

Sanctioning North Korea: The Political Economy of Denuclearization and Proliferation

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Abstract

As a small country dependent on foreign trade and investment, North Korea should be highly vulnerable to external economic pressure. In June 2009, following North Korea's second nuclear test, the UN Security Council passed Resolution 1874, broadening existing economic sanctions and tightening their enforcement. However, an unintended consequence of the nuclear crisis has been to push North Korea into closer economic relations with China and other trading partners that show little interest in cooperating with international efforts to pressure North Korea, let alone in supporting sanctions. North Korea appears to have rearranged its external economic relations to reduce any impact that traditional sanctions could have.

Given the extremely high priority the North Korean regime places on its military capacity, it is unlikely that the pressure the world can bring to bear on North Korea will be sufficient to induce the country to surrender its nuclear weapons. The promise of lifting existing sanctions may provide one incentive for a successor government to reassess the country's military and diplomatic positions, but sanctions alone are unlikely to have a strong effect in the short run. Yet the United States and other countries can still exercise some leverage if they aggressively pursue North Korea's international financial intermediaries as they have done at times in the past.

Keywords: sanctions, North Korea, nuclear weapons

JEL Codes: F51, P33, P30

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Authors' note: The authors would like to thank the Smith Richardson, MacArthur, and Korea foundations for financial support. Jennifer Lee provided considerable research assistance.

The passage of United Nations Security Council Resolution (UNSCR) 1874 on June 12, 2009 marks a new phase in the development of the North Korean nuclear crisis. Until that time, the dominant view was that North Korea was probably still engaged in a protracted negotiation. The missile and nuclear provocations of 2006 were followed relatively quickly by the signing of important roadmap agreements in February and October 2007. Similarly, the haggling over the parties' respective commitments under these two agreements over the course of 2008 and the conflict over a verification protocol could be interpreted as a tactical dance. Although the last round of the Six Party Talks in December of 2008 ended in a stalemate, the Obama administration was publicly committed to a resumption of the negotiations and a broader strategy of engagement.

Since the missile and nuclear tests of early 2009, however, the mood with respect to North Korea's intentions has turned dourer. Hawks have long argued that North Korea's provocations and delays were simply a means to buy time to secure a credible nuclear deterrent, including the means to deliver it. Public statements by North Korea appear to validate this view. In an early test of the Obama administration, North Korea stated that it would only relinquish nuclear weapons after relations with the United States had been normalized. Following the April 5 test of a multistage rocket, the United Nations Security Council (UNSC) responded quickly through a Presidential Statement that moved to implement sanctions provisions under the earlier UN Security Council Resolution 1718, passed in October 2006 following the country's first nuclear test. North Korea, claiming that the Security Council's action was a violation of its sovereignty and even an act of war, withdrew from the Six Party Talks, announced its intention to reprocess spent fuel rods into fissile material, and ultimately undertook a second nuclear test on May 25. When South Korea responded by joining the Proliferation Security Initiative, North Korea announced that it would no longer be bound by the terms of the 1953 armistice. Following the passage of UNSCR 1874 in June, North Korea once again escalated, claiming that it would weaponize all recently reprocessed plutonium, commence a uranium enrichment program, and provide a "decisive military response" to any "blockade" against the country.

In seeking to interpret North Korean actions, it is important to be frank about how little we know. There are ample reasons to believe that the country's behavior is driven not by the external environment but by complex domestic developments that include Kim Jong-il's health, succession struggles, shifts in the power of internal factions, and economic changes that have weakened the government's hold over a fraying socialist system. We should not believe that fine-tuning incentives—in the form of either carrots or sticks—will necessarily succeed; much will depend on developments in Pyongyang as well.

However, whether the five parties (the United States, China, Japan, South Korea, and Russia) renew the push for a negotiated settlement, ratchet up external pressure, or both, it is useful to have some understanding of recent changes in the North Korean economy and its external economic relations. These

changes provide important clues to North Korea's intentions and are likely to affect the use of either sanctions or further economic inducements.

We make two major points, one having to do with North Korea's domestic political economy, and the second with its foreign sector. First, there is strong evidence from as early as 2005 that the leadership has become increasingly wary of economic reform. Our assessments of the causes of this shift are necessarily speculative. The onset of the nuclear crisis and a more "hostile" international environment clearly do not favor reform, but important domestic dynamics are in play as well. The leadership has clearly reverted to a more control-oriented—even Stalinist—approach to economic policy.

This set of policy changes has important implications for our understanding of North Korean intentions as well as for strategies of economic engagement. General economic inducements, such as the lifting of sanctions, entry into the international financial institutions (IFIs), or more-formalized regional cooperation, have not been as significant for the North Korean leadership as proponents of engagement believed they would be. The regime has always favored targeted transfers that can be directly controlled by the leadership, such as food aid, heavy fuel oil shipments, or—even better—straight cash payments such as those secured from the 2000 North-South summit and the Kaesong Industrial Complex and Mt. Kumgang projects. But if anything, the current appeal of general economic inducements is even less than it has been historically. Moreover, the prospect that reform would moderate North Korean behavior—a core assumption of the engagement approach—has proven a chimera.

The second, and apparently contradictory, set of observations concerns the evolution of North Korea's trade and investment. Despite the recent antireformist turn and the constraints of the second nuclear crisis, North Korea has in fact become more economically open. However, the geographic composition of North Korea's trade has shifted quite fundamentally. Trade with Japan has virtually collapsed after Tokyo implemented an embargo. Trade with Europe stagnated following the onset of the nuclear crisis, while trade, investment, and particularly aid from South Korea fell following the inauguration of Lee Myung-bak and especially in 2009. At the same time, North Korea's dependence on China has grown dramatically in both absolute and relative terms. In addition, North Korea has sought out other partners that do not pose sanctions risks or with whom North Korea's nuclear and missile interests are aligned, most notably Iran, Syria, and potentially Egypt.

These shifts in trade patterns have important implications for the recent UN sanctions effort and any complementary actions that the United States or other countries might choose to take in the aftermath of the May nuclear test. North Korea's changing trade patterns make it much more difficult, although not impossible, to pursue an effective sanctions strategy. In the absence of robust cooperation from China, policy would have to target North Korea's international financial ties or even employ the direct interdiction of trade by sea or air; UNSCR 1874 takes important, but by no means decisive, steps in this direction.

Our discussion proceeds in four stages. In the first section, we provide a brief overview of the development of the North Korean economy from the collapse of the Soviet Union to the onset of the second nuclear crisis. We emphasize the impact of the great famine of the mid-1990s on what we call “marketization from below,” the tentative policy changes that culminated in the economic reforms of July 2002, and the evidence of “reform in reverse” since 2005.

In the second section, we trace the evolution of the external sector, noting the ongoing ability of the country to finance a substantial current account deficit and the steady diversification of its foreign economic relations. Of particular interest is the growth in North Korea’s trade and investment with other developing countries, most notably in the Middle East, and the related concerns about proliferation activities.

We then examine in greater detail the changing economic relationship with China and South Korea following important political breakthroughs with both countries in 2000–2001. We show the growing weight of China in North Korea’s external economic relations, the increasingly commercial nature of these ties, and the minimal impact the missile and nuclear tests of 2006 had on the growth of China–North Korea trade and investment. These patterns contrast with North–South economic relations, which have been highly political under South Korean presidents Kim Dae-jung, Roh Moo-hyun, and Lee Myung-bak.

In the final section, we provide an overview of the sanctions imposed under UNSCR 1874. The resolution sent an important political signal and included several ground-breaking precedents, such as a right to monitor, and perhaps interdict, suspected arms sales. Nonetheless, the sanctions are crafted cautiously and are likely to have limited effect in the absence of complementary actions by the five parties, including not only additional constraints but the olive branch of a return to negotiations.

THE NORTH KOREAN ECONOMY: 1990–2009

Following the collapse of the Soviet Union, the North Korean economy went into a steep decline, culminating in one of the most destructive famines of the twentieth century (Haggard and Noland 2007a). As many as one-million people—five percent of the entire population—perished in the mid-1990s. The causes of this collapse were multiple, including long-run distortions associated with the socialist growth model as well as the lost opportunities for reform that occurred as a result of the first nuclear crisis of 1993–94. However, the failure to adjust to the rapid decline of Soviet support is the ultimate reason for the collapse of the North Korean economy in the middle of the decade. When the Soviet Union, then Russia, abandoned friendship prices and aid in favor of hard currency payments for its exports, both the industrial and agricultural sectors of North Korea went into a secular decline. The floods of 1995 were only a final shock, but they cannot be held solely or even primarily responsible for the economic collapse and famine, North Korean arguments to the contrary.

In response to the crisis, the North Korean economy began to undergo a profound transformation that we call “marketization from below.” Households, work units, local party organs, government offices, and even military units all scrambled for food. In doing so, they initiated barter and trade and ventured into new, monetized economic activities. Markets began to play a more important role both in generating household income and as a source for retail purchases, including food and eventually a wider range of consumer goods.¹

A 2008 survey we conducted of 300 North Korean refugees living in South Korea provides insight into the extent of this process of informal marketization. We asked respondents whether, in addition to their regular work, they engaged in other economic activities. 70.9 percent said they had engaged in trading, 8.9 percent in private services, 18.9 percent in “other” business activities, and 14.9 percent in August 3 units, entrepreneurial businesses run out of the traditional state-owned enterprises. A surprising 69 percent of all respondents said that they secured over 50 percent of their income from private business activities, and 46 percent said they secured *all* of their income from private activities.

The results for household income were mirrored on the expenditure side: Less than 10 percent of the respondents in our survey said that their primary source of food at the time they left North Korea was the state-run public distribution system (PDS) of quantity rationing or their workplaces. Moreover, there is little difference in this response across different dates of departure; if anything, reliance on the market appears to have gone up over time. The two most common responses by far to our questions about respondents’ primary source of food were that respondents bought food on the market (37.0 percent) or that they grew it themselves (27.9 percent).

At the peak of the famine and in its immediate aftermath the regime had little choice but to allow this marketization from below. The crucial question was whether the government would ratify these developments with complementary policy reforms. In 1998 the leadership introduced constitutional revisions that tentatively broadened the space for economic activity outside direct state control. External political developments provided some additional hints of an economic opening; these developments included the 2000 North-South summit, the resumption of high-level visits with China in 2000 and 2001, and the Koizumi summit of 2002. These important diplomatic developments appeared to confirm that political engagement and economic reform were mutually reinforcing. A relaxation of tensions provided the space for the domestic reform effort, but a greater focus on the necessity of reform also motivated the leadership to broaden its foreign political and economic relations.

The regime effectively ratified these developments with a set of policy changes announced in July 2002. There are ample grounds for criticizing this reform as a limited and flawed effort; we discuss it in

1. The development of a market for food was also aided by substantial diversion of the large inflow of food aid that began to arrive beginning in 1995.

more detail elsewhere.² Nonetheless, it did decriminalize some of the market activities that had sprung up during the famine (for example, by allowing the continued growth of controlled markets) and began or continued incremental reforms of the cooperatives (for example, by reducing the size of work teams) and of state-owned enterprises (for example, by granting greater managerial autonomy).

Yet the timing of the reform proved highly inauspicious. Within months of the launching of the 2002 reforms, the second nuclear crisis had broken. In the context of improving harvests and relatively generous aid from South Korea and China, an internal debate over the merits of reform continued through 2005, primarily in the form of controversy over the weight that should be given to the military and heavy industrial sectors as opposed to light industry and agriculture (Carlin and Wit 2006). However, by 2005 signs had begun to emerge that economic hardliners were winning the policy battles. We consider briefly four examples of “reform in reverse”:

- Developments in the food economy, including efforts to revive the PDS;
- The restrictive response of the government to the development of markets;
- The management of border trade;
- Government statements with respect to overall development strategy, most notably in the joint New Year’s editorial of 2009.

Possible explanations for these changes are as diverse as for North Korea’s recent behavior with respect to the nuclear issue. Kim Jong-il’s unveiling of the concept of “military-first politics,” or *songun*, set a new ideological course for the country, signaling that an emphasis would be placed on the military as both a model and institution. Military-first politics also had a tangible economic dimension, tilting the overall allocation of resources in favor of the military and the military-industrial complex and even identifying military industries as a growth sector.³ Arguably, the external environment was also to blame. The “hostile policy” of the Bush administration was certainly not conducive to reform or reformers, although this argument became less compelling as the second Bush administration belatedly embraced negotiations, and it made even less sense following the election of Barack Obama. Moreover, it is important to recall that, North Korean claims notwithstanding, the external environment was not entirely hostile. To the contrary, the unconditional aid provided by South Korea and China provided the government with resources that could be used to reconstitute state control over the economy.

We are more inclined to the theory that the top leadership and/or conservative forces within the regime came to believe that marketization from below was corrosive to state power. The leadership does

2. See Haggard and Noland (2007a) 176–191.

3. For an analysis of the military’s expanding role in the North Korean economy under the *songun* policy see Toloraya (2008). Toloraya argues that the military opposes economic reform and marketization. Yet the existing military leadership could be a beneficiary of reform and opening. North Korea could experience a large “peace dividend” as part of its million-man army was demobilized and put to work on civilian projects such as the rehabilitation of infrastructure. At least some of the military leadership could reinvent themselves as businessmen. See Noland (2000) 302–3 for a quantitative assessment.

not appear confident—as the Chinese Communist Party was—that it can maintain a political monopoly while simultaneously pursuing economic reform. As will be seen, a recurrent theme of recent economic policy is the revealed preference to reassert control over an economic order that appears to be spinning out of the central government’s control.

The Breakdown and Reconstitution of the Public Distribution System

Prior to the great famine of the mid-1990s, the government set production quotas for the cooperatives, provided farmers with rations at the time of the harvest, and distributed food to urban residents at nominal prices through the PDS; markets played virtually no role in the allocation of grain. During the famine, the PDS broke down, and households relied on the market, barter, private farming activities, and other private activities such as foraging. The influx of foreign aid in the late-1990s provided the basis for a partial revival of the PDS, as donors had no independent channels for distributing food. But the process of marketization continued apace driven by partial reforms in the food sector, such as allowing some private plots and expanding the role of farmers’ markets. The diversion of food aid and cooperative output into the market and growing commercial trade in food across the Chinese border also contributed to the growth of market activity.

However, the government has periodically tried to reinstate the PDS and to exercise control over the market for food and grain in particular. In August 2005 the government decided to reinstate the PDS as of October 1 and to ban private trading in grain. These actions were taken in conjunction with the announcement that the World Food Program (WFP) would be asked to leave North Korea. The ability of the government to implement this policy varied across the country, and eventually the government was forced to quietly shelve the policy, as PDS sites were not able to meet targets and markets for grain began to reemerge. Nonetheless, the effort to revive the PDS involved increased efforts to extract food from the cooperatives, even in contravention of the rules determining the disposition of cooperative farm output.

Such moves intensified in the wake of floods in 2006 and particularly 2007. First, the government increased production quotas for the next crop cycle, including through exactions earmarked for the military. Second, the government began to crack down on “embezzlement” and “corruption” on the part of cooperative managers, even when such practices probably reflected an effort on the part of cooperative managers to protect their members. Third, new restrictions were placed on private plots and cooperative leasing of land in an effort to redirect effort back into cooperative work.

Through a reconstruction of aggregate food balances, an analysis of prices, and direct observation by nongovernmental organizations (NGOs) and WFP observers, we now know that the food situation in North Korea was more precarious in 2008 than at any time since the great famine (Haggard and Noland forthcoming). These shortages help explain the willingness of the North Korean government to engage in

negotiations over a large food aid package with the United States, concluded in May 2008, and may have influenced its willingness to negotiate over the broader nuclear issues as well. But in other respects, the 2007–08 crop cycle showed the continuing preference for controls and resistance to outside involvement in the food economy, most clearly visible in the decision in May 2009 to terminate the 500,000 metric ton food aid program with the United States.

Responding to Markets and Traders

The breakdown of the PDS and the emergence of markets pose important challenges for the government not only vis-à-vis the countryside but in the urban and industrial sectors as well. The first is the migration of labor out of the state sector and into market activities, and the corresponding weakening of the state-owned enterprise sector. The second is the breakdown of what is left of the socialist social contract. Households dependent on the market have been forced to pay rapidly rising prices. North Korea's food problems have increasingly come to resemble those in market economies, in which prices, rather than aggregate supplies, are the determinants of hunger and malnutrition; this was particularly true in the spring and summer of 2008 as we show elsewhere in some detail (Haggard and Noland forthcoming).

A final problem posed by the markets is an informational one. General markets have been strengthened by the burgeoning cross-border trade with China in consumer goods. This trade has revealed the higher quality of Chinese and other foreign products. But it has also included a wide array of cultural products that directly undermine ideological control and the government's monopoly on information: from small televisions capable of receiving Chinese broadcasts in border areas to South Korean music videos and DVDs and even mobile phones. The campaign against the market is not just economic in nature but has a strong ideological component, emphasizing the subversive antisocialist nature of market activities.

As a result of these challenges, the recent effort to exercise control over the market has not been limited to food, but has included a wider assault on market activity. This campaign began with the imposition of escalating age restrictions on market traders in the fall of 2007, ultimately banning women under 50 from trading in general markets. From mid-January 2008 the government has also stepped up inspections on the general markets, or *jangmadang*, in an effort to control the range of goods offered, with the apparent intention of reverting to the more-limited farmers' markets that were permitted to trade only in supplementary foodstuffs. In October 2008 North Korean authorities issued a decree through local commerce management offices around the country ordering all permanent markets to open only once every ten days. There have also been periodic reports of efforts to control prices. Control efforts intensified in early 2009, with bans on a variety of foreign products that have been increasingly important to the burgeoning retail trade.

It is doubtful that these efforts at control have been successful; indeed, the recurrence of new control efforts is almost certainly a sign of their failure. Age restrictions can be circumvented by bringing grandparents into the market. Regulated markets—and efforts to close them—have given rise to “alley markets” that shift trading to new venues. Traders undoubtedly bribe inspectors as well. However, the restrictions have nonetheless sowed uncertainty about alternative sources of livelihood for households, and in 2008 did so just as soaring food prices forced households to seek other sources of income and barter.

There is also some evidence that the efforts to exercise control over markets may influence cross-border trade as well. Larger trading entities in the land ports along the border, particularly in Sinuiju, have fallen under government scrutiny. In a noteworthy development in April 2008, the central government dispatched a team of 200 investigators to Sinuiju in the name of an Antisocialist Conscience Investigation to inspect the books of foreign trade organizations, necessarily affecting market activity as a result.

We doubt that the effort to impose controls is likely to generate an overt social or political backlash; the barriers to collective action in North Korea are well known. But an interesting episode in March 2008 in Chongjin suggests complex political risks for the regime: The markets themselves could become the locus of protest and everyday forms of resistance. In early March city officials sought to enforce the age restriction on female traders. In what appeared to be a coordinated action across several markets in the city, large groups of women staged protests against the ban on trading on March 4. Municipal authorities took the unusual step of reopening the markets under the authority of the local ministry of labor on March 5 but were subsequently compelled to enforce the ban at the insistence of the central government. The episode reveals the complex pressures on local officials squeezed between the dictates of Pyongyang, the absence of resources, mounting political and social pressures, and the risks of further repression.

The Border Problem

The dramatic increase in trade with China has resulted in the creation of dense business networks that include major Chinese and North Korean enterprises, smaller Chinese and North Korean businesses, and North Koreans with relatives in China who are permitted to travel, albeit only with the greatest of difficulty. The major land ports on the North Korean side of the border, particularly Sinuiju, have become not only trading centers but major distribution hubs for the rest of the country.

But the border poses profound challenges to the North Korean leadership. When economic circumstances deteriorate, the incentives rise to move into China either permanently or in search of business opportunities and food. With this movement comes the gradual breakdown of the government’s monopoly on information about the outside world and a corresponding difficulty in maintaining the regime’s mythology about the superiority of the socialist system. The border also poses a variety of more-

direct economic problems. Illicit border trade in drugs, particularly methamphetamines, has been widely reported as has the smuggling of scrap metal and other products that reflect the looting of state-owned enterprises and public infrastructure.

Prior to changes in the North Korean penal code in 2004, a person who illegally crossed a “frontier of the Republic” faced a sentence of up to three years in a political penal labor colony, or *gwalliso*, but those who did not appear politically dangerous were sent to a village unit labor camp, where they would spend between three months and three years in forced labor. Those classified as “political offenders” faced more-severe penalties. In “serious” cases, defectors or asylum seekers were subjected to indefinite terms of imprisonment and forced labor, confiscation of property, or death. Regulations under the 2004 penal code appear to have codified the differential treatment between economic refugees and those cases deemed political, stipulating lighter sentences for those crossing for economic reasons. Yet not surprisingly, the legal revisions did not necessarily reflect reality: Interviews with refugees suggest that judicial proceedings were usually skipped, torture remained prevalent in detention facilities, and death rates in incarceration were high.

The recurrence of severe food shortages following the floods of 2007, however, was accompanied by a dramatic crackdown on border movements, a crackdown that accelerated as the Tumen River began to freeze in the early winter. From November 2007 reports from North Korea began to indicate the organization of Antisocialist Conscience Investigation Patrols to control internal movements in North Hamkyung province and to confiscate “contraband.” The most dramatic signal sent by the regime was the public execution of 15 people, 13 of them women, in Onsung on February 20, 2008 on charges of trafficking. But sentences have also been increased; single border crossings not related to South Korea or having political overtones that were previously overlooked now carry sentences of three years, with those found guilty of multiple crossings—even if not political—receiving sentences of up to ten years. In an interesting signal of the seriousness attached to this issue and concerns about the pervasiveness of corruption along the border, the police have even been granted new authority to incarcerate without going through prosecutors and to exercise some control over border security agents and even military personnel.

The economic implications of these new restrictions are impossible to estimate; the illicit border trade is relatively small and remittances passed through informal channels are unlikely to be very large either. However, the border has represented a partial escape valve both through movement and trade, and the obvious opportunities for growth that would come from greater openness and movement across the border are foregone.

Economic Strategy: The January 2009 Joint Editorial and the Return to Chollima

At roughly the same time that the leadership introduced the concept of military-first politics, or *songun*, it also rolled out the goal of creating a “strong and prosperous nation.” This nationalist concept is plastic enough to accommodate a variety of means for achieving it; indeed it could be used as a political device to jettison more-problematic aspects of state socialism and the concept of self-reliance, or *juche*, and to initiate wide-ranging reforms. Such an approach has historical antecedents that include the Meiji Restoration (to whose slogans current North Korean formulations bear more than a passing resemblance) as well as the founding of modern Turkey under Mustafa Kemal.

However, the 2009 New Year’s joint editorial, a crucial document setting the general outlines of policy for the year, suggests that reformist forces are in retreat.⁴ The most general theme of the editorial is a return to the mobilizational development strategies of the 1950s Chollima movement, culminating in the public announcement of a “150-day speed battle campaign” in May.⁵ The editorial directly quotes Kim Jong-il on this point: “The whole country and all the people, as in those years of bringing about a great Chollima upsurge after the war, should launch a general offensive dynamically, sounding the advance for opening the gate to a great, prosperous and powerful nation, united closely around the Party with one mind and purpose.”

With respect to sectoral priorities, the editorial leads with the metal industry as “the mainstay of our independent socialist economy,” and gives pride of place to other heavy-industry sectors, including machine building and chemicals. Early pronouncements within the party contained quite precise production goals: to generate 7.76 million kilowatts of electricity a year, produce 33 million metric tons of metal, 13 million metric tons of coal, to move 72 million metric tons of freight, and so on. However, given shortages of both power and raw materials, the campaign reverted to strategies that would rely more directly on the mobilization of labor, such as housing construction and farming.

Of particular interest is the role that the military is seen to play in this process, not only as defender but as a strategic sector: “Great efforts should constantly be put to the development of the defense industry as required by the line of economic construction in the *songun* era and everything necessary be provided for it on a preferential basis.” As we will see in more detail below, such a strategic focus is by no means limited to the supply of the North Korean military but seeks to upgrade North Korea’s status as a major arms exporter.

4. *Korean Central News Agency*, “Joint New Year Editorial Issued,” January 1, 2009, available at www.kcna.co.jp/index-e.htm (accessed July 13, 2009).

5. On *Chollima* see Noland (2000) 63.

Whither Reform?

It is important to underscore a very important point about authoritarian regimes, and particularly personalist ones: They can quickly shift directions. There is nothing about this new course that could not, in principle, be reversed were the leadership to choose to reprioritize reform. However, policy choices have political-economy as well as economic consequences. In a “virtuous cycle” model, even partial reforms can generate improved economic performance, new stakeholders, and associated demands to push the process further and tolerate increased private activity. In a “vicious cycle” model, weak or erratic commitment to reform deters investment and trade, with the result that the reforms do not appear to work. Moreover, the reversion to controls provides ample opportunities for corruption, as “gatekeepers”—those responsible for enforcing controls—are effectively granted new opportunities for rent-seeking. As a result, the reform process becomes corrupted and associated with corruption as well.

An additional source of concern has to do with the external sector. As legitimate sources of revenue decline, aid dries up, and trade sanctions are tightened, the incentives to proliferate and engage in illicit activities such as drug trafficking and counterfeiting obviously increase; we place these concerns in the broader context of the evolution of the external sector.

DEVELOPMENTS IN THE EXTERNAL SECTOR

It is common to argue that North Korea should pursue a Chinese-style reform path, but for a number of reasons agricultural reforms are unlikely to be as central to North Korea’s transformation as they were in China and Vietnam. Not only is North Korea’s agricultural sector very much smaller than in those two socialist countries, but the relatively limited amount of arable land and the country’s northerly latitude, short growing seasons, and vulnerability to both floods and drought all argue strongly against the prospect that the agricultural sector could lead the reform process.

Rather, the most auspicious path of transformation would be to follow a course similar, at least in broad outlines, to that of South Korea. This strategy would exploit North Korea’s proximity to larger, more advanced economies (including China as well as South Korea and Japan) and use both foreign investment and multilateral assistance to support increased trade, including through investment in trade-related infrastructure (e.g., ports and export-processing zones). Investment and exports would finance not only the imports needed to revive the North Korean economy but also the food that has been in continuous short supply since the famine.

What has happened in fact? The broad development of North Korea’s foreign economic relations since 1990 appears to follow developments in the economy more generally: Figure 1 provides an overview of North Korea’s exports and imports from 1990 through 2008. Both exports and imports declined precipitously in the first half of the 1990s, bottoming out around 1998. Since that time, trade has shown

a steady recovery, growing without interruption through the onset of the second nuclear crisis, though not attaining 1990 levels until 2007.

However, a closer examination of the patterns of trade reveals quite fundamental changes in the nature of North Korea's foreign economic relations. A first point to note from figure 1 is that imports consistently outstrip exports: The country has run a current account deficit over the entire period, implying offsetting capital inflows. Prior to the political developments of the early 1990s, these deficits were effectively financed by aid from North Korea's socialist patrons. In some cases, this "aid" took the form of the inability or unwillingness of North Korean firms to make required cash or barter payments; in effect, North Korea accumulated arrears. However, first the Soviet Union and Russia, and then China, largely abandoned trade at friendship prices. As a result, North Korea's trade with Russia almost completely collapsed. Aid has continued to play some role in financing North Korea's current account deficit, including ongoing assistance from China as well as multilateral and bilateral food aid. But there is ample anecdotal evidence that foreign direct investment has played an increasing role in financing North Korea's current account deficit over time, both through the Kaesong Industrial Complex and through a variety of projects with Chinese and other investors (Haggard and Noland 2007b).

Trade has not only grown, but the political geography of North Korea's foreign commercial relations appears to have undergone some profound shifts since the onset of the second nuclear crisis in 2002. Establishing this fact is by no means straightforward; data on North Korean trade flows are available from a variety of sources, but they exhibit substantial discrepancies. Some of these problems are presumably due to recording errors at the original source, meaning that there is some irreducible level of uncertainty about the specifics of North Korean trade.⁶ These difficulties are compounded by the existence of trade in weapons and illicit activities, including drug exports and counterfeiting of currency and other products, as well as the fact that some of North Korea's trading partners do not report trade data either; Iran provides a noteworthy example.

With these caveats in mind, we have taken a fairly simple approach that seeks to provide a snapshot of North Korea's trade relations since the onset of the nuclear crisis by focusing on its top ten trading partners for 2004–07. We rely primarily on KOTRA data but supplement it with data from the IMF and

6. Even North Korea's merchandise trade is regarded as a state secret and must be constructed on the basis of mirror statistics reported by partner countries. The major sources for such exercises are the Korean Trade-Investment Promotion Agency (KOTRA), the International Monetary Fund's (IMF) Direction of Trade Statistics (DOTS), and the UN COMTRADE database. KOTRA and DOTS provide data on North Korea's overall merchandise trade balance and a bilateral breakdown of North Korean trade, and mirror statistics from COMTRADE make available the commodity composition of North Korean trade; the latter is an important check on the veracity of trade with some countries. Simply reconciling conflicting data from these sources has been the subject of a number of separate research projects. For some recent efforts to construct consistent trade estimates, see Haggard and Noland (2007b), Nanto and Chanlett-Avery (2008), and Marumoto (2008) 55–68.

the UN.⁷ In particular, there are a number of countries that KOTRA has chosen to omit but for which we believe the trade figures reported by the IMF and the UN are plausible. We have also investigated those cases in which either absolute trade or the discrepancies between KOTRA and the IMF data are large—over \$10 million—by considering the commodity composition of trade using COMTRADE data; these data allow us to eliminate some trade that appears anomalous. The results are reported in table 1, and as with all such exercises should be treated with an appropriate degree of caution.

Several patterns stand out. The first is a high and growing dependence on developing countries. Particularly noteworthy is the growth of trade with the Middle East, which appears to have grown roughly twice as fast as North Korea's trade with the rest of the world (figure 2). This finding is even more striking given that a number of countries that have documented trade with North Korea in arms report no trade at all, including Iran, Syria, and Yemen. It is precisely with these countries that North Korea has been engaged in proliferation activities, ranging from some role in the construction of a nuclear reactor in the Syrian desert, to missile sales, to murky "service contracts" with a range of countries in conjunction with arms exports. Topping the list of these purchasers since the onset of the second nuclear crisis are Iran, Syria, Yemen, and Vietnam, but the appearance of Myanmar on the list of top-ten recipients of North Korean exports is also of interest.⁸

Three countries—Algeria, Saudi Arabia, and Lebanon—report nonnegligible trade on a consistent basis, and it is the data for these three that form the basis of the index reported in figure 2. As noted above, the index likely understates the true growth of trade between North Korea and the region. In addition to trade, the Egyptian conglomerate Orascom has entered into contracts for investment worth more than \$500 million (Noland 2009b). If actualized, this would be the largest non-Chinese, non-South Korean investment in North Korea since the end of the Cold War and the break-up of the Soviet Union. Egypt has allegedly purchased North Korean missiles in the past, and the Iranian nuclear weapons development program has led to talk of Saudi-Egyptian cooperation to produce an "Arab bomb." North Korean technology and expertise could be of interest in this regard.

A second set of developments concerns North Korea's trade with its Northeast Asian neighbors. Japan's reaction to the onset of the nuclear crisis is clearly visible in the sharp decline in its trade with North Korea. In 2004 the country accounted for 3 percent of North Korea's imports and took fully 11 percent of its exports. By 2007 trade had dropped to a trickle. By contrast North Korea's reliance on China and South Korea has grown. However, the nature of trade with these two partners has shown very different patterns, as can be seen by examining them in more detail.

7. These sources are: Korea Trade-Investment Promotion Agency (KOTRA), "2007 Trends in North Korea's Foreign Trade" (in Korean) at www.kotra.or.kr (accessed on June 24, 2009); International Monetary Fund (IMF), Direction of Trade Statistics (DOTS) CD-Rom, June 2009; and the United Nations Commodity Trade Statistics Database (COMTRADE), available at <http://comtrade.un.org/> (accessed on June 24, 2009).

8. For an overview of North Korea's proliferation activities, see Bechtol (2009).

North Korea-China Trade

North Korea's trade with China during and immediately after the great famine bore important similarities to the process of marketization from below described above. Not only did work units and households engage in domestic trade in order to secure food, but those with access or proximity to the border also initiated new trading relationships with China.

Viewed from the North Korean side, these trade relations ranged from officially sanctioned trade conducted through state-owned trading companies to transactions that exploited family connections with the Korean Chinese community in the Chinese border provinces. In this latter category, some "trade" probably included unrequited transfers to relatives. In between these two ideal types of official and private commercial interactions has been a very wide gray-area of trade that appears to have a strong commercial component, even if it is conducted by state-owned enterprises.

Viewed from the Chinese side, we have data from 2003 through 2007 (excluding 2004) on the share of trade accounted for by firms of different ownership: private, state-owned, and foreign invested enterprises, or multinationals (figure 3). In 2003 less than a quarter of China's trade with North Korea passed through private companies and none through multinationals. In 2007 more than half of the trade was through private Chinese companies, and multinationals accounted for roughly 10 percent. In short, trade across the Chinese border is increasingly commercial in form. Further indirect evidence of the commercialization of China-North Korea ties is the sharp increase in North Korea's exports to China. This increase in exports would be consistent with declining tolerance on the part of private Chinese firms for arrears and the corresponding pressure on North Korean firms to earn foreign exchange in order to finance imports.

Figure 4 provides monthly data on China's bilateral trade with North Korea. As can be seen, trade has expanded steadily since the onset of the nuclear crisis. Exports to North Korea have also outstripped imports from it, implying a bilateral trade deficit financed in part by growing foreign direct investment by Chinese enterprises. If our assumption of increasing commercialization is correct, then trade growth is no doubt explained in no small measure by China's booming economy. However, the growth in trade with China may also have been given an unintended boost by the onset of the nuclear crisis. Both push and pull factors were at work. On the one hand, the crisis resulted in an effective Japanese embargo and US financial sanctions on Banco Delta Asia that interrupted the country's commercial relations not only with Macau but elsewhere too. On the other hand, China's de facto strategy of engagement with North Korea persisted, providing an implicit framework for closer economic integration. In a more-thorough study of trade during this period, including some simple econometric tests, we found that North Korea's 2006 nuclear test and the imposition of UN Security Council sanctions had no perceptible effect on North Korea's trade with China; this finding has important implications for the likely outcome of the current sanctions program if not supplemented by additional measures (Noland 2009a).

It is interesting to note that despite its proximity to China and the obvious complementarities that would come from deepening the bilateral relationship, the North Korean regime has been unwilling or unable to pursue the export-processing zone model with China. The early effort to experiment with an export-processing zone in Rajin-Sonbong faced a host of obstacles and failed to attract significant investment (Noland and Flake 1997). Although near both China and Russia, the zone's location on the Northeast coast did not exploit existing centers of economic activity on which it could build, as the early Chinese coastal zones did. Weak infrastructure, both physical and legal, and an unwillingness to extend significant concessions all conspired against the project. In late 2008 North Korean authorities even took the step of seeking to expel resident Chinese businessmen in the zone. The strange effort to establish a Sinuiju Special Administrative Region (SAR), modeled in detail on the Macao and Hong Kong SAR's and to be administered by Chinese entrepreneur Yang Bin, collapsed in 2002 when Yang was arrested by Chinese authorities. Despite recurrent rumors that the SAR or zone idea would be revived in Sinuiju, to date there has been no progress in taking the measures required to increase foreign investment into Sinuiju. As a result of this failure to pursue an export-processing zone model, investment relations remain highly particularistic.

To explore some of the constraints on foreign direct investment in North Korea, we conducted a survey in 2008 of 250 firms from the Chinese border provinces doing business in the country (as well as a control group of enterprises not doing business there). Although most of these companies were engaged only in trade, and what appear to be something akin to spot-market transactions at that, 70 claimed to have some form of investment in North Korea. We asked them a series of questions about the constraints on their businesses. Not surprisingly, the quality of infrastructure figured prominently in their responses: 92 percent of investors agreed or strongly agreed that the quality of basic infrastructure was a problem for their business, and 94 percent agreed that the ban on cell phones was a constraint.

Yet property-rights concerns also figured prominently. 65 percent agreed or strongly agreed that it is risky to invest in North Korea because assets may be expropriated outright. 77 percent said that regulations in North Korea make it hard to do business, and 81 percent said that it was dangerous to invest because the government can change the rules. 54 percent of all firms in the sample said that it was necessary to bribe officials to do business in North Korea; however, among investors this share rose to 73 percent, underlining the vulnerability of investing as opposed to trading. These bribes are not trivial: 53 percent of investors claimed that they spent more than 10 percent of annual income on bribes. Although the North Koreans have accommodated substantial inflows of Chinese investment, our survey suggests that these relationships have not served to socialize the regime to international commercial practices. Rather, they have been undertaken by state-owned enterprises and cemented through corruption.

North-South Trade

Figure 5 traces the development of South Korea's trade relations with the North. In contrast to the steady increase visible in bilateral North Korea-China trade, a close inspection of figure 5 shows the substantial politicization of trade not only under President Lee Myung-bak, but under Presidents Kim Dae-jung and Roh Moo-hyun as well. Trade did not begin in earnest until the initiation of the Sunshine Policy under Kim Dae-jung in 1998. But even following the summit of 2000, North Korea proved reluctant to negotiate legal protocols to govern bilateral trade and investment. Trade remained relatively flat through the end of the Kim Dae-jung administration before beginning a more-erratic expansion under Roh Moo-hyun. However, it is important to underscore that this inflection was driven in no small measure by aid and the construction of the two major investment projects at Kaesong and Mt. Kumgang; exports from Kaesong did not even begin until 2005.

Despite the Roh administration's reputation as a relentless advocate of engagement, trade was interrupted by the missile and nuclear tests of 2006 before taking off in 2007 following the resumption of the Six Party Talks and the location of more enterprises in the Kaesong Industrial Complex (KIC). At the October 2007 summit the outgoing Roh administration outlined an ambitious set of economic cooperation projects, promises that the North Koreans viewed not as the product of a particular administration but as a more-binding bilateral commitment.

The election of December 2007 fundamentally changed the nature of North-South economic relations. The Lee Myung-bak administration moved toward a more-conditional concept of engagement in which expanded trade, investment, and even humanitarian assistance would follow rather than lead progress on the nuclear question. Nor was this commitment altogether disingenuous; even in the wake of the freeze in bilateral relations over the course of 2008, the Lee administration nonetheless budgeted nearly \$1.2 billion for inter-Korean cooperative projects for 2009. These included the construction of an East Sea line inter-Korean import facility and joint-use yard, capital loans for Hyundai Asan economic cooperative projects, food and fertilizer assistance, financing for NGO aid to the North, loans to cover expenses of the KIC Management Committee, and the construction of a KIC general support center. By mid-2009, virtually none of this money had been spent.

It is important to note that from the beginning, North-South trade has had a strong aid and noncommercial component. Even nominally commercial trade has a substantial strategic and noncommercial cast. The Mt. Kumgang tourist project and the KIC have involved private companies but also substantial government subsidies. These subsidies are of particular interest in the KIC case, since export-processing zones typically involve concessions and support on the part of the recipient country rather than from investors.⁹

9. Through its Inter-Korea Cooperation Fund, the South Korean government initially offered companies

Figure 6 divides South Korea's exports to the North into three categories—commercial trade, cooperation projects (primarily Mt. Kumgang and the KIC), and noncommercial trade or aid—and compares them with our estimates of Chinese aid. Between 1995 and 2007 South Korea's aid and economic cooperation activities together have at times accounted for almost 60 percent of total trade and have averaged more than 40 percent of trade over this period. Aid and other noncommercial exports from South Korea have increasingly outstripped even our highest estimates of Chinese aid. Under the government of newly elected President Lee Myung-bak, the relative magnitudes of these noncommercial transactions have decreased, as South Korean policy emphasized a more-conditional approach. Nonetheless, the irony is inescapable: Up through the Lee Myung-bak administration, South Korea's trade with the North has been less commercial in nature than North Korea's trade with China.

The highly politicized nature of North-South trade brought risks for both sides. Both the Kim Dae-jung and Roh Moo-hyun administrations were clear in seeing economic engagement as a means to leverage reform in North Korea. Yet at the same time, the fact that commercial trade and investment outside of the KIC was circumscribed meant that the project came to have substantial political as well as economic significance for the South. Despite pressures to respond to the 2006 missile and nuclear tests by reexamining the KIC, the Roh administration chose to largely insulate this experiment from high politics. The Lee Myung-bak administration initially followed suit, despite a more-conditional approach to other aspects of the North-South relationship.

North Korea has not shown similar restraint. As a result, the politics of the KIC exhibit what might be called “reverse leverage”: rather than the KIC moderating North Korean behavior and encouraging the spread of reform, Pyongyang has sought to manipulate South Korea's high sunk costs in the KIC to place pressure on the Lee Myung-bak administration. The recent KIC saga began in July 2008, following the killing of a tourist at Mt. Kumgang, when North Korea delayed approval for South Koreans traveling to Kaesong and the industrial complex. The North said that this action was taken in response to delays in the delivery of equipment for a new military communications channel, which the South had withheld because of the Mt. Kumgang incident. At this point, South Korean investors began to hedge their bets, running down inventories and postponing planned expansions of activity. North Korea's so-called December 1 actions of 2008 suspended train operations and tourism, closed an economic cooperation office, and ordered the South to withdraw half the staff of the KIC Management Committee. Again, specific political concerns were cited, including the Lee administration's unwillingness to fulfill promises made at the 2000

entering Kaesong low-interest loans; virtually all firms initially entering the zone took advantage of this support. The government also provides political risk insurance covering financial losses up to 90 percent of a company's investment, up to five billion South Korean won (\$5.4 million). In addition, a law passed in April 2007 allowed South Korean small and medium-sized enterprises (SME's) operating in the KIC to access supports, such as preferential finance programs, extended to SME's in the South.

and particularly the 2007 North-South summits as well as concerns about antiregime leaflets spread via balloon by South Korean activists. A particularly telling feature of the events of December 2008 was the visit to Kaesong of Lt. General Kim Yong-chol of the National Defense Commission and the thinly veiled effort to enlist KIC-invested South Korean enterprises to provide domestic pressure on the Lee Myung-bak administration's policies. In March 2009 North Korea took its first steps to rewrite rules—and extract rents—by enforcing environmental standards and levying fines for labor violations. The effective shutdown of the park in March was a side-effect—perhaps even unintended—of the suspension of an inter-Korean military communication channel in response to US military exercises. But by May, North Koreans were declaring existing contracts with respect to land rent, land-use taxes, and wages null and void and even held a South Korean hostage at the complex on charges that he was engaged in politics. As of this writing, North and South are engaged in a tense negotiation over what concessions, if any, the South is willing to make and thus about the very future of the entire enterprise.

Much of the discussion of the KIC saga has focused on whether the North Koreans really mean it, or whether these moves constitute efforts to renegotiate contracts on more-favorable terms. This discussion misses a central point. The real costs of recent North Korean actions include not only the KIC itself but any investment that is deterred by the propensity of the North Korean leadership to subordinate economic and reputational calculations to broader political objectives. As we have seen from the aggregate data, weak property rights do not deter foreign direct investment altogether; Chinese and other firms have invested, in some cases large amounts of money, as recent Orascom investments demonstrate. These firms have clearly found some way to secure their investments, in part through the formation of joint ventures with partners who provide not only complementary assets—typically land—but political protection as well. But such arrangements are not likely to be adequate to secure major foreign investments from South Korea, Japan, the United States, and Western Europe, even if the nuclear issue were to be resolved.

THE UN SANCTIONS AND THEIR LIMITS

Following the nuclear test of October 2006, the United States was able to orchestrate a UN Security Council Resolution, UNSCR 1718 (UNSC 2006), that included sanctions targeting major weapons systems and luxury goods. Yet, as noted above, we have found no evidence that either the test or the sanctions have had substantial effects on North Korea's trade with China (Noland 2009a). Relatively rapid resumption of negotiations on US financial sanctions paved the way for agreements in February 2007 that opened a nearly two-year cycle of Six Party Talks, which ended inconclusively at the very end of the Bush administration's tenure in December 2008.

UNSCR 1874 (UNSC 2009) of June 12, 2009 goes beyond UNSCR 1718 in both the *scope* of products covered and particularly in the *means* of enforcing the sanctions. As with the earlier resolution,

UNSCR 1874 calls on North Korea to cease and desist development of its nuclear and missile programs and to return to the Six Party Talks, the Nonproliferation Treaty, and the International Atomic Energy Agency (IAEA) safeguards.

With respect to product coverage, UNSCR 1718 focused on trade in major weapons system, all products related to the production of weapons of mass destruction (WMDs), and luxury goods imported by the elite. The new resolution extends sanctions to include all arms-related trade, as well as to all training or assistance related to it (UNSC 2009, paragraph 10). The latter is particularly important because North Korea not only exports weapons systems but has recently engaged in various forms of collaboration on both missile and nuclear technologies, including with both Iran and Syria.

It is important to underscore that the resolution does not constitute a trade embargo on North Korea nor does it even target nonmilitary commercial trade. The resolution does contain one general sanction not related to arms trade: It calls on both international institutions and member states not to undertake new grants, financial assistance, or concessional loans to North Korea and asks that they maintain “vigilance” with respect to current aid programs (UNSC 2009, paragraph 19). For the most part, however, the sanctions are highly targeted around weapons-related activities, and humanitarian assistance and support for denuclearization are also specifically excluded from coverage.

It is important to underscore that the resolution sets a floor rather than a ceiling on what individual states can do; Japan quickly moved to impose a complete embargo on the country. Moreover, some countries may interpret the scope of product coverage quite broadly. For example, some North Korean enterprises engage in both weapons-related trade and other commercial activities; the resolution would not prevent the targeting of such companies if it were legitimately believed that they were engaged in prohibited trade.

The most interesting features of the resolution have to do with means of enforcement. In 2003 President Bush launched the Proliferation Security Initiative (PSI), a loose effort to secure international cooperation in monitoring and interdicting ships that might be trafficking in WMDs or WMD-related materials.¹⁰ The new Security Council resolution comes close to making the PSI a formal multilateral effort. The resolution “calls upon,” but does not require, member states to inspect all cargo on their territory, including at both seaports and airports, if it is believed to contain prohibited items (UNSC 2009, paragraph 11). Moreover, it authorizes members to inspect vessels on the high seas or to escort them to port if there are reasonable grounds to believe that they are carrying prohibited cargo. It also precludes the provision of bunkering services to any ship suspected of prohibited trade, placing an additional constraint on any suspect ship.

10. South Korea, which sat on the fence under the previous government of Roh Moo-hyun, formally joined the PSI effort following the second nuclear test.

An important loophole is that such interdiction must have the consent of the country under which the vessel is flagged; acting under Chapter VII, Article 41, UNSCR 1874 does not authorize the use of force. If the flag state does not consent, then “the flag state shall direct the vessel to proceed to an appropriate and convenient port for the required inspection” (UNSC 2009, paragraph 13). However, North Korea probably transports most prohibited materials under its own flag, and this provision could provide additional incentives for North Korea to do so. Nonetheless, the resolution does impose constraints because the major flags of convenience, such as Panama and Liberia, will come under strong pressure to comply, while North Korea’s pariah status makes even normal commercial trade carried under its own flag suspect. Even in the absence of a right to interdict, the right to shadow and monitor North Korean shipping will almost certainly generate a confrontation at some point.

In addition to interdiction, the UNSC resolution explicitly provides for the use of financial means for stopping the flow of WMD-related trade (UNSC 2009, paragraph 18). These measures are potentially more sweeping than those related to trade sanctions per se, since the resolution permits the blocking of transfers and even the freezing of any assets that “could contribute” to North Korea’s weapons programs or activities. Such a provision is open to broader interpretation than trade sanctions, since it could in principle affect the finances of any firm involved in both weapons-related and nonweapons-related activities.

Finally, the resolution establishes a new process for overseeing the sanctions effort by creating a panel of experts. The panel will oversee the implementation of both UNSCR 1718 and UNSCR 1874, monitor efforts on the part of member states, and provide recommendations to the UN Security Council.

The passage of this new resolution has an important political function. In particular, it shows the growing depth of Chinese disaffection with North Korea’s behavior since the missile and nuclear tests of 2006. This resolution is by far the strongest public Chinese signal to North Korea to date. The resolution also garnered support from Russia.

Nonetheless, there are several reasons to believe that the sanctions effort is not likely to yield immediate results and could indeed backfire in the short run. First, the North Koreans have typically responded to pressure not by complying but by escalating. The most recent cycle of escalation, culminating in the nuclear test, was in fact triggered by UN actions.

Second, the sanctions may have a perverse domestic political effect in North Korea. As we have seen, the course of government policy over the last several years has been hostile toward deeper foreign engagement. Kim Jong-il’s stroke in August 2008 and the onset of succession politics has no doubt only exacerbated such tendencies; no one wants to be vulnerable to charges of apostasy. In such a highly uncertain political environment, sanctions may even strengthen conservative forces and provide a further justification for circling the wagons.

A final reason why sanctions may not be effective has to do with the changing geography of North Korea's trade and investment relations described above. Those countries most inclined to sanction North Korea do not trade or invest with North Korea and have even seen economic relations decline. Japan, once an important mainstay of the North Korean economy through transfers, has implemented an embargo (though circumvention through third countries is reputedly easy). The United States maintains modest restrictions on trade with North Korea (reconfirmed on June 24, 2009 by President Barack Obama) but trade is so minuscule that Washington has little leverage to gain through additional bilateral trade restrictions. Indeed, the North Koreans even rejected the last important economic link to the United States by declining to continue a generous food aid program negotiated last year. Aid from South Korea has dropped to a trickle, and as we have seen commercial relations through the KIC have also been held hostage by new North Korean demands to renegotiate contracts.

What about financial sanctions? This particular form of sanction does not require multilateral coordination. Foreign banking institutions that conduct significant business in the United States have a strong interest in avoiding institutions that the US Treasury has identified as engaged in illicit finance. This was demonstrated clearly in 2005, when the US Treasury signaled that a small Macau bank, Banco Delta Asia, was possibly engaged in money laundering activities on North Korea's behalf. Without any further action, the bank immediately suffered a run on its deposits and was forced into receivership, freezing \$25 million of North Korean funds. The issue became a major sticking point in the Six Party Talks, but also appeared to motivate the North Koreans to return to the talks, setting the stage for the agreements reached in 2007. However it is doubtful that similar measures taken now would have the same effect, as the North Koreans have undoubtedly attempted to diversify their financial linkages.

CONCLUSION: IMPLICATIONS FOR NORTH KOREA'S NUCLEAR PROGRAM AND PROLIFERATION ACTIVITIES

What implications, if any, does this economic story have for the politics of North Korea's nuclear program and proliferation activities? The first, and most general, point goes to the question of the regime's intentions. It is virtually impossible for outsiders to be confident that they understand the inner workings of North Korean decision-making. But it is important to ask whether North Korea's military and diplomatic signals are aligned with other signals, including developments in the North Korean political economy. Had the North Korean leadership been pursuing a reformist path since the onset of the crisis, however gradually, it would have provided a signal that the country was open to economic inducements.

However, the evidence on this score is not comforting. The North Korean economy is indeed becoming more open, but the leadership remains highly ambivalent about this development and about

reform more generally and has shown little interest in economic carrots as a result. To the contrary, the willingness to terminate the US food aid program, the government's behavior with respect to the KIC, and the ongoing meddling in the border trade shows a regime that is either indifferent to, or actively hostile toward, economic engagement.

A second conclusion has to do with the political geography of North Korea's external economic relations. An unintended consequence of the crisis has been to push North Korea into a closer economic relationship with China and other trading partners that show little interest in political quid-pro-quo, let alone sanctions. Put differently, North Korea appears to have rearranged its external economic relations in order to reduce the impact that traditional sanctions could have.

Consequently China has become even more central to any effective sanctions effort. Today China is North Korea's largest trading partner, accounting for one-third or more of its trade, and is the country's most generous aid donor. Cutting off critical Chinese oil shipments, much less a complete trade embargo, would bring the country to its knees.

But China has ambivalent, conflicting interests with respect to North Korea. Some Chinese analysts believe that China benefits from having an allied buffer state on its border and may even regard North Korea as a useful pawn in its rivalries with the United States and India, acting as its proxy in dealings with Iran and Pakistan. China also has concerns that excessive pressure on the regime could provoke its collapse, in the worst case sending millions of North Korean refugees into China or even triggering US and South Korean military intervention. A stable, nuclear-armed North Korea may be preferable to an unstable one, nuclear or not. These considerations serve to limit the degree of pressure that Beijing is willing to bring to bear.

Yet North Korean provocations also have adverse strategic consequences for China as well. To date, they have served to push South Korea, Japan, and the United States closer together and could trigger a major arms race in Northeast Asia from which China could be the loser. Security concerns have already triggered greater interest in theater missile defenses and even speculation about whether Japan would "go nuclear."

It is not beyond the realm of possibility that China has in fact reached the limits of its tolerance and that some coordinated or even unilateral action on its part might be forthcoming. It is still too soon to tell what China will do, but preliminary signals suggest an increased willingness to impose limited sanctions. But the history of sanctions suggests that they are unlikely to induce countries to abandon core political goals, which the nuclear weapons program appears to be in the North Korean case (Hufbauer et al. 2007). It would take draconian sanctions rigorously applied by China and South Korea in concert with others to have a plausible chance of attaining this goal, and this outcome appears unlikely to be obtained.

In the absence of such coordination, the United States can still exercise leverage if it can identify

how and where North Korea finances its international trade and goes aggressively after financial intermediaries as it did in the Banco Delta Asia case. As we have argued, this particular form of sanction does not require multilateral coordination, although North Korea has undoubtedly taken steps to try to minimize this risk.

As a small country increasingly dependent on foreign trade and investment, North Korea would appear highly vulnerable to external economic pressure. But given the extreme priority that the regime places on its military capacity, it is unlikely that the pain the world can bring to bear will be sufficient to induce North Korea to surrender its nuclear weapons. Moreover, the change in North Korea's trading partners has served to mitigate the risk of such sanctions, at least to some extent. The promise of lifting existing sanctions may constitute one incentive for a successor government to reassess the country's military and diplomatic positions, but we should not expect them to have a strong effect in the short run, particularly if the country's behavior is driven by domestic political considerations.

A third conclusion has to do with the incentives of proliferation activities. There is some evidence that North Korea moderated its missile proliferation activities during periods when rapprochement with the United States, and to a lesser extent Japan, was a priority; the late Clinton period provides an example. However, in the absence of such an interest, the incentives to engage in arms transfers increase. Indeed, they arguably become greater because of the declining prospects for trade, investment, and assistance from the United States, Japan, South Korea, and Western Europe. Given that the United States has even less leverage over customers such as Iran and Syria than it does over China, the only policy options for dealing with this particular form of trade expansion are much more direct, including sanctions on North Korea's Middle Eastern trading partners or a test of the direct interdiction model that is the untested core of the PSI.

A fourth conclusion concerns the more-transformative conception of engagement that undergirded the Kim Dae-jung and Roh Moo-hyun administrations' approaches to North Korea. The engagement bet was not an irrational one. If North Korea had embarked on a more-robust reformist path, the postulated mechanisms of long-run transformation through engagement might well have taken place. Increased trade, investment, and aid would have contributed not only to a deeper engagement in the world economy but been part and parcel of an internal transformation as well.

Yet as we have seen, the North Korean economy is structured in such a way that outside economic ties are still largely monopolized by state-owned enterprises and other gatekeepers, such as the military in the case of the KIC. Under such circumstances, the precise design of engagement policies requires very close scrutiny. Direct transfers to the regime obviously will not have the same transformative effects as private investment and trade. Even nominally commercial relations can be exploited if the North Korean counterparties believe that these relations are ultimately political in nature, subsidized, and thus

vulnerable to blackmail; again, the KIC is an important example. If economic ties are truly commercial in nature, those choosing to trade and invest with North Korea do so at their own risk. Under these circumstances, private actors will make economic decisions fully factoring in political risk, and North Korea will bear the costs if it chooses to renege on commitments or fails to provide a welcoming policy environment.

Finally, we conclude by underlining that the international community faces what might be called a “latent” humanitarian problem with respect to North Korea. These concerns were muted by a somewhat better-than-expected harvest in 2008, and probably by commercial purchases of food in the winter and early spring of 2008–09.¹¹ Even if North Korea does muddle through this crop cycle and the termination of the 500,000 metric ton food aid program, there is little indication that the country is capable of feeding itself. As a result, the prospect of a recurrence of food shortages in the medium term is high. As in the past, the peculiar difficulty of dealing with North Korea stems in part from the humanitarian dilemma the country poses to the international community: It is difficult to turn away from the substantial suffering that the regime imposes on its own population, but increasingly unproductive to extend economic assistance in the face of entrenched resistance to broader reforms.

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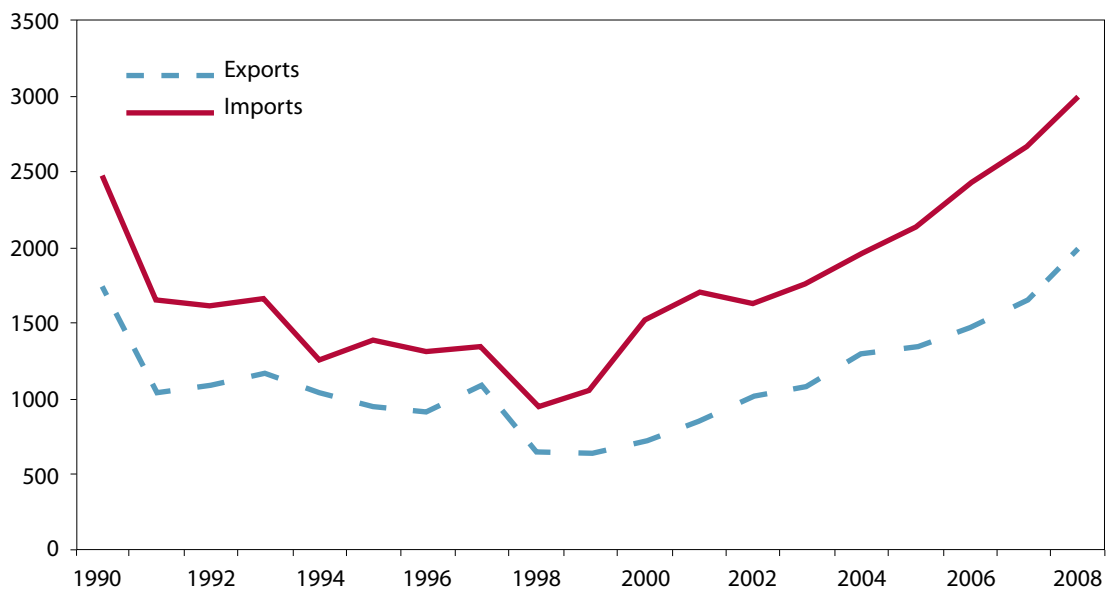
Table 1 North Korea's direction of trade: top ten trading partners, 2004–07

North Korean imports								
	2004	Percent	2005	Percent	2006	Percent	2007	Percent
1.	China	26.6	China	31.7	China	32.8	China	32.9
2.	South Korea	14.6	South Korea	21.0	South Korea	22.1	South Korea	24.4
3.	Thailand	8.0	Algeria	8.1	Algeria	9.3	Algeria	9.9
4.	Russia	6.9	Thailand	6.6	Thailand	6.0	Thailand	4.6
5.	Algeria	6.8	Russia	6.6	Russia	5.1	South Africa	3.6
6.	Brazil	6.2	Congo	2.6	Congo	2.9	Congo	3.2
7.	India	4.5	India	2.3	India	2.6	Brazil	3.2
8.	Netherlands	4.4	Singapore	2.2	South Africa	2.3	Russia	3.0
9.	Japan	3.0	Brazil	2.1	Brazil	1.9	India	2.8
10.	Congo	2.6	Japan	1.8	Singapore	1.6	Saudi Arabia	1.6
North Korean exports								
	2004	Percent	2005	Percent	2006	Percent	2007	Percent
1.	China	41.2	China	32.2	South Korea	30.0	South Korea	36.8
2.	South Korea	18.2	South Korea	21.9	China	27.0	China	27.9
3.	Japan	11.5	Japan	8.4	Thailand	8.5	Venezuela	9.3
4.	Thailand	6.4	Thailand	8.0	Brazil	4.8	Brazil	4.8
5.	Brazil	4.5	Brazil	4.2	Japan	4.5	India	4.4
6.	Qatar	2.4	India	2.6	Greece	4.5	Myanmar	2.3
7.	Myanmar	1.9	Saudi Arabia	2.1	India	4.2	Netherlands	1.8
8.	France	1.9	Myanmar	2.0	Myanmar	2.2	Thailand	1.7
9.	Germany	1.6	Germany	2.0	Saudi Arabia	1.6	Russia	1.6
10.	Nigeria	1.2	France	1.9	Paraguay	1.3	Saudi Arabia	1.4

Sources: KOTRA, IMF DOTS, UN COMTRADE.

Figure 1 North Korean Trade, 1990–2008

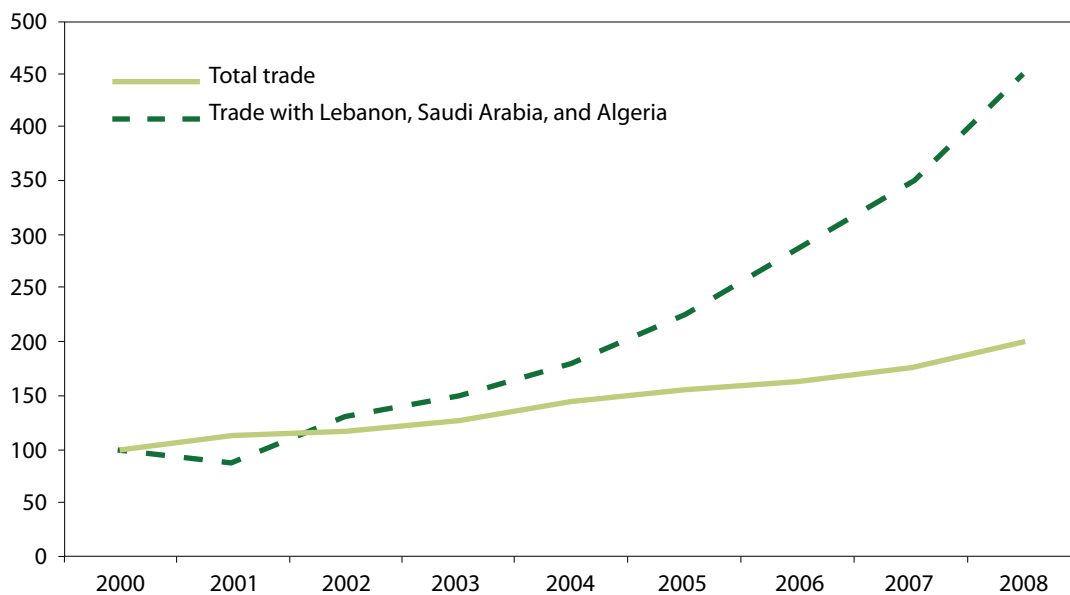
million US dollars



Sources: KOTRA, IMF DOTS, UN COMTRADE.

Figure 2 North Korean trade with the world versus with the Middle East

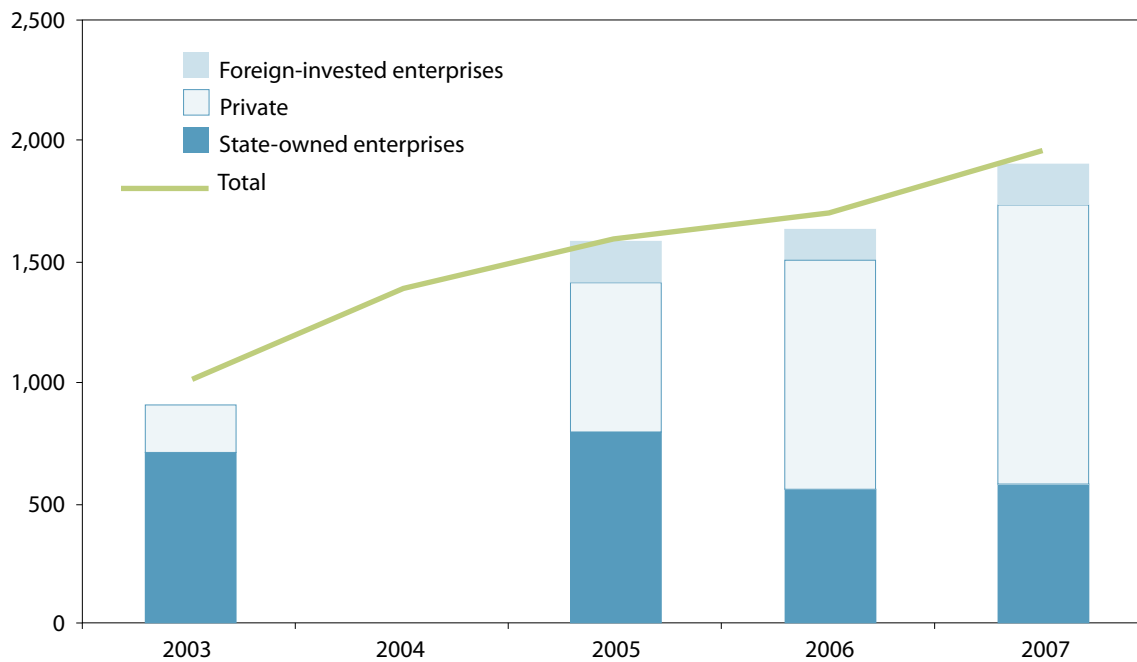
index, year 2000=100



Sources: KOTRA, IMF DOTS, UN COMTRADE.

Figure 3 China-DPRK trade by Chinese firm ownership

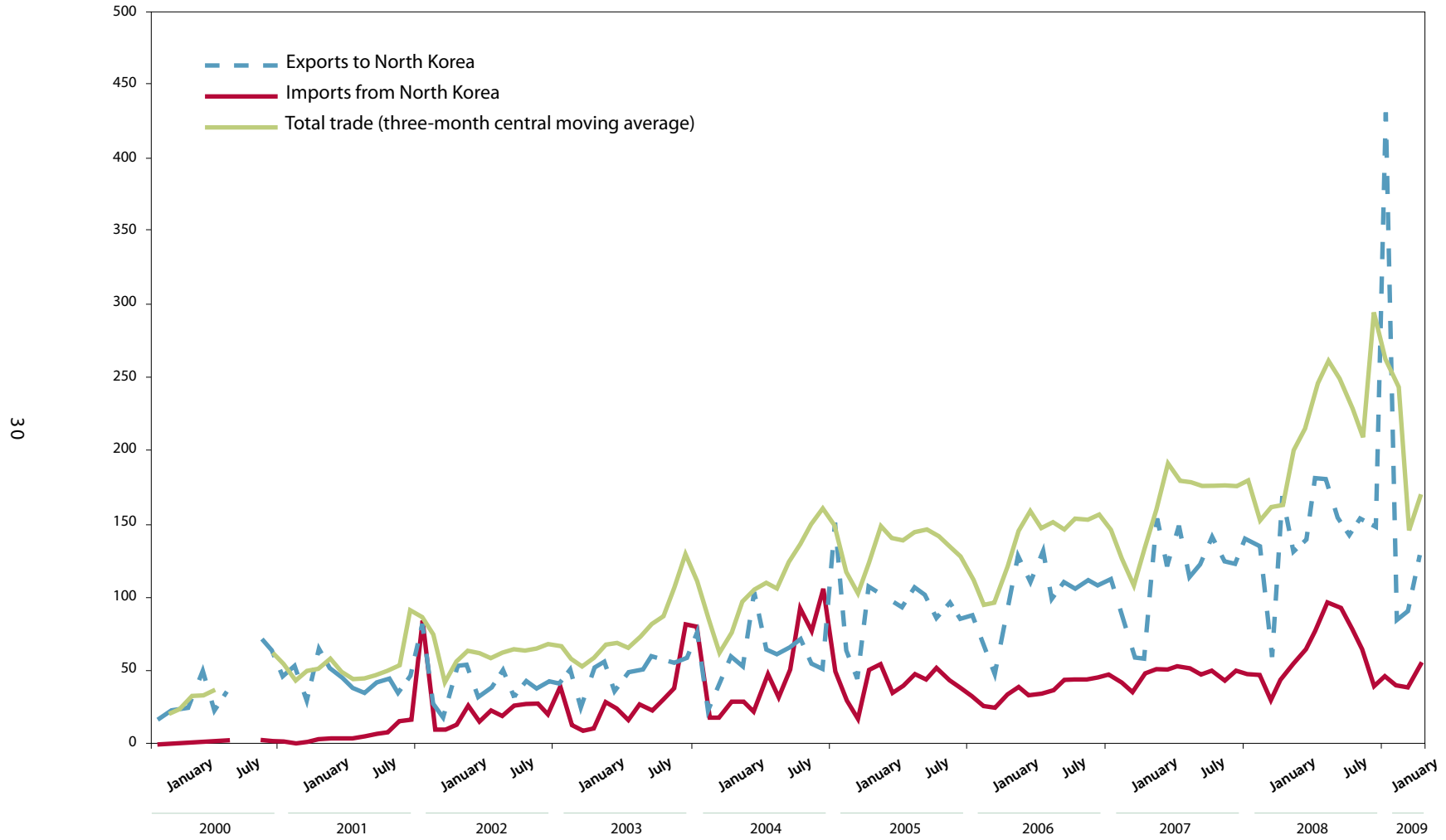
million US dollars



Source: General Administration of Customs, People's Republic of China.

Figure 4 China's trade with North Korea, 2000–09

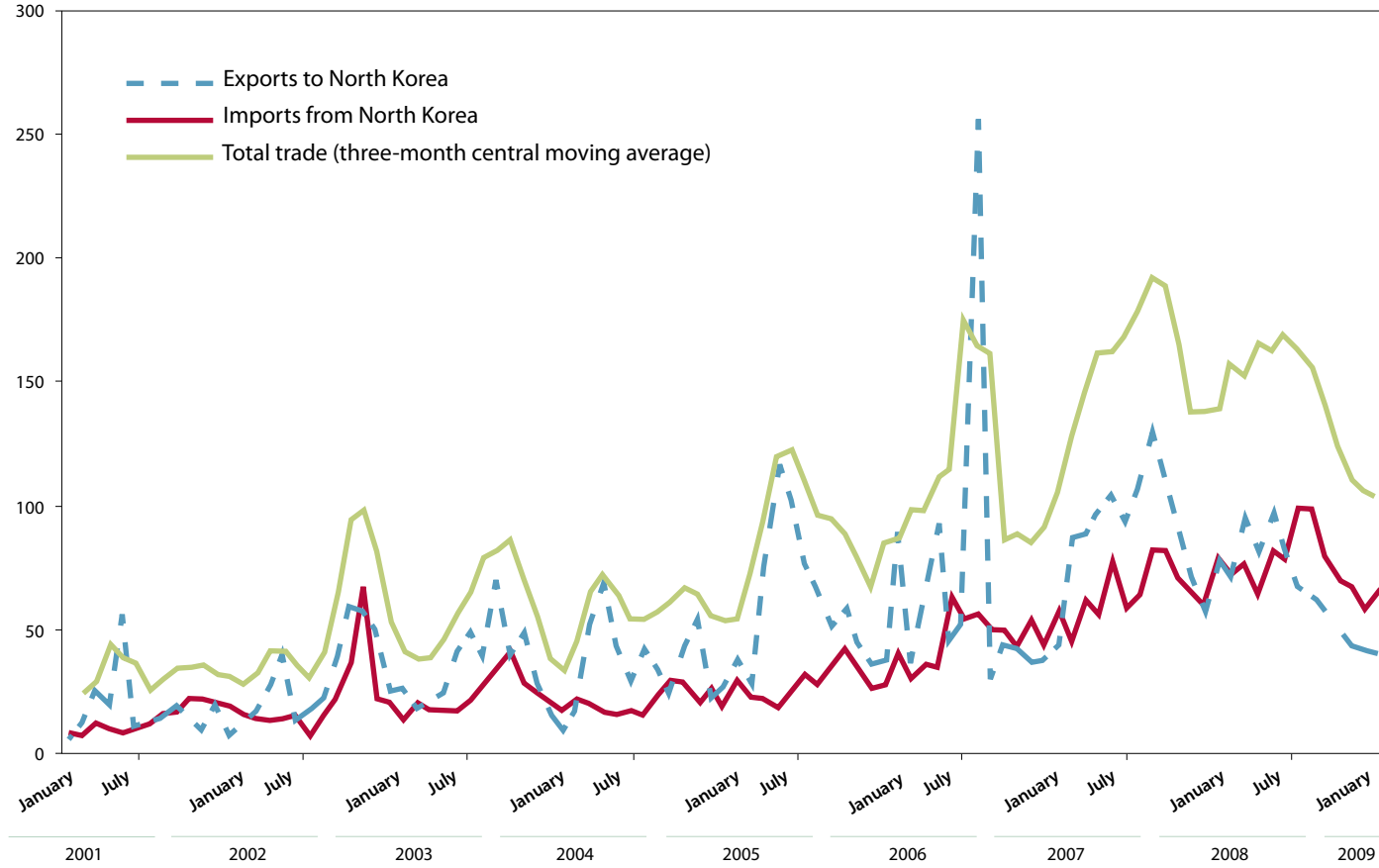
million US dollars



Source: Ministry of Commerce of the People's Republic of China, 2007, and KITA (Korean International Trade Association).

Figure 5 South Korea's trade with North Korea, 2001–09

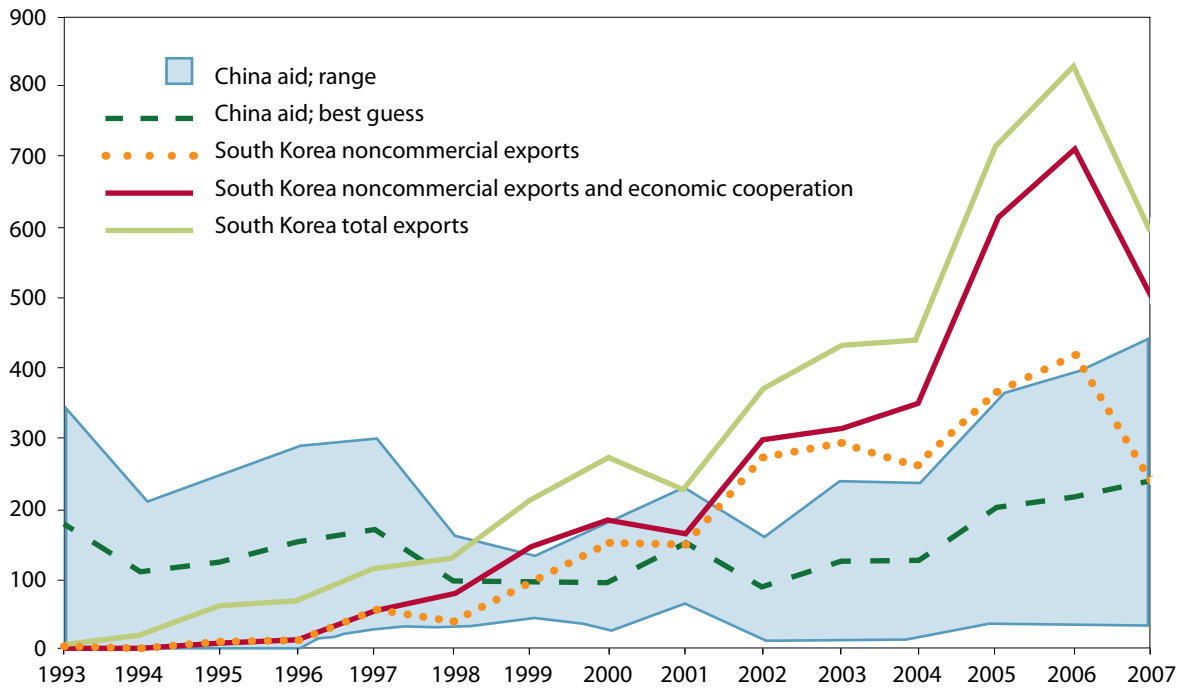
million US dollars



Source: Ministry of Unification, Monthly North-South Trade.

Figure 6 China and South Korea aid and exports to North Korea, 1993–2007

million US dollars



Sources: Cho et al. (2005), Korea International Trade Association (KITA) Trade Statistics, and authors' calculations.