THE RISE OF CHINA AND THE DEMISE OF THE CAPITALIST WORLD-ECONOMY: EXPLORING HISTORICAL POSSIBILITIES IN THE 21ST CENTURY

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1. The Rise of China?

The rise of China as a major player in the capitalist world-economy is likely to become one of the most significant developments in the first half of the 21st century. After more than two decades of consistently rapid economic growth, in terms of GDP calculated at purchasing power parity, China now accounts for 12 percent of the world output and stands as the second largest economy in the world, behind the United States. In 2002, China accounted for 15 percent of the world economic growth and 60 percent of the world's export growth. In terms of the world economy's financial conditions, China is now the world's largest saver and a major source of finance for the U.S. current account deficit (Kynge 2003).

China's rising importance in the capitalist world economy raises several questions that are of world-historic significance. First, there is the question how China's internal social structure is likely to evolve as China assumes different positions in the existing world system, and whether China's current regime of accumulation will be able to survive the potential pressures that may arise out of such a transformation.

Secondly, there is the question if China is "rising," that is, if it is moving upwards within the hierarchy of the existing world system, how will other peripheral and semi-peripheral countries be affected? Given China's enormous size, the rise of China cannot but have to have enormous implications.

Thirdly, there is the question whether China will become the next hegemonic power. If the 20th century was said to be the "American Century," will the 21st century turn out to be the "Chinese Century"? Giovanni Arrighi, among others, places much hope on the renaissance of the Chinese civilization. Arrighi hopes that the reemerging China-centered civilization would provide system-level solutions to the system-level problems left behind by the U.S. hegemony and lead the

transformation of the modern world into a commonwealth of civilizations (Arrighi and Silver 1999: 286-289). Similarly, the *Financial Times* Special Reports on Asia begin with the question "Why Europe was the past, the US is the present and a China-dominated Asia the future of the global economy." (*Financial Times*, September 22, 2003) Will these hopes be materialized?

Fourthly, there is the more fundamental question. How will the rise of China, and for that matter, the rise of India as well, affect the underlying dynamics of the existing world system itself – the capitalist world-economy? Immanuel Wallerstein argues that the existing world system has entered into a structural crisis. The system has developed to the point that several secular trends have now reached their respective asymptotes, exhausting the system's space of self-adjustment. We are now in an age of great transition, at the end of which the existing historical system should be replaced by one or several other systems (Wallerstein 1995; 1996; 1998; 2003).

In other words, we do not live in "normal" times. In the coming century, instead of expecting more "development," more "modernization," more upward mobility, more of the same pattern of systemic dynamics that we have observed and with which we have become familiarized over the past five or six centuries, it may be more appropriate to expect more bifurcations, more chaos, more transformations and transitions, and more "turns" and "tricks" of the world history.

Therefore, first of all, it is important to place the rise of China within the current world-historical conjuncture – the age of transition.

2. The Age of Transition

In his debate with Robert Brenner, Giovanni Arrighi noted two crucial differences between the late 20th century and the late 19th century Kondratieff long waves (Arrighi 2003). The first was that the workers' struggles played an unprecedented role in precipitating the downturn in the late 20th century. "Whereas in the earlier period the intensification of labor-capital conflicts, and the most significant increase in real wages, *followed* the onset of the downturn, in the second

half of the twentieth century they *preceded* it [italics are in the original]." The second was the great Southern "revolt against the west."

During the post WWII "Golden Age," the working classes in the core countries made unprecedented advances in living standards as well as social and economic rights. The peripheral and semi-peripheral states made significant progress in national development, by pursuing import-substitution, export-substitution, or socialist industrialization. Governments became active and indispensable players in capitalist national economies. As the bargaining power of the working classes rose and different social groups raised their demands on state expenditures, wages and taxes rose more rapidly then the output. By the mid-1960s, the world-wide profit rates started to fall and the capitalist world-economy entered the downturn of the current Kondratieff long wave.

The system's ruling elites responded to the downturn by pursuing a set of strategies known as Neoliberalism. Typical Neoliberal policies and institutions include "monetarist" macroeconomic policies (lowering inflation by imposing high unemployment), de-regulation, privatization, trade and financial liberalization, and attacks on the welfare state. The Neoliberal strategy tries to resolve the profitability crisis by undermining the bargaining power of the global working classes and by pursuing reverse re-distribution from the workers to the capitalists, and from the South to the North.

Under Neoliberalism, global inequality has reached unprecedented levels. The Income gap between the richest 20 percent of the world population and the poorest 20 percent rose from 30:1 in 1960, to 60:1 in 1990, 74:1 in 1999, and is projected to reach 100:1 in 2015 (United Nations 2000). Real wages have fallen in many countries (including the United States), and about 50 percent of the global non-agricultural labor force is estimated to be either unemployed or under-employed (Petras and Veltmeyer 2001: 24).

As global inequality rises and the working classes in many parts of the world suffer from absolute pauperization, the purchasing power of the majority of the

population in the world has tended to decline or stagnate, setting constraints on the growth of the world consumption. High real interest rates and financial instability have led to slowdown in the global investment (Felix 2001). The governments in the world have mostly pursued tight fiscal policies, in accordance with the interest of the global financial capital. As a result, all major components of the global effective demand, consumption, investment, and government spending, have tended to either stagnate, contract, or grow slowly (Crotty 2000).

The global economy has been moving towards stagnation. World economic growth rate declined from 4.9 percent between 1950-73, to 3.0 percent between 1973-92, and to 2.7 percent between 1990-2001. During the 1990s, 52 countries suffered from falling real per capita GDP (United Nations 2002).

The global economy has been able to avoid a full-scale downward spiral only because the world's hegemonic power – the U.S. economy – has managed to maintain large and rising current account deficits, pumping demand into the global economy. However, the U.S. deficits have led to growing indebtedness against the rest of the world. This raises the most interesting question. As the U.S. foreign indebtedness explodes, how long can the U.S. keep creating "effective demand" simply by printing money without eventually leading to conditions that will undermine the dollar as well as the U.S. hegemony?

Whatever will happen to the U.S. current account deficit and the U.S. dollar, a stagnating world economy with increasingly greater inequality in income and wealth distribution is hardly the recipe for a stable and sustainable world order. If the Neoliberal regime is not going to fall apart for purely economic reasons, it is certainly conceivable it will be torn apart by its own incessant drive towards polarization.

If the Neoliberal regime turns out to be unsustainable, what could be the solution? For the world economy to resume sustained expansion at a more rapid pace, the global effective demand needs to expand more rapidly in a more stable manner. For that to take place, it is likely that the revival of the global mass consumption

would be a necessary condition. A purely investment-led demand expansion is likely to be vulnerable to various speculations, bubbles, and financial crises.

What institutional changes would be required for the revival of the global mass consumption? One possibility is to return to the arrangement of social democratic Keynesianism. The state will again play an active role in regulating and managing the economy. State management and some egalitarian income re-distribution will help to generate conditions for relatively vigorous expansion of the global mass consumption. The ruling elites of the system may be under pressure to make new "new deals" with the working classes in the core states and the semi-peripheral states. The new "new deals" may involve the revival of the welfare state, state control over international trade and capital flows, state regulations of labor and environmental standards, public investment programs, re-nationalization of "strategic industries" (for example, the telecommunication industries and public utilities), and democratization of central banks.

With the new "new deals," are we going to experience another great "Golden Age"? Towards the end of the last world economic expansion, the bargaining power of the global working classes and the popular demands on the state had already reached the point to produce a global crisis of profitability and accumulation. If another world economic expansion takes place under social democratic and Keynesian institutions, it may be reasonable to expect that the hopes and the expectations of the working classes in all states will not be exactly the same as where they were in 1945. Instead, these hopes and expectations may be at substantially higher levels. The working classes may soon be able to recover and consolidate all of their historical social and economic rights, and start to demand greatly expanding their rights. The surge in wage and taxation costs may soon run out of control.

If we look beyond the cyclical patterns of Kondratieff long waves, the tendencies for the costs of real wage and taxation to increase may be seen as "secular trends" that have been present throughout the entire life span of capitalism as a historical system (Wallerstein 1998; 2003: 45-68). The development of the capitalist

world economy has led to urbanization and proletarianization, creating favorable conditions for the workers to organize. As workers' political and economic organization grows, the working classes have fought for gradual extension of political, economic, and social rights. In the long run, both the political strength and the bargaining power of the working classes have tended to grow.

As capitalism develops, all social groups have increased their demands on the state. In the short run, government spending on social welfare helps to tame the "dangerous classes" and maintain political stability. However, in the long run, the extension of social spending raises peoples' expectations and hopes, creating more pressures on the state, leading to either rising taxation costs or as the state fails to meet rising popular demands, declining legitimacy of the state.

Immanuel Wallerstein argues that as the secular trends of rising real wage, taxation, and environmental costs reach their respective asymptotes, capitalism, as a historical system, has now reached the point of "structural crisis" or "terminal crisis." The crisis can no longer be resolved within the system's own framework. Instead, it will lead to "bifurcation," and the system is to be replaced by one or several other systems (Wallerstein 1995; 1996; 1998; 2003).

Historically, the capitalist world-economy has been able to postpone the structural crisis through geographic expansion. Geographic expansion allows the capitalist world-economy to have access to new reserves of cheap labor and natural resources, preventing labor and environmental costs from rising to the point of effectively threatening accumulation. However, the capitalist world-economy has now encompassed the entire globe and reached the limit of geographic expansion. Any further expansion of the world economy requires more intensive exploitation of existing reserves of labor and environment.

In this context, populous countries with large stock of cheap labor and "under-exploited" natural resources, and under some degrees of effective government, such as China and India, may turn out to be the last and largest reserves for the capitalist world-economy. The "rise of China" and "the rise of India," in this sense, would

represent the final exhaustion of the remaining reserves. The depletion of these final reserves is likely to drive up the global labor and environmental costs drastically during the first half of the 21st century.

In the age of transition, can the existing world system survive the rise of China (and the rise of India)?

3. The End of Capitalist History?

In *The Long Twentieth Century*, Giovanni Arrighi argued that the expansion of the capitalist world-economy over the past five hundred years has been based on the continual recreation of two underlying conditions: the inter-state competition and the formation of the "political structures with ever-more extensive and complex organizational capabilities to control the social and political environment of capital accumulation on a world scale," that is, the leading or the hegemonic capitalist states. Arrighi (1994: 14) made the following observations:

> All four states – Venice, the United Provinces, the United Kingdom, and the United States – have been great powers of the successive epochs during which their ruling groups simultaneously played the role of leader in processes of state formation and of capital accumulation. Seen sequentially, however, the four states appear to have been great powers of a very different and increasing order. … [T]he metropolitan domain of each state in this sequence encompass a larger territory and a greater variety of resources than those of its predecessor. More importantly, the net works of power and accumulation that enabled the states in question to reorganize and control the world system within which they operated grew in scale and scope as the sequence progresses.

Historically, the resolution of systemic crisis of accumulation has involved a change in the leadership of the world-scale processes of capital accumulation, on larger and more comprehensive foundations. However, Arrighi suggests that sooner or later the process must reach a stage when the crisis of accumulation can no longer bring into existence a state powerful enough to bring about larger and more

comprehensive organizational structures. It seems that we are approaching such a limit as the U.S. "systemic cycle of accumulation" is in decline (as is manifested by the "financialization" of the U.S. economy that has taken place since the 1970s) but there is no obvious candidate that can realistically hope to replace the U.S. as the next leadership of the capitalist world-economy (Arrighi 1994: 325-356).

Arrighi suggests that three possible outcomes may arise out of the current crisis of accumulation. First, the incumbent hegemony – the United States – may use its state and war-making capabilities to form a truly global world empire and terminate the capitalist history. Second, the incumbent hegemony may not be able to stop the capitalist history. In that case, Arrighi predicts that the East Asian capital would rise to the commanding position in systemic processes of capital accumulation. However, those that occupy the commanding heights of the capitalist world-economy would lack the necessary state and war-making capabilities that would allow them to appropriate the large, monopolistic, "capitalist" profits, and the capitalist history would be brought to an end as the "underlying layer of the market economy" revert to some kind of anarchic order. Finally, humanity may burn up in the horrors of the escalating violence that accompanies the liquidation of the existing world order, and the capitalist history would come to an end by reverting permanently to systemic chaos (Arrighi 1994: 355-356).

In *Chaos and Governance in the Modern World System*, Arrighi and Silver (1999: 289) placed much hope on the renaissance of the Chinese civilization and the possibility for the reemerging China-centered civilization to provide system-level solutions to the system-level problems left behind by the U.S. hegemony:

> The most severe among these problems is the seemingly unbridgeable gulf of the life-chances of a small minority of world population (between 10 and 20 percent) and the vast majority. In order to provide a viable and sustainable solution to this problem, the "tracklaying vehicles" of East Asia must open up a new path of development for themselves and for the world that departs radically from the one that is now at a dead end.

In other words, in Arrighi's map of scenarios, unless the hope of the rise of China (or East Asia) is materialized, humanity is doomed to the unpleasant choice between a global world empire and permanent systemic chaos. Can the existing world system (and humanity) survive without the rise of China?

The rest of this paper evaluates if the hope of the rise of China is likely to be materialized and its likely implications for the existing world system. Section 4 and 5 discuss China's current position in the world system, as is reflected by its status in the global commodity chains and the global wage hierarchy, and its class structure in comparison to the class structures of states occupying different structural positions in the world system. Section 6 discusses the prospect of the rise of China and how the global political economy may be transformed as a result. It explores several possible scenarios that may unravel in the coming decades.

A crucial aspect of the structural crisis of the existing world system is the deepening global environmental crisis. It is not at all clear that the existing world system will be able to find solutions to the crisis. The rise of China, with the corresponding expansion of material production and consumption, were it not to lead to a political-economic crisis of the system, may very well contribute to systemic chaos by accelerating the coming of global environmental catastrophes. This possibility is discussed in Section 7.

Section 8 summarizes the alternative historical possibilities that confront humanity in the coming century. Will humanity end up with living under a global world empire? Or global chaos? Or an environmentally sustainable world system that is able to meet the basic needs of everyone on the earth? Ultimately, these questions have to be answered by real historical actions.

4. China in the Capitalist World-Economy

According to Immanuel Wallerstein (1979; 1994), the capitalist world-economy is a world system with integrated division of labor and multiple political

structures (states). It first emerged in Northwest Europe in the 16th century and has since then expanded to include the entire globe.

The division of labor within the capitalist world economy results in flows of commodities, labor, and capital across different geographic areas through millions of chains of production and exchange, each starting with the initial producer and ending with the final user of a product. These chains are referred to as "global commodity chains."[1] Within each commodity chain, certain amount of surplus (the difference between the total output and the subsistence needs of the producers, appearing as certain amount of market value) is generated. However, typically, the surplus generated is unevenly distributed among the states in the world system. Depending on their different positions in sharing the surplus generated in the global commodity chains, states in the world system are located in different structural positions (the core, the semi-periphery, and the periphery) in a hierarchical manner.

The surplus generated in commodity chains is unevenly distributed among the states because of different degrees of relative monopolization at different stages of commodity chains. Relative monopoly may be established if certain producers have technical, organizational, or political advantages over other producers (Wallerstein 1994). The uneven distribution of the surplus generated in global commodity chains implies unequal exchange. The core states are those that generally benefit from unequal exchange and receive disproportionately greater portions of the world surplus. The production of the core zone is characterized by high profit, high wage, high technology, and diversified activities. The peripheral states are those that generally suffer from unequal exchange and receive disproportionately smaller portions of the world surplus. The production of the periphery is characterized by low profit, low wage, low technology, and less diversified activities (Wallerstein 1979: 97).

The concept of semi-periphery is more difficult to define. However, Wallerstein believes that semi-peripheral states are indispensable for the political

[1] For detailed discussions on global commodity chains, see Gereffi (1994).

stability of the capitalist world-economy. Without the semi-peripheral states functioning as the "middle stratum" in the world system, the capitalist world-economy is likely to become a highly polarized system in which a small high-income and high-status sector confronts a relatively homogeneous low-income and low-status sector including the overwhelming majority of individuals in the system. The system is likely to soon disintegrate as acute struggle takes place among highly self-conscious classes (Wallerstein 1979: 23; 69-73). One can therefore consider the semi-peripheral states to include those in the world system that can most effectively play the role of politically stabilizing "middle stratum." These roughly correspond to the "upper middle-income countries" that appear in various conventional economic statistics.

What is China's current position in the capitalist world-economy? Let us consider one example of global commodity chain. Table 1 reports the global distribution of value added in each stage of production and distribution of a model of globe for children's study made in China to be sold in the U.S. markets. In this example, China, a peripheral state, receives 10.5 percent of the total value added. Hong Kong, a geographic area that arguably has a semi-peripheral position in the world system, receives 26.3 percent of the total value added. The U.S., the hegemonic core state in the world system, receives 63.2 percent of the total value added. Similarly, Andy Xie, the Morgan Stanley chief economist on Asia, estimates that for each U.S. dollar in value for a product that China exports to the U.S., businesses in Hong Kong or Taiwan take 20 cents, and U.S. brand owners and distributors receive the bulk of the benefits as the product sells for 4-5 U.S. dollars at the retail level in the U.S. (Xie 2003).

The value distribution in these examples is consistent with what is generally observed in global commodity chains.[2] Generally, the core states receive the lion's share, and the peripheral and the semi-peripheral states receive the smaller shares of the market value generated in the global commodity chains.

[2] For examples of value distribution in global commodity chains, see Chossudovsky (1998: 75-100) and Makhijani (1992: 11-35).

The value added received by each state is divided between profits and wages. To the extent the peripheral and the semi-peripheral states receive smaller shares of the value added, the workers in these states have to receive lower wages.[3] Therefore, different wage rates may be used to indicate the positions of different states in the world system, as an index of the degrees of unequal exchange. Table 2 reports the wage rates in the manufacturing sectors in selected countries. On the top of the hierarchy, are the core states, including the U.S., Japan, and Western Europe, accounting for about 15 percent of the world population. Immediately below the core states, are small states such as South Korea, Singapore, Hong Kong, and Israel, which function more or less as the core states' political, economic, or military bridgeheads in the periphery. Their wage rates are between 40-75 percent of those of the core states. The "upper middle-income" or semi-peripheral states in Latin America, Southeast Asia, and Central Europe, accounting for about 10 percent of the world population, have wage rates between 10-30 percent of those of the core states. At the bottom of the hierarchy are the peripheral states that account for the majority of the world population. China and India are the two largest peripheral states. The wage gap between them and the core states is between 40:1 and 60:1. Russia used to be one of the most powerful semi-peripheral states. After more than a decade of "transition," it has made the successful transition to a peripheral state.

5. China's Class Structure in the Capitalist World-Economy

Why are wage rates so different across different structural positions in the capitalist world-economy? The wage rate, or the price of labor power, just like the price of any commodity, is determined by "demand" and "supply." The question is, what are the social forces that act behind and regulate the "demand" and the "supply." On the side of "demand," the system of unequal exchange and the concentration of the world surplus in the core set the upper limits to the wage rates in different

[3] Empirical evidence suggests that wage shares in value added are usually higher in core states than in peripheral or semi-peripheral states (Chossudovsky 1998: 80).

structural positions in the world system. On the side of "supply," the workers' biologically determined subsistence needs set the absolute lower limits. However, the real or the social lower limits to wage rates are set by class struggle, or the bargaining power of the working classes.

The workers' bargaining power varies under different forms of labor organization. If one studies the working classes in today's capitalist world-economy, depending on how their labor is organized and their relative bargaining power, they may be divided into several sectors: the highly skilled "professionals, technicians, and managers," the fully proletarianized wage workers, the semi-proletarianized "migrant workers," and the semi-proletarianized peasants (Wallerstein 1979: 102-103).

The highly skilled "professionals, technicians, and managers" have, to a certain degree, monopolistic control over the supply of their labor power and their labor is generally difficult to monitor. They perform economic and social functions that are of strategic importance to the capitalist system. To secure their loyalty, the capitalists have to pay these workers a "loyalty rent," so that their incomes are significantly higher than those of other workers. To the extent these workers live a relatively privileged material life, they constitute the "middle class" between the capitalist class and other working classes (Wright 1997: 19-26).

The fully proletarianized wage workers are the skilled and semi-skilled workers in the urban sector, who usually have full-time jobs in the "formal sector." Their money incomes entirely or almost entirely derive from wage labor.

The unskilled wage workers in the urban sector, who usually have part-time or insecure jobs and are frequently unemployed, belong to the semi-proletariat. Their wage incomes are not sufficient to meet their essential needs and they have to engage in petty market transactions or petty commodity production, or work in the "informal sector" to supplement their money incomes. In the periphery and the semi-periphery, many semi-proletarian workers are "migrant workers" who spend part of their life time in the urban area and the rest of their life time in the rural area. A substantial part of their real incomes come from rural family production.

The agricultural petty commodity producers living in rural areas are known as the "peasants." In the periphery and the semi-periphery, peasants and semi-proletarian wage workers often belong to the same households. Many semi-proletarian workers live as peasants during part of their life time, and vice versa. In the context of the periphery and the semi-periphery, the peasants may be seen as "semi-proletarians" to the extent they function as the rural reserve army for the urban unskilled wage workers.

If we rank different sectors of the working classes according to their bargaining power, reflected by their real incomes, then the professional and managerial workers (the middle class) obviously have the highest level of bargaining power and real incomes. Among the rest of the working classes, the fully proletarianized wage workers (the proletariat) are better educated, more effectively organized, have stronger bargaining power, and receive higher real incomes. In comparison to the core states, peripheral and semi-peripheral states are characterized by a smaller professional sector, a smaller fully proletarianized sector, but a far larger semi-proletarianized sector (Wallerstein 1979:103; 277-278).

Using a variety of sociological studies, I am able to construct the class structures for the U.S., Brazil, and China, as examples of the core, the semi-periphery, and the periphery respectively. The class structures of these states are presented in Table 3. The detailed procedures of construction are described in the Appendix.

From Table 3, it is clear that as a state moves up in the hierarchy of the world system, the degree of proletarianization tends to rise. In the Untied States, the full time proletarian workers account for near half of the total population and all types of wages workers account for about 90 percent of the total population. The semi-peripheral states tend to have the middle-level of proletarianization. In the case of Brazil, the proletariat accounts for nearly 20 percent of the population. All wage workers account for about two-thirds of the total population. The peripheral states tend to have the lowest level of proletarianization. In the case of China, the proletariat accounts for about one-tenth of the total population and all wage workers

account for about half of the total population. A special feature of the Chinese class structure is that China has a large peasant class, constituting an enormous reserve of cheap labor force.

To the extent the peripheral states have lower levels of proletarianization, the workers tend to be less educated, less effectively organized, and under the constant pressure to compete against a large rural reserve army. The workers in these states, therefore, tend to have much lower bargaining power and receive significantly lower wages. The low wages in the periphery in turn make it possible for the world surplus to be concentrated in the core.

Historically, the incorporation of new geographic areas with large rural labor forces has played a major role in keeping down the global labor costs. However, in the long run, the development of the capitalist world economy has been associated with the urbanization (or the de-ruralization) of the labor force. After some initial disorientation, the urbanized workers have invariably struggled for higher degrees of organization and extension of economic, social, and political rights. Their struggles have led to growing proletarianization within the capitalist world-economy (Wallerstein 1983; 1998: 41-42).

6. The Rise of China and the Transformation of the Global Political Economy: Alternative Scenarios

The world economy is now in the B-phase, or the downward stage of the Kondratieff long wave that started in 1945 and peaked during 1967-1973. During the downturn, the profit rates of the leading economic sectors decline. For the profit rates to recover, it is necessary for the core states to establish new leading sectors (new monopolies). For capital to be shifted away from the declining sectors into the rising sectors, the declining sectors need to be re-located from the core to the periphery or the semi-periphery. Some countries in the periphery or the semi-periphery have to benefit from such a re-location. Historically, it was in such historical moments, that

opportunities for upward mobility within the system were created. (Wallerstein 1979: 69-73).

China has been the primary beneficiary of the latest round of capital re-location. Since 1993, China has consistently been the largest receiver of foreign direct investment among the "developing countries." In 2002, China overtook the U.S. to become the world's largest receiver of foreign direct investment. While in terms of market value, China only accounts for 4 percent of the world GDP and 5 percent of the world's manufacturing exports, it accounted for 15 percent of the world GDP growth and 29 percent of the growth of the world manufacturing exports in 2002.[4] Many believe that China is set to become "the workshop of the world" in the 21st century.

When China started the project of "reform and openness" to deepen the incorporation into the capitalist world-economy, it had basically a class structure and a level of wages that were those of a peripheral state. On the other hand, for historical reasons (the Maoist self-reliance and socialist industrialization), China's economic structure resembled that of a semi-peripheral state. It had the comprehensive technological capability to produce a wide variety of products ranging from the low to the high value added. Therefore, as soon as China was "opened," it started to engage in full-scale competition against the established semi-peripheral states (Lu 1999). Because of China's low wages and low costs, China has been in a favorable position in the competition and has become the major receiver of the capital re-located out of the core states.

What will be the world-historical implications of the "rise of China"? As China becomes the center of world manufacturing exports, the Chinese society is likely to experience rapid industrialization and urbanization. It is inevitable that China's class structure will be fundamentally transformed. The share of the

[4] *Shijie Ribao* or *The World Journal*, December 21, 2002, p. A9, "*Dalu Youshi Long Yongtu: Zhiyou Jialian Laodongli* (The advantages of the mainland China – Long Yongtu: high quality and cheap labor force)"; *Economist*, February 20, 2003, "China's Economy: Is the Wakening Giant a Monster?"

proletarian and semi-proletarian wage workers in the total population will be substantially increased and the share of the peasants will be substantially reduced. Within one or two generations, China's degree of proletarianization will reach the current levels in Latin American and Southeast Asian semi-peripheral states. As a result, the Chinese proletarian and semi-proletarian workers will demand to have the semi-peripheral levels of wages and the corresponding political and social rights. The wage gap between the core states and China may be reduced from the present ratio of 40:1 to a ratio around 10:1.

The demands and the increased bargaining power of the proletariat and the semi-proletariat will impose great pressures on China's regime of capital accumulation. To survive such pressures, China must establish itself as a stable and secure semi-peripheral state in the world system. Given the basic laws of motion of the capitalist world-economy and the current world-historical conjuncture, is this likely to happen? One can imagine four possible scenarios.

First, China may fail. China's great drive towards "development" in the end may turn out to be no more than a great bubble. As China sinks back into the rank of periphery, China's existing regime of accumulation in all likelihood will collapse as it can no longer withstand the exploding social pressures the very process of accumulation has generated. This scenario, however, may be the least devastating for the capitalist world-economy among the four possible scenarios.

For the capitalist world-economy, the problem of China lies with its huge size. China has a labor force that is larger than the total labor force in all of the core states, or that in the entire semi-periphery. Should China become a fully established semi-peripheral state, competing with the existing semi-peripheral states in all of the semi-peripheral levels of commodity chains or links of commodity chains, the competition eventually must lead to the convergence between China and the existing semi-peripheral states in profit rates and wage rates. The convergence may take place in an upward manner or a downward manner.

Under the downward conversion scenario (the second scenario), China's competition, with its enormous labor force, will completely undermine the relative monopoly of the existing semi-peripheral states in certain commodity chains. As relatively monopoly is replaced by intense competition, the value added contained in the traditional semi-peripheral commodity chains or links of commodity chains will be squeezed, forcing the traditional semi-peripheral states to accept lower wage rates that are close to the Chinese wage rates.[5]

In effect, the second scenario is that of the peripheralization of the semi-periphery. The scenario has dangerous implications for the capitalist world-economy. The semi-periphery plays the indispensable role of the "middle stratum" in the world system. A layer of the semi-periphery offers hope of "modernization," "development," and ultimately, upward-mobility within the system for the great majority living in the peripheral states. Should the layer of semi-periphery disappears and is reduced to no more than a part of the periphery, the world system is likely to become politically highly unstable.

The peripheralization of the semi-periphery will deprive the capitalist world-economy of a major source of effective demand. Moreover, the peripheralized semi-peripheral states will inevitably face highly explosive political situations at home. The relatively more proletarianized working classes will demand semi-peripheral levels of wages and political and social rights. However, the peripheralized semi-peripheral states will not be able to simultaneously offer the relatively high wages and survive the competition against other peripheral or peripheralized semi-peripheral

[5] For the effects of China's competition on Southeast Asian semi-peripheral states, see Xie (2002) and Yam and Xie (2002). Yam and Xie argued that: "China is likely to become an international player for an increasing range of products and to move up the value chain. … The bottom line is that China's surplus labor is three times the labor force in the manufacturing sector of OECD countries, meaning that it can absorb the world's manufacturing sector without causing much wage inflation. In our view, China's prices are becoming global prices, while other Asian producers have to accept prices." Xie maintained that "other East Asian economies can't maintain the same living standard without deflation. Deflation in this context isn't about productivity gains; it's about depleting wealth to pay for an unsustainable living standard."

states in the world market. The entire zone of semi-periphery will be threatened with revolution and political turmoil.

There is the third scenario or the scenario of upward convergence. China may succeed in its pursuit of "modernization" and become a secured, established semi-peripheral state. In the meantime, the traditional semi-peripheral states may succeed in maintaining their relative monopoly in certain commodity chains. As a result, the Chinese wage rates converge upwards towards the semi-peripheral levels. Unfortunately, this scenario is as dangerous for the capitalist world economy as the second scenario. The problem, again, lies with China's huge size. Should the Chinese workers generally receive the semi-peripheral levels of wages, given the size of the Chinese population, the total surplus distributed to the working classes in the entire semi-periphery would have to more than double. This will greatly reduce the share of the surplus available for the rest of the world.

The full implications of the third scenario would be better understood after the fourth or the last scenario is examined. If the scenario of upward convergence turns out to be too expensive for the capitalist world-economy, what if China's upward mobility takes place at the expense of the traditional semi-periphery? In other words, imagine the scenario in which the rise of China (and India) successfully displaces the traditional semi-periphery, what are the likely implications for the existing world system?

In *The Age of Transition*, Immanuel Wallerstein predicted that in the coming world economic expansion, the "North" will continue to receive the bulk of the global capital flows, and in the "South" China and Russia are likely to become priority areas for investment. He asked the question: after all of the investment is distributed, how much will be left for the other half of the globe? (Wallerstein 1996: 232) To be more consistent with the currently observed global capital flows, one only needs to replace Russia with India, to ask essentially the same question.

Some simple numerical exercises help to illustrate the grave implications. Alternative numerical projections of the impact of the "rise of China" and the "rise of India" are reported in Table 4-7.

Assume between 2005-2025, the world economy grows at an average annual rate of 3.5 percent. If during the same period, China manages to grow at a rate of 7.5 percent, then in 20 years China will be able to more than double its share in the world output. If between 2005-2025, China's share in world GDP (in term of purchasing power parity) rises from 14 percent to 30 percent, that means the share of the rest of the world has to fall by 16 percent.

If this decline of output share is to be shared equally by the rest of the world, then the rest of the world has to be content with the sluggish growth rate of 2.4 percent a year. Since the low income countries, with 40 percent of the world population (China not included), have an annual population growth rate of about 2 percent, it implies that during the 20 years, the growth rate of per capita GDP for the low income countries would be a negligible 0.4 percent. Further, for the poorer majority of the people in these countries, their real incomes most likely would fall as income inequalities within these countries continue to rise.

More realistically, one may assume that the world-wide, between-country inequality continues to rise and the burden imposed by the "rise of China" will be shared unequally. Suppose the core states manage to maintain their current share in the world output. That is, collectively, they will manage to grow at the same rate as the world economy, 3.5 percent. If China's share would increase from 14 percent to 30 percent, and the share for all low and middle income countries would stay at 45 percent, then the share for the rest of the periphery and the semi-periphery will have to decline from 31 percent to 15 percent. This implies that their aggregate output would have to decline at an annual rate of 0.2 percent between 2005-2025, and the per capita GDP of low income countries would have to decline at an annual rate of 2.1 percent. Considering that the entire population in some sub-Saharan African

countries is being decimated, such a devastating outcome may not be entirely inconceivable.[6]

7. Towards Global Environmental Catastrophes?

It is widely agreed that the capitalist world-economy, with its current pattern of development, is environmentally unsustainable in the sense that it imposes increasingly severe burdens on the biosphere and is likely to result in catastrophic consequences in the not so distant future. For example, the *2002 Environmental Sustainability Index* concludes that "no country can be said to be on a sustainable environmental path."[7] Wackenragel et al. (1999) show that in 1997, while the world's bio-capacity was 2.1 hectares per capita, the world's "ecological footprint" (the land and water area required to sustain actual production, waste, and pollution) was 2.8 hectares per capita, implying unsustainable global depletion of natural resources.

The global environmental crisis finds expressions in a great variety of urgent problems such as global warming, destruction of the ozone layer, removal of tropical forests, elimination of coral reefs, overfishing, extinction of species, loss of genetic diversity, desertification, shrinking water supplies, increasing toxicity of our environment and our food, and radioactive contamination (Foster 2002: 12).

What is the likelihood for the global environmental crisis to be resolved within the existing world system? Any attempt to improve environmental sustainability, whether it is pollution control, waste reduction, development of renewable resources, more economic use of non-renewable resources, or R&D associated with more sustainable technologies, necessarily involves additional costs for the system, so long as it requires some investment or the use of some technology that otherwise would not have been undertaken or developed. The costs may be directly imposed on the

[6] 29 million HIV-positive people now live in sub-Saharan Africa. Botswana and Zimbabwe are predicted to lose half of their adult population in a decade (Brown 2003: 82-86).

[7] An Initiative of Global Leaders of Tomorrow Environment Task Force, World Economic Forum, Annual Meeting 2002, *2002 Environmental Sustainability Index*, "Executive Summary."

capitalists as a result of state regulation or indirectly imposed on the capitalists as a result of higher taxes required to finance government spending on "environmental investment."

The existing world system is a world economy with multiple political structures (states). As a result, the system as a whole faces a classical "common property problem" or "prisoners' dilemma." Any individual state that undertakes environmental adjustments suffers from rising costs and places itself in a disadvantageous position against other states in the world capital accumulation. On the other hand, "international cooperation" is not enforceable and is not likely to succeed.[8] To the extent the core states have certain monopoly power in the world markets, they may be able to undertake some adjustments and shift at least part of the costs onto the peripheral and the semi-peripheral states through unequal exchange. But this option does not exist for the peripheral and the semi-peripheral states and therefore does not help to address global environmental sustainability.

The capitalist world-economy is heavily dependent on fossil fuels that are the primary source of 87 percent of the world's energy. Fossil fuels are not renewable and eventually will be depleted. The world oil supply is likely to peak in the period of 2005-2015 and production may be down to half of its peak level by 2025 (Trainer 2001).

The use of fossil fuels results in carbon dioxide and other greenhouse gas emissions that contribute to global warming. Even if the world succeeds in keeping the carbon dioxide emissions at the 1990 levels, the carbon dioxide concentration in the atmosphere would double its pre-industrial level by the end of this century, causing the world average temperature to rise by 1 ° C to 3.5 ° C by the end of this century, and continue to rise for another century before stabilizing (SDIS 1999a). It would take the Nature many million years to bring about temperature change of such

[8] For the failure of the Kyoto Protocol, the international agreement to control greenhouse gas emissions, and the limits of environmental reforms within capitalism, see Foster (2002).

a magnitude. With the projected temperature increase, the earth's environment will be so radically transformed that the world will be overwhelmed by cataclysmic results such as increased desertification, heavier rainfall and floods certain areas, serious damage to crops in the tropics and eventually the temperate areas as well, rising sea levels, and loss of species and genetic diversity (Foster 2002: 13-22; Brown 2003: 59-79). To eventually stabilize carbon dioxide concentrations at double their pre-industrial levels, the global carbon dioxide emissions need to be reduced by 60 percent from the 1990 levels (SDIS 1999b; Foster 2002: 20). More drastic cuts in emissions would be required if the goal is to stabilize carbon dioxide concentrations at close to pre-industrial levels.

In fact, the world energy consumption and carbon dioxide emissions have been growing. The world energy consumption is growing at an annual rate of 2 percent and is expected to double by 2050 and quadruple by 2100 (Palfreman 2000). By 2010, the global carbon dioxide emissions are projected to have risen by 50 percent from 1990 levels (SDIS 1999a).

To avoid global ecological disasters and in anticipation of the depletion of fossil fuels, the world economy has to shift from one based on fossil fuels into one based on renewable energy sources in the not so distant future. However, the problem is that there is no known renewable source that is capable of producing the massive and growing amounts of energy that the capitalist world-economy demands. Wind and solar energy sources are intermittent and very small amounts of energy from these sources can be gathered per hectare of land. Relying on biomass for the world's energy would use up all the land currently used in the human agriculture. If the nuclear energy is relied upon as the only source, the current known amounts of Uranimu-235 would sustain the world only for 10 years (Palfreman 2000; Reuveny 2002). As for the concept of "hydrogen economy," it is not commonly understood that hydrogen is not a source of energy but a carrier of energy, a form in which energy can be converted. Converting renewable energy sources into hydrogen and storing and transporting it involve formidable difficulties, energy losses, infrastructure

requirements, and costs (Trainer 2003). Trainer (2003) estimates that renewable energy may be able to provide no more than one third of the electricity and one quarter of the liquid fuel energy currently used in Australia.

A human civilization that is based entirely on renewable energy sources is certainly possible. To prevent global warming and environmental catastrophes from happening, instead of hoping in vain for some form of magical technological change, the most straightforward and the safest solution is to immediately stop and reverse the world-wide processes of capital accumulation. If the world-wide income and wealth distribution is radically equalized, there should be no technical difficulty to meet the basic needs of everyone on the earth even if world consumption and production are drastically reduced to stabilize at environmentally sustainable levels. But there is simply no way for such a solution to arise out of the laws of motion of the existing world system.

The "rise of China," in the sense of China increasingly becoming the center of the world capitalist industrial production, is likely to place increasingly greater pressures on the global environment. According to Lester R. Brown, the director of the Earth Policy Institute, "China is exceeding the carrying capacity of its ecosystems – overplowing its land, overgrazing its rangelands, overcutting its forests, overpumping its aquifers." (Brown 2003: 11) Desert expansion in China has been accelerating, now reaching 150 miles of Beijing. As water shortage and soil erosion become increasingly serious, China's grain production has stagnated and will decline. Brown predicts that after China depletes its once huge stock of grain reserves, it will have to turn to the world grain markets and drive up the world food prices.

During the 1990s, China had turned from a net exporter of oil into a net importer. At the current rate, China is expected to import over half of its oil consumption by 2020 and over 80 percent by 2050 (Shao 2001). Such a development is likely to have serious implications for not only the global environment but also the global geopolitics. In 1996, China's carbon dioxide emissions stood at 63 percent of the U.S. level. As the Chinese economy keeps expanding rapidly, it may soon

overtake the U.S. as the world's largest producer of carbon dioxide emissions and the leading contributor to global warming.

8. Historical Possibilities in the 21st Century or the End of History?

As Arrighi and Silver discuss the possibility for the "China-centered civilization" to lead the transformation of the existing world system, they also point out that:

> Since the mid-1980s, China has been the key site of industrial expansion and new working-class formation. Given past experience, we should expect a vigorous workers' movement to emerge in China as well. And given the size and centrality of China – in the East Asian region and globally – the trajectory of this movement will have a tremendous impact on the trajectory of the transition as a whole (Arrighi and Silver 1999: 286).

If the prediction turns out to be accurate, what exactly will be the nature of this "vigorous workers' movement"? It is very likely that the movement will force a substantial re-distribution of income and wealth within China. Further, given the arguments presented in the previous sections, it is unlikely that, from the point of view of capital and the elites, the re-distribution can be compensated by an upward mobility within the world system. In this case, what now appears to many as the least likely outcome – a socialist-oriented workers' revolution – may emerge as the only viable solution.

What will happen next? One possibility is that the revolution will turn inwards and try to build socialism in one country. The historical experience of the 20th century suggests that, under persistent military and economic competition from more powerful capitalist states, and excluded from the possibility of upward mobility, such an approach is a recipe for eventual defeat.

The other possibility is that the revolution will and has to lead to the transformation of the world system. By the mid-21st century, not only most of the

production of energy and raw materials, but also most of the manufacturing industries may be located in the periphery and the semi-periphery. The concentration of the bulk of the material production facilities and the organized working classes in the South may provide these countries with an unprecedented bargaining leverage against the North. Will China, India, and other Southern countries manage to effectively use the leverage, imposing a massive global re-distribution on the North and transforming the world system from a capitalist world-economy based on extremely unequal exchange and large, monopolistic profits into a socialist world market economy based on production for use and a more egalitarian exchange system?

Will the socialist world market economy succeed in providing system-level solutions to the system-level problems left by the capitalist world-economy? Will the world market economy allow its member communities to be sufficiently freed from the drive towards endless accumulation and deal successfully with the global environmental crisis? Or, if it fails, will the resolution of the global environmental crisis eventually require the development of a world socialist government?

Will the world's incumbent hegemonic power – U.S. imperialism – accommodate these developments? If it tries to resist with all of its weapons of massive destruction, will humanity prevail in its struggle against the most powerful, most destructive imperialism the world has ever seen? Or will the struggle end up with the mutual destruction of both sides? Will humanity, realizing the impossibility of defeating the U.S. imperialism, choose to give in, and pave the way for the American world empire?

Will the end of capitalist history turn out to be the end of all history? Or, as Marx put it in the Preface to *A Contribution to the Critique of Political Economy*, it will only bring to a close the "prehistory of human society"?[9] All of these questions will have to be answered by real historical actions.

[9] See Tucker (ed., 1978: 5).

Appendix: Class Structures in the U.S., Latin America, and China

To construct the class structure in the U.S., I rely upon the study of Gilbert and Kahl (1992) and Wright (1997). Table A1 compares their characterizations of the contemporary U.S. class structure and describes the occupations of different classes.

About the working poor and the underclass, Gilbert and Kahl (1992: 315-316) make the following comments: "They oscillate in income from just above to below the poverty line, they are threatened with periodic unemployment, or they have no chance to work at all." Among them, "[t]hose who are seldom employed and are poor most of the time form the underclass in our society." I consider the sum of the working poor and the underclass as the semi-proletariat in the U.S. society.

The proletariat, if narrowly defined, includes the skilled workers and the semi-skilled workers, or about 30 percent of the U.S. population. A broad definition should include all of those whose money incomes derive entirely or almost entirely from wage incomes and have relatively strong bargaining power (with the exception of highly skilled professional workers occupying strategic positions). A broad definition of the proletariat may include not only the skilled and semi-skilled workers, but also the supervisory workers, lower managers, and semi-professional workers. This definition includes about 60 percent of the U.S. population. I adopt the middle approach, considering the supervisory workers to be a part of the proletariat. As a result, the proletariat accounts for 45 percent of the U.S. population and the middle class accounts for 20 percent. The capitalist class and the petty bourgeoisie each accounts for 5 percent.

Table A2 reports the class and occupational structures in three Latin American semi-peripheral states: Argentina, Brazil, and Chile. The statistics are provided by the Economic Commission for Latin America and Caribbean (ECLAC 1994). In the Latin American semi-peripheral states, there is a large so-called "low productivity" sector. Workers in the low-productivity sector include workers in micro-enterprises (with less than 5 employees), household employment, and own-account and unpaid family workers. In most cases, the income of a "low productivity" worker is not

sufficient to keep a family of four above the poverty line (ECLAC 1994: 25). If the semi-proletariat includes the micro-enterprise workers, household workers, the urban unemployed, the rural workers, and the workers in enterprises with more than 5 employees and the own-account and unpaid family workers who receive a wage lower than the poverty line, then in Argentina, Brazil, and Chile, the semi-proletariat accounts for 32, 47, and 43 percent of the population respectively. Assume the managerial workers amount to about one-third of the professional and technical workers, then the middle class would account for 14, 10, and 15 percent of the population of Argentina, Brazil, and Chile respectively. It follows that the proletariat accounts for 28, 18, and 23 percent; the peasants accounts for 7, 12, and 15 percent; the petty bourgeoisie accounts for 17, 9, and 13 percent; and the capitalist class accounts for 4, 5, and 2 percent, respectively.

Between 1999-2001, at the request of the leadership of the Chinese Communist Party, a special research group of the Chinese Academy of Social Sciences (CASS) conducted a research on "the Evolution of the Contemporary Social Structure." The political nature of this research was explicitly stated in the preface of the group's research report: "In August 1998, the director of the CASS, a member of the Chinese Communist Party Politburo, Comrade Li Tieying, demanded the Institute of Sociology to study evolution of social structures. … After Comrade Jiang Zemin's important speech on July 1, the general public has paid strong attentions to the changes in social strata, and the relevant authority demanded the research group to provide survey data and results as soon as possible." (CASS 2001)

The research group rejects the Marxist class analysis and is in favor of an analysis of the "structure of social strata." It argues that "the word 'class' (*jie ji*) often refers to the traditional Marxist concept of class – that is, those groups that are divided according to whether or not they own the means of production, the groups that have mutual conflicts in their interests and are related to each other by antagonisms and struggles. The word *reminds people of* severe social conflicts, turmoil, and fights

between men and men, and some scholars and people are hostile to such a word and tend to reject it." (CASS 2001)

Instead, the research group divides up the contemporary Chinese society into ten major social strata according to their different access to "organizational, economic, and cultural resources." (CASS 2002: 116) The ten social strata and their distribution are presented in Table A3.

The research group believes that in China, an embryonic "modern" structure of social strata has taken shape, symbolized by the ever-growing middle stratum and the entrepreneurial stratum. It argues that "unlike the traditional society, the modern structure of social strata is not pyramid-like, but olive-like, in which most members of society belong to the middle and upper-middle positions, a minority group belongs to the upper or relatively upper positions, and another minority group belongs to the lowest positions (CASS 2002: 124)."

The research group argues that since 1978, the "middle strata" (including entrepreneurs, managers, the self-employed, clerical workers, professional and technical workers, and workers in the wholesale, retail, and service industries) have been the most rapidly growing portion of the Chinese society. It predicts that "as China experiences industrialization, informationalization, and urbanization, the middle strata will keep growing, and eventually become the most important, most stabilizing social forces within the modernized Chinese structure of social strata (CASS 2002: 125)."

Will China one day evolve into such a beautiful "olive-like" middle class society? An examination of the trends presented in Table 1 reveals that, the argument that the "middle strata" have been the most rapidly expanding part of the Chinese society depends heavily on including the workers in the wholesale, retail, and service industries as a part of the "middle strata." However, according to the group's own survey, these workers usually have lower incomes than the industrial workers, who are not supposed to be a part of the "middle strata." (CASS 2002: 127) It seems to be more reasonable to group the industrial workers and the services workers together as

the proletariat and the semi-proletariat living on wage labor. Such a re-grouping will lead one to conclude that the most significant development of China's social structure during the past two decades has been the rapid proletarianization of the Chinese society.

Despite the CASS research group's theoretical drawbacks, logical inconsistencies, and misrepresentations of empirical evidence, it does provide the necessary information that can be used to construct China's class structure.

If the "state and social managers" are considered to be bureaucratic capitalists, then the capitalist class (including the bureaucratic and private capitalists) in China accounts for about 3 percent of the population.[10] The middle class may include the managers, the professional and technical workers, and half of the clerical workers, or about 9 percent of the population. The peasants account for 44 percent and the petty bourgeoisie accounts for 4 percent.

At the end of September 2001, the urban labor force stood at 187.48 million. The total employment in the state, the collective, and the other (including stock-holding companies, foreign invested enterprises, and private enterprises) sector was 113.68 million. The difference was much more than what can be accounted for by the registered unemployment and the self-employed. Separately, at the end of June 2001, the national coverage of unemployment insurance was 102.51 million, or about 85 million of the urban labor force was not covered by the unemployment insurance (Mo 2002). If the total employment in the state, the collective, and the other sector is considered to be the employment in the "formal sector," then the formal sector employment accounts for 61.6 percent of the urban labor force. Using the

[10] According to one report, about two million high and middle rank, current and retired Chinese government officials and their relatives own about 70 percent of the total private wealth (savings, stocks, bonds, houses, and foreign exchanges) in China. See "*Dalu Guanliao Yong Quanmin Qicheng Caifu* (The Mainland China's bureaucrats own seven-tenths of all people's wealth)." The document circulates on the internet. It claims to be based on an internal report to the Politburo of the Chinese Communist Party. Following is the website where the document was found: http://www.donews.com/donews/article/1/19330.html

information from Table A3, consider the urban labor force to be the sum of state and social managers, professional and technical workers, non-peasant industrial and service workers, half of the private entrepreneurs, half of the clerical workers, half of the self-employed, and half of the unemployed and under-employed, then the urban labor force is 36.6 percent of the total labor force and the urban formal employment is 23.1 percent of the total labor force. The total formal employment may include the urban formal employment and the estimated rural non-peasant wage employment (half of the clerical workers), or 25.5 percent of the total labor force. Subtracting from it the components of the capitalists and the middle class, what remains is considered to be the proletariat. The proletariat so estimated accounts for 12 percent of the population and it follows that the semi-proletariat accounts for 28 percent of the population.

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Table 1

The Distribution of Value Added in the Global Commodity Chain

of Phonic Model of Globe for Children's Study

Stages of the commodity chain	Sale price at each stage (US $)	Value added generated at each stage (US $)	Share of the total value added in the commodity chain (%)
U.S. retail company	88	16	21.1
U.S. manufacturing company	72	32	42.1
Hong Kong trade company	40	20	26.3
Guangdong Foreign trade company	20	5	6.6
Jiangsu / Guangdong producers	15	3	3.9
Primary costs	12	/	/

Source: Ma Jiantang's speech in the 2002 "Strategic Forum of Transnational Corporations in China." Ma is the Deputy General Secretary of China's State Economic and Trade Commission (*Shijie Ribao* or *The World Journal*, December 15, 2002, p. A9).

Table 2

Manufacturing Workers' Wage Rates in Selected Countries

(Average Monthly Wage, 1995, U.S.$)

Countries	Monthly Wage	As % of U.S. Wage
United States	2212.7	100.0
Japan	2964.1	134.0
South Korea	1704.6	77.0
Israel	1611.8	72.8
Singapore	1522.4	68.8
Hong Kong (China)	844.1	38.1
Argentina	756.3	34.2
Brazil	550.0	24.9
Chile	401.0	18.1
Malaysia	400.2	18.1
Hungary	314.7	14.2
Poland	278.4	12.6
Philippines	258.8	11.7
Czech Republic	257.6	11.6
Thailand	250.2	11.3
Peru	246.4	11.1
Mexico	190.2[b]	8.6
Russian Federation	144.1[c]	6.5
Turkey	119.8[a]	5.4
China	51.6	2.3
India	37.4	1.7

[a] 1994. [b] Before the Peso depreciation, it was $325.8 (1993). [c] 1997.

Source: International Labor Organization, *Yearbook of Labor Statistics 2000*, Geneva: International Labor Organization. Wage rates are converted into U.S. dollars using the average exchange rates in 1995. Data for exchange rates are from Economic Intelligence Unit at London. If the wage rates are not stated as monthly wages, they are converted to monthly wages using the following formula: monthly wage = weekly wage X 4.3 = daily wage / 8 X weekly working hours X 4.3 = hourly wage X weekly working hours X 4.3.

Table 3

Class Structures in the Core, the Semi-Periphery, and the Periphery

Classes	Core (U.S., 1990)	Semi-Periphery (Brazil)	Periphery (China)
Bourgeoisie / Elite	5	2	3
Middle Class	20	10	9
Petty Bourgeoisie	5	9	4
Proletariat	45	18	12
Semi-Proletariat	25	47	28
Peasants	/	12	44

Source: See the Appendix.

Table 4

Numerical Projections of the Rise of China, 2005-2025 (I)

Countries	World GDP measured by	World GDP growth rate	Share of world GDP in 2025	Ave. ann. growth rate of GDP
Assume all countries in the "rest of the world" grows at the same rate				
Initial share of world GDP (market value): China = 4.5%				
Initial share of world GDP (PPP): China = 14%				
China	Market value	3.5%	9.6%	7.5%
Rest of the world	Market value	3.5%	90.4%	3.2%
Implied growth rate of per capita GDP of low income countries = 1.2%				
China	PPP	3.5%	29.9%	7.5%
Rest of the world	PPP	3.5%	70.1%	2.4%
Implied growth rate of per capita GDP of low income countries = 0.4%				
China	PPP	4%	27.1%	7.5%
Rest of the world	PPP	4%	72.9%	3.1%
Implied growth rate of per capita GDP of low income countries = 1.1%				

Table 5

Numerical Projections of the Rise of China, 2005-2025 (II)

Countries	World GDP measured by	World GDP growth rate	Share of world GDP in 2025	Ave. ann. growth rate of GDP
Assume "high income countries" maintain their share in the world GDP				
Initial share of world GDP (market value): China = 4.5%; High income countries = 80%				
Initial share of world GDP (PPP): China = 14%; High income countries = 55%				
"Rest of the world" = all low and middle income countries excluding China				
China	Market value	3.5%	9.6%	7.5%
Rest of the world	Market value	3.5%	10.4%	1.5%
Implied growth rate of per capita GDP of low income countries = - 0.5%				
China	PPP	3.5%	29.9%	7.5%
Rest of the world	PPP	3.5%	15.1%	- 0.2%
Implied growth rate of per capita GDP of low income countries = - 2.1%				
China	PPP	4%	29.9%	7.5%
Rest of the world	PPP	4%	17.9%	1.2%
Implied growth rate of per capita GDP of low income countries = - 0.8%				

Table 6

Numerical Projections of the Rise of China and India, 2005-2025 (I)

Countries	World GDP measured by	World GDP growth rate	Share of world GDP in 2025	Ave. ann. growth rate of GDP
Assume all countries in the "rest of the world" grows at the same rate				
Initial share of world GDP (market value): China = 4.5%; India = 1.7%				
Initial share of world GDP (PPP): China = 14%; India = 6%				
China	Market value	3.5%	9.6%	7.5%
India	Market value	3.5%	3.0%	5.5%
Rest of the world	Market value	3.5%	87.4%	3.1%
Implied growth rate of per capita GDP of low income countries = 1.1%				
China	PPP	3.5%	29.9%	7.5%
India	PPP	3.5%	10.7%	5.5%
Rest of the world	PPP	3.5%	59.4%	2.0%
Implied growth rate of per capita GDP of low income countries = - 0.0%				
China	PPP	4%	27.1%	7.5%
India	PPP	4%	8.0%	5.5%
Rest of the world	PPP	4%	64.9%	2.9%
Implied growth rate of per capita GDP of low income countries = 0.9%				

Table 7

Numerical Projections of the Rise of China and India, 2005-2025 (II)

Countries	World GDP measured by	World GDP growth rate	Share of world GDP in 2025	Ave. ann. growth rate of GDP
Assume "high income countries" maintain their share in the world GDP				
Initial share of world GDP (market value): China = 4.5%; India = 1.7%; High income countries = 80%				
Initial share of world GDP (PPP): China = 14%; India = 6%; High income countries = 55%				
"Rest of the world" = all low and middle income countries excluding China and India				
China	Market value	3.5%	9.6%	7.5%
India	Market value	3.5%	3.0%	5.5%
Rest of the world	Market value	3.5%	7.4%	0.3%
Implied growth rate of per capita GDP of low income countries = - 1.7%				
China	PPP	3.5%	29.9%	7.5%
India	PPP	3.5%	10.7%	5.5%
Rest of the world	PPP	3.5%	4.4%	- 6.1%
Implied growth rate of per capita GDP of low income countries = - 7.9%				
China	PPP	4%	27.1%	7.5%
India	PPP	4%	8.0%	5.5%
Rest of the world	PPP	4%	9.9%	- 0.7%
Implied growth rate of per capita GDP of low income countries = - 2.7%				

Table A1

The Structure of Social Classes and Occupations in the U.S.

(1990, as % of total economically active population)

<table>
<tr><th>Classes
(Gilbert and Kahl 1992)</th><th colspan="3">Classes
(Wright 1997)</th><th>Occupations</th></tr>
<tr><td>Capitalists, 1%</td><td colspan="3" rowspan="2">Employers, 4.7%</td><td>Investors, executives</td></tr>
<tr><td rowspan="3">Upper-middle class, 14%</td><td>Medium business owners</td></tr>
<tr><td rowspan="3">Managers, 8.3%</td><td rowspan="3">Experts - Managers, 6.0%</td><td rowspan="3">Experts, 6.9%</td><td>Upper managers and professionals</td></tr>
<tr><td rowspan="3">Middle class, 30%</td><td>Lower managers and semi-professionals</td></tr>
<tr><td colspan="3">Petty bourgeoisie, 5.2%</td><td>Self-employed</td></tr>
<tr><td colspan="3">Supervisory workers, 14.8%</td><td>Foremen</td></tr>
<tr><td rowspan="2">Working class, 30%</td><td colspan="3">Skilled workers, 12.8%</td><td>Craftsmen</td></tr>
<tr><td colspan="3" rowspan="3">Workers, 41.4%</td><td>Operatives, retail sales workers, clericals</td></tr>
<tr><td>Working poor</td><td>Service workers, laborers, low-paid operatives and clericals</td></tr>
<tr><td>Underclass□25%</td><td>Unemployed or part-time, welfare recipients</td></tr>
</table>

Source□Gilbert and Kahl (1992: 305-324); Wright (1997: 91-113).

Table A2

The Structure of Social Classes and Occupations in Latin American States

(1990/1992, as % of total economically active population)

	Argentina	Brazil	Chile
Urban Sector:			
Employers	4.4	3.9	1.7
Professional and technical workers	7.5	6.5	9.9
Professional and technical self-employed	3.0	0.9	1.1
Workers	35.3	28.9	34.1
in which: poverty workers	4.2	8.7	7.8
Micro-enterprise workers	10.3	13.7	10.6
Household employment	3.7	4.5	5.4
Own-account workers[a]	17.9	15.7	17.8
in which: poverty workers	1.3	6.3	4.8
Urban unemployment	5.7	3.7[b]	5.1
Rural Sector:			
Employers	13.0	0.7	0.2
Workers		10.2	9.7
Own-account workers		12.1	5.1

[a] Including unpaid family workers.

[b] International Labor Organization, *Yearbook of Labor Statistics 2000*, Table 3A.

Source: ECLAC 1994. ECLAC only provides data for occupational structures separately for the urban sector and the rural sector. To compile this table, I use the share of urban population in the total population to calculate the share of each occupation in the total economically active population. In 1992, the shares of urban population in the total population in Argentina, Brazil, and Chile were 87%, 77%, and 85% respectively (World Bank, *World Development Report 1994*).

Table A3

Evolution of China's Structure of Social Strata, 1978-1999

(% of population)

	1978	1988	1991	1999
Total	100.00	100.00	100.00	100.00
State and social managers	0.98	1.70	1.96	2.1
Managers	0.23	0.54	0.79	1.5
Private entrepreneurs	0.00	0.02	0.01	0.6
Professional and technical workers	3.48	4.76	5.01	5.1
Clerical workers	1.29	1.65	2.31	4.8
Self-employed	0.03	3.12	2.19	4.2
Salespersons and service workers	2.15	6.35	9.25	12.0
in which: peasant workers	0.80	1.80	2.40	3.7
Industrial workers	19.83	22.43	22.16	22.6
in which: peasant workers	1.10	5.40	6.30	7.8
Agricultural laborers	67.41	55.84	55.01	44.0
in which: migrant laborers	0.00	0.10	0.20	0.1
Unemployed and under-employed	4.60	3.60	3.30	3.1

Source: CASS (2002: 123).