukrainian-US relations and an important juncture in Ukraine's path toward denuclearization was the three-day trip to Kiev in May 1993 by US Ambassador-at-Large Strobe Talbott. The visit was part of a major review by the Clinton administration of its Ukrainian policy, and was intended to emphasize the development of a partnership between the two countries. ¹²¹ Talbott proposed that the United States serve as a facilitator between Ukraine and Russia on nuclear weapons and other issues and suggested that additional funds, in excess of the \$175 million previously promised for nuclear weapons dismantlement, might be available once the START Treaty were ratified. ¹²² This US strategy, entailing the offer of increased denuclearization

^{116.} See Roma Ihnatowicz interview with Prime Minister Kuchma, *Le Monde*, 7 November 1992, 4, reprinted in "Ukraine," FBIS, 10 November 1992, 53. Kuchma made a similar but milder statement to newsmen in Kiev in early April 1993 following a meeting with a US Congressional delegation led by Richard Gephardt. See "Kuchma Urges U.S. to Remember Ukraine," FBIS, 17 April 1993, 68.

^{117.} The new administration's foreign policy team was preoccupied with Russia due to Yeltsin's battle with parliament. Author's interview with several White House officials, Washington, DC, 17 November 1994. However, when it did seek to send a delegation to Kiev during the February–April 1993 time period for the purpose of negotiating Nunn-Lugar program assistance, the Ukrainian government repeatedly postponed the meetings. See Goodby, 14.

^{118.} For the text of the 23 April "Statement by Ukraine's Peoples Deputies on Ukraine's Nuclear Status" see *Molod Ukrayiny*, 27 April 27 1993, 1.

^{119.} The Ukrainian Conservative Republican Party actually went much farther in calling upon the Rada not to ratify the NPT and the Lisbon Protocol. In a statement issued on 8 April 1993 the party endorsed Ukraine's nuclear weapons status as a means to guarantee both domestic and European security. See Victor Zaborsky, "Nuclear Disarmament and Nonproliferation: The Evolution of the Ukrainian Case," CSIA Discussion Paper, June 1994, 15.

^{120.} Zaborsky, 14.

^{121.} The policy review was conducted in April–May 1993, and resulted in a new orientation toward Kiev premised on the assumption that a sovereign and independent Ukraine was in the best interests of the United States.

^{122.} See John Lepingwell, "Ukraine, Russia, and Nuclear Weapons: A Chronology," RFE/RL Research Report, 28 January 1994, 22. In spring 1993, the United States was careful to characterize its role as a "fa-

assistance and a road map that emphasized early nuclear weapons deactivation, was broached formally during the visit to Kiev on 7 June of Defense Secretary Les Aspin. 123 Subsequent discussions between US, Ukrainian, and Russian officials that summer gave rise to the concept of a "trilateral deal," similar to that actually concluded half a year later. 124

Some elements of the trilateral concept involving the exchange of HEU from warheads for low-enriched uranium (LEU) reactor fuel also were reflected in the ill-fated Massandra accords of 3 September. At the summit meeting on the Black Sea coast, the Ukrainian and Russian presidents and prime ministers appeared to have reached a set of important agreements. They included a protocol on nuclear weapons dismantlement, an agreement on the dismantlement procedure and terms of compensation, and an arrangement for servicing the weapons while on Ukrainian territory. The agreement, however, foundered after both sides accused the other of deception in preparation of the final document.

Despite the failure of Massandra to lead to a nuclear settlement, the United States was encouraged by the talks. It believed that the Ukrainian government had moved to a posture that emphasized compensation as the primary condition for START and NPT ratification and was optimistic that a variant of the Massandra arrangement involving compensation of LEU fuel for HEU in warheads could be negotiated between Russia and Ukraine. It also believed that both parties were prepared to see the United States play the role of honest broker. The new optimism that a deal might be possible appeared to be borne out during Secretary of State Warren Christopher's trip to Ukraine in October 1993. Christopher pressed President Kravchuk hard to conclude a nuclear umbrella agreement similar to the one already in place with Belarus. The framework agreement, which was

cilitator" rather than a "mediator" because of emphatic Russian opposition then to active US intervention between Ukraine and Russia. On this point see Goodby, 14.

^{123.} US policy routinely emphasized that retention of nuclear weapons would increase Ukraine's diplomatic isolation and deprive it of economic and political benefits associated with full-fledged membership in the international community of nations. After the April-May 1993 policy review, the message was broadened to include the benefits of security integration with the West (first bilateral defense cooperation, then the Partnership for Peace). Author's interviews with former US government officials, Monterey, CA, March 1995.

^{124.} Author's interviews with US officials, Washington, DC, November 1994. The main sticking point, apparently, was Ukraine's unwillingness to give up its SS-24s. See also Sherman W. Garnett, "The Sources and Conduct of Ukrainian Nuclear Policy in 1993-1994" (Paper presented at the Conference on Multilateral Security: Eurasia and the West, Russian Littoral Project, Barnett Hill, England, July 1994), 29.

^{125.} Lepingwell, "Ukraine, Russia, and Nuclear Weapons," 24.

^{126.} For a discussion of the unravelling of the Massandra agreements, see Lepingwell, 24; idem, "Negotiations over Nuclear Weapons: The Past as Prologue?" *RFE/RL Research Report*, 28 January 1994, 1–11, and Sherman W. Garnett, "The Sources and Conduct of Ukrainian Nuclear Policy in 1993–1994," 21. According to a senior Ukrainian foreign ministry official present at the meeting, the real reason for its failure was the inability of the two sides to resolve the issue of the Black Sea Fleet. Author's interview with Foreign Ministry officials, Monterey, CA, December 1994. US officials also attribute the breakdown to a disagreement over compensation. Author's interviews in Washington, DC, November 1994.

^{127.} Author's interviews in Washington, DC, November 1994. A more detailed discussion of this negotiation is provided by Goodby, 19.

necessary in order for Ukraine to receive dismantlement assistance, was signed by Secretary of State Christopher and Ukrainian Foreign Minister Anatoly Zlenko in Kiev on 25 October. It did not enter into force immediately, however, because of the foreign ministry's reluctance to exchange notes or to sign implementing agreements until it consulted further with the Rada. 128

During his meeting with Secretary of State Christopher, President Kravchuk promised that the START Treaty and NPT accession would be considered by the parliament in November. This pledge was fulfilled on 18 November when the Rada voted 254 to 9 to ratify the treaty. It attached 13 conditions, however, that largely undermined the nonproliferation value of the act. Most significant of these was the stipulation that Ukraine did not consider itself bound by Article 5 of the Lisbon Protocol which obliged Ukraine to adhere to the NPT as a non-nuclear weapons state "in the shortest possible time." The Rada resolution, although affirming Ukraine's intention to "move toward a non-nuclear status," also claimed that only 36 percent of the launchers and 42 percent of the nuclear warheads on Ukrainian territory were subject to elimination, and made implementation of the START Treaty contingent upon the provision to Ukraine of security guarantees, financial assistance for weapons dismantlement, and adequate compensation for nuclear warhead material, including material from the tactical warheads withdrawn to Russia in 1992. In addition, the resolution instructed the President of Ukraine to negotiate with other parties on these and other issues.

The international response to the Rada's vote was swift and uniformly negative. President Clinton called President Kravchuk personally to express his disappointment and to urge the parliament to reconsider its action. The Russian Foreign Ministry threatened retaliatory steps, and the NATO states agreed to exclude Ukraine from the new "Partnership for Peace" program if it continued to block progress on nuclear disarmament and nonproliferation. The powerful international response was unanticipated by the Ukrainian governmental and parliamentary leadership, and probably increased President Kravchuk's leverage on the nuclear issue with the Rada. In any case, trilateral nuclear deliberations among the United States, Ukraine, and Russia began in earnest in December 1993 and continued into early January 1994. Substantial progress

^{128.} See Dunbar Lockwood, "Ukrainian Rada Ratifies START I, But Adds 13 Conditions for Approval," *Arms Control Today* (December 1993), 26. The agreement came into effect on 31 December 1993 following US receipt of a note from the Embassy of Ukraine in Washington.

^{129.} See Lockwood, 17, and Zaborsky, 22–28. Ukrainian officials previously had claimed that they required \$2.8 billion in assistance for weapons dismantlement. Much higher estimates attributed to government officials often appeared in the Ukrainian and international press. The text of the Rada's resolution is in *Holos Ukrainy*, 20 November 1993.

^{130.} Garnett (31, 34) suggests that a debate ensued in Washington over whether the Rada's action represented the shutting or opening of the negotiating door. He argues that Kravchuk's steps to deactivate SS-24 warheads after the Rada's November action helped to vindicate those who argued that the resolution "represented an opportunity, not an end."

^{131.} Zaborsky, 28-29.

^{132.} Ibid., 29.

^{133.} Zaborsky, 29.

reportedly was made at high-level trilateral talks in Kiev on 16–17 December. According to the leader of the Ukrainian delegation, Deputy Prime Minister Valeriy Shmarov, the talks produced a satisfactory proposal for the first time, in which Russia would write off Ukraine's energy debt to compensate Ukraine for its tactical nuclear weapons. Immediately after these trilateral negotiations, Vice President Gore met with President Kravchuk in Budapest, and the Ukrainian government indicated that a preliminary agreement on denuclearization had been reached with the United States and Russia. ¹³⁵

The trilateral talks began formally on 2 January 1994, and during the next week intensive negotiations were held in Washington, DC among senior officials from the three states. The successful conclusion of these talks enabled President Clinton to announce on 10 January 1994 that a trilateral agreement had been worked out. On the same day, the press service of the Ukrainian government confirmed that a Ukrainian-Russian-US meeting would be held in Moscow on 14 January with the aim of concluding trilateral talks. At the Moscow meeting, Presidents Clinton, Kravchuk, and Yeltsin announced an agreement that confirmed Ukraine's denuclearization commitment, provided security assurances to Ukraine, arranged "fair and timely compensation to Ukraine, Kazakhstan, and Belarus," provided denuclearization assistance, and provided a timetable for denuclearization implementation. ¹³⁷ The implementation requirement was especially significant as it required that four steps be taken within ten months of the date of signing: (1) Ukrainian transfer of at least 200 warheads to Russia for dismantlement; (2) Russian provision of 100 tons of LEU nuclear fuel to Ukraine; (3) US provision to Russia of \$60 million in advance payment for the HEU deal; and (4) Ukrainian deactivation of the SS-24 missiles on its territory by means of removing their warheads. 138 In addition to the Trilateral Statement, a confidential annex was concluded that set a three-year timetable for the complete transfer of weapons to Russia, and a schedule for conclusion of the deal on compensation for tactical nuclear weapons.

The Trilateral Statement did not meet clearly all of the conditions that had been set by the Rada on 18 November 1993 when it nominally ratified STARTI. It was sufficient, however, to enable President Kravchuk to persuade the parliament to reconsider its

^{134.} See Shmarov, cited in *UNIAN* (Kiev), 20 December 1993, in "Ukraine," FBIS, 21 December 1993, 48–49. Taking part in the talks, in addition to Shmarov, were Strobe Talbott, William Perry, and Russian Deputy Minister of Foreign Affairs Giorgiy Mamedov. Those talks followed bilateral US-Russian discussions in Moscow, led by Vice President Gore.

^{135.} Lepingwell, "Ukraine, Russia, and Nuclear Weapons," 25.

^{136.} See Lepingwell, "Ukraine, Russia, and Nuclear Weapons," 25 and ITAR-TASS, 10 January 1994 in "Ukraine," FBIS, 11 January 1994, 56. See also Goodby, 21.

^{137.} For a discussion of these six sets of issues see Steven E. Miller, "Ukraine, the Trilateral Agreement, and the Future of Denuclearization," *Strategic Comments* (Draft, 23 February 1994). See also Zaborsky, 29–33.

^{138.} Ibid.

^{139.} Interviews with officials from the Departments of State and Defense, Washington, DC, November 1994. The deal was finalized in February 1994 and provided nearly half a billion dollars to Ukraine in energy debt relief.

earlier decision. In a letter to the parliament dated 24 January, President Kravchuk requested that the Rada repeal the earlier conditions it had attached to START ratification, approve the exchange of the START articles of ratification, and approve Ukraine's accession to the NPT as a non-nuclear weapons party. On 3 February, the Rada approved President Kravchuk's first two requests. It also voted in favor of NPT accession, but the vote had no legal effect because the Rada was shy of a quorum. As a consequence, the issue of NPT accession was referred to a committee for further discussion.

The issue of nuclear weapons did not disappear after the parliament's vote on 3 February. The attention of the Rada (both new and old), ¹⁴² however, was increasingly focused on domestic political and economic crises. Consequently, the new president, Leonid Kuchma, had a much easier task than his predecessor in gaining the parliament's endorsement for NPT accession. By November 1994, when the Rada finally decided to review formally the question of Ukraine's NPT status, Nunn-Lugar "Cooperative Threat Reduction" assistance was finally being delivered to Ukraine, and Kiev had received the promised supply of nuclear fuel from Russia under the terms of the Trilateral Statement. These developments, and the preoccupation of the populace and parliament with domestic rather than international issues, set the stage for the 16 November 1994 approval by the Rada of Ukraine's accession to the NPT as a non-nuclear weapons state. ¹⁴³ Although the parliament attached reservations to its accession decision that provoked major resistance from the Russian Foreign Ministry, on 5 December 1994 the three NPT repository governments accepted Ukraine's NPT instruments of accession. ¹⁴⁴

The Politics of Nonproliferation

The literature on nuclear proliferation presents a wide assortment of largely speculative and often contradictory insights on why nations embark or refrain from embarking on paths to acquire nuclear weapons. It also makes clear that one must distinguish between national prerequisites (i.e., the technical capability to "go nuclear") and the decision to exercise that capability (based upon the balance of proliferation incentives and disincentives). In addition, a variety of situational variables or "trigger events" may precipitate a decision to "go nuclear" when pressures outweigh constraints. Although theories of nuclear weapons renunciation are less well developed, the perceived

^{140.} See text of letter in *UNFAR* (Kiev), January 25, 1994 in "Ukraine," FBIS, 26 January 1994, 28. See also Falkenrath, 24.

^{141.} See Falkenrath, 12, Zaborsky, 34, and Interfax, 4 February 1994, in "Ukraine," FBIS, 7 February 1994, 44.

^{142.} Three rounds of parliamentary elections in Ukraine were held in March, June, and July 1994. Two rounds of presidential elections were held in June and July 1994. See Taras, Kuzio, "Ukraine Since the Elections: from Romanticism to Pragmatism," *Jane's Intelligence Review* (December 1994), 567–571.

^{143.} The vote was 301-8 with 20 abstentions.

^{144.} Considerable mystery surrounds Russia's behavior toward Ukraine prior to the Budapest meeting on 5 December 1994 and the secret note Ukraine was compelled to send to the NPT repository governments clarifying the Rada's "reservations."

^{145.} For a discussion of this literature, see William Potter, Nuclear Power and Nonproliferation: An Interdisciplinary Perspective (Cambridge, MA: OGH Publishers, 1982), 131–135.

presence of similar pressures and constraints similarly may determine decisions to foreswear nuclear weapons, while situational variables act as catalysts for such decisions.

Table 2 provides a list of those factors often cited as proliferation determinants. It distinguishes among national prerequisites (i.e., necessary conditions), underlying pressures and constraints, and more transitory situational variables. It also indicates the internal or external orientation of the possible determinants. 146

One method to sort out the different pressures for and constraints on the decision to demonstrate a nuclear explosive capability is to group them according to the relative importance each attributes to internal and external considerations and military or political-economic objectives. This procedure yields four broad clusters of proliferation incentives and disincentives. These groups of proliferation determinants are labelled for purposes of discussion as international security, international politics, domestic security, and domestic politics (See Figure 1).

Among international security determinants, one can identify incentives such as deterrence of adversaries, pursuit of warfare advantage should deterrence fail, possession of a "weapon of last resort," and a desire to exploit nuclear weapons for coercive purposes. The perception of an acute security threat and the wish to achieve deterrence and/or warfare advantage, for example, were the major underlying pressures to acquire nuclear weapons for the United States, the Soviet Union, China, and also Israel and Pakistan. One also can point to a number of corresponding international security disincentives, including the anticipation of a hostile response, technical difficulties in maintaining a credible deterrent, and the absence of perceived threats from the international environment. The change in threat perception from a situation of international crisis and severe military danger to one of relative security, for example, largely accounts for the reversal in Canadian interest in nuclear weapons.

International political factors also serve as potential incentives and disincentives for states to acquire nuclear weapons. In the former category are factors such as the pursuit of increased status, prestige, and autonomy. These considerations played a significant role in French and Indian decisions to "go nuclear" and also were prominent in Argentine and Brazilian nuclear calculations. The fear of political and economic reprisals, on the other hand, may act as powerful international disincentives, as was the case for Argentina, Brazil, South Korea, and Taiwan. International norms such as those embodied in the NPT also can be influential in reinforcing nonproliferation restraint.

There are no clear cases to date in which domestic security factors served as primary pressures for or constraints on decisions to acquire nuclear weapons. The risk of unauthorized seizure of nuclear weapons, however, could be a domestic security disincentive,

^{146.} An earlier version of this analytical framework was proposed in William Potter, *Nuclear Power and Nonproliferation: An Interdisciplinary Perspective* (Cambridge, MA: OGH Publishers, 1982), 132–137 and was developed further in Potter, "Proliferation Determinants in the Commonwealth of Independent States," in W. Thomas Wander and Eric H. Arnett, eds., *The Proliferation of Advanced Weaponry: Technology, Motivations, and Responses* (Washington, DC: American Association for the Advancement of Science, 1992), 147–163.

Table 2: Possible Proliferation Determinants

Determinants	Orientation
I. National Prerequisites	
Economic wealth	Internal
Scientific and technological expertise	Internal
II. Underlying Pressures	
Deterrence	External
Warfare advantage and defense	External
Weapon of last resort	External
Coercion	External
International status/prestige	External
Assertion of autonomy and influence	External
Economic compensation	External
Economic spillover	Internal
Bureaucratic/domestic politics	Internal
Technological momentum	Internal
III. Underlying Constraints	
Military reaction by other states	External
The strategic credibility gap	External
Absence of perceived threat	External
International norms	External
Economic and political sanctions	External
Unauthorized seizure	Internal
Economic costs	Internal
Public opinion	Internal
Bureaucratic/domestic politics	Internal
Technical difficulties	Internal

especially for countries subject to frequent political upheavals and domestic turmoil. Several scenarios involving unauthorized acquisition of nuclear weapons have been suggested. One involves the possible seizure of all or part of nation's nuclear weapons stockpile by revolutionary groups or terrorists for the purposes of political blackmail. Another identifies the military as a possible threat in a "nuclear coup d'etat." ¹⁴⁸

Finally, one may identify sets of domestic political factors that constitute potential incentives and disincentives to seek nuclear weapons. In the case of France, for example, bureaucratic momentum or "technological creep" played a key role in that country's progress toward a nuclear weapons posture. Although never a primary nuclear weapons incentive, the perceived economic potential of peaceful nuclear explosions has been cited by some countries as a form of spillover from the military to civilian sector that justified the testing of nuclear explosives. Alternatively, the prospect of gaining economic compensation for the surrender of a nuclear weapons potential also may be a proliferation disincentive, as the 1994 case of the Democratic People's Republic of Korea would seem to indicate. Domestic political considerations also help to explain the timing, if not the

^{147.} Office of Technology Assessment, Nuclear Proliferation and Safeguards (New York: Praeger, 1977)

^{148.} Lewis Dunn, "Nuclear Proliferation, and the 'Nuclear Coup d'Etat," The Journal of Strategic Studies (May 1978), 31-50.

Figure 1: Underlying Pressures and Constraints on Proliferation

	Domestic	External
Military	Domestic Security	International Security
Political-Economic	Domestic Political	International Political

underlying rationale, for India's nuclear detonation. On the other hand, domestic political factors such as public opinion and program costs may serve as constraints on the acquisition of nuclear weapons, especially in democracies (e.g., Canada, Japan, Germany, Sweden). Additional domestic political disincentives may exist in the form of competition for scarce resources. The military, or at least certain branches of it, for example, might oppose a nuclear weapons program if it were perceived as likely to interfere with the funding of preferred weapons systems or to shift the distribution of the military fiscal pie. One can also include in this category of domestic political disincentives opposition to the acquisition of nuclear weapons by key individuals in the decision-making process, whose stance is determined by personal philosophical convictions (e.g., Nehru in India) or by calculations of self-interest.

In addition to clusters of pressures and constraints to acquire nuclear weapons, one also can identify a number of situational variables that may precipitate nuclear decisions. They include such events as: the nuclearization or denuclearization of another state (particularly a regional rival); international crises that may provide an opportunity for forging a new bureaucratic consensus in support of a decision to go nuclear; the weakening or strengthening of security guarantees; increased or decreased accessibility to nuclear technology and material; progress or lack thereof in nuclear disarmament by the nuclear powers; and domestic political crises and/or a change in political leadership. An international crisis in the form of World War II, and the knowledge that Hitler's scientists were pursuing nuclear weapons research, for example, were powerful stimulants to US and British nuclear weapons research. Similarly, decisions to accelerate Soviet, Indian, and Pakistani nuclear programs appear to have been precipitated, at least in part, by the nuclear detonations of the United States, China, and India, respectively.

Situational variables usually are thought of as potential catalysts for decisions to go nuclear whenever incentives outweigh constraints. They also can serve to trigger nuclear renunciation decisions, however, as appears to have been the case in South Africa following the end of the Cold War and the dramatic change in the country's domestic political environment.

As will be apparent in the discussion that follows, not all of the possible proliferation determinants, or even categories of determinants, played a significant or supporting role in the nuclear renunciation decisions of Belarus, Kazakhstan, and Ukraine. Domestic security incentives and disincentives, for example, do not appear to have been a factor in nonproliferation decision-making in Belarus and Ukraine, and, at most, were a minor consideration in Kazakhstan. As such, this category of potential determinants is not included in the comparative case studies analyzed below.

What also should be apparent in the subsequent discussion is that although the three countries differ substantially in the mix of operative proliferation incentives and disincentives, they share several features that set them apart from prior proliferation episodes. Most important of these are the unusual circumstances surrounding the rapid and unanticipated fracturing and dissolution of the nuclear weapons state of which they were a part. Also relevant was the concentration of foreign and defense policy expertise in Moscow, expertise that for the most part was inherited by the Russian government after the collapse of the Soviet Union and was not available to the other newly independent states.

Belarus

None of the non-Russian successor states, including Belarus, had sought the nuclear weapons that they found on their territory at the time of their independence. No conscious decisions had been made outside of Moscow to procure the weapons, no debates had transpired over their merits and liabilities, and little awareness existed as to the economic, political, and military implications of their presence. By the same token, very few serious deliberations about the consequences of a non-nuclear posture in the post-Soviet world preceded the declarations by Belarus and Ukraine in Alma-Ata on 21 December 1991 to "undertake to join" the NPT as non-nuclear weapons states. The politics of nonproliferation in Belarus thus began in late 1991 with nuclear weapons present on Belarusian territory and with a commitment having been made to achieve their elimination.

The balance of proliferation incentives and disincentives in Belarus, more so than in Kazakhstan and Ukraine, clearly favored nuclear weapons abstinence. This orientation is apparent when one reviews each of the principal clusters of alternative proliferation determinants.

International Security Incentives and Disincentives. International security incentives have most often served to drive nuclear weapons programs. They do not, however, appear to have been pronounced in Belarusian nonproliferation decision-making. There are no indications, for example, that Belarusian decision makers ever analyzed seriously the potential ability of nuclear weapons to achieve an advantage in warfare, to coerce non-nuclear regional adversaries, or to threaten retaliation as a last resort. Only the possible deterrent utility of nuclear weapons was considered, and then more in the context of a Russian nuclear umbrella than as an independent Belarusian nuclear force. Thus, although the military doctrine of Belarus includes reference to the deterrent function of nuclear weapons, there is no evidence that the Belarusian military

^{149.} Author's interview with Stanislav Shushkevich, 3 October 1994, Minsk. Shushkevich appears to have been unaware of the one formal review of Belarusian nuclear options, conducted by a small group in the Foreign Ministry in August 1990. The NPT pledge by Belarus and Ukraine is in Article 5.1 of the Alma-Ata Agreement on Joint Measures on Nuclear Arms. Although Kazakhstan is party to the agreement, Article 5.1 makes no reference to its NPT intentions.

^{150.} See Potter, Nuclear Power and Nonproliferation, 136-139.

or political leadership ever contemplated asserting operational control over the nuclear weapons on their territory or obtaining more than a nominal veto over their use. 151

The only serious exploration of Belarusian nuclear options reportedly occurred in August 1990, immediately after Belarus' Declaration of State Sovereignty. At that time, a group within the foreign ministry concluded that Belarus could not maintain a credible, independent nuclear force and therefore needed to pursue alternative means to guarantee its security (e.g., a Russian nuclear umbrella or participation in a European system of collective security). The Belarusian proposal for a "nuclear-free belt" in Central Europe emerged as a result of this assessment, which was approved by the foreign ministry and sent in the form of a memorandum to Prime Minister Kebich. It is unclear, however, what, if any, impact this early nuclear weapons assessment had on post-Soviet Belarusian policy since it was not widely circulated and preceded Shushkevich's assumption of the chairmanship of the parliament. 153

The absence in Belarus of powerful international security incentives to acquire nuclear weapons was matched by the presence of compelling international security disincentives. These constraints included: the absence of, and dim prospects for, obtaining most of the technical conditions usually associated with a credible nuclear deterrent; the absence of a perceived acute external threat to Belarus; and the probable hostile reactions by both current and prospective allies and adversaries. 154 Russia, at a minimum, could have been expected to render the nuclear weapons on Belarusian territory inoperational and to exert extraordinary economic pressure on the energy-starved and fledgling state. Having lost a larger percentage of its population in World War II than any of the other post-Soviet states, it is unlikely that Belarus would have contemplated military action for the sake of gaining control over nuclear weapons, nor did it contemplate such action. As Chairman Shushkevich observed, Belarus is plagued by three terrible syndromes-World War II, Afghanistan, and Chernobyl: "Retaining nuclear weapons on Belarusian territory would simply prolong the process of recovery from these syndromes." Moreover, according to Shushkevich, the nuclear weapons in Belarus provided no protection for the state, but made it a target for other states' nuclear weapons. As he put it, "It all boils down to the fact that we are sitting on a powder keg." 156

^{151.} This veto power derives from Article 4 of the 21 December 1991 Agreement on Joint Measures on Nuclear Arms, which states "Until nuclear weapons have been completely eliminated on the territory of the Republic of Byelorussia and Ukraine, decisions on the need to use them are taken, by agreement, by the RSFSR President, on the basis of procedures drawn up jointly by the member states." For a discussion of the concept of deterrence in the Military Doctrine of Belarus see Paznyak, "Belarusian De-Nuclearization Policy," 5–6, and Roy Allison, "Military Forces in the Soviet Successor States," 46.

^{152.} Author's interviews with senior Belarusian officials, Washington, DC, January 1995.

^{153.} It is amazing that the review was undertaken and circulated at all since in mid-1990 few could have anticipated the impending collapse of the Soviet Union.

^{154.} At the time of its independence, the most contentious international security issue for Belarus probably was a territorial dispute with Lithuania.

^{155.} Interview with the author, 3 October 1994, Minsk.

^{156.} Ibid.

International Political Incentives and Disincentives. A number of studies indicate that considerations of international prestige and influence are important incentives for some potential proliferators, especially those from the developing world. According to this perspective, a nuclear weapons capability may be the only way to command the attention of the industrialized states. ¹⁵⁷ A nation considering a proliferation option also may expect that possession of nuclear weapons would enable it to acquire greater intra-alliance influence and more international freedom of action. ¹⁵⁸

There are some indications that a few officials in Belarus initially were sensitive to the possible loss of prestige and standing that a rapid course of denuclearization might entail. This caution was reflected in then Deputy Defense Minister Pyotr Chaus' statement in July 1992 that Belarus "should not be hasty in the withdrawal of strategic nuclear weapons." According to Chaus, the presence of nuclear weapons in Belarus could help the country "establish itself" since "the whole world treats us as a nuclear power." Chaus also appeared apprehensive that the withdrawal of nuclear weapons might introduce further uncertainty into the existing turbulence of international politics in the region following the collapse of the Soviet Union. "We should not be hasty [to denuclearize]," he argued, "because with the present situation the course of events in the CIS is simply unpredictable."

Notwithstanding Chaus' reservation about the pace of withdrawing nuclear weapons, there is no evidence to date that serious consideration was ever given to the retention of nuclear weapons for reasons of international prestige or autonomy. No one within or outside the government, for example, articulated a strategy by which the retention of nuclear weapons could be translated into increased regional influence or autonomy, assuming that Belarus could gain and maintain control over the weapons on its territory. Ukrainian efforts at nuclear diplomacy also had little impact on Belarusian policy, and there appears to have been very little interaction and no coordination of policies between the two post-Soviet states. 162

Recognition by the Belarusian leadership of the limited international political utility of nuclear weapons was matched by the stark realization of the heavy international political and economic costs that a nuclear weapons quest would entail. Prominent among these costs were the fear of political and economic reprisals from both Russia and

^{157.} See Potter, Nuclear Power and Nonproliferation, 139, for a discussion of this thesis. See also Ashok Kapur, International Nuclear Proliferation (New York: Praeger, 1979).

^{158.} Development of the French force de frappe, for example, has been explained in part as a French attempt to gain a greater voice in NATO affairs and as an assertion of national autonomy. See Lewis A. Dunn and Herman Kahn, *Trends in Nuclear Proliferation*, 1975–1995 (Croton-on-Hudson, New York: Hudson Institute, 1976), 3–4.

^{159.} Interview in Krasnaya Zvezda, 16 July 1992, cited by Paznyak, "Belarusian De-Nuclearization Policy," 7.

^{160.} Ibid.

^{161.} As noted earlier, the only serious review of Belarus' nuclear options appears to have taken place within the foreign ministry in August 1990.

^{162.} One exception to this statement may be the greater interest of Belarus in compensation for the nuclear material in its warheads as a consequence of the Ukrainian stance.

the West, the loss of any prospect of Western economic and technical assistance, and the risk of isolation from the international community. Given these real fears, the absence of perceived security threats, and the not inconsequential force of international nonproliferation norms, it was relatively easy for the United States to reinforce the Belarusian leadership's predisposition to uphold its international commitments and to take its place as a member in good standing in the community of nations.

The Belarusian leadership also recognized that the international political and security interests of Belarus, Russia, and the United States coincided closely with respect to Belarus' non-nuclear weapons status. As a consequence of this perceived commonality of interests—something less apparent in Kazakhstan and much less so in Ukraine—it was possible to avoid major confrontations over a number of potentially thorny issues, including that of economic compensation for the nuclear material in the warheads.

On this particular issue and the related questions concerning the costs of removing nuclear weapons and personnel, the Nunn-Lugar Cooperative Threat Reduction funds proved to be very useful. Chairman Shuskevich's professional training as a nuclear physicist also may have had something to do with his strongly held view that the nuclear weapons in Belarus were a liability and should be removed with or without compensation. Indeed, it is only in the aftermath of the much larger package of assistance provided to Ukraine in 1994, that one detects major second thoughts on the part of the Belarusian government about the wisdom of its approach to compensation and denuclearization. ¹⁶³

Domestic Political Incentives and Disincentives. Economic spillover, technological momentum, public opinion, and bureaucratic and domestic politics are among the domestic political incentives sometimes associated with proliferation decisions. Although domestic political factors were never a major determinant of Belarus' nuclear policy, they did affect the pace of denuclearization.

Although there was no organized support in the government for Belarusian nuclear weapons, it appears that the denuclearization process was delayed by the opposition of some officials—including Foreign Minister Kravchenka—to Chairman Shushkevich's readiness to remove the weapons without compensation. This element of resistance persisted even after the two main parliamentary commissions considering NPT accession (Foreign Relations and National Security) had endorsed accession. According to Chairman Shuskevich, the foreign minister had to be reminded that "he was supposed to implement the policies of the Supreme Soviet, not make his own decisions." ¹⁶⁴

At the time of the parliamentary debate over NPT accession, no major political organizations were mobilized in opposition to Belarus' non-nuclear status. No more than ten parliamentarians reportedly spoke out against accession, 165 and some of those

^{163.} The author's interviews with senior Belarusian government officials in fall 1994 revealed great dissatisfaction about the nonproliferation tactics employed by the prior administration. Very senior foreign ministry officials as well as numerous parliamentarians also were more inclined to view favorably the tough stance taken by Ukraine.

^{164.} Author's interview with Stanislav Shushkevich, Minsk, 3 October 1994.

^{165.} The Chairman of the Committee on Invalids and Veterans, Zhukovsky, reportedly was one of them.

probably were more interested in embarrassing Chairman Shuskevich than in obstructing the denuclearization process. Outside of the parliament, the major vocal opposition came from a diverse collection of veterans' organizations and supporters of Imperial Russia and pan-Slavism. ¹⁶⁶ This profile of public opposition to Belarus' denuclearization is consistent with the findings of a 1993 public opinion survey conducted by the Independent Institute of Socio-Economic and Political Studies. It reports that most opposition to the idea of a non-nuclear Belarus was concentrated among associates of organizations favoring restoration of the Soviet Union. ¹⁶⁷ Significantly, the issue of nuclear weapons retention did not become a rallying point for the nationalist opposition in Belarus. Unlike many nationalists in Ukraine, most in Belarus were anxious to see the withdrawal of nuclear weapons as well as Russian troops.

The national consensus and public support for Belarus' non-nuclear status also has links to the Chernobyl nuclear accident of 1986. Because of wind conditions, the health and environmental consequences of Chernobyl were even more pronounced in Belarus than Ukraine and gave rise to widespread anti-nuclear sentiment. Although similar sentiment dissipated rapidly in Ukraine due to economic strains and nationalist fervor, anti-nuclear attitudes remained strong in Belarus and served as an additional incentive to denuclearize. 169

It is important to reiterate in the context of public opinion that most Belarusians did not perceive Russia, or any state for that matter, as a military threat. The absence of an acute external threat thus essentially precluded the emergence of nuclear weapons as a major domestic political issue.

There is no indication that situational variables or "trigger events," such as an international or domestic crisis, played a significant role in the decision by the leadership of Belarus to renounce nuclear weapons. Indeed, what is most notable about the Belarusian case is the continuity in the government's attitudes toward the NPT and its steady movement toward a non-nuclear weapons posture.

Kazakhstan

Kazakhstan and nuclear weapons are inextricably linked as a consequence of the first Soviet nuclear weapons test at Semipalatinsk. Over 450 nuclear tests later, Semipalatinsk and its environs are among the most severe ecological casualties of the Kremlin's quest to maintain nuclear parity with the United States. This nuclear history,

^{166.} Author's interviews with senior Belarusian governmental and parliamentary officials, Minsk, October 1994.

^{167.} Cited by Paznyak, "Belarusian De-Nuclearization Policy," 16-17.

^{168.} See David Marples, "The Legacy of the Chernobyl Disaster in Belarus," *RFE/RL Research Report* (29 January 1993), 46–50, and Marples, "Belarus: The Illusion of Stability," *Post-Soviet Affairs*, No. 9 (1993), 271–274.

^{169.} The Chernobyl accident led Belarus to abandon plans to construct a nuclear power plant. These plans were revived in 1992 due largely to alternative energy shortfalls and the perception that Belarus already was surrounded by nuclear power plants in Lithuania (Ignalina), Russia (Smolensk), and Ukraine (Chernobyl).

however, only partly explains Kazakhstan's decision to remove nuclear weapons. One also must take account of a larger set of political, economic, and military factors in order to understand Kazakhstan's path toward denuclearization.

International Security Incentives and Disincentives. Kazakhstan's policy-makers, like those in Belarus, do not appear to have given serious consideration to the possibility that nuclear weapons might serve any useful offensive military role, including that of nuclear blackmail, intimidation of non-nuclear adversaries, or other forms of coercion. There also is no indication that nuclear weapons were ever conceived of as a possible weapon of last resort, to be used if the nation were on the brink of total destruction or defeat.

Kazakhstan's policymakers, however, did weigh carefully the potential utility of nuclear weapons for deterrent purposes. This assessment was complicated by the lack of consensus as toward whom the deterrent should be directed and about whether or not an independent deterrent force was necessary.

As a strong proponent of closer CIS integration, President Nazarbayev consistently advocated the preservation of integrated Soviet armed forces and a unified nuclear command. Immediately following independence, Kazakhstan's leadership may have believed this command to be viable. In any case, during 1992 there were high-level discussions about the deterrent role nuclear weapons might play vis à vis China. Nuclear weapons under a unified command, some advisors argued, had the virtue of reducing Kazakhstan's isolation and giving it a modicum of control over Russian nuclear policy. ¹⁷¹

President Nazarbayev probably was sympathetic to this general argument, although it is difficult to discern the extent to which he or his principal advisor on nuclear weapons matters, State Counselor Toulegen Zhukeyev, regarded China as a significant military threat. At a minimum, the Kazakhstani leadership could not have been sanguine about the geostrategic situation in which Kazakhstan found itself, with nuclear-armed neighbors to the north and south, as well as other nearby extant or would-be nuclear weapons states (i.e., Pakistan, India, Iraq, and Iran). For some Kazakhstani analysts, these geostrategic circumstances were compounded by concerns about Chinese territorial claims on Mongolia and Kazakhstan and Kazakhstani/Chinese conventional force imbalances, especially the large deployments of Chinese troops on Kazakhstan's borders. ¹⁷²

The perception of strategic isolation undoubtedly contributed to Kazakhstan's original interest in the Tashkent Accord's promise of collective security, fragile as that

^{170.} Dannreuther, 45-46.

^{171.} Author's interviews with Kazakhstani officials and political analysts, Almaty, October, 1994.

^{172.} See, for example, Khlupin Vitaly, "Naskol'ko real'na Kitayskaya ugroza dlya Kazakhstana," Center for Oriental Studies, Almaty (September 1993), Murat Laumulin, 42–50, and interview with Sergei Ryzhakov cited by Elizabeth Sinclair, "Nuclear Politics in Kazakhstan," Monterey Institute of International Studies, Monterey, CA (May 1994), 14. A senior official in Kazakhstan's Ministry of Foreign Affairs expressed his concern to the author over the depiction in Chinese maps of parts of Kazakhstan as if they were Chinese.

promise might have been.¹⁷³ A concern over the potential threat from the south also appears to have been a major stimulus for discussions among Kazakhstani foreign ministry officials and national security advisors about the possible long-term deployment of Russian nuclear forces in Kazakhstan along the lines of a "German model." According to this approach, which was actively deliberated in the Foreign Ministry until at least mid–1993, Kazakhstan would accede to the NPT as a non-nuclear weapon state, but would agree to retain on its territory Russian nuclear weapons not prohibited by the START I Treaty. Some went so far as to advocate Kazakhstan's withdrawal from START I (should it go into effect), when the time came for significant nuclear weapons reduction in Kazakhstan to take place.

The initial product of Kazakhstan's effort to cement its strategic relationship with Russia was the 25 May 1992 Treaty of Friendship Cooperation, and Mutual Assistance. The treaty, which was of ten years duration (with a provision for an automatic ten-year renewal), specified in Article 5 that "in case of an act of aggression against one or both parties, the parties will provide each other with necessary support, including military assistance." The treaty also promised Kazakhstan assistance in the development of its armed forces; provided for the joint utilization of military bases, testing grounds, and other defense facilities on both side's territories; and promised the conduct of coordinated military and technology policy, including the financing of military programs and defense conversion. The Although the treaty allows military forces from both sides to utilize unspecified defense facilities, it does not clearly address the status of nuclear forces in Kazakhstan, other than to note that "until the completion of withdrawal of nuclear arms," the two "parties will cooperate to ensure the safe utilization of these weapons."

To the extent that the threat from China, whether real or imagined, drove Kazakhstan's strategic calculations, it argued for a nuclear deterrent in the form of a Russian "nuclear umbrella." ¹⁷⁹ By contrast, any nuclear thinking fueled by fears about

^{173.} Kazakhstan's enthusiasm for the May 1992 agreement reportedly waned after Russia unilaterally altered some of its terms. See "Interview with Dr. Oumirseric Kasenov," Monterey Institute of International Studies, Monterey, CA (11 November 1993). Senior Kazakhstan foreign ministry officials now regard the collective security agreement to exist only on paper. Author's interviews in Almaty, October 1994.

^{174.} See Kayrat Abouseitov and Murat Laumulin, "Proschai, Orushiye? (O yadernoi politikye Kazakhstana)," News on Korean Studies in Kazakhstan and Central Asia, No. 2 (March 1993), and George Bunn, "Trip Report: Kazakhstan and Nuclear Weapons, May 25–26, 1993," 1 June 1993. Bunn reports that during his visit to Almaty in late May 1993, Foreign Ministry officials with whom he spoke were much more worried about China as a threat than Russia. They sought Bunn's counsel on the legal aspects of nuclear deployments in Germany and Germany's NPT obligations.

^{175.} Bunn, 1.

^{176.} Kazakhstanskava Pravda, 23 July 1992.

^{177.} Ibid.

^{178.} Ibid. Some analysts in Kazakhstan with whom the author spoke implied that the 25 May treaty represented a step toward realizing the post-START I deployment of Russian nuclear forces in Kazakhstan. This interpretation, however, does not appear to be borne out by the actual Treaty language. Interviews with Kazakhstani analysts, Almaty, October 1994.

^{179.} One can identify occasional arguments that were made for an independent Kazakhstani nuclear force designed to deter China. Advocates of this view, however, were always in a minority. See Bunn for

the threat from the north entailed consideration of an independent nuclear weapons program.

The independent nuclear option may have seemed attractive to Kazakhstan's leadership at various points during 1992 and 1993. It is doubtful, however, that it believed Kazakhstan could assert effective operational control over the nuclear weapons on its territory. Moreover, by mid-to-late 1993, when the Kazakhstani leadership may have begun to worry more about the security threats posed by the collapse of the CIS joint command, increasing instability in Russia, the adoption of a new Russian military doctrine, and the rise of Russian ultranationalism, Kazakhstan already had clearly committed itself to a non-nuclear weapons future.

Although international security incentives to acquire nuclear weapons were more pronounced in Kazakhstan than in Belarus, there also were compelling countervailing international security pressures. Principal among these disincentives was the recognition that any effort to assert control over nuclear weapons on its territory was apt to lead to a confrontation with Russia. The Kazakhstani leadership also was very sensitive to the fact that an effort to assert control over nuclear weapons or, for that matter, to acquire other military means to bolster deterrence (e.g., building up a strong conventional military), could trigger profound divisions in a society with roughly equal Kazakhstani and Russian ethnic groups. As an astute politician, President Nazarbayev must have appreciated, even in 1992, that any exacerbation of Russian-Kazakh relations could have been used by nationalist forces in Russia to mobilize opposition among the Russian population in Kazakhstan. Notwithstanding fears about the uncertainties of Russia's future, the two countries also shared important common political, economic, and military-strategic interests. Moreover, unlike Russian-Ukrainian relations, those between Kazakhstan and Russia were largely unburdened by a history of antagonism.

reference to one then-junior Foreign Ministry advocate, 4.

^{180.} Author's interviews with national security advisors and foreign ministry officials in Almaty, October 1994. See also Kasenov and Abouseitov, 7.

^{181.} Veiled and not so veiled criticism of this "premature commitment" may be found in the Kazakhstani press as well as in articles by strategic analysts. See, for example, Mikhail Isinaliyev, "No Security Guarantee," cited by *Postfactum*, (3 June 1992) in "Central Asia," FBIS, 8 June 1992, 53; and Aldan Aimbetov, "Nazarbayev Showed Himself to be a Man of Decency in Resolving the Nuclear Weapons Problem, but Kazakhstan Remains a Hostage of the Nuclear Powers," *Kazakhskaya Pravda*, No. 1 (1994), 1.

^{182.} See Kasenov et al, 8.

^{183.} On this point see Eugene Rumer's conference report summarized by Ian Elliot, "East-West Debate in Alma-Ata," *RFE/RL Research Report* (22 May 1992), 57. See also Abouseitov and Kasenov, 8. 184. Elliot, 57.

^{185.} The extent of these shared interests and pressures for more formal integration were expressed most clearly and formally in a Russian-Kazakhstani accord signed on 20 January 1995. For the text of the accord, which includes an important provision regarding the formation of unified armed forces, see "Kazakh-Russian Integration Accord Signed," "Central Asia," FBIS (25 January 1995), 40–41.

^{186.} In the terms of Murat Laumulin, Russia was both a "lesser evil" and a "natural ally". See Laumulin, 38, 42.

Given the country's geostrategic location, it is natural that Kazakhstan's leadership was most attentive to its nuclear-armed neighbors. Any nuclear weapons ambitions it may have entertained, however, also were constrained by anticipation of the West's response. Thus, although Kazakhstan closely watched the West's reaction to Ukraine's nuclear assertiveness for signs of acquiescence, it was well aware that any attempt to emulate Ukraine's behavior would not only assure that it remained on the target list for US nuclear warheads, ¹⁸⁷ but would lead to its international isolation, thereby making the country more vulnerable to pressure from Russia and China. Lengthy discussions between senior US and Kazakhstani officials, including President Nazarbayev, State Counsellor Zhukeyev, and Secretary of State James Baker, especially in the period prior to May 1992, had the effect of highlighting to Kazakhstan the security liabilities of retaining nuclear weapons and the strategic, as well as economic, benefits that would accrue from their removal. ¹⁸⁸

International Political Incentives and Disincentives. Policymakers in Almaty, like those in Minsk, initially may have regarded the nuclear weapons on their territory as a potential dividend in terms of both international status and regional prestige. Kazakhstan's quasi-nuclear status, for example, may have been perceived as helpful in the country's quest for leadership among the Central Asian states. ¹⁸⁹ It also definitely was regarded in early 1992 as a vehicle for gaining the attention of both Russia and the United States.

The attractiveness of nuclear weapons for their prestige value and their potential for enhancing Kazakhstan's intra-CIS influence and international freedom of action, however, was offset by the leadership's perception early in 1992 that retention of nuclear weapons would increase Kazakhstan's diplomatic isolation and deprive it of benefits associated with full-fledged membership in the international community. As one influential Kazakhstani analyst put it, Kazakhstan could not afford to "go it alone." Taking into account its relatively small population, ethnic mix, and absence of natural barriers, the leadership realized the need to have good relations with all of its neighbors. The importance of international nonproliferation norms and the fear of censure by the international community as determinants of Kazakhstan's nuclear posture also is emphasized by Toulegen Zhukeyev. In a lengthy interview with the Russian paper Nezavisimaya Gazeta in June 1992, the State Counsellor acknowledged the vagueness of Kazakhstan's nuclear weapon's stance prior to May 1992, but said this was a thing of the past. Under conditions of "reduced" international tension and the general trend toward disarmament, "Kazakhstan could not attempt to run counter to the process by flexing its nuclear muscles." ¹⁹²

^{187.} Kasenov et al, 8.

^{188.} Author's interview with US Ambassador to Kazakhstan William Courtney, Almaty, October 1994.

^{189.} This point is made by Maxim Shashenkov, Security Issues of the Ex-Soviet Central Asian Republics, London Defence Studies No. 14 (London: Brassey's, 1992), 50.

^{190.} Author's interview with a senior Kazakh Foreign Ministry official, Almaty, 13 October 1994.

^{191.} Author's interview with Dr. Oumirseric Kasenov, Almaty, October 1994.

^{192.} Interview with Toulegen Zhukeyev, Nezavisimaya Gazeta, 24 June 1992, 1,3.

Both Kazakhstani and US officials who were privy to and/or involved directly in negotiations between the two countries in 1992 and 1993 relate that the crucial period of reassessment of Kazakhstan's nuclear posture occurred between February and April 1992. ¹⁹³ They also concur that a key role in the reassessment was played by US rather than Russian diplomacy, ¹⁹⁴ especially in the person of Secretary of State James Baker who visited Kazakhstan twice and met directly with President Nazarbayev. Baker, as well as other US emissaries, made a persuasive case that Kazakhstan's security lay not in nuclear weapons, but in economic development and in the country's integration into the world economy. ¹⁹⁵ These developments, it was pointed out, would be facilitated by Western investments that would only take place on a large scale once Kazakhstan renounced the nuclear weapons on its territory.

Kazakhstan's policymakers were in no hurry to denuclearize and were aware that the weapons might have tactical value as bargaining chips for the provision of security assurances, foreign aid, and assistance in environmental reclamation. The Kazakhstani leadership, however, was, for the most part, quite pragmatic and was receptive to the US argument that the future of their country's peaceful nuclear energy program was dependent upon NPT membership. It also increasingly recognized that enormous economic costs would be required to maintain the combat readiness of even a rudimentary nuclear force. Although not uninterested in US denuclearization assistance, Kazakhstan's leadership, more than that in the other nuclear successor states, appears to have attached less importance to the promise of Nunn-Lugar funds and, as a consequence, was less disappointed by their slow delivery.

Although US diplomacy played a significant role in the reappraisal by Kazakhstan's leadership of the costs and benefits of nuclear weapons, the country's decision to sign the Lisbon Protocol and commit itself to joining the NPT as a non-nuclear weapons state also was a consequence of a number of other international political developments during the first five months of 1992. Most important were formal statements by the Chinese Foreign Ministry that China had no territorial claims on Kazakhstan, the conclusion of the collective security agreement in Tashkent, and Russia's readiness to sign a bilateral

^{193.} Author's interviews with senior US and Kazakhstani officials in Almaty, October 1994.

^{194.} Russia did not have an embassy in Kazakhstan in early 1992. The US embassy was opened in February 1992.

^{195.} Author's interview with senior Kazakhstani Foreign Ministry officials, Almaty, October 1994.

^{196.} See Laumulin, 26.

^{197.} This recognition is very explicit in Zhukeyev's June 1992 interview with Nezavisimaya Gazeta.

^{198.} A senior Kazakhstani Foreign Ministry official told the author that Nunn-Lugar funds "were not a carrot to remove nuclear weapons," but helped to ease the task of denuclearization once the renunciation decision had been made. He and other Kazakhstani officials indicated that they realized that the nuclear weapons would not be dismantled on Kazakhstan's territory and the bulk of Nunn-Lugar funds would go to Russia for dismantlement purposes. Somewhat at odds with this interpretation is an anecdote involving President Nazarbayev's query to US officials in September 1993 about why Belarus, but not Kazakhstan, had been promised Nunn-Lugar assistance. When informed that the aid was contingent upon conclusion of a nuclear umbrella agreement, Nazarbayev reportedly was surprised and ordered his deputies to take such action. Author's interviews with US officials in Kiev, September 1993.

agreement providing security assurances. ¹⁹⁹ These international events, especially the latter security agreement with Russia, also may be thought of as situational variables or decisional catalysts in terms of the model of nonproliferation determinants described above.

Domestic Political Incentives and Disincentives. Very few domestic political incentives to acquire nuclear weapons were present in Kazakhstan. Neither the prospect of economic spillover from a nuclear weapons program nor technological momentum toward an indigenous nuclear weapons capability were relevant incentives. Indeed, the enormous environmental costs resulting from both military and peaceful nuclear explosions in Kazakhstan during the Soviet period precluded serious discussion of potential economic dividends from a nuclear weapons program.

Advocates of nuclear retention in Kazakhstan also were severely constrained by the absence of any organized support for their position within the government and by the parliament's marginal role in nuclear decisionmaking. Although the ministers of foreign affairs and defense were involved formally in the formulation of nuclear policy, in fact all key internal and international nuclear deliberations appear to have involved only President Nazarbayev and State Counsellor Zhukeyev. Advocacy of an independent nuclear capability for Kazakhstan was limited primarily to several national movements (e.g., Azat and Alash) and, in a circumspect fashion, to civilian analysts, especially at the Center for Strategic Research. ²⁰¹

There is no reliable public opinion data available in Kazakhstan upon which to assess popular attitudes toward possession of nuclear weapons. One of the few published scholarly studies on the Kazakhstan Republic's nuclear stance suggests that Kazakhstani public opinion in 1992–93 on the issue of an independent nuclear force was split. This view probably understates the extent of anti-nuclear weapons sentiment, difficult as it is to quantify. Indicative of this sentiment was the ground-swell of support for the "Nevada-Semipalatinsk" movement and its success in gaining closure of the Semipalatinsk nuclear test-site. Public support, if not a national consensus, for Kazakhstan's non-nuclear weapons status also can be inferred from the general lack of popular opposition to Kazakhstan's signing of the Lisbon Protocol in May 1992 and the parliament's ratification of the NPT in December 1993.

^{199.} See "PRC Government Concerned Over Territorial Issue," ITAR-TASS, 7 May 1992 in "Central Asia," FBIS, 8 May 1992, 57, and Kasenov and Abouseitov, 6.

^{200.} This picture of highly (conventional) decisionmaking was shared by all of the US and Kazakhstan official's interviewed by the author.

^{201.} See Laumulin, 20. The Center for Strategic Research subsequently became the Kazakhstan Institute for Strategic Studies under the President of Kazakhstan.

^{202.} Kasenov and Abouseitov, 6.

^{203.} For a discussion of the movement and its political impact, see Bess Brown, "The Strength of Kazakhstan's Antinuclear Lobby," *RFE/RL Report on the USSR* (25 January 1991), 23–24, and Carolina Escalona, "The Legacy of the Semipalatinsk Nuclear Test Site," *CIS Environmental Watch* (Spring 1992), 40–46.

Based upon his public pronouncements and acts regarding Semipalatinsk, President Nazarbayev himself appears to have been very sensitive to his constituents' nuclear allergy. Widespread, if undocumented, reports in the international media during the first half of 1992 about the sale of tactical nuclear weapons by Kazakhstan to Iran also were politically embarrassing for the president. The presence of large quantities of weapons-usable material at poorly protected civilian nuclear facilities were an additional concern for President Nazarbayev, who was intimately involved in "Project Sapphire" negotiations with the United States regarding their removal. Moreover, as noted previously, the president fully realized that possession of nuclear weapons could have very dangerous domestic repercussions by aggravating tensions between Kazakhstan and Russia and between ethnic Kazakhstanis and Russians.

Ukraine

None of the post-Soviet states proved more frustrating to nonproliferation advocates than Ukraine. From a US governmental perspective, Ukraine's behavior toward nuclear weapons appeared to be evasive, disingenuous, and inconsistent. ²⁰⁵ It also generally was poorly understood, in part, because of the failure of Western analysts to consider the full range of domestic as well as the international sources of Ukrainian nuclear policy.

International Security Incentives and Disincentives. Ukrainian policy-makers, like their Belarusian and Kazakhstani counterparts, did not seriously contemplate the utility of nuclear weapons for purposes of warfighting, coercion, or as a weapon of last resort. More difficult to discern is the seriousness with which they regarded nuclear weapons as potentially valuable for deterrent purposes.

At first glance, one might conclude that Ukraine's hesitation in surrendering nuclear weapons was driven primarily by rational calculations about their deterrent value vis-à-vis a possibly revanchist Russia. Indeed, many Ukrainian parliamentarians and some members of the executive branch shared a deep-seated conviction that Russia posed a direct threat to the national sovereignty and territorial integrity of Ukraine. This concern about Ukrainian vulnerabilities and Russian intentions was heightened whenever Russian politicians raised the issue of reviewing Russia's borders with its neighbors. Many parliamentary deputies and citizens naturally found attractive the arguments of General Tolubko in 1992 that it was folly to hand over nuclear weapons to a country that posed a military threat to Ukraine. 208

^{204.} See Kasenov et al, 19–20. The most widely cited reports include a 1992 report from the US House Republican Research Committee's Task Force on Terrorism and Unconventional Warfare, Roger Fallgot and Ian Mather, "Iran Has N-Bomb," *The European* (20 April–3 May 1992), and "Tactical Nukes from Kazakhstan," *Mednews* (8 June 1992), 7.

^{205.} On this point see Steven E. Miller, "Ukraine's Flawed Nuclear Diplomacy," *The Nonproliferation Review* (Spring-Summer 1994), 47.

^{206.} Illustrative of this perspective is John Mearsheimer, "The Case for a Ukrainian Nuclear Deterrent," Foreign Affairs, Vol. 72, No. 3, (Summer 1993), 50–66.

^{207.} Imprudent remarks to this effect were not confined to Russian extremists, but also were made by well-known democrats such as Anatoli Sobchak and Gavril Popov. See Nahaylo, 23.

The popular appeal of Tolubko's message, however, appears to have had little effect on Ukrainian governmental calculations regarding nuclear weapons. Prior to May 1992, no one in a position of authority in Ukraine gave attention to the deterrent value of tactical nuclear weapons, the variety most susceptible to Ukrainian control. After the tactical weapons had been returned to Russia, neither the Ukrainian military nor other institutional actors in the government appear to have given serious thought to retaining permanently nuclear weapons for deterrent or other purposes. 210

In Ukraine, more so than in either Belarus or Kazakhstan, policymakers in both the executive and legislative branches perceived the existence of an external threat that was not likely to disappear soon. Although Ukraine's leaders may not have appreciated fully the range of weapons at Russia's disposal or Moscow's readiness to deploy them, they undoubtedly recognized that Russia would not accept passively efforts by Ukraine to assert control over the nuclear weapons on its territory. Concern about hostile military action, however, probably was less significant in determining Ukraine's stance on denuclearization than an assessment of the difficulties in obtaining a credible nuclear deterrent.

A sizeable literature has developed since 1991 on the subject of Ukraine's capability to gain control over, and to maintain in operational condition, the nuclear weapons on its territory. Although Western and Russian experts disagree about the precise nature and degree of difficulty of the obstacles Ukraine would need to surmount to gain positive control over nuclear weapons, they generally concur that Ukraine theoretically had (has) the ability to acquire operational control. More problematic, however, were the economic, political, and military costs that a concerted effort to "go nuclear" would entail, not to mention the difficulties and costs associated with maintaining the weapons in operational condition.

The most outspoken advocate of an independent Ukrainian "nuclear defense shield" was Major General Volodymyr Tolubko, a member of the Rada's Commission on Defense and State Security and a former officer in the Soviet Strategic Rocket Forces. According to Tolubko, not only did Ukraine possess the necessary nuclear and rocket

^{208.} See Tolubko cited in Nahaylo, 32, and Garnett, 15-16.

^{209.} Author's interview with a senior Ukrainian official involved in the formulation of Ukraine's nuclear policy, Monterey, CA, December 1994.

^{210.} Author's interviews with Ukrainian Foreign Ministry officials, Monterey, CA, December 1994. A similar conclusion is reached by Sherman Garnett, a former U.S. Department of Defense official with responsibility for Ukrainian affairs. See Garnett, 25–26. Victor Zaborsky (40), however, suggests that some Ukrainian generals opposed the elimination of strategic nuclear weapons because they feared it would mean the end of their careers.

^{211.} The most detailed account is provided by DeWing. See also Bruce G. Blair, *The Logic of Accidental Nuclear War* (Washington, DC: The Brookings Institution, 1993); Steve Coll and R. Jeffrey Smith, "Is Ukraine Reaching for Control Over Nuclear Arms?" *Washington Post* (3 June 1993); Richard L. Garwin, "Post-Soviet Nuclear Command and Control," *Arms Control Today* (January/February 1992), 18–23; Kurt M. Campbell, Ashton B. Carter, Steven E. Miller, and Charles A. Zakret, *Soviet Nuclear Fission* (CSIA Studies in International Security, Harvard University, Monograph 1); and Alexander Pikayev, "The Post Soviet Russia and Ukraine: Who Can Push the Button?" *The Nonproliferation Review* (Spring-Summer 1994), 31–46.

technology infrastructure necessary to sustain a nuclear weapons program, but it would have been cost effective for Ukraine to retain a nuclear deterrent in lieu of a large standing army with conventional arms. ²¹² Although several other prominent Ukrainian politicians, including then Prime Minister Leonid Kuchma, reportedly shared Tolubko's assessment of the technical feasibility of obtaining operational control over nuclear weapons, ²¹³ no members of the government or parliamentary leadership appear to have agreed with his assessment of the economic, political, or military benefits of a long-term nuclear weapons program. From the standpoint of the military leadership, nuclear weapons were "an unwanted competition for extremely scarce defense resources." 214 From the perspective of the foreign ministry, which undertook an assessment of the costs and benefits of a nuclear weapons option, the costs also exceeded the benefits. Their potential value reportedly was diminished by the absence in Ukraine of a nuclear weapons test site and by the transfer of tactical nuclear arms to Russia. 215 Even most parliamentary deputies who were sympathetic to the nationalist appeal of Tolubko's arguments did not regard nuclear weapons as a priority issue and were skeptical that the economically imperilled government could afford to maintain a nuclear force permanently, especially in light of the financial and safety problems that plagued the country's civilian nuclear power program.

International Political Incentives and Disincentives. In order to understand the evolution of Ukrainian attitudes toward nuclear weapons it is necessary to view the matter within the broader context of the country's efforts at nation-building. At the time of the Declaration of Sovereignty in 1990, for example, nuclear weapons had little popular appeal, were disassociated with Ukrainian statehood and international standing, and indeed were seen by many in Ukraine as an extension of Moscow's military and imperial presence. ²¹⁶

By 1992 the linkage between nuclear weapons and Ukrainian independence had changed. Although most government officials shared the views of Professor Volodymyr Vasylenko that Ukraine's international prestige and influence would be best served by the renunciation of nuclear weapons, some politicians and analysts began to reconsider the wisdom of rapid denuclearization. Among the arguments advanced by those with second thoughts were the need for Ukraine to be treated more seriously as a sovereign state by the international community, a desire to correct the perceived Russian-centric policy of the West, and the growing concern over the security implications of transferring nuclear weapons to a country that was seen by many as a potential, if not actual, adversary.

^{212.} Tolubko elaborated his views in a series of three articles in *Holos Ukrainy* in 1992. See also his interview in *Kyiuskie vedomosti*, 6 November 1992 and the analysis of his views in Nahaylo, 32,40.

^{213.} See Chrystia Freeland and R. Jeffrey Smith, "Kiev Premier Urges Keeping Nuclear Arms," Washington Post (6 June 1993), cited in Garnett, 46–47.

^{214.} Garnett, 37. A 1992 survey reported that approximately 60 percent of the officers polled favored a non-nuclear weapons status for Ukraine. See Dmytro Vydrin, "Ukraine on the Nuclear See-Saw," *Political Thought* (1993), 185.

^{215.} Author's interview with senior Ukrainian Foreign Ministry official, Monterey, CA, December 1994.

^{216.} On this point see Nahaylo, 21, 44.

Coincident with the rise in nuclear nationalism, were increasing references to France as the appropriate role model for Ukraine. Intense interest, for example, was expressed on the part of some Ukrainian officials in the French nuclear experience in general and the work of General Pierre Gallois (the 1960s champion of the French force de frappe) in particular. Although few carried the analogy as far as General Tolubko, who maintained that if modernization of nuclear forces was good for France it also should be good for Ukraine, in 1992 support in Ukraine grew to treat nuclear weapons as a diplomatic if not a military asset.

It is difficult to pinpoint precisely when Ukrainian policymakers recognized the potential leverage they might derive from the nuclear weapons on their territory. Dr. Yuri Matseiko of the Ukrainian Institute of World Economy and International Relations suggested as early as October 1991 that Ukraine should seek additional security guarantees as part of the process of moving toward a non-nuclear weapons status. ²¹⁹ His argument, however, had little impact on governmental policy at the time, as evidenced by the terms of the 21 December 1991 Alma-Ata Declaration, the 30 December 1991 Minsk agreement on Strategic Forces, and by the return of tactical nuclear weapons without any effort to extract some form of compensation.

By March 1992, however, President Kravchuk began publicly to complain that Ukraine was receiving nothing in return for its transfer of weapons. The following month, he was more specific, and on two occasions he called publicly upon the international community to provide Ukraine with some form of security guarantees. This appeal was repeated, without positive results, during his visit to the United States in May 1992.

According to one senior Ukrainian official who was privy to the government's nonproliferation policymaking process, no one in the government initially believed it would be possible to extract meaningful security guarantees from Russia or the West. This view, however, began to change by mid–1992. At that time Ukraine launched an effort to obtain multilateral security guarantees, preferably in the form of legally binding documents that were signed and ratified by national governments. 223

^{217.} Author's discussions with French, Ukrainian, Russian, and Armenian defense specialists in late 1991 and early 1992. For an earlier statement of this point see William C. Potter, "Ukraine as a Nuclear Power," Wall Street Journal, 4 December 1991.

^{218.} See Tolubko's remarks reported in Potter, "Update on FSU Nuclear Developments," 11.

^{219.} Matseiko, "Do We Need Nuclear Weapons?" Literaturna Ukraina, cited in Nahaylo, 29.

^{220.} See his interview with La Stampa and his 28 April press conference, both cited by Nahaylo, 34.

^{221.} The best guarantee of Ukraine's security, the United States argued, was economic reform and closer ties with the West which, in turn, would follow from rapid denuclearization. (See Nahaylo, 35). Notwithstanding the logic of the US argument, it was poorly received in Kiev, especially among members of parliament who attacked the Ukrainian government for signing the Lisbon Protocol without obtaining any western security guarantees. Vyachaslau Chornovil, a leader of Rukh and runner-up to Kravchuk in the presidential election, and Stephan Khmara, a radical nationalist deputy, were among the most vocal critics.

^{222.} Author's interview, Monterey, CA, December 1994.

^{223.} Ibid.

More so than on most issues, the positions of the executive and legislative branches in Ukraine converged with respect to security guarantees. As spelled out by Rada deputy Serhiy Holovaty, any guarantees that would make a difference in the Rada's nuclear calculations would require Russian and American respect for the sovereignty of Ukraine and the inviolability of its borders as they existed in December 1991. ²²⁴ In addition, Ukraine sought guarantees from all nuclear weapons states not to use nuclear weapons or to threaten to use them against Ukraine, not to employ conventional weapons against Ukraine, and not to engage in economic pressure. ²²⁵ Although Ukrainian government officials and parliamentary leaders recognized from the outset that even legally-binding declarations might yield few tangible security benefits, they attached great importance to their symbolic value, especially as related to the recognition of Ukrainian sovereignty and territorial integrity outside of the context of the CIS. ²²⁶ Indeed, governmental and parliamentary figures agree that it would have been impossible to have gained the Rada's support for unconditional ratification of the START Treaty or approval of NPT accession in the absence of the security guarantees provided in the Trilateral Statement and, in a slightly different fashion, in pledges made by the nuclear weapons states in late 1994. ²²⁷

In addition to the pursuit of security guarantees, Ukraine's nuclear diplomacy by mid–1992 was increasingly driven by efforts to secure the maximum financial dividend possible from the process of denuclearization. Stung by criticism that he had taken a romantic approach to nuclear disarmament, President Kravchuk sought to drive up the price that Russia and the West should pay for the elimination of nuclear weapons. Appropriately, on 31 October 1992, in apparent full appreciation of the American "trick or treat" custom, President Kravchuk informed the new US ambassador to Kiev that elimination of the nuclear arsenal in Ukraine was a multibillion dollar expense that Ukraine's budget could not afford. It was not economically viable for Ukraine, he emphasized, to hand over valuable nuclear warheads to a country from which it needed to buy nuclear reactor fuel. Prime Minister Kuchma was even more blunt, and accused the United States and its allies of pressuring Kiev to give up nuclear weapons for free. The West, he observed pointedly, was ready to proffer advice, but not security assurances or tangible aid. 229

^{224.} The Russian Supreme Soviet's declaration on the inviolability of borders and the 25 February 1993 vote by Foreign Minister Kozyrev to the Ukrainian Foreign Ministry did not meet this test because they referred to the territorial integrity of Ukraine "within the Commonwealth of Independent States." See Holovaty's remarks at the CIS Nonproliferation Project Meeting in Bad Ems, Germany, 17–19 May 1993, reported in William Potter, "Ukrainian Nuclear Update" (Unpublished memorandum, 20 May 1993).

^{225.} See Zaborsky, 22

^{226.} See Holovaty, cited in Potter, "Ukrainian Nuclear Update." A senior Ukrainian official appraised the security guarantees provided Ukraine at the Budapest meeting in December 1994 in that manner, comparing the document to the Helsinki Act, which also was not ratified. Author's interviews, Monterey, CA, December 1994.

^{227.} France and China presented Ukraine with separate security assurances.

^{228.} Cited in Nahaylo, 41.

^{229.} Prime Minister Kuchma's address to a group of Western journalists on 4 November 1992 as recounted by Nahaylo, 41.

Ukraine's efforts to exploit nuclear weapons for bargaining chip advantage focused a great deal of international attention on Kiev. As Steve Miller points out, however, much of this attention was unfavorable and had the effect of increasing external pressure on Ukraine to comply with the government's previously stated nonproliferation commitments. 230 For example, in the case of Russia, Kiev's efforts to derive leverage from the pace of denuclearization probably only increased Russian intransigence due to very different conceptions of the nature of the nuclear weapons issue in Moscow and Kiev. 231 Ukraine's bargaining chip tactics also initially made the Russian government more inclined to treat the nuclear issue as a bilateral "family affair," which, for economic reasons, it believed would sooner or later be resolved to Moscow's satisfaction. ²³² Only after the Massandra accord had collapsed in fall 1993 were both the Russian and Ukrainian sides forced to reevaluate their positions. As Sherman Garnett points out, the Massandra experience "led the Russian side [to see] with its own eyes that Ukrainian weakness was not simply something to be exploited but an element of great instability in the relationship and the region."²³³ By the same token, the Massandra debacle persuaded the Ukrainian governmental leadership "that their own weakness increased the need for a deal on nuclear weapons, but that a bilateral process would only encourage Russian pressure which Ukraine could not control." As a consequence of Massandra, therefore, both the Russian and Ukrainian sides came to appreciate better the limitations of bilateral nuclear diplomacy and the merit of US efforts to create a trilateral framework in which to balance the parties' competing security, political and economic needs. 235 At this particular point in time, the promise of significant US financial assistance also proved to be very effective in moving forward the denuclearization process.

Domestic Political Incentives and Disincentives. In Ukraine, far more than in Belarus or Kazakhstan, nuclear weapons were a domestic political issue. In fact, a strong case can be made that the debate over nuclear weapons in Ukraine generally had less to do with military/technical issues or international security factors than with domestic political considerations and organizational politics. As one leading Ukrainian politician confided in spring 1993, 95 percent of the opposition to the NPT in the Rada was based on domestic political calculations, including, but not limited to, parliament's

^{230.} See Miller, "Ukraine's Flawed Nuclear Diplomacy," for an extended critique of Ukraine's bargaining chip strategy.

^{231.} For a discussion of the differences in Ukrainian and Russian conceptions of the nuclear weapons issue see Lepingwell, "Ukraine, Russia, and the Control of Nuclear Weapons," 16–19.

^{232.} Author's discussions with senior Russian foreign ministry officials, Washington, DC, November 1993.

^{233.} Sherman W. Garnett, "Nuclear Weapons and Nuclear Arms Control: The Case of Ukraine" (Unpublished manuscript, January 1995), 4.

^{234.} Ibid. Stated somewhat differently, before Massandra, Kravchuk appears to have regarded the nuclear weapons in Ukraine as a useful bargaining chip vis à vis Russia. After Massandra, these same nuclear weapons were recognized as objects through which Russia could exert pressure.

^{235.} Garnett, 4, argues that intense Russian pressure at Massandra and the deep divisions it exposed in the Ukrainian government, especially on the issue of the Black Sea Fleet, played a pivotal role in President Kravchuk's decision to accelerate denuclearization negotiations with the United States within a trilateral framework.

battle for power with the president.²³⁶ This institutional conflict over authority to make national security policy led some Rada deputies in 1992 to challenge President Kravchuk's nuclear weapons policy.

Unlike Belarus and Kazakhstan, opposition to the government's policy also emerged from several organized political parties. Principal among these were the Ukrainian Conservative Republican Party and the Ukrainian Republican Party, both of which received most of their support from Western regions in Ukraine. The most extreme position on nuclear weapons among these groups was taken by the Ukrainian Conservative Republican Party, which on 8 April 1993 endorsed the presence of nuclear weapons in Ukraine as "a reliable guarantee of domestic and European security." "Ukraine," the Party argued, "should declare itself a nuclear power as quickly as possible," and "should take the nuclear weapons on its territory under complete control and management." In May 1993, the fourth congress of the Ukrainian Republican Party also advocated recognition of Ukraine's de facto nuclear weapons status and proposed that until a global nuclear disarmament regime were in effect, Ukraine should assume full control over the nuclear weapons on its territory, re-aim those weapons according to the principle of "security in all directions," and provide the president not only with a "control" button but with a "launch" button.

Although nationalist opinion in Ukraine was inclined to define the country's security in terms of the long-term threat posed by Russia and the need to avoid accommodation with Moscow, it was by no means united in the advocacy of nuclear weapons. Indeed, the largest nationalist movement, Rukh, was itself divided over the priority that should be given to counterbalancing the perceived threat from Russia and economic and political reform. ²⁴⁰ As a political organization closely associated with the post-Chernobyl, anti-nuclear power movement, Rukh deputies also were subject to conflicting pressures on nuclear issues from their constituents. ²⁴¹

Aligned against the nationalists were those more inclined to accept accommodation with Russia. This school of thought, concentrated in eastern and southern Ukraine, where economic and cultural ties with Russia were most pronounced, tended to regard Ukraine's security (and economic) future as closely linked to that of Russia's. This faction was not opposed in principle to the return of nuclear warheads to Russia or to a compromise settlement of the disposition of the Black Sea Fleet. ²⁴²

^{236.} Author's interview with senior member of Rukh, Monterey, CA, May 1993.

^{237.} See Zaborsky, 15-17.

^{238.} See Lvov Za Vilnu Ukrayinu, 8 April 1993, cited by Zaborsky, 15.

^{239.} The Party's recommendations are described by Zaborsky, 15–16.

^{240.} See Garnett, "Sources and Conduct of Ukrainian Nuclear Policy," 11–12. It is important to recall that the founders of Rukh initially defined the movement's goal as promoting the policies of perestroika and Gorbachev in Ukraine. See Jane Dawson, Activism and Apathy: The Rise and Fall of the Anti-Nuclear Power Movement in the Former Soviet Union (Unpublished book manuscript, 1994), 164.

^{241.} For a detailed analysis of the post-Chernobyl anti-nuclear movement in Ukraine and the role played by Rukh see Dawson, especially 140–171.

^{242.} Ibid., 9-10.

With public opinion divided on the issue of Ukraine's nuclear status, ²⁴³ and the country split into two divergent foreign policy orientations, it is not surprising that President Kravchuk sought to pursue a balancing act with respect to Ukraine's nuclear policy. On the one hand, he remained quite constant in his support for Ukraine's nuclear weapons-free future, and was prepared to take politically risky actions when necessary to move the denuclearization process forward. Famed for his knack of "walking between raindrops," however, President Kravchuk also was an astute enough politician to retreat when domestic political opposition became too heated. This was most evident in spring 1993, after the declaration of 162 parliamentarians indicated that attacks on his nuclear policy were not confined to the more nationalist parties. ²⁴⁴

The Rada, as a body, on several occasions also demonstrated its opposition to the positions on nuclear weapons advanced by the executive branch. At times this hard-line stance of the legislature may have increased President Kravchuk's bargaining leverage vis-à-vis Russia and the United States. This possible tactical effect, and the subsequent softening of parliamentary opposition to the Lisbon Protocol and the NPT in 1994, has prompted some analysts to suggest the operation of tacit cooperation between the executive and legislative branches in the implementation of Ukraine's nuclear diplomacy, if not the pursuit of a more coordinated "good-cop"–"bad cop" routine. 245

To be sure, the leadership in both the old and current parliaments maintained close relations with senior, executive branch officials. Many representatives from both branches of government had long been friends and/or comrades in the pre-independence period and continued to enjoy perquisites reserved for the ruling elite. Maintenance of the Communist tradition of concentrating control over most key decisions in the hands of the parliament's senior leadership also facilitated coordination of presidential and parliamentary action, although it by no means guaranteed it. 248

In reconstructing Ukrainian policymaking on nuclear issues, however, one must be cautious not to infer greater coordination or clarity of purpose than was probably the

^{243.} Public opinion was volatile on the issue of Ukraine's nuclear status. According to one widely cited poll, the proportions of respondents favoring Ukraine's retention of nuclear arms doubled from 18 to 36 percent between May 1992 and March 1993. See Roman Solchanyk, "Ukraine's Search For Security," RFE/RL Research Report (21 May 1993), 1–6. Other polls in the summer and fall of 1993 placed popular support for Ukraine's non-nuclear weapons status at between 35 and 50 percent, while identifying pronuclear weapons support at between 33 and 45 percent of respondents. Most of the advocates of Ukraine's retention of nuclear weapons were from Western Ukraine. See Zaborsky, 17–18.

^{244.} Serhiy Holovaty, a Ukrainian parliamentarian, told the author in May 1993 that had a vote been taken then on the Lisbon Protocol it would have been defeated by a margin of 10–20 percent. He also observed that if the Protocol were ratified in the future, the Rada would insist on reservations.

^{245.} The most compelling case for orchestration of legislative-executive policy is made by Garnett, "Nuclear Weapons and Nuclear Arms Control," 9–10.

^{246.} Ibid., 9.

^{247.} One US official who visited a sporting event in Kiev in fall 1994 was struck by the presence in the governmental box of both the victorious and defeated presidential candidates and by the sumptuousness of the half-time refreshments. Author's interviews in Washington, DC, November 1994.

248. Ibid.

case. While it is important to take note of the consultations between senior executive branch and Rada officials prior to the crucial February and November 1994 votes—consultations that must have reassured Presidents Kravchuk and Kuchma that their denuclearization policy was on course—there is no evidence available to suggest that the Rada's prior opposition was manufactured.

As noted previously, the debate over nuclear weapons policy in Ukraine frequently had more to do with inter-institutional conflicts and disagreements over the permissibility of accommodation with Russia, than over the merits of nuclear weapons per se. The lack of well-defined and deeply rooted convictions about nuclear weapons on the part of most parliamentarians also goes a long way in explaining why and when the Rada reversed course as quickly and completely as it did. 249 According to this interpretation of Ukraine's nonproliferation behavior, outside security guarantees, promises of denuclearization assistance, and compensation for nuclear warheads were important factors affecting, and perhaps even conditions for, the parliament's change of course in 1994. Even more significant, in terms of the timing of the parliament's actions, however, was the fact that by early 1994, much of the Rada had come to share President Kravchuk's view that the main threats to Ukraine's territorial integrity loomed from within, rather than outside, of the country. These acute threats, or situational variables in terms of the model of nonproliferation determinants, were in the form of economic collapse and Crimea's attempt to assert its independence from Ukraine. Neither of these threats was likely to be mitigated by nuclear weapons. 250

Conclusion

Table 3 summarizes the major findings from the preceding analyses of nuclear renunciation decisions by Belarus, Kazakhstan, and Ukraine. It is apparent from the summary table that although the three post-Soviet states shared certain nonproliferation tendencies, they also were responsive to very different proliferation pressures and constraints.

Prior studies have suggested that international security incentives most often drive nuclear weapons programs. These factors also were present in Ukraine and Kazakhstan, where policymakers weighed carefully the potential utility of nuclear weapons for the purpose of deterring external threats. In these two cases, however, the threats, at least when publicly articulated, were more general than specific and rarely were related to the operational aspects of nuclear weapons. Even in Ukraine, where policymakers could contemplate seriously asserting control over the weapons on their

^{249.} An alternative interpretation, held by some key US government officials, is that few Ukrainian parliamentarians ever had an interest in, much less held strong views about, nuclear weapons. According to this view, the Western media and government communities tended to overreact to a few loud voices in the Rada. Author's interviews and correspondence with US officials, November 1994 and March 1995.

^{250.} In the context of Crimea, NPT accession may have been perceived as constructive since under the terms of the Trilateral Statement it would trigger Russia's reaffirmation of Ukraine's territorial integrity.

^{251.} See William Potter, Nuclear Power and Nonproliferation, 176-179.

territory, nuclear arms were valued more for their bargaining chip potential than for any concrete deterrent function.

Studies of nuclear decisionmaking in other states generally point to the predominance of international over domestic pressures for, as well as constraints on, proliferation. A similar pattern is found in Belarus, which, in the absence of significant perceived external threats, moved without major controversy toward a non-nuclear weapons posture. International pressures and constraints also were the primary determinants of the decision by the Kazakhstani leadership to foreswear nuclear weapons. In Ukraine, however, the mix of proliferation pressures and constraints was more complex, and the halting movement toward NPT accession was linked closely to domestic (e.g., inter-institutional conflicts) as well as to international political developments. In Ukraine, more so than in either Belarus or Kazakhstan, situational variables in the form of domestic crises and the strengthening of security guarantees played an instrumental role in the nuclear decisionmaking process.

Nuclear renunciation decisions in each of the three successor states were heavily influenced by policy-maker concerns about the international and political costs that an indigenous nuclear weapons program would entail. Disincentives entailed not only the fear of political and economic reprisals (e.g., the loss of Western economic and technical assistance), but the opportunity costs of foregoing integration into global markets and international institutions. Although difficult to measure, the force of international norms, which found expression in US-Russian cooperation for nonproliferation, as well as nearly universal support for denuclearization of the post-Soviet states, also constituted strong disincentives. ²⁵³

These international disincentives were reinforced in each of the post-Soviet states by significant domestic economic and technical constraints. Key policymakers, almost without exception, recognized the enormous economic burden of nuclear weapons and the formidable technical obstacles that lay in the way of their operational maintenance and control. To the extent that this recognition appeared to be at odds with the pace of denuclearization, it usually could be explained in terms of efforts to extract some form of compensation for the return of nuclear weapons and/or the circumstances of domestic politics.

In these respects, the politics of nuclear decision making in Belarus, Kazakhstan, and Ukraine resemble the more general model for nuclear "fence-sitters" described by Etel Solingen. ²⁵⁴ In an insightful study of the domestic sources of nuclear policymaking,

^{252.} In my 1982 review of nuclear decisionmaking for 13 past and potential proliferators, international factors appeared as primary pressures in every case and as primary constraints in seven of the nine cases of countries for which major underlying constraints were discerned. The countries surveyed were Argentina, Brazil, Canada, France, India, Israel, the People's Republic of China, Pakistan, South Korea, Taiwan, the United Kingdom, the United States, and the USSR. See Potter, *Nuclear Power and Nonproliferation*, 177.

^{253.} The contribution of the "nuclear restraint regime" to US preventive diplomacy in the former Soviet Union is emphasized by Goodby. See especially 22–23.

^{254.} Etel Solingen, "The Domestic Sources of Nuclear Postures: Influencing 'Fence-sitters' in the Post-

About the Author

Dr. William C. Potter is a professor and Director of the Center for Russian and Eurasian Studies at the Monterey Institute of International Studies (MIIS). He is the author of Nuclear Profiles of the Soviet Successor States (1993), Soviet Decision making for Chernobyl: An Analysis of System Performance and Policy Change (1990), and Nuclear Power and Nonproliferation: An Interdisciplinary Perspective (1982); the editor of Verification and SALT: The Challenge of Strategic Deception (1980), Verification and Arms Control (1985), and International Nuclear Trade and Nonproliferation (1990); and the co-editor of Soviet Decisionmaking for National Security (1984), The Nuclear Suppliers and Nonproliferation (1985), Continuity and Change in Soviet-East European Relations (1989), and International Missile Bazaar: The New Suppliers' Network (1994). He also has contributed to numerous scholarly books and journals, and has served as a consultant to the Arms Control and Disarmament Agency, Lawrence Livermore National Laboratory, the RAND Corporation, and the Jet Propulsion Laboratory. His present research focuses on nuclear safety in the former Soviet Union, the emerging nuclear and missile suppliers, and nuclear proliferation in the Newly Independent States. He is a member of the Council on Foreign Relations and the International Institute of Strategic Studies, and serves on the Board of Directors of the BENS Nonproliferation Steering Group and the Board of Advisors of the Washington Council on Non-Proliferation. He also serves on the AAAS Committee on Science and International Security.