

The DPRK as an Economy under Multiple Severe Stresses: Analogies and Lessons from Past and Recent Historical Experience

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Since the collapse of the Soviet bloc, North Korean leadership has repeatedly and pointedly gone out of its way to insist—both to its subjects and to the outside world—that “Our Style of Socialism” is a historically unique human construction, guided by its own people-centered logic and set on its own special path of development. The immediate purpose of those demurrals—which may perhaps seem more necessary to true believers in historical determinism than to others—is to dispute the presumption that the political and economic system of the Democratic People’s Republic of Korea (DPRK), like those of the Warsaw Pact states after which it was modeled, are destined for the trash bin of history. But the demurrals are becoming all the more necessary in light of the growing evidence that the DPRK is engulfed in severe and mounting economic problems.

One must of course be cautious about speaking of “crises” in Communist economies. As highly centralized and politically directed planning systems, Communist economies in a real sense are *always* in “crisis”; they are *designed* for “crisis”; they respond to “crisis.” When a Communist economy substitutes a smaller set of “crises” for a larger set of “crises,” it is making progress,

and is so judged by its ruling circles. In North Korea, however, smaller economic problems are now regularly giving way to larger economic problems. They have been doing so for most of the past decade, but the process has visibly accelerated over the past few years.

By the mid 1980s, according to some analyses,¹ the DPRK economy had reached the limits of classical socialist "extensive" growth, and had entered into stagnation or even decline. With the end of Soviet aid and subsidized trade at the start of 1991, an already faltering economy suffered a heavy blow.² Although North Korea remains a closed state about which reliable information is still scarce, a variety of indications suggest a steady worsening of economic conditions. In May 1994, for example—months before the death of Kim Il Sung—Chinese sources were talking of "the worst food crisis in history" for the DPRK regime.³

A year later, Pyongyang officially launched a diplomatic appeal for emergency food aid. In the summer of 1995—after the emergency appeal began—the DPRK suffered what by all reports was unusually heavy flood damage. In the following months, reports and rumors about dire hardships there proliferated in the international media. Stories spoke of people swarm-

1 Nicholas Eberstadt, "Demographic Shocks After Communism: Eastern Germany, 1989-93," *Population and Development Review*, Vol. 20, No. 1 (1994), pp. 137-52; *Policy and Economic Performance in Divided Korea, 1945-1995*, (forthcoming); Hans Maretzki, *Kimismus In Nordkorea: Analyse des letztes DDR Botschafters in Pjoengyang* (Boeblingen: Anita Tykve Verlag, 1991); Marina Ye. Trigubenko, "Economic Characteristics and Prospects for Development: With Emphasis on Agriculture," in Han S. Park, ed., *North Korea: Ideology, Politics, Economics* (Englewood Cliffs, NJ: Prentice Hall, 1996), pp. 141-59.

2 Nicholas Eberstadt, Marc Rubin, and Albina Tretyakova, "The Collapse of Soviet/Russian Trade with the DPRK, 1989-1993: Impact and Implications," *Korean Journal of National Unification*, Vol. 4 (1995), pp. 88-103; Hong-Tack Chun, "Economic Conditions in North Korea and Prospects for Reform," Korea Development Institute, *KDI Working Paper # 9603*, March 1996.

3 *Dong-a Ilbo*, 13 May 1994, translated as "DPRK Reportedly Facing 'Worst Food Crisis'," in, United States Foreign Broadcast Information Service, *Daily Report: East Asia* (hereafter *FBIS/EA*), 13 May 1994, p. 23.

ing to Pyongyang in search of food;⁴ of North Korean families foraging across the Chinese border for sustenance;⁵ of outbreaks of cholera (a deadly disease for the severely malnourished) that have carried off hundreds of people;⁶ even of starvation in the industrial center of Hamhung.⁷

Whether or not any of these anecdotal accounts prove accurate, there can be little doubt that the DPRK is indeed under severe and rising economic stress. In the absence of any detailed information about conditions in the North, however, how can outsiders attempt to assess the ability of the DPRK system to cope with the growing economic pressures that confront it?

Fortunately for outside analysts, Pyongyang's claims to uniqueness are not entirely true. "Socialism with Korean characteristics" may only be found in the northern half of the Korean peninsula, but some of the economic problems emerging from the DPRK today have been seen, and studied, in many places before. Historical analogy may therefore provide some insight into the problems pressing the DPRK—and into the options available to DPRK leadership for coping with these.

Three conceptually distinct, but in practice historically overlapping, sets of problems may be discussed with respect to the DPRK economy today. The first concerns the stresses faced by "war economies," economic systems that have been subjected to a variant of central planning for the purposes of total war mobilization. The second involves severe exogenous economic shocks to centrally planned economies or economies prepared

4 *Chung-ang Ilbo*, 18 February 1996, translated as "ROK: DPRK Citizens 'swarming' to Pyongyang for Food," *FBIS/EA*, 20 February 1996, pp. 44–45.

5 *Digital Choson Ilbo*, 14 June 1996, reprinted as "ROK: N. Koreans Travel To Forage; Envoys Seek Food For Families," *FBIS/EA*, 17 June 1996, p. 56.

6 *Sankei Shimbun*, 31 August 1995, translated as "Sources Say Cholera Outbreak Killed 230 People," *FBIS/EA*, 1 September 1995, pp. 30–31.

7 *Digital Choson Ilbo*, 18 June 1996, reprinted as "ROK: 'At Least 100' Allegedly Die of Hunger in DPRK's Hamhung," *FBIS/EA*, 19 June 1996, p. 46.

for war: historically, such shocks have been generated not only by system-wide crises, such as the collapse of the CMEA trade regimen, but also by international sanctions or wartime embargoes. The third set of problems pertains to the stresses attendant to severe food shortages under Communist economies. In the following pages, we will briefly consider historical evidence on each of these issues. We will conclude with some comments about the relevance and implications of these analogies for the DPRK's prospects in the period ahead.

Modern War Economies and the Phenomenon of "Economic Collapse"

The experiences of modern industrial economies subjected to the stresses of total mobilization for purposes of national survival are perhaps most dramatically represented in the Second World War II. Some penetrating global economic histories of that period have been written⁸; in addition, detailed studies of particular combatant economies⁹ and specific economic sectors of given warring states¹⁰ have been undertaken. Rather than attempt an encyclopedic summary of this literature, it may

8 Including, Alan S. Milward, *War, Economy, and Society: 1939–1945* (Berkeley, CA: University of California Press, 1977); and Richard James Overy, *Why the Allies Won* (New York: W. W. Norton & Co., 1996).

9 John Barber and Mark Harrison, *The Soviet Home Front, 1941–1945: A Social and Economic History of the USSR in World War II* (New York: Longman, 1991); and Richard James Overy, *War and Economy in the Third Reich* (New York: Oxford University Press, 1994).

10 To cite a few: Mark Harrison, "Soviet Industrialisation Under Late Stalinism (1945–55): The Short-Run Dynamic of Civilian Output from Demobilisation to Rearmament," *Journal of European Economic History*, Vol. 17, No. 2 (1988), pp. 359–78; Bruce F. Johnston, *Japanese Food Management in World War II* (Stanford: Stanford Food Research Institute, 1953); Susan Linz, ed., *The Impact of World War II on the Soviet Union* (Totowa, NJ: Rowman and Allheld, 1985); Alfred C. Mierzejewski, *The Collapse of the German War Economy, 1944–1945: Allied Air Power and the German National Railway* (Chapel Hill, NC: University of North Carolina Press, 1988); and Gunter J. Tittel, *Hunger Und Politik: die Ernährungskrise in der Bizone (1945–1949)* (Frankfurt: Campus Verlag, 1990).

suffice to offer a few observations that relate directly to North Korean conditions and prospects.

First, at the peak of the war the combatant powers were allocating an extraordinary and perhaps historically unparalleled share of national output to their military efforts. In the United States and Japan, the war effort absorbed over 40 percent of national output in 1944; in Germany and the United Kingdom, it absorbed over 50 percent; and in the USSR, it may have absorbed an astonishing 60-plus percent.¹¹ In North Korea, by contrast, defense expenditures are estimated by the US government to have accounted for about 20–25 percent of GNP in the early 1990s.¹² Some studies suggest that such an estimate may somewhat understate the share of national output accruing to the military in the DPRK.¹³ Even so, it would appear that North Korea is not, by these guideposts, an economy on a full-pitched war footing. To extend the analogy: by the criterion of resources allocated to military effort, the DPRK today looks like a 1943 economy, not a 1944 economy.

Second, total war mobilization was a discrete, and relatively brief, episode in the economic histories of all the combatant powers. For the United States and the USSR, the period of maximal exertion lasted about a thousand days, after which a demobilization immediately commenced. For Germany and the United Kingdom, the war lasted just under six years; the phase of full-war footing, about three years. For Japan, whose Pacific War may be said to have begun in 1937, the period of conflict was longest, but even in Japan the shift to total-war mobilization did not take place until after 1942. In contrast to these extraordi-

11 Milward, *War, Economy, and Society*; Overly, *Why the Allies Won*; Barber and Harrison, *The Soviet Home Front*.

12 United States Central Intelligence Agency, *Handbook of International Economic Statistics: 1995* (Washington, DC: National Technical Information Service, 1995), p. 281.

13 Eberstadt, *Policy and Economic Performance in Divided Korea*.

narily intense but relatively brief bursts, the DPRK's economy has been placed on something approaching full-war footing for over a generation—certainly since 1970, arguably since the mid-1960s.¹⁴ Thus, whereas a full-fledged war economy has been but an historical interlude for the contemporary great powers, it is a continuing historical epoch in the DPRK. One might well expect qualitatively different stresses to arise on such qualitatively different time-scales.

Third, several of the combatant economies during World War II apparently managed to squeeze an absolute increase in military resources out of a declining economy. This appears to have been the case, for example, in the USSR between 1940 and 1942, and in Germany and Japan during portions of 1944. What is noteworthy, however, is that such arrangements were unstable and inherently unsustainable, even under the exigence of life-and-death conflict. In the USSR, these unsustainable trends were resolved by stabilization of the front, limited recovery of the domestic industrial base in areas under Soviet control, and massive "mutual aid" from America and Britain.¹⁵ In Germany and Japan, the same trends ended with defeat and regime collapse. If North Korea today is attempting to maintain or increase what have been very substantial allocations to its military on what is now apparently a diminishing economic base, it too would appear to be embarked upon an inherently unsustainable trajectory.

Fourth, and perhaps most importantly, the experience of the Second World War attests to the fact that economies can indeed collapse—and not just the regimes supervising them.

"Economic collapse," of course, is a somewhat ambiguous concept, and has correspondingly been defined in a variety of ways.¹⁶ One unambiguous indication of a certain kind of "eco-

14 Ibid.

15 Barber and Harrison, *The Soviet Home Front*.

conomic collapse," however, is when a modern industrialized economy is no longer capable of satisfying the nutritional needs of substantial portions of its population through existing mechanisms. Viewed from this vantage point, both Germany and Japan may be seen to have suffered an economic collapse that *preceded* surrender, and lasted into the postwar era.

As has been documented in some detail, the national food systems of both Japan and Germany essentially broke down in the months before the end of World War II.¹⁷ In part, these food crises reflected drops in agriculture production under circumstances inauspicious for cultivation. They also, however, spoke to pervasive disruption in the established distribution system. It was not only that the transportation system's capacities were

**Table 1. Urban Fraction of the Total Population:
Germany and Japan, 1939-1955**

<u>West Germany</u>		<u>Japan</u>	
May 1939	70.5	Oct. 1940	37.9
Oct. 1946	68.6	Feb. 1944	41.1
Sept. 1950	71.1	Nov. 1945	27.8
		Apr. 1946	30.4
		Aug. 1948	34.6
		Oct. 1950	37.5
		Oct. 1955	56.3

Source: Hirshleifer, 1963 (see note 16)

16 See, Jack Hirshleifer, *Disaster and Recovery: A Historical Survey* (Santa Monica: RAND, Memorandum Rm-3079-PR, April 1963), p. 113. In perhaps the finest study to date on the economics of disaster and recovery, Hirshleifer defines economic collapse as: "a failure in the mode of functioning of the economic system, in essence, a breakdown in the division of labor . . . [E]ssential connecting links in the economic system [are] broken, so that production [falls] even more rapidly than . . . the resources available. . . ." For all its virtues, even this careful definition seems problematic. It would seem to suggest that the United States circa 1933, for example, was experiencing economic collapse, which it was not.

17 Johnston, *Japanese Food Management in World War II*; Trittel, *Hunger Und Politik*.

disintegrating (although this too surely was a problem): more fundamentally, the rules by which people had previously traded foodstuffs for nonfood goods had suddenly been changed or, *in extremis*, abrogated.

As a result of these micro- and macroeconomic changes, both Germany and Japan were swept by a terrifying and general hunger at the end of the war. The hunger lasted on into the peace. For most people, life became a quest for food. Under these new conditions, the group least equipped to manage its own nutritional security was the urban population. In consequence, both Germany and Japan underwent prolonged de-urbanization (see Table 1). In West Germany, prewar levels of urbanization were not reattained until 1950; in Japan, the 1944 urbanization ratio was not exceeded for a decade after the war. (The timing of reurbanization, incidentally, seems closely related to the equalization of nutritional opportunities between city and countryside).

For North Korea, the implications are straightforward: "economic collapse" can occur even in strictly managed war economies, and has in the past. But are these previous cases relevant? North Korea is not in the midst of a cataclysmic battle; nor is it facing imminent military defeat. How then do the shocks and stresses North Korea currently confronts differ from those that led to economic collapse in Germany and Japan half a century ago? We will examine this more closely in the following two sections.

Trade Shocks, Trade Sanctions, and Economic Blockades

Sudden disruptions of a country's standing patterns of trade and international finance can pose both immediate and longer-term challenges to local economic performance and the state policies designed to influence it. If output is to be maintained or increased in the face of external dislocations, then far-reaching adjustments—and correlatively, the policies and mechanisms for

effectuating these—may be required. If economic contraction cannot be forestalled by policy adjustments—or if the national directorate in question is unable or unwilling to implement measures that would stabilize aggregate output—the local government and the economic agents under its authority must then cope with the stresses (including allocative conflicts and welfare losses) that necessarily accompany the restriction of production possibilities.

While major dislocations in a country's trade profile have sometimes occurred in the past as the result of deliberate design by a state's rulers (typically in tandem with a radical or revolutionary transition in domestic politics), such major shocks more often seem to be generated by great international events: system-wide economic crises, war, and/or coercive diplomacy (sanctions, embargoes, and the like). There is a considerable corpus of scholarly literature analyzing the conditions under which externally applied economic pressure is likely to achieve the political objectives desired by the states and organizations "sending" it.¹⁸ By contrast, relatively few studies have systematically examined the political economy of adjustment to severe external economic shocks.¹⁹ Nevertheless, examination of the historical record and reflection upon current events can cast light on the ways in which states succeed—or fail—to deal with sudden and systemic stresses on their international economic regimen.

18 To cite just a few: David A. Baldwin, *Economic Statecraft* (Princeton, NJ: Princeton University Press, 1985); Richard Ellings, *Embargoes and World Power: Lessons from American Foreign Policy* (Boulder, CO: Westview Press, 1985); Gary Clyde Hufbauer, Jeffrey J. Schott, and Kimberly Ann Elliott, *Economic Sanctions Reconsidered*, second ed. (Washington, DC: Institute for International Economics, 1990); Linda Martin, *Coercive Cooperation: Explaining Multilateral Economic Sanctions* (Princeton, NJ: Princeton University Press, 1992); David M. Rowe, "The Domestic Political Economy of International Economic Sanctions," Harvard University Center for International Affairs, *Working Paper Series* no. 93-1 (1993).

19 Two interesting, but by no means comprehensive, treatments are, Peter A. Gourevitch, *Politics in Hard Times: Comparative Response to International Economic Crises* (Ithaca: Cornell University Press, 1986); and, Edmund Burke III, ed., *Global Crises and Social Movements* (Boulder, CO: Westview Press, 1988).

The two world wars offer stark examples of disruption of trade and purposeful constriction of international supplies at the hand of enemy powers. In World War I, Anglo-American naval superiority permitted an embargo on the Central Powers' seaborne trade; historians judge this embargo to have become largely successful by 1915, and to have grown increasingly effective at interdicting supplies thereafter.²⁰ In World War II, Anglo-American naval predominance, and later air superiority, allowed the Allies to pursue "economic warfare" against the Axis Powers, obstructing not only external trade but (through the air war) the internal availability and circulation of strategic and nonstrategic goods.²¹ It was, and still is, widely presumed that Anglo-American efforts to blockade enemy trade had a telling impact on the economic capabilities of the Central and Axis powers, and thus ultimately on the course of the two world wars.²² The conjunction of concerted blockade and subsequent military defeat clearly lends itself to inferences of cause and effect. But careful economic studies since those wars have suggested a more qualified and complex picture.

In the estimate of these studies, the "trade shocks" imposed upon Germany in World War I, and upon Germany and Japan in World War II, were probably not a limiting constraint on wartime production. Despite Allied success in compromising

20 Gerd Hardach, *The First World War, 1914–1918* (Berkeley: University of California Press, 1977). In real terms, for example, p. 25, Germany's trade volume fell by about two-thirds between 1914 and 1917.

21 See Jerome B. Cohen, *Japan's Economy in War and Reconstruction* (Minneapolis: University of Minnesota Press, 1949); Mierzejewski, *The Collapse of the German War Economy*; Milward, *War, Economy, and Society*; Alan S. Milward, "Restriction of Supply as a Strategic Choice," in Gordon H. McCormick and Richard E. Bissell, eds., *Strategic Dimensions of Economic Behavior* (New York: Praeger, 1984); Richard Overly, *War and Economy in the Third Reich*; Overly, *Why the Allies Won*.

22 That perception, inter alia, was fateful fuel for the *Dolchstoßlegende* of the pre-Hitler era—the notion that German troops, although "unbeaten on the field" in World War I, had been "stabbed in the back" by domestic traitors and foreign foes.

their enemies' ability to obtain or exchange resources beyond their zone of conquest, Germany in World War I proved capable of maintaining—and both Germany and Japan in World War II proved capable of steadily increasing—domestic output throughout most of the conflicts in question (in fact, until months before their final surrenders).

In Japan, for example, real GDP is estimated to have been over twenty percent higher in 1944 than it had been in 1941.²³ Even economic efficiency appeared to rise in the face of blockade and bombing: in Nazi Germany, for example, output per worker in 1944 was over thirty percent higher in consumer industries, and over sixty percent higher in military industries, than in 1939.²⁴

How could all this be explained? Hardach's answer for the first world war applies equally to the second: in the final analysis, "a broadly-based economic system such as that of the Central Powers bears little more than a superficial resemblance to a beleaguered fortress, compelled to surrender for lack of supplies."²⁵

Though constrained to some considerable degree from economic exchange with territories not under their direct control, both Berlin and Tokyo at the height of their powers held sway over regions inhabited by hundreds of millions of people, and endowed with a rich variety of natural resources. Wartime distortions notwithstanding, the economies of the Third Reich and the Japanese Empire were modern and diversified economies; they had already achieved relatively high levels of industrial output, and had the technological, organizational, and administrative capability to expand output further—even while experiencing shortages of certain key strategic materials—through prioritized substitution of inputs and "rationalization"

23 Milward, "Restriction of Supply as a Strategic Choice," p. 85.

24 Overy, *War and Economy in the Third Reich*, p. 367.

25 Hardach, *The First World War*, p. 31.

of production. Thanks to administrative and organizational flexibility, in fact, Nazi Germany's actual *consumption* of oil and oil products was higher in early 1944 than in 1940 (as was its consumption of such other strategic goods as chrome and rubber) despite blockade and increasingly intensive aerial bombardment by the Allies.²⁶ By itself, then, "economic warfare" appears to have placed surprisingly little constraint on the productive capacities of the combatant powers in the two world wars.²⁷ The question, however, is whether "economic warfare" per se was a decisive or merely a contingent factor in the eventual collapse of the Nazi economy and the Japanese Imperial economy. After September 1944, as Mierzejewski has persuasively detailed, the German national railway system began to crumble under Allied bombing, and consequently the Third Reich's planned economy commenced an accelerating disintegration.²⁸ But as Milward has shown, the success of the Allied air offensive at that precise time turned on the Luftwaffe's sudden inability to maintain supplies of aviation fuel for its fighter defense squadrons²⁹ and the shortage of high-quality aviation fuel, in turn, was a direct result of Germany's loss of control over Romanian oil fields to advancing Soviet forces. In this sense, the success of economic warfare may be said to have hinged on the success of *military* warfare!

What held for Germany also seems to have obtained for Japan: Economic warfare depends for its success on the ability to restrict an enemy economy to a small and known stock of basic resources. Economic warfare was [ultimately] so successful

26 Milward, "Restriction of Supply as a Strategic Choice."

27 Of course, as Overy has pointed out, (*Why the Allies Won*, p. 133) there has always seemed something fundamentally implausible about the contention that dropping almost 2.5 million tons of bombs on tautly stretched industrial systems and war-weary populations would not seriously weaken them.

28 Mierzejewski, *The Collapse of the German War Economy*.

29 Milward, *War, Economy, and Society*.

against Japan because Japan was driven back from her imperial outposts to the limited economic base of the home islands and Korea.³⁰

Paradoxically, as Ellings has argued:

City-states of centuries past, lacking resources, large territories, and diversified economies, may have been more vulnerable—and more inviting of [coercive] economic measures—than many nations today.³¹

The analogy also holds for the Confederate economic experience in the American Civil War, arguably the earliest instance of total war in the modern era. Although economic data from the Confederacy were limited and of mixed quality, a number of studies have concluded that the North's near-total blockade of Southern trade (General Scott's "Anaconda Plan") was an important factor undermining the Confederacy's ability to continue in the war.³²

The efficacy of the "trade shock" the Union imposed upon the Confederacy derived in large part from circumstances beyond Richmond's control as of 1861: (1) the South's domestic market and division of labor were limited by its rather small population (eleven million, of whom four million were slaves); (2) the South was an overwhelmingly rural and agricultural economy (ninety percent of the population and eighty percent of the labor force in the 1860 census, respectively); (3) to the extent that the

30 Ibid., p. 321.

31 Ellings, *Embargoes and World Power*, p. 25.

32 See, among others, Robert B. Ekelund and Mark Thornton, "The Union Blockade and Demoralization of the South: Relative Prices in the Confederacy," *Social Science Quarterly*, Vol. 73, No. 4 (1992), pp. 890–902; Paul V. Gates, *Agriculture and the Civil War* (New York: Alfred A. Knopf, 1965); Mary Elizabeth Massey, *Ersatz in the Confederacy* (Columbia, SC: University of South Carolina Press, 1952); David George Surdam, "Northern Naval Superiority and the Economics of the American Civil War," unpublished PhD dissertation, University of Chicago, Department of Economics, 1994.

Southern economy had modernized, it had strategically specialized in the production of agricultural cash crops (e.g., cotton, tobacco), and was thus ill-prepared for a suddenly enforced autarky.

This being said, however, it would also appear that the economic stresses upon the Confederacy were dramatically intensified by the unwise economic policies and practices of its leadership. In the earliest period of the war, for example, before the Northern blockade was in effect, the Confederacy withheld the South's cotton crop from the world market, on the mistaken belief that its cartelization of "King Cotton" would bring financial benefits, or foreign intervention, or both; as it happened, overseas textile manufactures developed substitutes for Southern cotton, and the South lost a major opportunity to finance part of its war effort. Southern policy also prohibited trade with the Union across the land border the two sides shared, even though such trade was evidently much more beneficial to the Southern monoculture economy than to the more diversified Northern economy.³³ The Confederate states resorted to highly inflationary fiscal and monetary policies to finance their war effort; the resulting hyperinflation (price increases averaged roughly ten percent per month over the course of the war) surely exerted an independent effect on commerce and production. Episodic "impressment" (unremunerated requisition) of marketed farm goods and promulgation of price controls contributed to a breakdown of domestic trade and a retreat to subsistence enclaves within the economy. Finally, a conspicuous lack of coordination of economic policies among the Confederate states themselves increased the risks, costs of information, and "transaction costs" facing all economic agents in the wartime South.

To be sure, none of this is to argue that the South could have won the war, or vastly prolonged the war, with more auspicious

33 Jack Hirshleifer, *Disaster and Recovery: A Historical Survey* (Santa Monica: RAND, Memorandum Rm-3079-PR, April 1963).

economic policies. As Hirshleifer intimated, the South's defeat at the hands of the North looks to have been seriously "over-determined."³⁴ Nevertheless, the strikingly untoward nature of the South's adjustment policies to the "trade shocks" that buffeted it should remind us that official responses to external economic dislocations can magnify the economic stresses in the domestic economy—and not only in theory.³⁵

In more recent times, numerous states have been forced to cope with significant dislocations in their external economies due to system-wide global crisis or coercive economic diplomacy.³⁶ For our purposes, a brief review of four cases over the past decade from the developing areas may be most informative: the Republic of South Africa, Vietnam, Cuba, and Iraq.

Of the four countries, South Africa experienced the mildest external economic shocks—precipitated, in this instance, by a mounting international campaign of anti-apartheid trade and investment sanctions after 1985. Because South African exports were in the main homogeneous and highly marketable primary products, South Africa did not suffer any significant contraction in trade volume due to the sanctions campaign. Between 1985 and 1990, for example, the volume of imports and exports both increased by about ten percent, and the country continued to run

34 Ibid., p. 37–38

35 The adverse—and continually adverse—role of policy on economic performance in the Southern states is suggested by the extraordinarily long time required to reattain antebellum levels of output per capita. For the South as a whole, per capita output may not have reached 1860 levels until the beginning of the Twentieth Century; for the states of the "Deep South," recovery by this measure may not have been achieved until the eve of World War I: Claudia D. Goldin and Frank D. Lewis, "The Economic Cost of the American Civil War: Estimates and Implications," *Journal of Economic History*, Vol. 35, No. 2 (1975), pp. 299–326. War devastation by itself would not seem to explain such an extended hiatus: recall that per capita output had recovered to prewar levels within six years of defeat in West Germany, and within nine years in Japan.

36 Gary Clyde Hufbauer, Jeffrey J. Schott, and Kimberly Ann Elliott, *Economic Sanctions Reconsidered*, second ed. (Washington, DC: Institute for International Economics, 1990).

a current account surplus (albeit a declining one). Sanctions did, however, affect international business confidence: more than half of the multinational corporations with investments in South Africa sold their holdings; new direct foreign investment essentially ceased; and money center banks became extremely wary about extending credit to either the South African public or private sector.³⁷ South Africa's estimated GDP grew sluggishly after the onset of international sanctions, and estimated per capita GDP actually declined slightly (by about four percent) between 1985 and 1990.³⁸

How much sanctions had to do with this stagnation, however, is unclear; for a variety of reasons—including expensive *dirigiste* policies—economic growth in South Africa had been steadily slowing down for a generation beforehand.³⁹ Be that as it may: the *perceived* pressure of these sanctions proved to be instrumental in bringing the apartheid regime to an end. This relinquishing of state control under relatively limited external economic pressure can be explained diversely; one important factor, however, may relate to solidarity and regime legitimacy. A willingness among South Africa's races to share sacrifice in the face of perceived economic loss was simply not an option with anti-apartheid sanctions. Even within the white population, anti-apartheid sanctions exposed deep fissures, between an English-language community principally employed in the private economy and an Afrikaans-speaking population largely employed by the public sector. Furthermore, apartheid had already lost substantial credibility among its ostensible prime beneficiaries: in 1986, for example, South Africa's Dutch Re-

37 Kenneth A. Rodman, "Public and Private Sanctions against South Africa," *Political Science Quarterly*, Vol. 109, No. 2 (1994), pp. 313–34.

38 All figures derived from, International Monetary Fund, *International Financial Statistics Yearbook 1995*, (Washington, DC: IMF, 1995), p. 697.

39 Nicholas Eberstadt, *The Tyranny of Numbers* (Washington, DC: American Enterprise Institute, 1995), Chapter 7.

formed Church (the faith in which the overwhelming majority of Afrikaners confessed) reversed its earlier teachings and declared that apartheid had no scriptural basis or justification.

Vietnam offers the example of a planned economy directed by a Marxist-Leninist party that adjusted successfully to serious external economic shocks. With the final crisis of the Soviet Union and the dissolution of the Council for Mutual Economic Assistance (CMEA) in August 1990, the framework through which Vietnam heretofore had conducted the great bulk of its international commerce suddenly evaporated. Trade turnover with the former CMEA states, under a new regimen of unsubsidized market prices, completely collapsed: in nominal dollars and at official exchange rates, both imports and exports with the former Soviet bloc fell by about 90 percent between 1990 and 1991. That drop amounted to well over 50 percent of Vietnam's total trade turnover for 1990 (once again measured in nominal dollars and at official exchange rates).

Vietnam's economy, however, did not contract under this shock: instead real GDP is estimated to have risen by 6 percent in 1991.⁴⁰ Similarly, overall trade volume actually *rose* in 1991: exports increased by an estimated 18 percent,⁴¹ imports increased by an estimated 12 percent, and the current account deficit declined! Nor were these improvements epiphenomenal. Between 1990 and 1994, Vietnam's export growth averaged an estimated 19 percent per annum, and real GDP growth averaged an estimated 7 percent a year.

While these figures may somewhat overstate Vietnam's performance, there is no doubt that the Vietnamese economy fared very well despite a severe interruption of its standing trade patterns. How did it manage this feat?

40 World Bank, *From Plan to Market: World Development Report 1996* (Oxford: Oxford University Press, 1996).

41 Lei-Xiao Zuo, "Development of an Open Door Policy: Experience of China and Vietnam," *Singapore Economic Review*, Vol. 39, No. 1 (1994), p. 29.

Intangible factors—including good luck—may have played a role. But the most obvious factor in this successful adjustment was the policy regimen embraced by Vietnamese leadership. From 1986 on, Vietnam's rulers had embarked upon *doi moi* ("a new way") economically. Their program, a tightly politically controlled economic liberalization buffered by stabilization measures, had been in place for several years when the Soviet trade crisis began to loom. In response to the impending crisis, Vietnamese economic policy grasped for export-led-growth-cum-stabilization. A series of devaluations made Vietnamese products (primary or labor-intensive goods) attractive in the international marketplace; interest rates at savings institutions were indexed against inflation; and the budget deficit (8 percent of GDP in 1990) was ruthlessly slashed (2.5 percent of GDP in 1991).⁴² Vietnam's macroeconomic policy adjustments in the early 1990s are in some ways reminiscent of South Korea's shifts in economic policies in the 1962–65 period, the years that set the stage for South Korea's transition to export-led growth. Perhaps this should not surprise, insofar as South Korea's entry into an outward-oriented economic regimen was similarly propelled by policies anticipating an external economic shock (in Seoul's case, the anticipated termination of American economic assistance).

In contrast to Vietnam, Cuba's economy to date has not adjusted successfully to the termination of Soviet-bloc aid and trade (see Figure 1). Official US estimates suggest that the nominal dollar value of Cuba's overall imports and exports both fell by about 70 percent between 1989/91 and 1993/94.⁴³ While GDP estimates for the Cuban economy are problematic, it is apparent that the system has suffered a severe downturn. Ac-

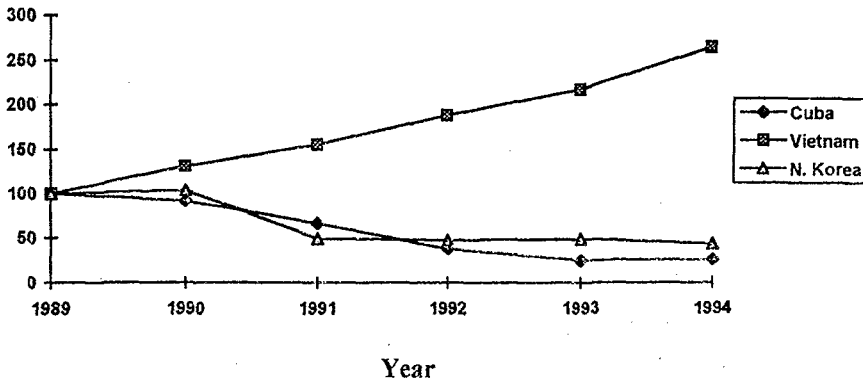
42 George Irvin, "Vietnam: Assessing the Achievements of *Doi Moi*," *Journal of Development Studies*, Vol. 31, No. 5 (1995), p. 735

43 CIA, *Handbook of International Economic Statistics*: 1995, p. 156.

Figure 1
Performance in Selected Communist Countries

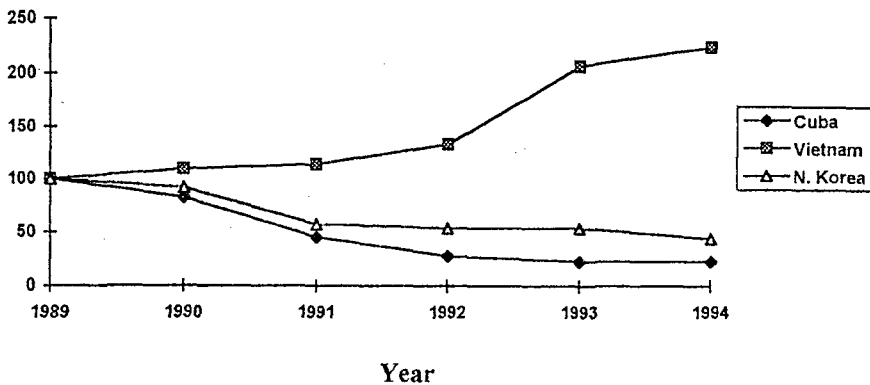
A. Exports, 1989–1994 (1989=100)

Relative value (1989 = 100)



B. Imports, 1989–1994 (1989=100)

Relative value (1989 = 100)



Note: Trade volume is aggregated in current US dollars at official exchange rates.

Sources: for Cuba—US CIA, *Handbook of International Economic Statistics: 1995* (Washington, DC: National Technical Information Service, 1995); for Vietnam—Lei-Xiao Zuo, "Development of an Open Door Policy: Experience of China and Vietnam," *Singapore Economic Review*, Vol. 39, No. 1 (1994); for N. Korea—Young Namkoong, "An Analysis of North Korea's Policy to Attract Foreign Capital," *Korea and World Affairs*, Vol. 19, No. 3 (1995).

cording to some assessments, Cuba's GDP in 1993 was only half as large as it had been in 1989;⁴⁴ in 1994 and 1995, according to others, per capita GDP growth may also have been marginally negative.⁴⁵

For a cash-crop export economy with a relatively small population (eleven million), unrealistically advantageous terms of trade with its erstwhile CMEA partners, and a fairly high ratio of CMEA trade to domestic output, the short-term problems posed by the abrupt disappearance of the Soviet trade bloc would be formidable under any circumstances. Havana's policies, however, appear to have intensified rather than relieved the structural pressures on the Cuban economy. In the memorable (if not completely accurate) description of one Cuba specialist, the Cuban approach to its trade shock problems has been "a unique case of anti-market reform."⁴⁶ For several years after the trade shock, the Castro government embraced a somewhat contradictory strategy that included more stringent rationing, tighter trade controls, stimulation of domestic socialist "infant industries," deficit financing, and development of hard currency enclaves (most notably tourism).

To date the strategy has failed to spark recovery for self-evident reasons. Under Cuba's socialist institutional structure, "supply side" responses are difficult to elicit; the turn against market mechanisms after 1989 only reduced the elasticity of supply further. On the demand side, the lurch toward deficit finance created even greater disequilibrium in the peso-sector of

44 Manuel Pastor, Jr. and Andrew Zimbalist, "Waiting for Change: Adjustment and Reform in Cuba," *World Development*, Vol. 28, No. 5 (1995), p. 708.

45 Ann Wroe, "Heroic Illusions: A Survey of Cuba," *The Economist*, Vol. 339, 8 April 1996, p. S6.

46 Carmelo Mesa-Lago, "Cuba: Un Caso Unico de Reforma Anti-Mercado: Retrospectiva y Perspectivas," *Pensamiento Iberoamericano*, no. 22/23 (1992/1993), pp. 56-100. See, also, Claudio E. Montenegro and Raimundo Soto, "How Distorted Is Cuba's Trade? Evidence and Predictions from a Gravity Model," *Journal of International Trade and Economic Development*, Vol. 5, No. 1 (1996), pp. 45-68.

the economy (e.g., the official economy); in tandem with stricter trade controls, the effect was to forestall employment of under-utilized factors of production, to complicate the purchase of needed intermediate goods, and to hinder the reallocation of resources.

Unlike the American Confederacy's unfortunate commercial and financial strategy, Cuba's adjustment program may not be a matter simply of economic naivete. Political and ideological calculations likely frame Castro's vision of adjustment policies; it seems quite possible that prolonged depression and economic decline could be viewed by leadership as preferable to potentially destabilizing recovery. In any event, to date the Castro regime has demonstrated that it can deal to its own satisfaction with the political consequences of its ongoing economic slump. The efficacy of Cuba's extensive internal security services is crucial to this strategy;⁴⁷ Also important has been the regime's acquiescence after 1993 in a creeping "dollarization" of a still formally illegal private service economy. Dollarization has permitted the regime implicitly to renegotiate its social contract with the citizenry, lowering state guarantees while still holding out the possibilities that basic needs might be met through other (extralegal) channels and activities. Irrespective of its economic merit or its long-term ideological viability, this has proved to be a shrewd political tactic for defusing some of the stresses that Cuba's more overarching economic strategy seems to have created.

Iraq, finally, presents the example of a militarized economy that has been under strict and fairly watertight international trade sanctions. Since August 1990, when its forces invaded Kuwait, Iraq has been subject to United Nations sanctions that

47 Edward Gonzalez and David Ronfeldt, *Storm Warnings for Cuba* (Santa Monica, CA: RAND, Memorandum MR-432-OSD, 1994); Douglas W. Payne, "Inside Castro's Mafia State," *Society*, Vol. 33, No. 2 (1996), pp. 39-46; Wroe, "Heroic Illusions." See, also, David Rieff, "Cuba Refrozen," *Foreign Affairs*, Vol. 75, No. 4 (1996), pp. 62-76.

severely limit its ability to generate export earnings through oil sales (which accounted for perhaps ninety percent or more of Baghdad's revenues in the 1980s). According to official US estimates, Iraqi oil exports, which averaged 1.6 million barrels a day in 1990, averaged only 100,000 barrels per day from 1992 to 1994.⁴⁸ Oil revenues, which had averaged over \$11 billion a year between 1985 and 1990, fell to an estimated \$1 billion a year or less between 1992 and 1994. Estimates of Iraq's overall economic decline vary, but many informed observers guess that per capita output has fallen by rather more than half between 1990 and 1995. In addition to these economic setbacks, Iraq also suffered an economically and politically costly destruction of much of its military force during its 1991 defeat in the Gulf War.

As long as the economic sanctions against it are effectively implemented, Iraq has little alternative but to endure a pronounced economic slump. Iraq's fundamentals are not auspicious for counteracting the economic impact of tightly enforced restrictions on its international trade. Iraq's was a relatively undiversified economy, highly dependent upon oil exports for its international earnings, characterized by a fairly high ratio of trade to domestic output. Its national population is neither large (about 20 million) nor particularly well-educated (over 40 percent adult illiteracy, according to the World Bank)⁴⁹ these particulars place distinct limits on both the potentialities of the domestic market and on the capabilities of economic agents and organizations to respond to exogenous economic shocks.⁵⁰

Just as with Cuba, however, five years of steep economic decline does not yet seem to have brought Iraq's ruling powers

48 CIA, *Handbook, From Plan to Market*.

49 World Bank 1996, p. 222. Note that all figures on national rates of illiteracy should be treated with caution.

50 Note, *inter alia*, that in Vietnam, which seems to have coped well with its Soviet trade shock, adult illiteracy is placed at 9 percent for women and 4 percent for men by the World Bank (1996, p. 200).

to the point of political crisis. And as with Cuba, much of the regime's success to date in quelling potentially destabilizing pressures can be credited to the system's carefully developed capabilities for social control and to the political skills of the top leadership.⁵¹ The internal security apparatus operated by the Iraqi state and by the Baath party appear to be fearsomely efficient—possibly the “best” ever in the Arab-speaking world. Saddam Hussein's personal role in keeping a complex and potentially highly volatile situation under control, moreover, should not be minimized. Leadership matters, and whatever else may be said of him, it would appear that Saddam understands Iraqi politics rather better than any of his domestic or international opponents.⁵²

Centralizing control around a core group of trusted family members, relying heavily upon the loyalty of his own clan (the Takriti), and playing to the powerful strain of stubborn and defiant nationalist sentiment for the many groups with which he would otherwise have little affinity, has proved so far to be a winning formula for Saddam Hussein.

From the standpoint of economic management, while it is incontestable that international sanctions have dramatically reduced Iraq's production possibilities, it also seems to be the case, as Clawson has argued, that “Iraq has adjusted to sanctions to a degree not anticipated by people who placed high hopes in sanctions when they were first adopted.”⁵³ Strict and austere

51 Patrick Clawson, “How Has Saddam Hussein Survived? Economic Sanctions, 1990–93,” *McNair Paper No. 22* (Washington, DC: National Defense University Institute for National Strategic Studies, 1993); Graham E. Fuller, *Iraq in the Next Decade: Will Iraq Survive Until 2002?* (Santa Monica, CA: RAND, Note N-3591-DAG, 1993); “Iraq: Down But Not Out,” *The Economist*, vol. 335, 8 April 1995, pp. 21–23 (see, also, “Iraqis Count the Cost of Sanctions,” *The Economist*, Vol. 330, 19 February 1994, p. 46; “King Saddam,” *The Economist*, Vol. 333, 14 November 1994, pp. 59–60); Ahmed Hashim, “Iraq: Fin de Regime?” *Current History*, Vol. 95 No. 597 (1996), pp. 10–15.

52 One Iraqi official put it memorably: “Waiting for Saddam Hussein to go is like waiting for Godot to arrive.” Hashim, *ibid.*, p. 14.

rationing (enacted the month of the UN sanctions) has afforded the population under Saddam's control a guarantee of (bare) caloric adequacy. In contrast to the populist package of responses to economic difficulties so often proffered in modern Middle Eastern politics, Baghdad ruthlessly cut back public sector employment (including military personnel) after sanctions and battlefield defeat; at the same time, it attempted to stimulate the growth of the private service sector by relaxing previous restrictions on it. Demonstrated indifference to the prospects of Iraq's "middle class" (educated workers lacking direct access to hard currency or tradable goods) permitted a strategy in which the burdens of adjustment fell disproportionately on that group. Ingenious efforts to circumvent sanctions—through border smuggling, illegal sale of booty from Kuwait, drawdown of gold stocks, expenditures from unidentified (thus never frozen) foreign bank accounts, and other devices—have enhanced the regime's capabilities to procure imports from abroad. Though such magnitudes are conjectural, some observers guess that Iraq has managed to import about \$3 billion in goods and services a year—far less than before Baghdad's Kuwait adventure, but roughly twice what the UN sanction regimen envisioned. What Clawson observed about the advent of the sanctions regime seems to obtain, at least to some degree, five years later: "Outside analysts . . . had only the vaguest idea of what Iraq had in the way of stocks and adjustment capacity when the sanctions started."⁵⁴

And what of North Korea? As Pyongyang's leadership has repeatedly emphasized,⁵⁵ the unexpected loss of Soviet aid and trade in 1990 and 1991 constituted a serious setback to the national economy. If so, it was a setback from which DPRK trade

53 Clawson, "How Has Saddam Hussein Survived?"

54 Ibid., p.14.

55 Eberstadt, et al., "The Collapse of Soviet/Russian Trade."

performance has yet to recover: the absolute volume of North Korean trade turnover (calculated in current dollars and at official exchange rates) is believed to have declined almost continuously between 1990 and 1994,⁵⁶ and may have fallen still further since then. North Korea's trade falloff does not look to have been as precipitous as Cuba's (see Figure 1), or perhaps Iraq's. On the other hand, in absolute terms DPRK imports per capita—perhaps \$50 a year—are far lower than Cuba's (about \$180) or Iraq's (perhaps \$150), and North Korea's current ratio of imports to domestic output is also probably far lower.

Unlike wartime Germany and Japan, North Korea has only a medium-sized domestic population (about twenty-four million people) and only a limited endowment of the natural resources its economy requires to continue functioning (energy products being perhaps the most critical constraint here). Without securing access to such resources through imports, the DPRK's socialist economy, as currently structured, can be expected to undergo continuing stagnation and decline.⁵⁷ To date, however, no turnaround in DPRK trade performance is evident.

In this respect, North Korea's response to its Soviet trade shock differs diametrically from Vietnam's, where external economic pressures were met by output- and productivity-augmenting macroeconomic policy shifts. North Korea's circumstances also differ from Iraq's, where formally applied international trade pressures cannot be relieved without first explicitly conceding to foreign diplomatic and military demands. The North Korean case is most analogous to the Cuban, where the regime also

56 Young Namkoong, "An Analysis of North Korea's Policy to Attract Foreign Capital," *Korea and World Affairs*, Vol. 19, No. 3 (1995), pp. 459–81; Marcus Noland, "The North Korean Economy," *Joint U.S.-Korean Academic Studies*, Vol. 6 (1996), pp. 127–78.

57 Chun, "Economic Conditions in North Korea"; Nicholas Eberstadt, "'National Strategy' in North and South Korea," *NBR Analysis*, (Seattle: The National Bureau of Asian Research), Vol. 7, No. 5 (1996); Young Namkoong, "Trends and Prospects of the North Korean Economy," *Korea and World Affairs*, Vol. 20, No. 2 (1996), pp. 219–35; Noland, "The North Korean Economy."

theoretically has the option of revitalizing trade through economic liberalization, but declines to do so.⁵⁸

In both Cuba and North Korea, Communist Party leadership appears to have calculated that it is preferable to deal with the economic stresses created by their respective trade shocks than to attempt seriously to alleviate them. Like Iraq's, both Cuba's and North Korea's state systems and official ideologies seem well-suited to handling the political turbulence that might ordinarily accompany economic decline. Both Havana and Pyongyang can rely upon world-class internal security forces; in North Korea, moreover, the degree of social control may be even more complete than in Cuba. Both national directorates (in contradistinction to *apartheid* South Africa's) have striven to inculcate the sentiment of solidarity in the face of common sacrifice—a theme which may resonate especially in countries with a tradition of nationalist resistance to foreign pressure. More subtly, both regimes can play upon popular anxieties about what the future may hold if their political systems should fail: upon what “unification” will mean if it comes on terms established by hostile and unforgiving compatriots.⁵⁹

In meeting the common challenge of managing the stresses attendant upon inadequate adjustments to exogenous economic shock, the Cuban and North Korean regimes appear to have some contrasting assets and liabilities. It would appear to be to North Korea's advantage, for example, that its population was larger, that its socialist economy was more diversified, and that its dependence on foreign trade was lower at the onset of their trade shocks. It would also seem to be North Korea's distinct

58 For an informative evaluation of North Korea's response to pressures for trade and investment liberalization, see Namkoong, “An Analysis of North Korea's Policy to Attract Foreign Capital.”

59 It should be remembered that both Cuba and Korea are currently embroiled in unification struggles. The boundaries of the struggle are self evident on the Korean peninsula; for Cuba, the contending forces are located on the island proper and in Miami, Florida.

advantage that communication with the outside world—a factor that may bear upon public perceptions of regime legitimacy—has been so much more restricted. On the other hand, North Korea's defense effort appears to be far more costly to the national economy than does Cuba's; all other things being equal, Pyongyang's military commitments mean that it would be the DPRK economy that would have to cope with the greater stresses under exogenous external shocks. By the same token, while the North Korean socialist economy may be more diversified than the Cuban, it also appears to be even more severely distorted;⁶⁰ *ceteris paribus*, this suggests that supply-side responses to exogenous shocks would be more inadequate. Finally, and perhaps most importantly, diverse indications suggest that North Korea is nearer the margin of nutritional subsistence today than is Cuba. Qualitatively, ideologically, and *politically*, coping with a shortage of consumer goods is fundamentally different from coping with the specter of hunger.

Food Shortages and Hunger Problems Under Command Planning

North Korea is certainly not the first centrally planned economy to confront domestic food shortages. Episodic but severe food shortages are in fact a characteristic, and arguably predictable, consequence of the twentieth century Marxist-Leninist state's approach to economic management and economic development. Indeed, until recently the DPRK seemed to be something of an exception to regional rules. Up until the early 1990s, North Korea was the only Communist state in Asia that had not suffered from a severe food problem, a bout of mass hunger, or a famine.

Mongolia and North Vietnam, for example, both experienced serious food shortages within the first decade of Communist rule

60 Eberstadt, *Policy and Economic Performance*.

(for Mongolia, in the early 1930s; for North Vietnam, in 1955 and 1956).⁶¹ Outright famine erupted in the Soviet Union on several occasions, perhaps the most devastating being in 1933;⁶² it gripped China in the years 1959 to 1961,⁶³ and it engulfed Cambodia from 1977 to 1979.⁶⁴

The operative and defining feature of virtually all previous food crises under Communist states is that they were policy-induced—or at the very least, policy-intensified. (The single obvious exception to this generalization involved the nutritional shocks that befell the USSR from 1941 to 1945 due to war.)⁶⁵ Each of the aforementioned famines, for example, was either directly caused or severely exacerbated by government policy and prac-

61 C. R. Bawden, *The Modern History Of Mongolia*, revised edition (London: Kegan Paul International, 1989); Robert Rupen, *How Mongolia is Really Ruled: A Political History of the Mongolian People's Republic, 1900–1978* (Stanford, CA: Hoover Institution Press, 1978); Van Chi Hoang, "Collectivization and Rice Production," in P. J. Honey, ed., *North Vietnam Today: Profile of a Communist Satellite* (New York: Frederick A. Praeger, 1962), pp. 117–27; Gerard Tongas, *L'enfer communiste au nord-vietnam* (Paris: E. Debresses, 1960).

62 Alain Blum, *Naitre, vivre et mourir en URSS, 1917–1991* (Paris: Librairie Plon, 1994); Robert Conquest, *The Harvest of Sorrow: Soviet Collectivization and the Terror-Famine* (New York: Oxford University Press, 1986); Michael Ellman, "A Note on the Number of 1933 Famine Victims," *Soviet Studies*, Vol. 43, No. 2 (1991), pp. 375–79.

63 Jasper Becker, *Hungry Ghosts: Mao's Secret Famine* (New York: Free Press, forthcoming); Chris Bramall, *In Praise Of Maoist Economic Planning: Living Standards and Economic Development in Sichuan since 1931* (New York: Oxford University Press, 1993); Nicholas R. Lardy, "The Chinese Economy Under Stress, 1958–1965," in Roderick MacFarquhar and John K. Fairbank, eds., *The Cambridge History of China, Volume 14: The People's Republic, Part I* (New York: Cambridge University Press, 1987), pp. 360–97; Justin Yifu Lin, "Collectivization and China's Agricultural Crisis in 1959–1961," *Journal of Political Economy*, Vol. 98, No. 6 (1990), pp. 1228–52; Dali L. Yang, *Calamity and Reform in China: State, Rural Society, and Institutional Change Since The Great Leap Famine* (Stanford, CA: Stanford University Press, 1995).

64 Karl Jackson, ed., *Cambodia, 1975–1978: Rendezvous With Death* (Princeton, NJ: Princeton University Press, 1989); Yathay Pin, *L'utopie meurtrière: un rescapé du génocide cambodgien temoigne* (Paris: R. Laffont, 1980).

65 William Moskoff, *The Bread of Affliction: The Food Supply in the USSR During World War II* (New York: Cambridge University Press, 1990)

tices. And in virtually every previous serious food problem experienced under Communist rule, extreme food shortages have been the direct result of a new regimen of far-reaching state interventions into agriculture.

In almost every case, moreover, the afflicting state interventions have been almost identical. The three overlapping policies typically to come into force immediately before a severe Communist food shortage were: (1) a sudden decreed change in property rights or ownership structure on the farm, (2) significantly increased state taxes or procurement quotas for agricultural produce, (3) a promulgated shift (e.g., deterioration) in the established terms of trade between food and nonfood goods.

Due to the nature of these interventions, and the incidence of their costs, severe food shortages under Communism have typically been a rural—not an urban—problem. And generally speaking, the severity of the food shortage has varied in proportion to the intensity of the state's adverse policy interventions. The 1933 Soviet famine in Ukraine, for example, appears to have been largely brought on by sharp increases in stipulated procurement quotas in 1932;⁶⁶ the great Chinese famine followed the communization of farms,⁶⁷ the widespread institution of communal "mess hall" dining,⁶⁸ and a drastic increase in procurement, all in 1958 and 1959;⁶⁹ the Cambodian famine was triggered by an indigenous and perhaps even more radical application of the same "Great Leap Forward" techniques.⁷⁰

Note that the major loss of life exacted by famine in each of these instances required active and severe indifference on the part of state authorities to the plight of their rural subjects. The

66 Conquest, *The Harvest of Sorrow*.

67 Lin, "Collectivization."

68 Yang, *Calamity*.

69 Bramall, *In Praise of Maoist Economic Planning*.

70 Jackson.

Soviet Union's 1933 famine ("excess mortality" of approximately seven million⁷¹) was essentially delimited to the borders of the Ukrainian SSR, and not by accident; the Stalin government had chosen to use hunger as an instrument of terror in its quest to achieve complete mastery over a still largely unwilling nationality. (During the depths of the Ukrainian famine, Soviet troops were actually emplaced at border points to prevent travelers from smuggling food in to the desperate region!) In Cambodia ("excess mortality" of approximately one million⁷²), hunger was selectively inflicted upon the "new people" who had inhabited areas not controlled by the Khmer Rouge in the early 1970s; the official attitude towards the suspect "new people" was epitomized in the Khmer Rouge aphorism, "to save you is no gain—to destroy you is no loss." In China ("excess mortality" of approximately thirty million⁷³), famine was not used purposefully as a tool of social control; instead, deadly hunger spread and worsened as the Maoist government stubbornly pressed on with its "Great Leap Forward" program, in apparent disbelief of all reports of the dire hardships it was causing in the countryside.⁷⁴

Because severe food shortages under Communist governments were typically policy-induced, the states in question were commonly able to "solve" their food crises simply by relaxing or moderating harsh and destructive innovations. After a terrible fall-off in the country's livestock population, for example, the Mongolian People's Republic 1933 relented on its collectivization of animal husbandry, postponing that objective until after World

71 Ellman, "A Note on the Number of 1933 Famine Victims."

72 Judith Banister and E. Paige Johnson, "The Demography of Cambodia," in Ben Kiernan, ed., *Genocide and Democracy in Cambodia: The Khmer Rouge, The United Nations, and The International Community* (New Haven: Yale University Southeast Asia Studies, 1993), pp. 65–120.

73 Judith Banister, *China's Changing Population* (Stanford, CA: Stanford University Press, 1987).

74 Becker, *Hungry Ghosts*.

War II.⁷⁵ North Vietnam's "food crisis" subsided with a drop in procurement quotas and an improvement in agriculture's terms of trade.⁷⁶ Ukraine's famine ended when the Soviet government reduced the procurement quota for the republic and lifted the de facto embargo against food shipments into the region. In China, policy changed course when food shortages began to affect the urban centers; at that point, the government reduced procurement quotas, improved the terms of trade for foodstuffs, switched from being a net exporter to a net importer of foodgrains, and acquiesced in a headlong retreat from communal farming, even to the point of temporarily permitting tenancy-style individual farming throughout much of the country.⁷⁷

One may observe that the aforementioned food crises, although triggered by predictably injurious state policies and thus at least theoretically corrosive of state legitimacy, did not typically result in regime crisis, political destabilization, or state collapse. The only instance to date of a Communist state's downfall at a time of severe and mounting hunger was that of Democratic Kampuchea (1978)—and the precipitating factor in that case of state collapse was not the hunger of the local population, but instead the invasion and occupation of the country by military forces from neighboring Vietnam after several years of steady and escalating diplomatic friction between Phnom Penh and Hanoi.

Severe food shortages, furthermore, seem to have placed no obvious or general constraints upon the conduct of foreign policy for the Communist states affected by them, at least in the past. During the Ukrainian famine, Soviet foreign policy was not hindered or disrupted in any visible manner; in fact, one of Moscow's key diplomatic objectives of the day—normalizing

75 Bawden, *The Modern History Of Mongolia*.

76 Tongas, *L'enfer communiste*.

77 Lardy, "The Chinese Economy."

relations with Washington—was achieved in 1933. The existence of severe domestic famine, likewise, has not historically served as a moderating influence on the international policies of the stricken Communist state. Recall the example of China: from 1959 to 1961 Beijing not only adhered to an increasingly confrontational posture toward Moscow, and escalated its “three worlds” rhetoric for international anti-imperial revolution, but also engaged in border disputes and border clashes with India.⁷⁸

How did Communist states in the past maintain social and political control during periods of severe food problems? Despite variations from one case to the next, the basic patterns seem to have been the same: the governments in question maintained a ruthless monopoly of force in the countryside and imposed relentless censorship over all media of communications. In practice, the monopoly of force, applied through both internal security organs and local party structures, preempted organized discontent in the countryside. (Terror and official violence figured in all of these efforts to cow local peasants, but the prevalence and intensity of such direct physical threats seems to have varied widely both between and within the countries under consideration.) No less importantly, the monopoly of force was used to prevent peasants from moving out of stricken areas, and to preclude unauthorized migration more generally.⁷⁹ (Despite strict controls on travel, over twenty million Chinese peasants made their way to cities between 1958 and 1960.⁸⁰ This was a critical factor in the mounting pressure on urban food supplies, and thus ultimately in reversing the “Great Leap” policies.) Thoroughgoing censorship—including stringent penalties

78 Alan S. Whiting, “The Sino-Soviet Split,” in Roderick MacFarquhar and John K. Fairbank, eds., *The Cambridge History of China, Volume 14: The People’s Republic, Part I* (New York: Cambridge University Press, 1987), pp. 478–538.

79 By no coincidence, the Soviet government had implemented an internal passport system for the USSR in 1932.

80 Banister, *China’s Changing Population*; Lardy, “The Chinese Economy.”

against individuals for breaking censorship discipline—was required, and enforced, to suppress information about unfolding local food crises. Suppressing such information served a multiplicity of purposes: it left victims of the food crises atomized and isolated from other potential grievants; it protected the image of infallibility, competence and success that every vanguard party strove to create, and arguably required in order to function effectively; and it deceived adversaries, both at home and overseas, who might capitalize upon any signs of weakness in the country in question. (China's amazing success in controlling information about the Great Leap famine is indicated by the fact that foreign researchers generally did not begin to suspect the true magnitude of the 1959–61 losses until fully two decades after the event.)

What does the historical experience of severe food shortages under Communist regimes suggest about the current North Korean situation? At the moment, it is difficult to assess the actual extent and incidence of severe hunger in the DPRK—much as one would expect, historically speaking, from a well-functioning Communist regime. Such details happen to matter greatly. Lacking them, one may begin by observing that Communist regimes in the past have managed to cope *politically* with deadly hungers that have ravaged broad portions of their population, even for several successive years—and have furthermore sometimes emerged from these food crises to enter or resume a period of brisk industrial growth.

On the other hand, a number of obvious and important differences between the current North Korean food problem and earlier Communist food crises can be identified. For one thing, all previous severe food shortages in Communist economies took place in countries that were overwhelmingly rural and agrarian (Mongolia, North Vietnam, Ukraine, China, and Cambodia were all 80-plus percent rural at the time). North Korea, by contrast, had a predominantly non-agricultural and urbanized economy

by the late 1980s.⁸¹ North Korea's food problem differs from previous food crises under communism in that it apparently affects an economy with distinctly higher per capita production capabilities (including a relatively high-productivity, high-input agricultural sector). This means, among other things, that achieving household-level "food self-sufficiency" is simply not an option for most of the North Korean population; in the past, this always was an option for Communist populations under extreme nutritional stress.

Secondly, the timing of the current North Korean food problem differs dramatically from that in previous Communist food crises. In virtually all previous Communist food crises, the big food problems occurred within a decade of the establishment of the regime. Those crises may be seen as part of the process of system consolidation. (One could even argue that they were part of a grim "learning curve" about food security for those earlier Communist regimes.) In North Korea, by contrast, the current food crisis has emerged in a fully mature Marxist-Leninist polity, in which a vanguard party has held power for nearly half a century.

Third, in previous Communist food crises, the offending policy interventions contributing to nutritional distress were both newly introduced and self-evident, thus lending themselves to a relief through policy reversal. It is not clear that North Korea follows this pattern.

Surprisingly little seems to be known about North Korea's contemporary agrarian policies or their actual implementation in practice. DPRK media extolled the virtues of a "transition to all-people's ownership in agriculture" in 1994 and early 1995,⁸²

81 Nicholas Eberstadt and Judith Banister, *The Population Of North Korea* (Berkeley, CA: University of California Institute of East Asian Studies, 1992).

82 See, for example, *Rodong Shinmun*, 28 May 1994, translated in *FBIS/EA*, 28 June 1994, pp. 28–30; *Minju Choson*, 15 January 1995, translated in *FBIS/EA*, 7 March 1995, pp. 38–41; and *Rodong Shinmun*, 21 January, translated in *FBIS/EA*, 1 March 1995, pp. 43–45.

but went silent about this after the official appeal for international food aid and the official announcement of massive damage from flooding later in 1995. Does one infer that a change in property relations on the co-operatives was attempted, but shelved after disastrous results? Without additional information, it would be difficult to say.

If North Korea's current food difficulties can be traced to an ill-advised lurch in agricultural policy, one would expect the problem to be intrinsically remediable through a relaxation and liberalization of the economic regimen. (Whether such a direction would be *politically* acceptable to DPRK authorities, of course, is another question.) If, on the other hand, the current food shortages could not be linked to obvious and untoward recent policy changes, this would suggest that the problem is more deeply systemic in nature, and therefore ultimately perhaps much more intractable.⁸³

Whichever the case may be, it is apparent that the North Korean economy is organizationally more complex than were the Communist economies beset by severe food shortages in the past. Although these complex linkages are conducive to enhanced productivity, they may also paradoxically make the food problem more difficult to solve if economic planners insist upon cleaving to what they view as a "low risk" economic strategy.

A final difference between the current North Korean food problem and earlier Communist food problems concerns the role of information and communications. It is not possible, in this era of "information revolutions," for the DPRK to suppress information about its food problem completely. Nor, for that matter, is it clear that the regime wishes to do so: witness the appeals for international emergency food aid in 1995 and 1996.⁸⁴

83 Some sources with firsthand experience in the DPRK have claimed that North Korean agriculture was already plagued by serious structural problems by the late 1980s, and that output was already stagnating or declining by that time. See Hans Maretzki; Trigubenko, "Economic Characteristics"; and, U-hong Yi, *Donzoko no Kyowakoku: Kita Chosen Husaku no Kozo* (Tokyo: Aki Shobo, 1989).

It seems quite possible that more information about the nation's hunger troubles might circulate domestically in North Korea today than in any previous Communist food crisis, North Korea's formidable monopoly of local media notwithstanding. How such a difference might bear upon systemic stresses is impossible to quantify, but is worth keeping in mind.

Given some of the basic differences between the forensics of the current North Korean food problem and previous food crises under Communism, it may be worthwhile to speculate about the *arithmetic* of food shortage in the DPRK—that is to say, about the magnitude and regional distribution of production shortfalls—in conjunction with the geography of food demand within the DPRK. If the rudimentary “food balance sheets” constructed by outside observers are correct, North Korea is currently experiencing an annual “deficit” of roughly two million tons of cereal.⁸⁵ Assuming these estimates to be correct, and assuming further that neither reserve stocks nor external humanitarian aid fully make up the loss, how would the DPRK's political economy cope with an absolute drop in grain supplies of, say, one million tons?

Three hypotheses come immediately to mind. First, in the face of a shortfall of that order of magnitude, the socialist distributional mechanisms in the DPRK economy would be placed under extraordinary pressure—unprecedented pressure, in fact, in the annals of the centrally planned economy. This would be so, quite simply, because a much greater proportion of the total popula-

84 That appeal begs the question of the accuracy of the DPRK leadership's own assessment of the country's current food situation and food outlook. It is quite possible that top decisionmakers might lack accurate information about the magnitude and incidence of food shortfalls, or might entertain unrealistic expectations about the relative ease with which the current food problem might be resolved. Communist directorates have been certainly subject to such misapprehensions during food crises in the past.

85 Hy-sang Lee, “Supply and Demand for Grains in North Korea: A Historical Movement Model for 1966–1993,” *Korea and World Affairs*, Vol. 18, No. 3 (1994), pp. 509–552; Chun, “Economic Conditions in North Korea and Prospects for Reform”; and, Namkoong, “Trends and Prospects of the North Korean Economy.”

tion does not produce its own food in the DPRK today than was the case in any of the Communist systems that experienced severe food shortages in the past. From the standpoint of state security, of course, avoiding a breakdown in the state food distribution system would be a matter of the highest urgency—but it would also be a formidable challenge.

Second, with a hypothetical grain shortfall of that magnitude, it would be impossible to spare the urban population and the non-agricultural workforce from significant nutritional reversal. This is so, quite simply, because there are too few farmers in the DPRK's labor force to permit a policy of "squeezing the countryside" any realistic chance of success. If roughly one fourth of the civilian labor force toils in agriculture, as official statistics suggested it did in the late 1980s,⁸⁶ forcing the entire production shortfall onto the farm population would require a *zero* calorie diet of them! If farmers are to be sturdy enough to harvest their next crop, neither this nor many other "solutions" predicated upon extreme deprivation for the farm population can be feasible. Urban areas, which house the majority of the DPRK's population, must also assume the brunt of adjusting to cereal shortfalls of the magnitude hypothesized here.

But we would not expect the pain to be shared entirely equally by the DPRK's non-agricultural population, which brings us to the third hypothesis. In the DPRK's official distribution system, some claimants are more equal than others: among the groups treated with special consideration are the military, inhabitants of Pyongyang (and perhaps a few other major cities), and the families of workers employed in priority enterprises. These groups, however, happen to encompass a fairly large proportion of North Korea's non-agricultural population: perhaps as many as six million out of a non-agricultural population of perhaps eighteen million. In a zero-sum game in which the objective is to protect one's own nutritional status, the ratio of more privileged

86 Eberstadt and Banister.

to less privileged claimants could matter greatly to specific outcomes. We might therefore speculate that groups expected to suffer special nutritional stresses from a food shortfall of the magnitude here hypothesized would include the rural nonagricultural civilian population and the inhabitants of second- or third-tier urban centers without access to such priority professions as military industries or those that generate hard currency.

Under such circumstances, one would expect intense pressures among these groups to "solve their own food problem." Among the constellation of personal solutions imaginable would be reverse migration (from city to food-producing agricultural cooperatives) and extralegal barter with food-producing areas. While relieving nutritional distress for less privileged segments of the non-agricultural population, however, all of these adjustments would tend to undermine or compromise the functioning of the DPRK official economic system as it is presently constituted.⁸⁷

Concluding Observations

Our survey can conclude with five summary points. First, the economic pressures and problems confronting the DPRK's socialist system today appear to have no precise analogy in recent historical experience. Some countries have coped—or failed to cope—with the great challenges entailed in mobilization for total war. None, however, appear to have been set so close to a total war footing for so very long a period of time: certainly no country at the DPRK's rough level of per capita output. Other Communist states have experienced severe food shortages, but in none of them did food crises merge after "socialist transformation" was long completed and "socialist construction" had

87 For some informed and penetrating speculations about the possible dynamics here, see Robert Collins, "The Pattern of Collapse in North Korea," unpublished research note (Seoul: CINC United Nations Command, 1996). See also, Jianming Zhou and Wang Lingyi, "Still Stable Korean-type Socialism," *Korean Journal of National Unification*, Vol. 5 (1996), pp. 7–23.

been in progress for decades. The exogenous external shock to North Korea's trade regimen over the past five years is analogous, in magnitude and timing, to those in Cuba and Iraq—but the DPRK economy faces additional stresses that the latter two systems do not.

Second, although the pressures on North Korea's political economy today are acute and still mounting, the DPRK's polity would also appear to be exceptionally well-suited to dealing with the economic stresses it now endures. The DPRK enforces an exceptional degree of social control over its subjects, and reinforces this control by a to-date singularly successful policy of obstructing communication and contact with the outside world. All of this appears to make the "rules of the game" for managing economic decline rather different from those in societies and polities with which outside observers are more familiar.

Third, regardless of the DPRK's success to date in managing the stresses that have accompanied its economic decline, it is well to remember that economies under severe stress can in fact collapse—and in fact have done so in the relatively recent past. Although "economic collapse" is a somewhat ambiguous concept—a term whose meaning is made no clearer by promiscuous use in political rhetoric—one incontestable indication of economic collapse is a hunger crisis precipitated by a breakdown of the national food system (construing that system broadly). An industrial economy that can no longer arrange to feed its people is an economy in collapse. It is also worth recalling that in Germany and Japan—the two clearest cases of economic collapse in our century—economic collapse preceded regime collapse, not vice versa.

Fourth, while the cataclysmic conditions that led to "economic collapse" in Germany and Japan were fundamentally different from the constellation of economic problems currently plaguing the DPRK, the qualitative difference in the economic stresses in question does not in itself indemnify the DPRK against the risk of a similar qualitative outcome. If the DPRK system has singular

capabilities in certain areas, it may also have weaknesses and limitations that are not well understood by outsiders (or perhaps even by top leadership). To understand the nature of the interplay between economic stress and regime capability in the DPRK, then, *it is not enough to focus on current economic trends*. To the contrary, it would seem absolutely essential to start with a better understanding of the performance and limitations of the DPRK economy *before* it entered into the present period of mounting economic stresses. Only in that way could it be possible *systematically* to assess the ability of the DPRK political economy to surmount or endure its current economic challenges.

Finally, it is worth asking about the sorts of externally observable signals of impending systemic disfunction that students of North Korea should watch for. We must presume that much of the information we would want simply will continue to be unavailable (specific economic policy directives and the manner in which they are actually implemented, for example). One possible indication of unmanageable economic stresses, however, could come from demographic data. Migration data, for example, could indicate if deurbanization—a necessary consequence of breakdowns in a national food system—has begun, or is accelerating, in the country as a whole or in particular regions. (As already mentioned, our hypothesis is that deurbanization would first occur in the second- or third-tier cities—not in the privileged, “imperial” capital of Pyongyang.) Vital statistics—birth rates and death rates—could similarly indicate whether the local population is undergoing severe social and economic stresses, and whether the DPRK polity can still protect against the social upheavals that are registered in “demographic shocks.”⁸⁸ Like all other sorts of DPRK data, demographic data are hard to come by. But because they stand to provide singularly unambiguous representations of the systemic stresses we have discussed, they are well worth continuing to seek.

88 See, Eberstadt, “Demographic Shocks After Communism.”