### Introduction:

A Framework for Analyzing the Evolution of China's Nonproliferation Behavior

Two of the great security challenges confronting the international community are China's rise and the proliferation of weapons of mass destruction (WMD).1 These issues will directly influence the future shape of the international system, the distribution of power within that system, and the probability of armed conflict-including the use of WMD-among major and lesser powers alike. This book addresses the intersection of these issues by examining the evolution of China's policies and practices on the nonproliferation of weapons of mass destruction. As China joined the international community beginning in the late 1970s, it became a new and significant actor affecting global nonproliferation affairs. China gradually transitioned from staunch opposition to participation in and advocacy of international nonproliferation efforts. This evolution is one of the most important and under-examined changes in China's international behavior since the beginning of the reform era. Examination of this policy shift provides insights into the sources and patterns of change in Chinese foreign policy, at a time when China is emerging as an influential global actor. These shifts in China's nonproliferation behavior also illuminate prominent policy and scholarly questions about China's rise in international security affairs, such as the extent to which China supports current international institutions and norms or seeks to revise them in support of its own vision of global order.2

This study documents and explains China's gradual integration into the global nonproliferation regime over the past two and a half decades. Contrary

to common beliefs and some recent analyses, China's increasing support for WMD nonproliferation has been both substantial and enduring. This shift in behavior, for a country historically known for its resistance to change in its long-standing foreign policy interests, demands explanation. This study puts forward an analytical framework that clarifies the complex set of external and internal forces that fostered the evolution in Chinese policies and practices on the nonproliferation of weapons of mass destruction.

The changes in Chinese behavior have evolved along three dimensions. The first has to do with China's official policy. During Mao's time, China remained outside, skeptical about, and largely hostile toward international nonproliferation agreements. Since the early 1980s, China has joined most major multilateral nonproliferation accords, and it has made a number of bilateral nonproliferation commitments. For example, China joined the International Atomic Energy Agency (IAEA) in 1984; signed the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 1992, and has been a member of the Zangger Committee since 1997; joined the Chemical Weapons Convention (CWC) when it first was opened for signing in 1993; signed the Comprehensive Nuclear Test Ban Treaty (CTBT) in 1996 (although it has yet to ratify the treaty); and became a member of the Nuclear Suppliers Group (NSG) in 2004. In 1991, China also agreed to the original guidelines of the Missile Technology Control Regime (MTCR), and it applied for membership in 2004. China's compliance with some of these commitments has been and remains problematic, but the degree of change since the early 1980s is notable and in some cases dramatic.

The second dimension relates to China's exports of WMD and related goods and technologies. As China expanded its formal commitments to non-proliferation, it has reduced the geographic scope, technological content, and frequency of its WMD-related exports. In the early 1980s, Chinese entities exported nuclear materials, equipment, and technologies that were not subject to international safeguards to would-be nuclear proliferants in Latin America, Africa, and South Asia. Most notably, China directly and extensively assisted Pakistan with its nuclear-weapons program. In the late 1980s, state-run companies in China began exporting a wide variety of ballistic and cruise missiles and missile-related goods to a number of customers in the Middle East, South Asia, and North Africa. A few countries received production assistance for ballistic and cruise missile systems as well. Today, Chinese exports of nuclear-related goods and technologies are few in number, dualuse in character, and under safeguards. Chinese exports of missile-related goods and technologies, however, continue. Although most of these exports

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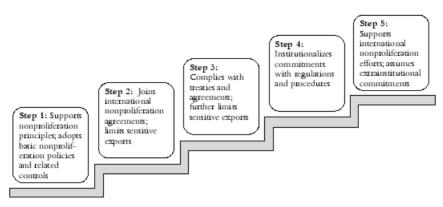


FIGURE 1.1 Evolution of China's nonproliferation policies, 1980-2004

involve dual-use goods and are transferred to just a few nations, they substantially aid key aspects of ballistic and cruise missile programs in such countries as Pakistan and Iran.

The third dimension relates to developments within the Chinese government. In the latter half of the 1990s, the Chinese government began to institutionalize its nonproliferation commitments by issuing detailed export-control regulations and establishing an interagency review system. In addition, a community of Chinese diplomats, scientists, military officers, and analysts involved in nonproliferation policymaking has emerged over the last two and a half decades. This cadre of experts has helped formulate and, more critically, implement China's nonproliferation commitments. The development of this community of specialists played a central role in all phases of the expansion of China's participation in international nonproliferation affairs.

The changes in these three areas have been neither quick nor sequential: They occurred gradually and sporadically beginning in the early 1980s, at times overlapping and at other times not. Yet despite the starts and stops, the direction of change in China's nonproliferation policies and behavior is clear: In the period from 1980 to 2004, China slowly adopted, implemented, expanded, and institutionalized a variety of nonproliferation commitments (Figure 1.1).

### Puzzling Through Chinese Nonproliferation Behavior

The gradual shifts in China's views and policies on nonproliferation over the last two and a half decades are puzzling because they often ran counter to the nation's economic and security imperatives—some of which were particularly

stark for Beijing. Throughout the reform-and-openness period, which began in the late 1970s and continues today, China's domestic priority has been to develop its economy and raise the living standards of the population. Beijing's primary goal in much of this period was to achieve wenbao, a level of development in which all Chinese citizens are clothed and fed.6 Its long-term goal was and remains to reemerge as a great power by growing what the Chinese refer to as their comprehensive national power. To free up resources for economic development in the 1980s, the Chinese government chose to make major reductions in military spending and to civilianize the nation's defense industries. Throughout the 1980s and 1990s, the government's assumption of nonproliferation commitments obligated state-owned defense enterprises to forgo the profitable sales of nuclear and missile-related materials, equipment, and technologies; at the same time, those enterprises were being encouraged to export materials, equipment, and technologies to compensate for sharp declines in government procurement. To many Chinese policymakers and industrialists, then, the concept of nonproliferation seemed to fly in the face of the Chinese Communist Party's (CCP's) imperative to foster economic reform and development.

China's growing commitment to nonproliferation was also at odds with elements of its foreign policy preferences and interests. Chinese leaders had to make hard choices about limiting sensitive military assistance to key friends and quasi allies in South Asia and the Middle East. In addition, many Third World nations criticized the principle of nonproliferation in the 1980s, claiming it was discriminatory; China's public support for that concept meant turning away from its decades-long association with the interests of developing countries. For the sake of nonproliferation, Chinese leaders were making decisions that from their vantage point appeared contrary to their long-standing foreign policy identity and interests—and they believed they were doing so for a Western-derived concept.

Another puzzling aspect of the evolution of China's nonproliferation policies has been its uneven character. The curve in a notional graph of this evolution would be neither steep nor linear; instead it would zig and zag as China sporadically expanded its nonproliferation commitments and reduced the scope of its sensitive exports. Although the overall trend has been positive, the erratic phases and trajectories in the evolution of China's nonproliferation behavior make that trend difficult to explain. Yet analyzing this process is particularly important to understanding and generalizing about the sources and manifestations of one of the most significant changes in Chinese foreign policy in the reform era.

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This book seeks to explain these puzzling and complex changes in China's nonproliferation behavior. Specifically, it focuses on questions like these: When, why, and how did China commit to regulating and limiting exports of WMD-related goods and technologies? Why was the Chinese government willing to bear the domestic and foreign policy costs of non-proliferation? To what extent has China met its nonproliferation commitments? And what does China's record suggest about its future compliance? Is China's compliance record a reliable indicator of Beijing's willingness to play by other international rules, like those governing environmental protection and trade?

## The Importance of Analyzing Chinese Nonproliferation Behavior

Understanding the changes in China's nonproliferation behavior is important for policymakers, analysts and scholars because it provides insights into current and future trends in Chinese foreign policy, in global nonproliferation, in U.S.-China relations, and in U.S. policy toward China. First and foremost, the evolution of Chinese policies and practices on nonproliferation is arguably one of the most significant developments in Chinese diplomacy in the reform era. It represents not only one of the most dramatic shifts in Chinese foreign policy in this period but also one of the most enduring. Understanding this process provides insight into the sources and patterns of change in Chinese foreign policy, which in turn helps in evaluating the implications of China's rise for contemporary international affairs.

Moreover, Beijing has become increasingly involved in managing global nonproliferation challenges, and its behavior will continue to be a major factor in determining the success of those efforts. China's position as a permanent member of the United Nations Security Council (UNSC) and its seat on the Board of Governors of the IAEA afford it much influence over the way those bodies respond to global nonproliferation threats. Since the mid-1990s, Beijing has taken several steps to further legitimize the NPT and the nuclear nonproliferation regime as a whole. Beijing continues to play a central role in managing the Six-Party negotiations over North Korea's nuclear-weapons program and is involved in the international effort to halt Iran's nuclear-weapons program. By contrast, China's continued willingness to export missile-related goods and technologies complicates international efforts to stop missile proliferation and foster regional stability in South Asia and the Middle East.

China still has the potential to play the spoiler in international nonproliferation affairs. In the past, China was a major supplier of materials, equipment, and technology for nuclear weapons, chemical weapons, and ballistic and cruise missiles. Even a limited reversal on certain pledges would undermine current nonproliferation efforts. Failure to understand the forces driving China's growing support of nonproliferation could precipitate such a retrenchment. Understanding the decisions China has made, then, is critical to adopting policies that deepen China's support for and involvement in the global nonproliferation regime.

Beyond nonproliferation questions, this evolution in Chinese policies and practices provides an important window into the broader sources of change in Chinese foreign policy. The shifts in China's positions on nonproliferation are useful cases for assessing the forces shaping China's international behavior. Is China acting solely on realpolitik motives, to gain relative economic and military power? Is it motivated by concern for its image and reputation? Is it motivated by concerns about its relationships with major powers, from which it derives material benefits? Or is some combination of these forces at work? The evolution of Chinese nonproliferation behavior may also be helpful in understanding China's negotiating behavior. Chinese responses to external pressure and sanctions, in the context of U.S.-China negotiations, provide further empirical data on Chinese negotiating strategies and how they interact with U.S. diplomatic tactics.

China's policies and practices on nonproliferation elucidate critical aspects of U.S.-China interactions as that relationship becomes more central to global stability. Nonproliferation has been a point of contention in U.S.-China relations for decades. U.S. policymakers have made nonproliferation an issue in bilateral relations, often a high-priority one, since the normalization of relations with China in 1979. Washington has actively sought to shape China's nonproliferation behavior through diplomacy, frequently at the highest levels of the relationship. Examining U.S. efforts and Chinese reactions to them reveals important dimensions of bilateral bargaining on hard security issues.

Furthermore, analyzing the role of U.S. policy in shaping China's non-proliferation policies can help in assessing the effectiveness of U.S. engagement strategies toward China. After the end of the cold war, engagement with China on economic, political, and security issues became the operative (but loosely defined) concept driving America's China policy. Washington used multiple tools and tactics to prod Beijing to assume and comply with non-proliferation commitments—as well as pledges on trade and human rights. Understanding U.S. policy tools, the context in which they are used, and the

degree to which they succeed, then, will inform future U.S. efforts to engage China on nonproliferation and other contentious bilateral topics. To date, there is surprisingly limited research on the success or failure of specific U.S. engagement strategies regarding security or economic issues. This study helps fill the gap.<sup>8</sup>

### Current Research on China and Nonproliferation

Two general bodies of literature address Chinese nonproliferation behavior. They are drawn from the fields of Chinese foreign policy studies, on the one hand, and nonproliferation studies, on the other.

### The Literature on Chinese Foreign Policy

Within the China-specific literature, there are two categories of research. The first is largely descriptive: It documents past and current trends in Chinese nuclear and missile exports, but offers few explanations for those trends. The second analyzes China's motivations for its proliferation activities and for assuming nonproliferation commitments. In this category is research on Chinese arms control policies as well as on key nonproliferation policy decisions, including the decision in 1991 to adopt the MTCR Guidelines and the decision in 1992 to sign the NPT. The focus in this study is on the second set of writings and the eclectic mix of arguments it offers to explain China's proliferation and nonproliferation behavior.

This literature has several weaknesses. One problem is that much of it examines Chinese actions as individual events at specific times; few of these studies compare types of behavior over different periods. Most are partial explanations based on analysis of a narrow set of Chinese actions. In the 1990s, Western analysts offered just a few broad explanations for China's gradual willingness to assume limited controls on WMD-related exports. 12 There are several difficulties with these explanations. First, they are gleaned mainly from analyses of China's decision to accede to the NPT in the early 1990s. Though useful in understanding that particular decision, they fail to explain other changes in China's nonproliferation behavior, specifically its mixed record of compliance. Also, the literature does not distinguish between explanations that apply to China's nuclear nonproliferation policies and those that apply to its missile nonproliferation decisions, which at times varied greatly. Nor does the literature evaluate the relative importance of the explanations in different circumstances. In other words, do all of the explanatory variables apply to all of China's commitments to nuclear nonproliferation or just to certain

pledges at certain times? And do they also apply to China's policies on missile nonproliferation?

A second major shortcoming with the current research is that none of it reflects a systematic and comprehensive analysis of the changes in Chinese nuclear and missile proliferation activities over time and at different stages of their evolution. Instead, much of the literature makes broad generalizations about both the growth of China's nonproliferation commitments and its continued exports based on straight-line projections of China's past behavior. The generalizations inherent in straight-line projections confuse key differences between China's support for nonproliferation norms (i.e., its willingness to change its behavior), on the one hand, and the government's ability to control exports, on the other. These arguments also obscure other important distinctions—for example, those between China's policymaking on nuclear versus missile nonproliferation.

Research on specific nonproliferation policies also suffers from certain inherent limitations. It often relies on single-factor explanations and so fails to take into account the multiple internal and external influences on Chinese decision making. And because it focuses on short periods, it fails to examine how policies have changed over the last two and a half decades.

A third broad limitation of current research is simply that much of it is dated: It was written before China adopted new policies and promulgated a series of export-control regulations in the late 1990s and early 2000s. Current research also predates organizational changes that have improved the government's ability to regulate sensitive nuclear exports. The need for new research on Chinese missile exports is even greater. For example, existing work by John Lewis and Hua Di is based on data from the late 1980s and early 1990s. <sup>13</sup> Since then a number of key developments have taken place—including China's adoption of new missile nonproliferation policies, reorganization of its defense industry, changes in its security environment, and new diplomatic priorities—and their implications have yet to be assessed. <sup>14</sup>

Fourth, some of the research on changes in Chinese nonproliferation policy asserts a role for U.S. diplomacy but offers minimal evidence to support that claim. For example, Robert Ross, in his work on U.S. sanctions on China, argues that U.S. economic penalties helped shape Chinese nonproliferation policies in the 1990s. But Ross largely fails to explain the reasons driving China's responses to U.S. pressure. Perhaps more important, none of this research attempts to weigh the U.S. factor against other factors to determine their relative influence on the changes in Chinese behavior. In particular, there is very little research on the role of U.S. policy in constraining Chinese

missile exports.<sup>17</sup> The small body of existing research focuses on specific periods and fails to explain the evolution of Chinese policies and U.S. influence on that process.

### The Nonproliferation Literature

The vast majority of current nonproliferation studies address just two questions: Why do states acquire, abandon, or refrain from developing nuclear weapons? And what are the international security implications of proliferation, especially nuclear proliferation? Most research focuses on the first question regarding the dynamics of the demand side of nuclear proliferation. <sup>18</sup>

Much less work has been done on the supply side of proliferation/nonproliferation questions: Why do nations export WMD goods and technologies, and why do they stop? There is no theory of supply or restraint in the literature on nonproliferation. The limited work on supply-side proliferation is not particularly helpful in explaining Chinese behavior. That research tends to document trends in nuclear trade, omitting missiles, and to examine specific supplier nations. It largely ignores comparisons across countries as well. These case studies also focus on traditional nuclear suppliers, not second-tier suppliers. In addition, much of this research is outdated; and most of what is not outdated fails to offer analyses or theories that can be generalized to international security challenges today.

More recent publications on supply-side proliferation challenges are heavily oriented toward analyzing the sources and patterns of WMD-related exports from the former Soviet republics, particularly managing the problem of "loose nukes" after the fall of the Soviet Union. 20 Current concerns about illicit nuclear- and missile-related exports from Pakistan and other second-tier suppliers appear to be renewing interest in supply-side proliferation questions; but the literature on these questions remains limited. 21

In contrast to some of the newest research on demand-side nuclear proliferation, significantly less analytical rigor has been applied to what motivates some states or state-supported actors to sell WMD materials and technologies and others to limit these transfers. The literature has not addressed questions like these: Why do supplier states engage in WMD proliferation, especially when proliferation could eventually compromise their own security interests? Who has a voice in decision making in supplier states? What role do domestic constituencies and/or bureaucratic politics play in such decisions? What makes supplier states decide to limit their exports of WMD-related goods and technology and assume nonproliferation commitments? What factors shape suppliers' compliance with their nonproliferation pledges? Are the answers

to these questions necessarily country-specific, or can they be generalized to other cases? This study begins to establish an empirical basis for answering these important questions.

# A New Framework for Analyzing China's Nonproliferation Behavior

A new analytical structure is needed to address the limitations of the current literature and to explain the complex and puzzling patterns of change in China's nonproliferation behavior since the early 1980s. This book provides such an analytical framework. The arguments here are based on a controlled comparison of two multidimensional case studies that use process tracing to evaluate the development of China's policies and practices on nuclear and missile nonproliferation. The book also includes two analyses that further test and document the study's claims by examining China's responses to U.S. missile-defense policies and the development in China of a community of arms control and nonproliferation specialists. Ultimately, the research identifies several independent variables that explain the uneven evolution of Chinese policies on nonproliferation, and documents their relative influence. This study aims to forge an analytical framework that is causal, falsifiable, and generalizable.

The following sections outline the study's analytical framework, first identifying four independent variables, then explaining the multiple relationships among the four variables in assessing their ability to explain the changes in China's nonproliferation behavior.

#### The Variables

The four independent variables are U.S. policy intervention, the degree of China's acceptance of nonproliferation norms, China's foreign policy priorities, and China's institutional capacity.

U.S. Policy Intervention The first variable encompasses all U.S. policy actions since the early 1980s that have contributed to China's growing support for nonproliferation. This variable is comprised of four broad components: economic incentives and disincentives, and political incentives and disincentives. The United States has used these tools, at different times and to varying degrees, to prod China to expand its nonproliferation commitments and to limit sensitive exports.

Among the economic incentives the United States has offered China are access to U.S. civilian and dual-use technologies, trade, aid, and investment. Economic disincentives have included the threat and imposition of trade and investment-related sanctions. For example, at times the United States has restricted China's access to U.S. civilian technology or has prohibited U.S. entities from launching satellites on Chinese rocket boosters. Both have played important roles in shaping China's nuclear and missile nonproliferation decisions in the 1980s and 1990s.

The political incentives the United States has offered China include meetings with high-level U.S. officials (e.g., presidential summits), the promise of improved bilateral relations, and possible changes in key U.S. policies with relevance to China (e.g., U.S. policies toward Taiwan). Political disincentives have taken the form of démarches, public reproaches, and the opprobrium that often resulted from the U.S. imposition of sanctions. In addition, Washington has regularly signaled Beijing that continued proliferation is a significant barrier to stable and productive U.S.-China relations.

China's Acceptance of Nonproliferation Norms The second variable is the degree to which China recognizes and accepts a particular nonproliferation norm. For example, does China accept the existence of global norms against both nuclear and missile proliferation? That acceptance can reflect the leadership's view that various nonproliferation commitments contribute to China's foreign policy and national security interests. China's acceptance of nonproliferation norms also indicates the government's willingness to marshal the nation's political and economic resources to comply with specific commitments.

In broad terms, China's acceptance of nonproliferation norms over the past few decades has been influenced by at least four factors: China's assessment of international support for individual norms (i.e., their perceived universality), its perception of trends in global arms control and nonproliferation, the form and function of the treaties and agreements that comprise a specific norm, and China's historical experiences, such as in past combat and warfare.<sup>22</sup> Documenting China's acceptance of nonproliferation norms is not an easy task because few policymakers in China talk in social science terms. This study evaluates the acceptance variable by examining the arguments set forth in Chinese publications and official statements, and in the government's positions on the NPT and other major nonproliferation agreements.<sup>23</sup>

China's Foreign Policy Priorities The third, and perhaps broadest, variable is China's foreign policy priorities. This factor encompasses both China's assessment of the relative importance at certain times of its bilateral relationships with the United States, Iran, Pakistan, or India, and China's broader foreign policy goals, including fostering a secure environment that is conducive to

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economic development, reducing its international isolation, and building its reputation as a major power that acts responsibly. At different times and on varying issues, China's foreign policy priorities have shaped Beijing's willingness to commit to nonproliferation agreements, to comply with them, and to expand its commitments. For example, China's perception of its strong stake in stable U.S.-China relations and its hopes for greater bilateral cooperation have often been important influences on Beijing's willingness to limit sensitive exports in response to U.S. diplomacy. At other times, China's long-standing commitment to checking India's power has made Beijing reluctant to limit its nuclear and missile cooperation with Pakistan and, in some cases, has led China to violate its bilateral nonproliferation pledges to the United States.

China's Institutional Capacity China's institutional capacity is the fourth variable examined in this study. In contrast to the others, this variable serves primarily as a measure of the government's ability to understand and implement its various nonproliferation commitments. Institutional capacity in this study has two dimensions: institutional capabilities and institutional incentives. Institutional capabilities refers to the bureaucratic structures (e.g., laws and regulations), resources, and organizational dynamics that enable the government to control exports by state and nonstate actors. This dimension incorporates the interactions between China's community of nonproliferation experts, which tended to support expanded controls, and the uniformed military and the defense industries, which were often skeptical of nonproliferation commitments. Institutional incentives refers to the economic incentives that led government entities and private enterprises to export nuclear- and missile-related items, often despite government prohibitions.

China's institutional capacity played an important role in explaining the uneven evolution of China's nonproliferation behavior. Institutional capacity in China has grown, but its rate of growth has varied between the nuclear and missile case studies addressed in this volume. These variations have directly affected the Chinese government's ability to comply consistently with its commitments, and the U.S. government's ability to understand Chinese intentions on nonproliferation questions.

### Evaluating the Variables

The four variables—U.S. policy intervention, China's acceptance of nonproliferation norms, its foreign policy priorities, and its institutional capacity—have all contributed to change in China's nonproliferation policies and practices. But it is their relative influence—assessed across cases and over time—that

fully illuminates the sources, mechanisms, and patterns of change in China's nonproliferation behavior since the early 1980s.

Although the variables interact in a number of ways, one dominant relationship explains much of the change in China's nonproliferation policies and practices: U.S. policy intervention functioned as an independent variable in shaping Chinese nonproliferation behavior, with the other three factors acting as intervening variables, or scope conditions, that enabled and constrained U.S. policy tools. This study argues that U.S. policy intervention played a significant and enduring role in fostering China's increasing commitment to nonproliferation. America's use of rewards and sanctions repeatedly led China to expand its commitments and to comply with them. In fact, U.S. policy intervention is evident in most of the major shifts in China's nonproliferation behavior over the past two and a half decades.<sup>24</sup>

The study identifies six ways in which U.S. policy intervention, as the independent variable, influenced the development of China's policies and practices on nuclear and missile nonproliferation: U.S. policy (1) sensitized China to U.S. and international concerns about the proliferation of weapons of mass destruction; (2) encouraged China to accept nonproliferation principles and join international nonproliferation organizations; (3) coerced China into complying with its nonproliferation commitments; (4) was a catalyst for China's institutionalization of those commitments; (5) pressured China to adopt commitments to nonproliferation that went beyond the requirements of international agreements; and (6) fostered the development in China of a community of arms control and nonproliferation specialists.<sup>25</sup>

The three other variables—China's acceptance of nonproliferation norms, its foreign policy priorities, and its institutional capacity—most often functioned as scope conditions. That is, one or more of these variables at times increased the effectiveness of U.S. policy tools and at other times constrained their effectiveness. Thus, these variables explain how, when, and why U.S. diplomacy was or was not successful at shaping Chinese nonproliferation behavior. In this role, these three variables seldom uniquely or independently explain changes in Chinese proliferation policies; instead they commonly operated in concert with or against U.S. policy.

These three variables also capture the general parameters of negotiations among the Ministry of Foreign Affairs (MFA), the military, the defense industry, and other Chinese bureaucracies about adopting or rejecting and complying with or violating various nonproliferation commitments. In this sense, they encompass many of the competing interests in China's various non-proliferation decisions. That the relative importance of the three intervening

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variables shifted over time and across cases helps explain the decidedly nonlinear and sporadic expansion of China's nuclear and missile nonproliferation policies. This, in turn, explains the mixed effectiveness of U.S. efforts to limit China's proliferation activities.

The role of the independent and intervening variables in shaping China's nonproliferation behavior is particularly complex because of the many variations in them over time and across cases. The relationship between the independent variable and the intervening variables also shifted as Chinese policies evolved: Constraining factors became enabling ones and vice versa.

Two patterns of interaction were particularly important. First, U.S. policy intervention was most effective during periods when China placed a high value on improving U.S.-China relations to further its economic and foreign policy goals. <sup>26</sup> When Chinese leaders believed a positive relationship was valuable (with corresponding expectations of material benefits for China), Beijing responded to U.S. nonproliferation diplomacy—or at least claimed to have done so. At those times, the United States was able to sensitize Beijing to the dangers of its proliferation activities, to catalyze policy shifts, and to coerce compliance and further commitments. Absent Beijing's interest in stabilizing or growing the political and economic dimensions of its relationship with the United States, U.S. policy intervention seldom had initial or lasting influence.

A second important pattern is that as acceptance of a nonproliferation norm expanded, it contributed to the government's willingness to pay the costs of assuming and implementing nonproliferation pledges, which often included compromising specific economic and foreign policy interests for the sake of nonproliferation. Over the past few decades, normative acceptance most often functioned as an internal driver for compliance and, eventually, as a force for assuming new commitments—even absent U.S. policy intervention. This variable was particularly important in driving improvements in China's compliance behavior because it explained the government's gradual willingness in the 1990s to bear the costs involved in strictly interpreting its commitments. In this sense, normative acceptance was necessary for consistent compliance; it was not essential to China's making an initial nonproliferation commitment. Absent normative acceptance, changes in Chinese nonproliferation behavior were still possible, but they required external stimulation (most often from the United States), were incremental, and often involved backtracking and serial compliance problems. As normative acceptance on a specific nonproliferation issue became common within Chinese policymaking circles, it increasingly played a catalytic role, acting as an independent internal force pushing for greater nonproliferation controls and related policymaking

and, in some instances, seemed to replace the motivating role of U.S. diplomacy and other external influences.

### A Feedback Loop

There is an important relationship between the first explanatory variable (U.S. policy intervention) and the three intervening variables. It has a causal dimension of sorts. U.S. policy intervention, in addition to promoting the shifts described above in Chinese nonproliferation behavior, encouraged normative acceptance, shaped Chinese foreign policy preferences, and bolstered China's institutional capacity. Thus the three intervening variables were not just autonomous variables; at times they were shaped by U.S. policy intervention and associated bilateral bargaining. That the first variable influenced the other three further attests to its role as a significant and enduring influence on Chinese behavior. By sensitizing China to global nonproliferation threats and encouraging acceptance of nonproliferation commitments, U.S. diplomacy jump-started internal debates that eventually led to normative acceptance among Chinese leaders and officials. Moreover, U.S. policy actions and U.S.-China nongovernmental interactions contributed to the expansion of China's institutional capabilities to understand and implement its nonproliferation pledges.

These developments collectively produced a feedback loop among the four variables, a dynamic that enhanced China's support for nuclear and missile nonproliferation. U.S. policy intervention sensitized China to proliferation threats and focused its attention on nuclear and missile nonproliferation. That led to China's initial consideration of nonproliferation norms and enhancements in institutional capacity, which created domestic conditions that were increasingly receptive to future behavioral shifts. Subsequent U.S. policy actions, in turn, engendered further changes in Chinese nonproliferation policies while also deepening normative acceptance and triggering additional improvements in institutional capabilities. These positive changes in the internal variables subsequently enabled U.S. policy to push China's nonproliferation policy in new directions. In limited instances, these dynamics created self-sustaining forces within China for expanding both domestic nonproliferation controls and Beijing's role in international nonproliferation diplomacy.

#### Partial Exceptions

The three intervening variables—China's acceptance of nonproliferation norms, its foreign policy priorities, and its institutional capacity—did not always function as factors that enabled or constrained U.S. policy intervention. In a limited number of instances, they acted as independent variables.