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The Next World War:
World-System Cycles and Trends*

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Abstract:

This essay places the contemporary period of global development in long-run historical perspective, elaborates a model of world-system cycles and trends, and discusses the main structural forces influencing the probability of future war among core powers. The possible continuation of the cycle of hegemonic rivalry is discussed in terms of the similarities and differences between the coming three decades and earlier periods in which a declining hegemon was challenged by upwardly mobile states. Possible bids for economic and political hegemony by Japan, Germany, China and the United States are discussed, as are the possibilities for different coalitions in East Asia and Europe. The phenomenon of bloc formation is discussed in a long-term perspective that includes earlier periods of colonial empire and "commonwealth." We conclude that there is a significantly high probability that warfare among core states could occur in the 2020s. The prospects for global state formation within the next three decades are considered. We recommend a combination of the build-up of U.N. peace-keeping forces and the continuation of U.S. military strength as the least worst and most feasible solution to the problem of avoiding nuclear holocaust in the 2020s.

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The continuing globalization of the world capitalist system, and, more recently, the apparent triumph of global liberalism following the collapse or restructuring of most socialist states, have led a number of scholars to claim that a fundamentally new era has begun in which economic rather than military competition will become the sole basis of geopolitics (e.g. Fukuyama, 1992). While assorted regional bloodbaths (as in the Persian Gulf, the Balkans, Somalia, Rwanda, and Chechnya) will, of course, continue to occur, unrivaled U.S. military dominance, the strengthening of international institutions, and the continuing consolidation of a world capitalist class are all seen as promoting peace and stability within the core of the world-system. For many contemporary analysts, therefore, it appears to be increasingly unlikely that an all-out shooting war among core states will occur in the future.

Certain new and historically-unique characteristics of the contemporary era are frequently cited as serving to dampen military conflict among core powers. The existence of weapons of mass destruction (including nuclear,

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biological, chemical, and unknown possible future variants) have led some scholars to argue that the very idea of core warfare has become obsolete, as it implies the total destruction of the contending states and probably most of the world. Keohane (1984:49) and Goldstein and Rapkin (1991:957), for example, independently conclude that while U.S. hegemony will continue to decline, no rising contender will be willing to risk nuclear annihilation by undertaking a military bid for dominance. Instead of the traditional pattern of hegemonic transition, in which one core power emerges victorious from a world war, these scholars foresee the gradual consolidation of international institutions with the capability of coordinating a multipolar, "post-hegemonic" world.

Keohane and Nye (1993) argue that contemporary international institutions have at least some capacity to disseminate information and partially coordinate the actions of states, so that worst-case scenarios predicted by realist models of political anarchy should be less and less likely to occur. Instead, post-WWII institutions such as the United Nations, NATO, GATT, the IMF and the World Trade Organization are seen to be gradually amassing some degree of autonomous

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legitimacy, that can be utilized to regulate core conflict in the future. Of course, the class forces and particular state interests aligned

behind such institutions will largely determine their relative efficacy. In this regard, it is useful to consider the arguments of those theorists who see the globalization of production as at long last having led to the emergence of a truly transnational capitalist class, whose interests would be represented by most of these international institutions and who would support measures designed to avoid future core wars.

The argument that the capitalist mode of production generates an internationally-oriented and interdependent bourgeoisie that is adverse to the disruptions brought about by global warfare has been repeated with great frequency, even though corporate interests have regularly supported and even profited from large-scale military conflicts. The current period of rapid internationalization of capital has given new credence to such arguments, however, so that scholars from many disciplines have come to argue that we have entered in to a new stage of global capitalism which is fundamentally altering international class structures.

Ross and Trachte (1990), for example, maintain that the balance of class forces is in the process

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of shifting away from individual national states and their respective labor forces, and towards an increasingly mobile global capitalist class. Arrighi (1993) argues that this process of globalization has brought into existence an interdependent capitalist class which, operating through such institutions as the United Nations Security Council, the Group of Seven, and the IMF, will strive to avoid catastrophic core conflicts. Even Amin (1992), who predicts that the emerging world economy will grow increasingly chaotic since it is escaping virtually all institutional and regulatory structures, nevertheless believes that future military struggles among core powers will remain limited. Of course, none of these theorists predict that a new global capitalist class will usher in an era of complete peace and tranquility; regional conflicts will continue to grind away, with core capitalists making tidy profits from the sales of advanced military hardware. But at the very least it is argued that a globally unified bourgeoisie will do what is necessary to avoid the outbreak of full-scale war among contending core states.

In contrast to these guardedly optimistic forecasts, a variety of analysts maintain that the outbreak of future core war is a definite possibility. Military strategists working within

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the Pentagon, who are of course required to prepare for possible future conflicts, have at different moments in the recent past identified Japan,

Germany, and China as being possible contenders for world domination in the coming decades. Such potential rivalry is held to be exceedingly dangerous, since the assumption underlying contemporary Pentagon studies is that a multipolar world is inherently much more unstable than a unipolar, U.S.-led world order. Operating within this logic, a 1992 Pentagon study recommended that benevolent persuasion be employed to convince Japan and Germany that they would be better off within an American-sponsored security system than if they attempted to become "normal" world powers with independent, potentially aggressive military capabilities (quoted in Layne, 1993).

Unfortunately for Pentagon strategists, basic geopolitical and economic realities suggest that neither Japan nor Germany can afford to rely on a U.S.-dominated global security alliance to protect their national interests over the long-term. As Friedman and Lebard (1991) point out, Japan and, to a lesser extent, Germany are currently dependent upon U.S. military protection of international shipping lanes for access to crucial raw materials (especially petroleum). As long as relations

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remain cordial, it is in the interest of both Japan and Germany that the costs of protecting these shipping lanes fall disproportionately upon the United States. However, the danger exists that, as the United States loses its ability to compete economically, it will respond by imposing higher and higher "security taxes" upon its major rivals. In a period of extreme trade conflict, the United States would even be in the position to retaliate by shutting down shipping lanes which supply vital raw materials to its competitors. Because no aspiring global power can afford to leave the survival of its industrial base entirely in the hands of a potential rival, Friedman and Lebard conclude that Japan must at some point rearm in order to protect its access to raw materials. Germany, by implication, is faced with the same geopolitical imperative. As a result, independent of the personal desires of state leaders in any of these nations, it is likely that the current situation of unipolarity in the core of the world-economy will in future decades give way to a situation of multipolar military and economic competition.

Numerous scholars have amassed historical evidence suggesting that situations of

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multipolarity are prone to serious instability. Mearsheimer (1990), for instance, asserts that the existence of situations of multipolarity prior to both World War I and World War II greatly increased the probability of the outbreak of warfare.

According to this view, the complex adversarial relationships which emerged between the many contending states made it difficult to establish enduring balances of power, and also increased the likelihood that individual states would seriously miscalculate the alliances that could be forged against them in the event of military aggression. On the basis of this historical record, Mearsheimer maintains that the collapse of the relatively simple bipolar Cold War order markedly increases the probability that major crises and war will erupt in Europe in the coming decades.

A similar argument regarding the inherent danger of multicentric periods has been advanced by world-system theorists as well. According to Chase-Dunn and Rubinson (1977) and Boswell, Sweat, and Brueggemann (1989), relative stability is typically imposed by a single core power which has achieved clear hegemony--whereas periods of intensified military conflict occur as leading powers enter into decline and core rivals begin to compete to be the successor hegemon. As Wallerstein (1993) notes, the contemporary decline

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of U.S. hegemony raises once again the possibility of serious military conflict among contending great powers.

While the onset of a period of hegemonic rivalry is in itself disturbing, the picture becomes even grimmer when the influence of long-term economic cycles are taken into account. As an extensive body of research documents (see especially Van Duijn 1983), the 50 to 60 year business cycle known as the Kondratieff wave (K-wave) has been in synchronous operation on an international scale for at least the last two centuries. Utilizing data gathered by Levy (1983) on war severity, Goldstein (1988) demonstrates that there is a corresponding 50 to 60 year cycle in the number of battle deaths per year for the period 1495-1975. Beyond merely showing that the K-wave and the war cycle are linked in a systematic fashion, Goldstein's research suggests that severe core wars are much more likely to occur late in the upswing phase of the K-wave. This finding is interpreted as showing that, while states always desire to go to war, they can afford to do so only when economic growth is providing them with sufficient resources. Modelski and Thompson (forthcoming) present a more complex interpretation

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of the systemic relationship between economic and war cycles, but it closely resembles Goldstein's hypothesis. In their analysis, a first economic upswing generates the economic resources required by an ascending core state to make a bid for hegemony; a second period of economic growth

follows a period of global war and the establishment of a new period of hegemony. Here, again, specific economic upswings are associated with an increased likelihood of the outbreak of core war.

It is widely-accepted that the current K-wave, which entered a downturn around 1967/1973, is probably now in the process of beginning a new upturn which will reach its apex around 2025. It is also widely-accepted that by this period U.S. hegemony, already unraveling, will have been definitively eroded. This convergence of a plateauing economic cycle with a period of political multicentricity within the core should, if history truly does repeat itself, result in the outbreak of full-scale warfare between the declining hegemon and ascending core powers. Although both Goldstein (1991) and Modelski and Thompson (forthcoming) assert that such a global war can (somehow) be avoided, other theorists consider that the possibility of such a core war is sufficiently high that serious steps must be taken to ensure that such collective suicide does not

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occur (Goldfrank 1987; Chase-Dunn and O'Reilly 1989).

The historical record clearly indicates that economic and political competition among core powers has periodically led to the outbreak of full-scale core warfare. Although many theorists claim that fundamentally new characteristics of the contemporary world-system will decrease the likelihood of such conflicts in the future, others maintain that the internal logic of the system remains unchanged and so the possibility of global warfare continues to be a real threat. In order to more rigorously assess the probability of core warfare in the relatively near future, it is therefore necessary to identify the factors that either promote or suppress the likelihood of war. This is the task of the following section.

Core Wars of the Future

The world-systems perspective posits the existence of a set of institutional structures, cyclical processes and secular trends that are features of the modern world-system as a whole. A recent reformulation of this schema is presented in Chase-Dunn (1994), along with the counter-intuitive proposition that, despite the contentions of nearly all contemporary observers, the end of the Cold War did not appreciably change the structure or the operational logic of the world-system. The game of

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musical chairs that is called uneven development has produced upward and downward mobility of

particular states and rearrangements of alliances for hundreds of years. The main processes of economic and political development operating in the capitalist world-economy responded to the challenges of the Soviet Union and Communist China by once again expanding the spatial scale of economic integration and international political organization. Capitalism and antisystemic movements have interacted with each other in a developmental spiral for at least the last two hundred years (Boswell and Chase-Dunn, Forthcoming). The reintegration of the Soviet Union, and now China, in to "business as usual" is only the latest round of reintegration of movements that intended to transform capitalism in to socialism but ended up as functional parts of the capitalist world-system. [1]

In this paper we apply the world-system model of cycles and trends to the question of the probability and timing of future wars among core states. We have already reviewed the recent social science literature that has implications regarding the risk of future world wars. The scenario of the next decades that is predicted by a simple extrapolation of past world-system processes

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proceeds as follows:

The United States hegemony will continue to decline much as the British hegemony did at the end of the nineteenth century. The Kondratieff B-phase (world-wide economic stagnation) that began in the late 1960s will end sometime in the 1990s, perhaps it already has. A new period of relatively greater global economic growth will last from 20 to 30 years. During this period the major core powers (the United States, Japan, Germany (or German-led Europe) and perhaps China) will compete with one another for comparative advantage in the new lead industries of this K-wave upswing: infomatics and biotechnology. This competition and growing scarcities of raw materials and "problems of order" in both the periphery and parts of the core, will cause the current disequilibrium in the distribution of military power (the virtual U.S. monopoly) to move toward a more balanced distribution of military power among core states. This is another way of saying that Germany and Japan will build up their military capabilities. The multipolar world of economic power will equilibrate in to a multipolar world of military power.

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Late in the K-wave upswing (i.e. in the 2020s) the world-system schema predicts a window of vulnerability to another round of world war. This

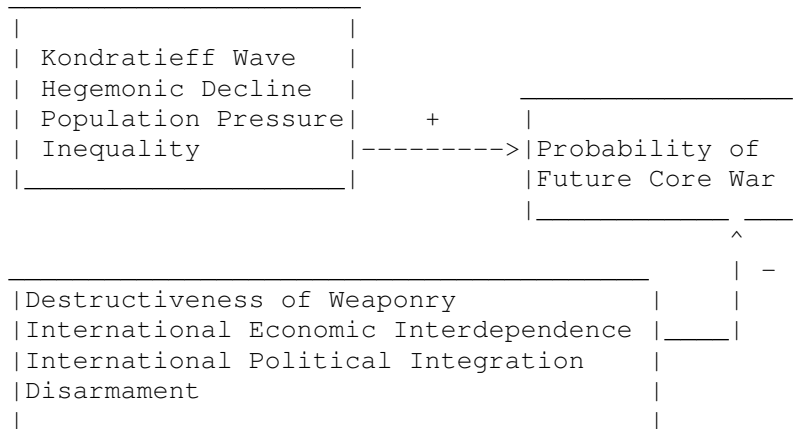
is when world wars have occurred in the past. We expect that intensified rivalry and competition for raw materials and markets will coincide with a multipolar distribution of military power among core states. The world-system model does not predict who the next hegemon will be. Rather it designates that there will be structural forces in motion that will favor the construction of a new hierarchy. Historical particularities and the unique features of the era will shape the outcome and select the winners and losers. If it were possible for the current system to survive the holocaust of another war among core states, the outcome of the war would be the main arbiter of hegemonic succession. While the hegemonic sequence has been a messy method of selecting global "leadership" in the past, the settlement of hegemonic rivalry by force in the future will be a disaster that our species may not survive. It is our concern about this possible disaster that motivates our efforts to understand how the hegemonic sequence has occurred in the past and the factors affecting hegemonic rivalry in the next decades. We will also discuss the implications of our analysis for political action that is

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consistent with the "grand strategy" of the human species.

What are the cyclical processes and secular trends that affect the probability of future world wars? Our model is presented in Figure 1.

Figure 1: Factors influencing the probability of future core wars



This model depicts the variables that we contend are the main influences on the probability of war among core states. The four variables that raise the probability of core war are the

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Kondratieff cycle, hegemonic decline, population pressure and global inequality. The four variables that reduce the probability of core war are the destructiveness of weaponry, international economic interdependency, international political integration and disarmament. The probability of war may be high without a war occurring, of course. Joshua Goldstein's (1988) study of war severity (battle deaths per year) in wars among the "great powers" demonstrated the existence of a cycle of core wars with a 50 year period. Goldstein's study shows how this "war wave" tracks rather closely with the Kondratieff long economic cycle over the past 500 years of world-system history. It is the future of this war cycle that we are trying to predict.

Factors that Increase the Likelihood of War Among Core States

Our model divides variables in to those that we think increase the probability of war among core states and those that decrease that probability. There are four of each.

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Kondratieff waves

The first variable that has a positive effect on the probability of war among core powers is the Kondratieff wave. Goldstein (1988) demonstrates that the most destructive core wars tend to occur late in a Kondratieff A-phase (upswing). Earlier research by Thompson and Zuk (1982) also supports the conclusion that core wars are more likely to begin near the end of an upswing. Boswell and Sweat's (1991) analysis also supports the Goldstein thesis. But several other world-system theorists have argued that core wars occur primarily during K-wave B-phases. This disagreement over timing is related to a disagreement over causation.

According to Goldstein states are war machines that always have a desire to utilize military force, but wars are costly and so statesmen tend to refrain from going to war when state revenues are low, and to engage in warfare when state revenues are high (because the states can then afford the high costs of war). Boswell and Sweat call this the "resource theory of war."

Those who predict that core wars will be more frequent and destructive during a K-wave downturn (Frank, 1982; Bergesen 1985; and Goldfrank 1987) generally assume that economic competition among firms and states is greater during a downturn, and

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so states are driven to employ military means in their competition with one another in such periods. Goldstein argues that economic competition is also very great during periods of economic expansion.

Part of the confusion may result from uncertainty about the exact dates of the turning points of K-wave downswings. The causation of more core warfare at the end of K-wave upswings (or the beginning of downswings) may be due to a combination of the resources thesis and the intensified competition thesis. It is possible that actors (statesmen and capitalists) perceive the rising constraints on continued rapid accumulation just prior to, or at the beginning of, a downswing. The attraction of possibly resolving issues of economic competition by force might coincide with the greater availability of state resources for pursuing war.

Hegemonic sequence

All hierarchical world-systems -- chiefdoms, early states, tributary empires and the modern

interstate system -- exhibit a cycle of political centralization followed by a phase of decentralization. The rise and fall of hegemonic core powers is the form that this cycle has taken in the modern world-system. This sequence replaced the oscillation between interstate system and

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"universal empire" that was typical of earlier tributary world-systems. In the hegemonic sequence the multistate structure of the core is maintained and there is never a universal empire, but the distribution of economic and military power oscillates from one in which there is a more or less equal distribution among a set of core states to one in which a single core state has a significantly greater concentration of economic and political/military power.

The two most recent hegemonies have been Britain in the nineteenth century and the United States in the twentieth century. The rise and maintenance of hegemony is a function of comparative advantage in leading economic sectors and political/military advantage in the control of international trade and victory in world wars among core states. Hegemonic stability theory (e.g. Krasner, 1976) supports the proposition that warfare among core states is less frequent and less severe when there is a strong hegemon that acts as power balancer and guarantees the stability of the structure of world power. When there is no hegemon -- when power is multipolar in the core -- warfare among core states is much more likely because there

is no powerful hegemon to keep the peace. Thus Figure 1 shows hegemonic decline having a positive effect on the future probability of war among core powers.

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The decline of U.S. economic hegemony relative to the economic power of other core states such as Germany and Japan is widely acknowledged. If the U.S. decline continues it is likely that the current military situation will change. As it is now, there is a single "superpower" in military terms, the United States. But the expense of acting as the world's policeman is less and less offset by the immense profits of economic hegemony. The pressures that are now coming from the United States to redistribute the burden of defense spending are likely to become greater if the U.S. economic hegemony continues to decline. Thus it is sensible to predict that economic and military capabilities will equilibrate in the future. This means that Japan and Germany will develop regional and global military capabilities consonant with their economic strengths. The equilibration of economic and military capabilities among core states sets up a situation in which warfare among core states is much more likely to break out when disputes occur. In a situation of vastly uneven distribution of military power warfare is not impossible, as we saw in the Persian Gulf, but it is less likely.

Population pressure

Population pressure is the outcome of population growth in a context of circumscription and ecological degradation. Population pressure

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models of hierarchy formation have been proposed by anthropologists to explain the rise of states and the intensification of production (e.g. Johnson and Earle 1987).[2] Population pressure is a function of the relationship between population density (the number of people per areal unit of land), the resources in that territory, and the technology employed to utilize those resources. As population grows, resources become more scarce because of greater utilization and degradation of the environment, and so it takes greater expenditures of labor and other valuables to produce additional food and other goods.

Among animal populations a "demographic regulator" maintains the equilibrium between population size and resources over time. If the population goes up, food supply goes down and population dies off. If the population goes down surplus food is available and the population expands to consume the additional resources.

Malthusians apply this logic to human populations. But humans have cultural and institutional inventions that animals do not have. All human societies culturally and socially regulate the birth rate, and humans can invent new technologies that change the patterns of resource use and increase the production of food and other goods. Human societies also structure the use of resources through the development of hierarchical institutions.

Circumscription is a condition in which the population of a region cannot exit because the costs of doing so are too high. Robert Carneiro

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(1970) developed the circumscription hypotheses to explain why early state formation occurred in some regions but not others. One possible response to population pressure is emigration, and the population pressure model contends that people most often prefer to maintain their existing cultural and social institutions by moving to new territory where it is possible to live in the old way. Thus did human beings spread all over the globe. Only when they were blocked from this exit option did people settle for the intensification of production and/or the erection of hierarchical institutions. But there is another alternative to the formation of larger hierarchies that sometimes occurs -- a condition of endemic warfare that functions as a demographic regulator by killing off consumers of scarce resources (e.g. Kirch, 1991).

The relevance of the population pressure/circumscription model to the contemporary global situation is this. The industrial revolution and accompanying advances in public health technologies have lowered infant mortality and increased life expectancy in both the core and the periphery. The explosive growth of population in the periphery and semiperiphery slowed a little during the latest K-wave B-phase, but it is likely to recover in the coming A-phase.

The scale of ecological degradation has expanded from a local and regional phenomenon to a global scale as industrial society has employed ever larger amounts of non-animal energy.

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Intensification of agriculture and more productive technologies have enabled production to stay approximately even with population growth, though there have been some recent large-scale famines in the periphery. The pressure to continue the expansion of agricultural production is likely to run in to resource shortages and global ecological limits in the next few decades. As resources become scarcer, rising competition and conflict over access to these resources will raise the probability of war among core powers. Possible oil

shortages are the obvious example.

Circumscription at the level of the globe is a powerful condition limiting the options in the future. It may be possible for some people to move off in to space in the next decades, but this is not feasible for a large number and it will not significantly reduce population pressure on Earth.

Inequality

The growing gap between the core and the periphery shows little sign of abating despite the success of some semiperipheral countries. And within countries in both the core and the periphery inequalities have increased significantly during the K-wave B-phase. Thus overall inequality -- both intranational and international -- has increased in

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the past decades and many social scientists expect this trend to continue in future decades. The "technological style" associated most strongly with the coming K-wave A-phase is linked to infomatics. The expansion of information technology in core states has increased relative inequalities by shrinking the size of the middle class. A new class of skilled, infotech-able, workers and managers have gained income shares while older, formerly high paid workers in industry have lost their well-paid jobs in the process of restructuring. Lower level jobs in both industry and services have expanded, but the wages they receive are low. These processes have widened the relative distribution of income and wealth and are likely to continue this trend.

In the semiperiphery there are two groups of countries that need to be considered with regard to the problem of relative inequality. The rapid industrialization of much of the semiperiphery since 1960 has not altered the relative distribution of GNP per capita among the nations of the world, though it has changed the relative distribution of energy consumption (see Chase-Dunn 1989:266). Some of these countries do, however, seem to be moving up in the core/periphery hierarchy, especially Korea, Taiwan, and China. Others are simply running hard to stay in the same place, e.g. Brazil, Mexico and India. In the first group inequalities have not decreased and they may,

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in some cases, be increasing. This is quite likely to be the case in China. Among the semiperipheral countries that are not moving up inequalities have increased in the last few decades (e.g. Freiden 1982; Wood and Magno de Carvalho, 1988).

If it is the case that the global gap between the rich and the poor continues to expand in the

next decades this will increase tensions between the core and the periphery and also within and among core states. It is entirely possible that the United States will continue along the path toward greater internal inequality that began in the Reagan years. If this happens we would expect increases in racial and class conflict within the U.S. Such a situation would be likely to destabilize the alliances among core states. If either a very reactionary or a very left-radical regime were to be elected in the U.S. during a time of international instability the outbreak of warfare among core powers might result.[3]

Factors that Decrease the Likelihood of War Among Core States

There are four main factors designated in Figure 1 that decrease the likelihood of war among core states. It is these factors that are most often cited by those who contend that future core wars are unlikely.

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Destructiveness of weaponry

The most common argument regarding the low probability of war among core powers cites the existence of weapons of mass destruction that makes full-scale war among states armed with these weapons "irrational." It is contended that everyone can recognize that a war in which such weapons are used is unwinnable because even the winning side would experience massive destruction. The peaceful (in terms of core wars) period since World War II is explained with regard the bipolar balance of terror that existed between the Soviet Union and the United States.

While we agree that the destructiveness of weaponry decreases the probability of warfare among core states (as indicated in Figure 1), we note that there has been a very long term trend in the increase of the destructiveness of weaponry, and that at many earlier points it was claimed that warfare had become so costly that no sane people would engage in it. World War I was not supposed to happen because of the carnage that industrial warfare would cause. During the Cold War it was recognized that a first-strike capability might be developed by one side that would eliminate or greatly diminish the ability of the attacked side to do much damage in return. The balance of terror can easily be unbalanced by the development of new offensive or defensive technologies.

In the post-Cold War world it is likely that disarmament will continue to reduce the chances of accidental nuclear war. Indeed the nuclear powers may go so far as to eliminate (or greatly reduce)

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their arsenals of nuclear weapons. If this should happen, the sudden or accidental outbreak of a nuclear holocaust would become impossible. But what if core powers were to engage in "conventional" warfare in the context of a treaty banning weapons of mass destruction? It is our contention that in such a situation it is highly likely that nuclear weapons would be constructed and used by the side that began to lose the "conventional" war.

International economic integration

Economic globalization is also offered to explain why future core wars are unlikely. As with military destructiveness, international economic integration is a long term world-system process in which the proportion of all commodity chains that cross state boundaries rises, firms increasingly produce for international markets and engage in international joint ventures, international sourcing for production, and global marketing strategies. It is alleged that this globalization of the world economy has proceeded to such a level that nation-states are irrelevant to economic decision-making because economic forces are beyond their control, and capitalists now form a single, unified global class that no longer will use national states as instruments of struggle.

The world-systems perspective has long argued that, though the internationalization of capital

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has been an upward trend for centuries, capital has always been international in the modern world-system in the sense that important firms contended internationally for the world market. The Great Chartered Companies of the seventeenth century were true precursors of transnational corporations. And the states that competed with one another in the seventeenth century were also subject to the forces of the international economy as well as international military and naval competition. But in the seventeenth century only a few core and semiperipheral states were under the control of capitalists who were trying to extract surplus by means of commodity production and sale, while in the 20th century nearly all states have joined in the game of "international competitiveness." Hence the secular trend.

The long-term trend of international economic incorporation is composed of several different aspects. The rising economic interdependence of national states involves growing long-distances linkages of trade, production processes and investment.

International economic integration generally decreases the probability of war among core powers

because it makes these states dependent on one another and therefore raises the costs of conflict. But there are some kinds of interdependence that may increase the likelihood of conflict among core powers. The long-term trend in trade

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multilateralization has periodically been reversed during periods of economic contraction and warfare when states became more concerned about the extent to which they were dependent on other states. Also there has been an oscillation in the structure of core/periphery trade relations. During some periods core countries trade more freely with lots of different countries in the periphery, while in other periods core powers trade more exclusive with a specific set of peripheries that constitute their "own backyard." This core/periphery block-formation tends to occur at the same time that the distribution of power among core states is becoming more equal -- that is during the decline of a hegemon. In earlier world-system eras this block-formation took the form of colonial empires in which each core state linked tightly with its own colonies. The British Commonwealth was also a functional equivalent of block-formation that extended beyond the "end of empire." NAFTA is a contemporary functional equivalent of the block-formation process. This kind of "international economic integration" is more a consequence of rivalry among core states than a harbinger of global economic integration.

Choucri and North's (1975) study of the causes of World War I points to a phenomenon that they call "lateral pressure" in which core powers come in to conflict because they have overlapping spheres of interest in peripheral regions. Overlapping trade networks constitute a type of interdependence, but in this case the outcome is to raise the probability of conflict rather than lowering it. Tieting Su (1994) contends that the

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current pattern of world trade networks corresponds to a situation of lateral pressure operating in the overlapping interests of the United States and Japan in Asia.

International political integration

Many observers have noted an upward trend in international political organization since the early nineteenth century. The Concert of Europe was succeeded by the League of Nations, and the League was succeeded by the United Nations. Craig Murphy's International Organization and Industrial Change (1994) tells the fascinating story of the growth of global governance by an international civil society composed of international organizations and led

primarily by the liberal internationalists among the global bourgeoisie. Murphy contends that the ideologies and organizations of international liberalism have been important actors in the world-system since the early nineteenth century. If international political integration has been an upward trend for two hundred years we can agree that these actors and ideologies have become important in the contemporary system.

Though the United Nations is still not a very strong and effective provider of collective security, it has made great strides since the end of the Cold War broke the stalemate in the Security Council. The growth of international organizations has been geometric since World War II, and many observers speak of the formation of a truly global polity, an international community, an international civil society, and the integration of separate groups of national capitalists in to a single global capitalist class. The formation of the Trilateral Commission and the Group of Seven represent part of this trend toward international

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political integration. And international non-governmental organizations have also expanded phenomenally. This supports the notion that more is going on than the formation of a club for statesmen.

If the trend toward international political integration continues in the future it should lower the probability of war among core states. The creation of international regimes in which member states come to accept common norms of procedure for resolving disputes ought to lower the probability of disputes developing in to interstate war. And the strengthening of the ability of the United Nations to mediate conflicts and to intervene to halt violence should also reduce the probability of warfare.

A related type of international political integration is analyzed by Bruce Russett (1993). Russett shows that regimes that are electoral democracies are unlikely to engage in interstate warfare with other similarly democratic regimes. Electoral democracies are about as warlike as other kinds of regimes, but the wars in which they engage are with un-democratic regimes. Since 1815 there have been no interstate wars among democratic regimes as defined by Russett. Twelve possible exceptions (out of seventy-one interstate wars) are shown to not fit Russett's criteria for democracy or for interstate warfare. The empirical fact of no, or few, wars between democracies is credibly established.

Russett's (1994:24) explanation for this phenomenon is a combination of structural and normative restraints. "1) Structural/institutional

features of democratic systems constraints make it hard for democracies to go to war rapidly unless they are attacked, and hard to prepare for war in secret. 2) Two democratic states disputing with

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each other therefore need not fear sudden or surprise attack from each other, and thus know they have time to resolve conflict through peaceful means of negotiation and mediation...3) Each of two democratic states in dispute knows that the other, like itself, follows and understands norms of compromise and peaceful conflict resolution, so the norms of peaceful conflict resolution can also operate between them..."

Russett notes that the proportion of all states that have electoral democratic regimes has risen greatly since the nineteenth century and so he predicts a future trend toward this form of government that can lead to a permanently peaceful international system of states that share democratic values. While we agree that electoral democracies are less likely to engage in warfare with other electoral democracies, and that the trend toward the expanding proportion of regimes that are democratic in Russett's sense is likely to reduce the probability of war among core powers, we are less optimistic about the idea of a permanent "democratic peace."

It is well-known that even very stable and long-term democracies tend to become less democratic during periods of international tension. And, in countries where democratic institutions are less well embedded in the civic culture, international conflict often produces a re-emergence of authoritarian regimes. Thus, even though there has been a trend toward more electoral democracy, we can expect future reversals of that trend during periods of international strain. It is even possible that the trend that Russett points to could increase the probability of war among core

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states if one core state were to generate an authoritarian regime in a context in which all other core states were long-term democracies. Such a development might be perceived as such a grave threat to the "democratic peace" that warfare would be justified.

Disarmament

We have already mentioned that disarmament lowers the probability of accidental war. There have been great strides away from the brink of the balance of terror since the demise of the Soviet Union. The international effort to limit nuclear proliferation has some chance of succeeding despite the increasing easiness with which nuclear bombs

can be produced. But disarmament does not by itself change the institutional basis of interstate warfare. Even if all weapons were to be destroyed, but the right of sovereign states to make war on one another was preserved, a dangerous situation would still exist. This is because the terrible knowledge of how to produce weapons of mass destruction will not perish even though existing weapons are wrecked. And so a situation of conflict among states will likely lead to the reconstruction of weapons of mass destruction.

The Probability of Core War in the 2020s

If our model captures all the significant factors affecting the probability of future war among core states, as we believe it does, it still does not tell us whether that probability is high

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or low. It does tell us that the probability will be very low for some time, until military capability has equilibrated with economic power, and that there will be a window of higher probability in the 2020s. But how high will this probability be? We have not even tried to designate which of the factors in Figure 1 are the most powerful relative to the others. And even if we had a fairly accurate relative weighting among the factors, this would still not produce a probability estimate.

An additional complication is that the causal importance of the factors probably changes over time. We know that the K-wave effect becomes more important late in an upswing. We know that the importance of hegemonic decline increases as the distribution of power among core states approaches equality, but we do not now have an estimate of the rate of that approach. The secular trends do not proceed smoothly. As pointed out, there have been temporary reversals in these in the past, and this is also likely in the future.

Despite these imponderables we will venture a guess: the probability of warfare among core states in the 2020s will be as high as 50/50.[4] If this is true it is not too early to begin contemplating the ways in which this probability may be lowered by concerted action. Even if the true probability is only one in four, the risk is so great that uncommon energies are called for.

Potential Future Hegemons

As we have already mentioned, the world-system model does not predict which country has the best shot at a new hegemony. Rather it implies that the

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structure of the system will engender rivalry among

contenders for hegemony in the 2020s. Nevertheless we can examine the more particular and conjunctural aspects of potential contenders to evaluate their possibilities for hegemony. The most likely contenders for hegemony are the United States, Japan, and Germany. Because the establishment of hegemony is seen to depend upon specific military, economic, and ideological capacities, the task of this section is to evaluate the relative strengths and weaknesses of the contending states along each of these dimensions. Potential regional alliances are also discussed, as is the more uncertain role that Russia and China may play in core rivalries during the early decades of the coming century.

Many commentators have interpreted the collapse of the Soviet Union and its attendant socialist bloc as signalling the onset of a true Pax Americana. And, indeed, when viewed strictly in terms of military might it is clear that the United States has gained a historically-unprecedented degree of nuclear and conventional military superiority over its possible future rivals. Never before has one country held the capacity to destroy all of its rivals and the entire world many times over, while its most serious competitors have legally renounced their right to develop similar nuclear capabilities. In terms of naval and conventional air power, crucial determinants of the ability of a state to exercise "global reach" capabilities, the United States is again the leader. At first glance, therefore, it would seem likely that the United States should be able to translate its unrivaled military power into an unusual second period of global economic hegemony. [5]

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First glances are often wrong, however, and a closer look at the underlying sources of long-term military power reveals a number of potential weaknesses in American military capacity. To begin, it is not clear to what extent nuclear weapons can actually serve as useful instruments in future core rivalries. The United States is, of course, not the sole core nuclear power, and it is likely that even the relatively limited nuclear arsenals currently held by Britain and France are sufficient to deter any potential U.S. nuclear aggression against a neighboring European state such as Germany. Japan, meanwhile, is itself considered a "virtual nuclear power," given its advanced technological capacities and stockpiles of weapons-grade plutonium (Sanger, 1994).

With regard to conventional forces, evidence suggests that the United States is losing its edge in the fabrication of many vital computers, electronics and metal alloys required in advanced

military components. A major Pentagon review of the global semiconductor industry, for instance, revealed that the U.S. military was in danger of becoming excessively dependent upon Japanese firms for key information-processing components (Department of Defense 1987). Although this Pentagon study recommended that steps be taken to fortify U.S. capabilities in advanced industries, a 1991 report from the U.S. Office of Technology Assessment found that important segments of the U.S. computer and electronics industries continue to be in trouble, and are in fact projected to decline in the face of Japanese competition (Congress of the United States, OTA, 1991, 11).

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These early concerns regarding the military implications of U.S. technological decline are likely to intensify in coming decades, as both Japan and Germany take advantage of the coming K-wave economic upswing to consolidate their economic power and eventually fortify their autonomous military capacities. Since it is probable that "the advantages of backwardness" operate in the military arena, both Japan and Germany will likely be able to deploy conventional forces with cutting-edge weaponry capable of at least stalemating older U.S. technology.

In sum, the possibility that current U.S. military dominance will be challenged in coming decades must be taken seriously. According to the logic of the capitalist world-system, it is economic productivity that ultimately determines long-term military strength. And, as we now turn to an investigation of the relative economic productivity of the three main hegemonic contenders, it will become clear that the United States is unlikely to reestablish the economic edge it held during its brief post-war period of hegemony.

A number of processes have undermined the hegemonic status of great powers in the past, and it is these same processes that are currently eroding U.S. hegemony. For instance, the mobility of capital ensures that productive superiority cannot be maintained by any one state indefinitely.

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As capitalists search out the highest profits in numerous international markets and productive regions, the resulting capital and technological diffusion allows rival core states to modernize their industrial foundations and enhance their competitive power. While some state managers and domestically-oriented capitalists within the declining hegemon demand that protective measures be taken against emerging rivals, such policies are

opposed by internationally-oriented capitalists stationed within the same state. As a result of this intra-capitalist class struggle, mature hegemony such as the United States are typically unable to implement the coherent industrial and trade policies which would be required to reverse their economic decline.

Hart's (1992) examination of the roots of international competitiveness sheds further light on the fundamental weakness of America's current economic position. According to his analysis, the fact that business interests with short-term profit goals have succeeded in dominating United States policy-making largely explains this country's declining competitive position. Whereas in Japan a strong state-business alliance has allowed for the implementation of strategic industrial planning, in the U.S. the federal government has been unable to motivate capital to undertake disciplined, long-term industrial development projects. Instead, traditional U.S. manufacturing sectors are falling into disrepair as capital increasingly moves into speculative domestic financial arenas, or out to foreign production sites. Meanwhile, in Germany a strong business-labor alliance has resulted in industrial cooperation and enhanced worker productivity. In the United States, by contrast, business dominance over an almost prostrate labor movement has allowed corporations to under-invest

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in worker training and education, further undermining this country's long-term competitive position.

Germany and Japan, of course, are not without their own internal economic problems. The estimated cost of German unification continues to escalate, as new information regarding East German industrial and ecological decay becomes available, while the unified German state is already faced with entrenched unemployment that is projected to rise as companies rationalize their production processes. In addition, while German corporations are strong in traditional manufacturing industries such as chemicals, steel, and automobiles, they have not as yet managed to penetrate into the emerging infomatic and biotech industries which will determine future global economic dominance (Wallach and Francisco 1992).

For its part, though Japan has achieved tremendous success in these new industries, this success in itself poses new challenges. Japan faces major structural changes as its economy continues to shift from dependence upon employment-generating manufacturing sectors such as steel, shipbuilding, and automobiles, to post-industrial, knowledge-intensive sectors such as electronics and computers. Faced with fierce competition from

other East Asian producers, Japanese firms will be forced to streamline production processes by both increasing their use of subcontracting networks, and by simply laying off high-wage factory workers. The challenge for Japan is to negotiate this industrial shift, without allowing growing income

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disparities and unemployment to erode the social and cultural cohesion which helped foster the post-war Japanese economic miracle (Tachi, 1993).

At this historical juncture, therefore, none of the three hegemonic contenders on their own appear capable of establishing the kind of global productive dominance that has characterized past hegemonic periods. Instead, each country has intensified its efforts to carve out a region of the world economic system within which it is able to monopolize surplus accumulation.

It is important to be clear about the structural forces underlying the contemporary push towards the consolidation of the European Economic Community (EEC), the North American Free Trade Agreement (NAFTA), and the embryonic Asian Free Trade Alliance (AFTA). Rather than operating solely to facilitate the free exchange of goods and services, this process of bloc formation can be seen as the functional equivalent of the colonial imperialism of past centuries--with rival core powers attempting to fortify their respective geopolitical positions by establishing dominance over the surplus accumulation of "their" parts of the globe.

Murphy (1994:265) has contended that economic bloc formation is not likely to compromise economic efficiency because the blocs are so large. While this may be true, the effect of this kind of bloc formation on hegemonic rivalry may be a greater matter for concern than economic efficiency.

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Of course, it cannot be expected that all political and class interests within each bloc will take kindly to having to march to the tune of their respective leader. The EEC is being convulsed by political battles, as the French and the British awaken to the reality that a unified Germany will have the capacity to dominate the very entity that was meant to contain it. Meanwhile, the revolts in Chiapas, Mexico, are most likely only the beginning of a long series of social protests which will be carried out in opposition to the regional restructuring implied by the NAFTA trade agreements. We can anticipate that similar political and social battles will play themselves out in Asia, as Japan steps up its attempts to monopolize accumulation in that part of the world.

In addition to producing significant social

and political turmoil within each region itself, this process of regional bloc formation is likely to result in heightened geopolitical tensions over the long-run. For instance, Tieting Su (1994) has shown that there is a great deal of overlap in the trade networks of the United States and Japan. It is, of course, possible that the United States and Japan could fashion some kind of grand Pacific alliance out of this interconnected trading system (a scenario suggested by Wallerstein, 1991, chapter 3).

It is equally possible, however, that each of these core powers could intensify its efforts to monopolize the surplus generated in the Pacific region, leading to a repeat of the trade conflicts which preceded World War II.

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A further source of potential conflict revolves around the consolidation of a true European regional bloc. Although a strong military and economic power could serve as a stabilizing force on the European continent, it could also serve to antagonize a declining Russia if this country is excluded from meaningful participation in regional political and economic activities. A German-led EEC could profit in the short-run by transforming the former Soviet Union into a peripheral supplier of raw materials and a low-cost production zone, but this type of relationship would likely accelerate the social disintegration of Russia and neighboring states. In order to maintain even a moderate degree of stability in this heavily-armed region over the long-run, a German-led EEC would probably have to invest significant resources in the economic development of most of the former Soviet Union. It is not clear that Germany alone, or even a truly unified EEC, will have the will or the capability to carry out such a project.

If Russia can be considered an unpredictable element in the coming decades, China is even more of a wildcard. With its tremendous human and natural resources, plus what is presently held to be the world's fastest growing economy, China will continue to increase its geopolitical and economic influence. Where this state will fit into the evolving pattern of global alliances is, however, not at all clear. A Japan-China alliance would set the stage for an almost unbeatable hegemonic coalition in the east, but most Asia scholars discount this possibility. Instead, it is likely that China will strengthen its ties with the United States--while simultaneously developing its capacity to play an increasingly autonomous role in global affairs.

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This entire discussion of possible future alliances is necessarily speculative, as the multipolar nature of the current era increases the possible geopolitical variations that could emerge over the next few decades. Furthermore, if we take into account the profound ideological realignments that are occurring on a global scale, it becomes even more difficult to forecast long-term political outcomes.

A Real World State

The history of state formation shows that violence-prevention within a given territory ultimately rests on the ability of a single unified organization -- the state -- to secure a monopoly of legitimate violence. What this means is that the state's means of coercion must be greater than any coalition that might be organized against it. To speak of a true world state it is necessary to posit the existence of such a monopoly of legitimate violence on a global scale. The existing interstate system is precisely not such a structure to the extent that it presumes the legitimate ability of individual sovereign states to utilize violence against other states. The existence of a system of separate military organizations under potentially oppositional commands is the

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organizational basis of the interstate system. And this is the ideal-typical opposite of the organizational structure of a true world state. In order for the United Nations to truly outlaw interstate warfare, and to enforce that law under all circumstances, it would have to have an armed force under its control that is larger than any coalition of armed forces that might be likely to oppose it. If the UN peace-keeping force was one among several potentially oppositional militaries this would not guarantee the peace. It would simply add one more player to the set of "great powers."

This is surely a somewhat upsetting way of discussing the possibility of global government, but in the light of our analysis above we think that it is very important to keep attention focussed on the most basic aspect of collective security. Our point is that a real world state that outlaws warfare must not only have an apparatus for mediating conflicts, but also an apparatus for enforcing the justice that the world court and legislature may devise. A state that does not do that is not a real state and it will not be able to eliminate the possibility of a new round of wars among core states.

It is quite possible for the trend toward greater international political organization to make great advances in the next two decades but

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still not go far enough to prevent catastrophe. A mere condominium of core powers that maintains the multipolar distribution of military control will not do the job. The world state must have the ability to control weapons of mass destruction. And if substates are permitted to retain these, the world state must have the ability to outshoot any coalition that is likely to form against it. The emergence of such a structure will require that the core states relinquish their military sovereignty to the global state. That is a tall order. In fact it is nearly unthinkable, let alone doable in the next twenty-five years.

Another solution that would at least postpone the problem would be the continuation or revitalization of U.S. hegemony, if this could be accomplished by peaceful means. We have already argued why the continuation of U.S. military hegemony is unlikely. And we have also argued why we think another round of U.S. economic hegemony (that could support the costs of military hegemony) is unlikely as well. Though both authors of this essay have opposed U.S. imperialism in the periphery we conclude that the continuation of U.S.

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hegemony would be the least worst alternative in a world at risk of total destruction. It would buy time, allowing the system to get through the sticky wicket of the 2020s and giving more decades for the trend factors reducing the probability of core war to have their effects.

The most workable policy for getting through the wicket would be a combination of continuing the process of world state formation, though it is not likely to be complete by the 2020's, with a renewed period of U.S. hegemony. The advantage of U.S. hegemony over the hegemony of the other possible contenders is that it can probably be accomplished by peaceful means. Neither Germany nor Japan really want to rearm and contend for military hegemony. They want the U.S. to continue doing what it has done well in the past -- provide global order -- so that they can continue to make money. The problem is how to finance the costs of this order. Perhaps the way to do this would be a joint operation between the U.N. and the U.S. After Japan and Germany are admitted to the Security Council they may be willing to contribute financially to

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building up the UN peacekeeping forces as an alternative to building up their own forces. The

U.S. could then downsize its own military proportionately. This would promote the long term goal of building up the world state but would not rely exclusively on that means for getting through the 2020s. If the only two military superpowers are the U.N. and the U.S. in the 2020s there will be no war among core powers.

This proposal may be a bit hard to sell to the Germans and the Japanese. Undoubtedly nationalists will prefer the development of home-controlled military forces. But they may be partially appeased by the development of U.N. capability as a "check and balance" to the possibility that the U.S. might be tempted to use its superpower status for economic advantage. The Japanese are somewhat more likely to support this solution than the Germans because their economic networks are more globally spread than are those of Germany.

From the U.S. side the development of U.N. capability can be supported as an alternative to maintaining a large and costly domestically-

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financed military. The construction of U.S.-U.N. "bipolarity" will also satisfy the aesthetic desires of those "neo-realists" who argue that bipolarity is the most stable form of power distribution in an interstate system. The citizens of the rest of the world-system ought to support this solution because it reduces the threat of nuclear holocaust in the 2020s and because it contributes to the long-run goal of global state formation. Once a world state is strong it will provide a political mechanism for balancing global development and reducing inequalities. This will allow anti-systemic movements to have a greater impact on the subsequent development of world society.

Notes

1. Earlier organizational forms of this phenomenon were labor unions and socialist parties. These antisystemic movements were part of the reason that markets and capitalist firms expanded their spatial scale of operations.

2. A general model in which population pressure is a central variable has been proposed to explain the long-term evolution of hierarchy and intensified production in world-systems (Chase-Dunn and Hall, forthcoming).

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3. W. Warren Wagar's (1992) *A Short History of the Future* depicts a scenario in which the election of a hispanic woman to the U.S. presidency in the

2040s sparks a civil war between the right and left

in the U.S., and this develops in to a nuclear holocaust when other core states try to bring off a first strike against the populist and pro-Third World U.S. regime.

4. This is lower than the probability was at earlier similar periods because of the operation of the systemic trends that we have discussed. It is still unacceptably high, however.

5. According to Modelski and Thompson (1995) the British enjoyed two sequential cycles of global leadership, one in the eighteenth century and one in the nineteenth century. But others see the eighteenth century as a long period in which there was no hegemon.

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