War, Trade and Utopia

Barry C. Lynn

In THE spring of 2001 Andrew Grove, the chairman of Intel, made a remarkable statement. Any conflict in or around the Taiwan Strait that resulted in a break in trade, he said, would result in the "computing equivalent of Mutually Assured Destruction." The implication, at least for the vitally important electronics industry, was that the production systems of the United States and China had become entirely intertwined and interdependent.

Equally remarkable is how little attention this statement, by one of the world's most well-known industrialists, has received in the four years since. In part, this was a matter of timing. At the moment Grove spoke, the focus was on the diplomatic crisis that erupted after a Chinese fighter jet collided with an American spy plane in April 2001. Soon thereafter, the attention of the United States shifted dramatically, first to the attacks of September 11, then to the wars in Afghanistan and Iraq.

But we can put off examining the implications of Grove's words no longer. If the United States and China do in fact depend intimately on the exact same means of production, the political ramifications are immense. And if anything, the industrial ties have become only stronger in the years since. Not only have raw trade flows continued to grow dramatically, but the number of firms that have adopted super-specialized production models similar to those of the electronics industry has increased. Which leaves us with two closely interrelated questions: How does this interdependence affect the relative power of China and the United States to exert political influence over one another, and how does it affect the likelihood that the two nations will come into conflict in the future?

The second question is especially urgent. The idea that a break in trade would cause extreme damage to both economies is increasingly taken as a sort of proof that the United States and China will almost naturally steer clear of war and war-like actions. Yet a close examination of the reality and history of industrial interdependence demonstrates that, on the contrary, we can imagine at least some instances in which deep industrial interdependence may actually *increase* the risk of conflict between two nations.

UR FIRST challenge is simply to admit the depth and nature of the industrial interdependence that has been forged between the two nations. Although the gross numbers on trade are impressive enough—the United States will import close to \$250 billion in goods from China and Hong

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Kong this year—this tells only part of the story. The key fact is that there is hardly a complex product that rolls off an assembly line in the United States that does not contain multiple components from China, the absence of which would paralyze production, at least temporarily.

This is a shocking transformation from the near-complete industrial division between the two nations that existed as late as 1993. Trade agreements like the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) and the normalization of trade relations between the United States and China can explain only part of the phenomenon. We must also look at the revolutionary changes that have taken place in the nature of the firm in recent years. Three especially are important. First is the long series of mergers, acquisitions, bankruptcies and strategic reordering of markets that has enabled ever more powerful oligopolies to consolidate control over ever more industrial sectors. Second is the literal disintegration of the Fordist model of the vertically integrated corporation that dominated the 20th century, which is what "outsourcing" really means. Third is the systematic adoption by American firms of the just-in-time production processes pioneered by Toyota and the adaptation of what was a regional strategy to global-scale systems.1

The radical reorganization of production that resulted from these three changes has altered the U.S. relationship not only with China but with all industrial nations. It is hard to imagine running our industrial system without Japan or South Korea or Taiwan or Canada—all of which have captured or been ceded control over certain key supplier activities on which we rely. This is increasingly true not only in electronics, but also in such industries as automobiles, aerospace, chemicals and pharmaceuticals. The rise in specialization, in other words, is a global industrial phenomenon. China, due to its size and the authoritarian nature of its regime, provides the most obviously political danger of the many new dangers posed by this system.

The second effect of the revolutionary reordering of production has been to alter how the average lead firm understands and responds to risk. Classical economics counts on big multinationals to limit their exposure to political risk and to manage other everyday threats to the production system, for instance, by stockpiling components and diversifying suppliers. Unfortunately, these firms appear to be ever less willing or able to do so. The reasons for this are many and complex, but consider just two of the effects of the collapse of the vertical-integration model of production. One result is that today's lead firms find themselves increasingly severed from the physical realities of production and hence increasingly unable to comprehend what poses a threat to these systems. Another is that as firms come to rely more on the same systems of supply, certain inter-firm competitive risks are lessened, even as risks to the system as a whole rise precipitously.

This radically new nature of production poses numerous and complex challenges. The system's growing fragility, for instance, has been made clear many times. Consider the industrial crashes throughout the electronics production system after the Taiwan earthquake of September 1999, or due to the shutdown

¹Toyota developed the "just-in-time" or "lean" system of production in the early 1950s as an alternative to the "mass production" techniques then common to most U.S. industries. The lean production model aims at the flexible use of machines, the almost complete elimination of inventory, and reliance on single outside sources of supply located near the main assembly plant. In the 1980s many U.S. firms began to adopt the Toyota system and also to adapt it, most dramatically by extending the system across national borders.

of air transport after September 11, or during the SARS epidemic of 2003. The very dynamic of the modern industrial "crash" is itself something entirely new and demands a serious rethinking by the governments of industrial nations of how today's regulatory regimes shape private production systems.

This growing fragility of the industrial system would be a problem in a purely domestic context. The fact that the system is global both exacerbates its inherent faults and transforms the industrial system into a platform on which nations can act on each other politically, in real time.

Industrial interdependence is not new, of course. The United States has long been highly interdependent with many nations; so, too, have the nations of the European Union. What is new is the degree of industrial interdependence among all nations, and more to our point here, the extreme industrial interdependence between the United States and a nation so profoundly different politically and economically as is China. Every one of America's Cold War-era trade partners was smaller than the United States, all were entwined in multiple layers of alliances and institutions, and most were to some degree democratic. China is far poorer than the United States, not integrated into any of the security systems developed during the Cold War, and not by any measure a democracy.

The reality, if we look at our industrial system with the slightest sense of historical perspective, is stunning. America finds itself more deeply interlinked economically with a nation that many believe to be a potential enemy than was the economy of the northern United States with the economy of the southern United States before the Civil War. This is a condition absolutely unprecedented in the history of our nation. It is a condition that, in some ways, is unprecedented in the history of the world.

O ONE, of course, knows exactly how this relationship will evolve. But a few thinkers have begun to speculate about what industrial interdependence might yield. The most well known is the journalist Thomas Friedman, especially in his recent book The World is Flat (2005). Another is defense strategist Thomas P. M. Barnett, author of The Pentagon's New Map (2004). Both hold that industrial interdependence will tend strongly, if not inevitably, to ensure peace. Their writings have begun to influence the general public and thinkers within the national security community.

The basic contention of both Friedman and Barnett can be viewed as a sort of trade utopianism. Like many other utopian belief systems, it is founded on a faith in a deterministic, even mechanistic, process, in this case that material interests will force the leaders of these nations to forge harmonious relationships. This faith is reinforced by a sense that modern information technologies are eroding the power of the state and by extreme market fundamentalism, which is deeply opposed to all state interference in the economy. The widespread emergence of such thinking in the United States is surprising, not least because true utopianism appears only rarely in the history of American foreign policy. True, many Americans have been convinced that the nation was destined to fulfill some mission in the world, or at least professed to believe in such a mission. But the true believers were often willing to rely on pragmatic policies, while in other cases the sense of mission was evoked mainly to provide a cover for a coldly rational national strategy.

The success so far of this trade utopianism is due largely to the success with which it has been packaged within a mythologized history—that U.S. governments have always believed in *laissez faire* management of industry and in completely "free" trade. Friedman, especially, writes of the emergence of today's global system as a natural phenomenon, a byproduct of freely operating markets and freely evolving technologies. The implication of course is that political decisions played little part in shaping this system and that political decisions can have little effect over its future evolution.

The reality could not be more different, however. Domestically, Americans have long regulated the U.S. economy, not least through the aggressive use of antitrust power. Internationally, the United States protected its industries behind a high tariff from the Napoleonic wars at the beginning of the 19th century through the end of the Second World War. It was only in the early days of the Cold War that the Truman and Eisenhower Administrations began to take a radically new approach-which was to seek to weave sovereign nations into a single system, in part by fostering industrial interdependence.

The modern intellectual foundations of this Cold War-era policy trace back most obviously to Albert O. Hirschman's 1945 work National Power and the Structure of Foreign Trade. Key instances in the early postwar period include the creation of the European Coal and Steel Community and Washington's granting of especially liberal access to the U.S. marketplace to Japan, then to Taiwan and South Korea. The goal of these policies was always security foremost, pursued through locking former enemies and traditional allies into complex webs of industry from which it became ever harder to escape and through the creation of multinational-scale systems of production and research that increased the efficiency of the West in its industrial rivalry with the Soviet Union.

In other words, in the postwar period, liberal cross-border trade was never pursued as an end in itself, but as a means toward a higher end—the security of the nation. Nor was industrial interdependence ever regarded as the main glue holding together the nations allied in the old West. On the contrary, it was but one of many bilateral and multilateral institutions and agreements. But liberal trade in the service of industrial interdependence certainly proved one of the more effective strategies, simultaneously contributing to the political power and security of the United States and to the affluence of all the nations in the system.

At no point did the American leaders of the Cold War era show the slightest indication that they believed such a multi-state industrial system could ever become self-regulating, economically or politically. The principle that guided their thinking can be regarded as a sort of trade realism—a clear-eyed understanding that nations exercise power *vis-à-vis* each other across a plane of commerce and industry, in the same way they do across the planes of diplomacy and military power.

Whether or not one believes the end of the Cold War justified experimentation with how the industrial system of the West was organized and managed, it is now starkly evident that the radical *laissez faire* policies adopted in the 1990s have placed us in extreme political and economic danger. The result was not a self-regulating, self-perpetuating system tending inevitably toward peace but a power vacuum on the commercial plane, into which other states moved, the most troublesome of which by far is China.

Trade utopianism, especially as applied to China, did not originate with either Friedman or Barnett. The same basic thinking shaped the Clinton Administration's trade policy, which set the whole process of integration between the two nations into motion. In defense of the Clinton team, it can be argued that they could not have known that the very nature of the multinational firm would be transformed over the subsequent decade and so had no idea how swiftly the industrial systems of the two nations could become merged.

This means that the gravest error of today's trade utopians is their inability to adjust for the complete failure of the Clinton policy to yield its goal, which was a liberal, democratic, pacified China integrated into the global system.

T IS TEMPTING to join the utopians in the hope that industrial interdependence with China will somehow, in the end, automatically yield harmony. Unfortunately, both common sense and history teach us that such a passive response is deeply unwise. It is quite plausible that this deep industrial interdependence might actually lead to conflict.

Yes, current governments in Beijing and Washington appear to be committed, for the moment, to maintaining the status quo. But what guarantees that everyone with the power to disrupt this common system of production shares the same interest in avoiding disruptions? Might not other parties, in some instances, be tempted to exploit industrial interdependence for their own ends?

We should not, for instance, fall into the trap of assuming that the Chinese ruling class is monolithic, or that if a group now in opposition were to come to power it would automatically continue today's policies. On the contrary, any faction playing for power might view the disruption of a global industrial system that serves the interest of the sitting government as a way to undermine the regime's power and thereby clear a path for its own advancement. We saw one example of such a strategy in Venezuela in 2002, when forces opposed to President Hugo Chavez shut down the pumping and export of oil destined for the U.S. market. We should also keep in mind the mysterious anti-Japanese riots in China earlier this year, which erupted despite the deep industrial interdependence between those two nations and which may or may not have been conducted with the approval of the government.

We must also recognize the power of third-party nations-and of factions within these nations—to disrupt deeply interdependent industrial systems. Taiwan, for instance, is not only an inherent flash point in the bilateral U.S.-Chinese relationship, it is also home to industrial capacity that serves both the United States and China. Both Taiwan's government and elements within Taiwanese society have their own goals, of course-including in some cases complete independence-and it is not inconceivable that some one of these parties will conclude that the best way to serve its interests is to threaten to disrupt an industrial system that serves the interests of leaders in Beijing and Washington. Arguably, such a dynamic has been present in the U.S.-Chinese-Taiwanese relationship for at least the last five years. Arguably, this dynamic may end up precipitating the very conflict that the Taiwanese assume the Chinese and Americans most wish to avoid.

Nor is it impossible to imagine that today's government in Beijing will alter its calculations and conclude that it has more to gain from a disruption of the system, or the mere threat to disrupt the system, than from some further compromise to ensure the stability of the system. Indeed, a deep economic recession or popular discontent might lead *either* government to adopt policies that would disrupt trade flows, perhaps in an attempt to harness the energies of nationalism, even if there was no overt desire to damage the trans-Pacific relationship.

Finally, in direct contrast to the core contention of the utopians, deep interdependence could lead a completely rational actor to choose to disrupt a common industrial system, especially if that actor comes to believe that its counterpart is relatively *more* vulnerable to a disruption in trade. To understand this point requires examining the analogies through which we view the relationship, reviewing precedents in which partners in interdependent relationships disrupted commerce, and reviewing cases in which the threat of disruption to trade flows resulted in political compromise.

For instance, although Andrew Grove used the phrase "Mutually Assured Destruction", and although both Friedman and Barnett act as if the dynamics of industrial interdependence are much the same as those of nuclear interdependence, it should be clear after only the slightest review that the analogy does not hold. For one, the scale of the threat is not the same-the computing equivalent of Mutual Assured Destruction is not as terrifying as the prospect of thermonuclear war. For another, the nuclear face-off between the United States and the Soviet Union was for all intents actively regulated by the two states, one result being to ensure a sort of "balance of terror."

History, meanwhile, provides many models of how industrial and economic interdependence not only has not prevented conflict, but may actually have tempted one party to an action that disrupted cross-border systems. The most important example by far was in 1914, when Germany went to war knowing that Britain did not have the capacity to produce sufficient shell-grade steel for war, because the British had outsourced that production to Germany. For the Germans, this extreme-stakes bet can still be regarded as reasonable, even smart. Not only were British armies hobbled in the field by a lack of artillery support, the shortage precipitated a political crisis that nearly collapsed the war government in 1915. In the end, the German bet did not pay off. But this was not because Britain was able to reconstitute its capacity to manufacture high-grade steel; it was because the United States agreed to ship steel to Britain. It took the British more

than two years to rebuild their capacity and then only with machine tools imported from Switzerland and the United States.

History also provides us with many instances in which low-level "tradebased" conflicts between nations enabled the less dependent nation to achieve a clear political goal. Consider the days before the U.S. invasion of Iraq, when the Bush Administration convinced China to shut off the flow of oil to North Korea in order to shut up the increasingly belligerent regime in Pyongyang. Or consider the infamous grape scare of March 1989, when the United States cut off all imports of fruits and wine from Chile after "finding" minute traces of cyanide in two grapes, an act that many believe provided the final push needed to get the Pinochet regime out the door.

The question here, of course, is whether China might be able to force the United States to give way on some vital political issue simply by shutting its borders, or by merely threatening to blockade Taiwan, or by picking off in detail the multinational firms that serve both nations. The utopians see industrial interdependence leading inevitably to compromises that leave all parties happy. They see, in other words, positive political cooperation being forged by the forces of economics. Yet what the present form of industrial interdependence with China might actually yield is a system that enables Beijing to engage in carefully calibrated coercion of the United States.

Finally, we must also keep in mind that even if both Washington and Beijing define rational action in the exact same way, there always remains the possibility of *irrational* politics. Imagine another uprising in China like the pro-democracy movement in Tiananmen Square in 1989. The last time Chinese citizens marched for freedom, Americans watched on CNN, isolated physically from the grand human drama far away. The next time Chinese citizens take to the street, the industrial interdependence forged in the years since will ensure that Americans get to participate directly, at least if the protests disrupt our common industrial system.

One of most disturbing scenarios is to imagine how Americans might react should protests in China result in hardships here at home. Even though a demand by Chinese citizens for greater democracy would resonate strongly with American citizens, our reliance on China for basic goods might lead to equally strong demands to protect the status quo. So even though unregulated trade was sold to Americans as a way to help liberalize politics in China, the actual outcome might well be that the United States ends up supporting Beijing hardliners in their efforts to quash pro-democracy protests. The political dynamics at home may give the U.S. government no other choice.

T IS NOTHING short of astonishing to compare how we as a nation manage our industrial system—which provides us with our medicines, our processed and packaged foods, the machines we need to live—with how we manage the other two great global systems of finance and energy, where state and semi-state institutions play vital roles in ensuring that the systems are stable and politically safe.

In the energy system, the prime goal remains unchanged from when Winston Churchill declared nearly a century ago that "safety and security in oil lie in variety and variety alone." For proof of the wisdom of this policy, we need think back only as far as September and the devastating blow dealt by Hurricane Katrina to the oil pumping and refining capacity located in and near the Gulf of Mexico. At the worst moment after that immensely destructive storm, U.S. citizens could still count on receiving 90 percent of their normal supply of gasoline, just as proved true when the flow of oil from Venezuela was cut off in 2002.

When we look at the global energy system, almost all of us do so through the eyes of pragmatic realists. We study interdependencies in the system in minute detail to understand how they might affect not only interstate power relations today, but those of the future. Remember that the debate over CNOOC's attempt to purchase Unocal's concessions in Asia focused entirely on interdependencies that affected the United States only *indirectly*.

Which makes it hard to understand how so many hardliners in the world of energy could pay so little attention to the fact that control over the framing of our nation's industrial strategy has been captured by a group of radical and deeply Pollyannaish internationalists whose beliefs about how nations interact politically can make Norman Angell look like Alfred Thayer Mahan.

There will always be certain among us who believe that the economic benefits of a hyper-specialized global system outweigh the risk of a major supply shock due to a natural disaster or political crisis (even though a single recalibration of the dollar-yuan exchange rate could eliminate all of the accumulated economic benefits overnight). There will also always be certain among us who believe that any factor that steers us away from armed conflict with China justifies accepting extreme restrictions on U.S. freedom of action (even though the two nations share absolutely no political framework within which to manage a deeply interdependent economic relationship).

For every other American, however, the most immediate challenge is to understand the degree to which the radical *laissez faire* policy of the last 15 years has imperiled the independence of our nation and has undermined the stability of the entire global industrial system.

Once we've swallowed this rather large fact, the next steps will become clearer. Specifically in the U.S.-Chinese relationship, the goal must be to limit how much our nation relies on capacity located within their borders (or potential borders) for our everyday supply of products, components, commodities and services. This does not mean insisting the activity be repatriated, but that the bulk of the capacity—say 75 percent, at least be located always in supplier nations outside the reach of Chinese authorities or Chinese arms.

If anything, the idea of limiting U.S. reliance on industrial capacity in China might provide a guide for managing our import dependencies generally. After all, although the relationship with China is by far the most troubling, in the long term it is nearly as unwise to allow nations like South Korea, Taiwan and Japan to capture complete or nearly complete control over the global capacity to manufacture any keystone industrial component or product. In this sense, the goal of safely distributing industrial capacity around the world would serve as a sort of principle by which to shape the creation of a "next-generation" global system. Although such distribution would clearly entail some initial costs, these would prove to be a relatively minor part of the final price of most products now sold on the U.S. market (and indeed might prove to be far less costly than a sudden rise in the value of the vuan). And this investment in new and distributed capacity would yield numerous benefits in addition to greater national security, including more innovation, more growth

over the long term, and far more true economic freedom for most of the firms, individuals and societies that contribute to and rely on these systems.

Our guiding vision then should be of a complex and multinational system, in which no single political or natural disaster could ever knock down the new global industrial commons on which the United States-and to some degree all industrial nations-now depend. This is a vision that can only be enacted by the state; not only do today's firms lack the ability to identify physical risks to the system, the magnitude of the task has long since outgrown the ability of any one firm or industry to reorder on its own. It is a vision that will require leadership by the U.S. government; the world's other great industrial states are drifting ever more toward policies of mercantilism and protectionism that are only further distorting and destabilizing the current global system.

The meaning of Andrew Grove's words is clear. We have lived through a revolutionary transformation in the world's industrial system—and hence through a political revolution—and never even noticed. We must wake now from the utopian delusion of the last 15 years, which has carried us with phenomenal speed to the edge of economic and political catastrophe. The time has come to relearn how to manage this system on which our nation depends like rational, reasoning, pragmatic human beings.

Common sense—and the most fundamental interests of the United States demand nothing less. □