China's Globalization Challenge

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Abstract

This paper analyses the nature of capitalist globalization during the past three decades. This period was dominated by US-led free market fundamentalism. This produced great benefits arising from intense oligopolistic competition. However, it also produced deep contradictions that threaten the sustainability of human life. Faced with these profound Darwinian threats, the human species needs to establish globally cooperative institutions to regulate intelligently the forces of wild capitalism that human beings have themselves created.[1]

Keywords: *Capitalism, globalization, contradictions, regulation, conflict, cooperation*

Capitalist Rationality

> The bourgeoisie, during its rule of scarce one hundred years, has created more massive and more colossal productive forces than have all the preceding generations together. Subjection of Nature's forces to man, machinery, application to industry and agriculture, steam-navigation, railways, electric telegraphs, clearing whole continents for cultivation, canalisation of rivers, whole populations conjured out of the ground – what earlier century had even a presentiment that such productive forces slumbered in the lap of social labour (Marx and Engels 2004).

Since ancient times the exercise of individual freedom has been inseparable from the expansion of the market, driven by the search for profit. This force, namely capitalism, has stimulated human creativity and aggression in ways that have produced immense benefits. As capitalism has broadened its scope in the epoch of globalization, so these benefits have become even greater. Human beings have been liberated to an even greater degree than hitherto from the tyranny of nature, from control by others over their lives, from poverty and from war.

Capitalism and Coordination

Adam Smith, through his famous metaphor of the 'invisible hand', provided a vivid characterization of the rationality of the competitive market economy. The essence of the market mechanism is a 'non-zero sum game' in which the participants are able to mutually benefit through specialization and exchange. In Smith's view, the invisible hand of marketplace competition between firms not only stimulates efficiency through gains from specialization and exchange, but also stimulates technical progress through competition among specialist capital goods makers. During the 500 years or so before Adam Smith published the *Wealth of Nations*, this mechanism had stimulated the immense technical progress of the scientific revolution. As large capitalist firms emerged at the end of the nineteenth century, a new coordination mechanism came into being, namely the so-called 'visible hand' of planning within the large modern corporation. Giant capitalist firms combined internal planning with intense inter-firm competition. In the recent phase of the global business revolution, the nature of the large firm has again changed radically. The extent of the division of labour has widened dramatically in this period. The boundaries of the firm have shifted, with a greatly increased array of inputs of goods and services procured from specialist suppliers. Simultaneously, the boundaries have become 'blurred', with functions of control and coordination exercised by the core systems integrators extending across the boundaries of the legally defined firm. Giant oligopolistic systems integrators continue to compete intensely with each other.

Finance and Development

The liberalization of international capital movements enabled a large increase in the flow of foreign direct investment in developing countries, rising from US$23 billion in 1990 to US$211 billion in 2004. Multinational firms wish to benefit from lower costs of production and from close proximity to fast-growing markets. The expansion of multinational firms' production facilities in developing countries has stimulated the expansion of their supply chains close at hand, to minimize costs through 'just-in-time' supply. Global firms tend increasingly to lower their costs by using global platforms for their products and procuring inputs globally, even though they are produced and supplied locally. This has encouraged the emergence of common technologies in multinational companies' operations across the world. These processes have stimulated rapid modernization of large swathes of the economy in developing countries.

Liberalization of inflows of short-term capital has helped to stimulate a rapid expansion of stock market capitalization in developing countries, rising from 19 percent of their aggregate GDP in 1990 to 44 percent in 2005. The increased role of the stock market helped to improve corporate governance, facilitate mergers and acquisitions and broaden the sources of capital away from bank lending.

The period of the global business revolution witnessed a revolutionary transformation of financial firms. An explosive round of mergers and acquisitions resulted in the creation of a small group of super-large global financial firms, such as HSBC, Citigroup, JP Morgan Chase and Bank of America. These giant firms benefit from large economies of scale in procurement of information technology systems, risk spreading across a wide range of economies, attractiveness to high quality human resources in the sector and high standards of corporate governance imposed by regulators in high-income countries. Across large swathes of Latin America and Eastern Europe, international banks have undertaken extensive acquisitions, and dominate the financial sector.

The World Bank argued that the arrival of reputable foreign banks in developing and transition economies was generally associated with an improvement in prudential regulations and that foreign banks brought 'better accounting and information disclosure standards, since they adhere to their home country regulations' (World Bank 2002: 90). It argued also that those transition economies that had been more willing to cede majority control of their banks to foreign interests had enjoyed higher growth rates (World Bank 2002: 86). The World Bank concluded that the benefits associated with the entry of foreign banks into developing and transition economies outweighed the risks associated with concentration of foreign ownership (World Bank 2002: 90): 'In terms of foreign entry, existing evidence does not indicate that such entry, either *de nove* or through the purchase of an existing domestic bank, had adverse consequences. In fact, such entrants bring competition, which improves efficiency and can also strengthen the demand for better institutions to support banking' (World Bank 2002: 96).

It was thought that advances in mathematical modelling of financial markets had contributed to greatly improved capabilities for risk evaluation in financial institutions. A wide range of new financial products was devised, notably the vast array of derivative products, that distributed risk far more deeply in the financial system. As a result, the global financial system was thought to have become so 'thick' as to be nearly indestructible. The global financial system had survived a succession of financial crises in this period, including the Mexican, East Asian, Russian, Long Term Capital Management and Argentinean crises, as well as the shock of 9/11, which was interpreted as a vivid testimony to the greatly improved robustness of the global financial system in this epoch.

Competition, Industrial Concentration and Technical Progress

Economists have tended to polarize around their view of the inherent tendencies of competitive markets in relation to industrial concentration. The main body of 'mainstream' economists believe that inter-firm competition is analogous to the 'trees in the forest', with large firms constantly being out-competed by small, nimble new entrants. It is widely thought that this process has become even more powerful in the epoch of modern information technology, which has made the world of industrial competition 'flat', with unprecedented opportunities for small and medium-sized firms to out-compete large firms. An alternative, non-mainstream view has argued that the inherent tendency of capitalism is towards industrial concentration due to the opportunities for large firms to benefit from economies of scale and scope.

The period of capitalist globalization since the late 1970s has provided an opportunity to test scientifically the predictive qualities of the contrasting theories. During this period the brakes on the operation of market forces, which existed for much of the twentieth century, have been progressively removed. This period has seen the most explosive episode of mergers and acquisitions that capitalism has ever witnessed. In each industrial sector, a small group of widely recognized companies occupy the 'commanding heights' of their respective sectors, accounting for one-half or more of the total global market. This is the visible part of the 'iceberg' of industrial concentration. However, the pressure from these leading systems integrator firms has cascaded down across the supply chain, forcing intense consolidation of their supplier firms, which in turn exercise pressure upon their own supply chain. The result is that in the invisible part of the iceberg of industrial concentration, 'below the water level', there also has emerged a high degree of industrial concentration at a global level.

The core of the world's technical progress takes place within a relatively small group of companies that are the leaders in their respective industrial sector and which struggle with each other to produce new and better products. The UK's Department of Trade and Industry estimates that the top 1,250 companies (the 'Global 1250') spend around US$433 billion annually on research and development. This is the core of the world's technical progress. The expenditure on research and development is 'strongly concentrated by country, sector and company': the top 100 firms account for 62 percent of total expenditure undertaken by the Global 1250, while the bottom 150 account for just 1.3 percent. One of the most important characteristics of the period of capitalist globalization is that intense oligopolistic competition persists throughout the upper reaches (at least) of the supply chain in almost all industries. Oligopolistic competition during capitalist globalization has witnessed the most rapid and dramatic technical progress the world has ever seen. As we shall see below this has contributed to huge advances in human freedom.

Capitalism and the Expansion of Human Freedom

The epoch of capitalist globalization has witnessed an unprecedented advance in the liberation of human beings from the tyranny of nature. Far from mankind facing a danger of oil supplies running out, technical progress in the epoch of capitalist globalization has been so rapid, that at US$70 per barrel, 'oil reserves are to all intents and purposes infinite', including oil that can be obtained from existing fields through better extraction techniques, from coal (coal liquefaction), from tar sands, from shale oil and from 'gas in crystals'. Pressure from market forces has stimulated a tremendous reduction in the amount of primary energy needed to produce a unit of final product. In 1990 the world produced US$3.5 (at constant prices) of GDP per kilogram (oil equivalent) of primary energy consumed. By 2001 this had increased to US$4.2, an increase of one-fifth. Technical progress in a number of related areas has created the possibility to use existing technologies that can stabilize global carbon dioxide emissions at their current levels if suitable regulations and changes in patterns of consumption can be achieved. These include constructing more nuclear power stations, improved building techniques, wind turbines, re-forestation, carbon sequestration from fossil fuel-fired power stations, photovoltaic cells and the replacement of coal-fired power stations with gas.

Transport technologies have changed at high speed in recent decades under the impetus of intense oligopolistic competition among automobile, truck, train, aeroplane and ship makers. New technologies of vehicle construction, engine design, materials use and integration of new information systems, have led to greatly reduced vehicle weight, fuel consumption and maintenance, alongside continuous improvement in vehicle reliability and safety. The period of capitalist globalization has seen a dramatic decline in the costs of transporting both people and goods.

The epoch of capitalist globalization has witnessed a revolution in telecommunications. In developing countries, the number of cell phones per thousand people rose from zero in 1990 to over 100 in 2002, and is continuing to rise at high speed alongside a continuous fall in the price of both mobile phones and telecommunications services. The emerging epoch of converged communications, combining voice, data and video, is witnessing an even greater revolution in communication technologies, with huge implications for people's daily lives in both rich and poor countries.

The period of capitalist globalization has seen rapid advance in the level of urbanization. The share of the urban population in developing countries rose from 24 percent in 1965 to 42 percent in 2002. Urbanization has allowed large changes in people's daily lives. Young people in general, and women in particular, have much greater autonomy from their family, especially their parents. The opportunities for employment broaden dramatically compared with those in villages. Urban areas provide greater opportunities for advancing personal skills through formal and informal education. They also provide greater opportunities for groups of people to establish autonomous organizations.

During the epoch of capitalist globalization, developing countries have been able to take advantage of being latecomers to absorb modern technology and capital from high-income countries. Rates of growth of GDP per capita in low-income countries have been faster than in high-income countries. There is evidence of a reduction in overall measures of income inequality. The Gini coefficient of global income inequality, using purchasing power parity dollars and weighted by country population, is estimated to have fallen from 0.55 in the 1970s to 0.50 in 2000.

For people in developing countries the most important developmental goal is freedom from absolute poverty. The World Bank estimates that during the epoch of capitalist globalization, the proportion of people in developing countries living on less than US$1 per day (at constant prices) fell from 40 percent in 1981 to 19 percent in 2001. During the period of capitalist globalization, tremendous progress has been achieved in human health. Average global life expectancy rose from 56 years in 1970-75 to 65 years in 2000-05. This achievement was made possible in part by technical progress in medical equipment and medicines, as well as by advances in food production, including improved seeds and farm equipment, and better functioning food markets, including advances in information technology to spread knowledge more effectively and transport systems to distribute food better.

From a global perspective, peace is the most important goal. As early as 1794, Emmanuel Kant visualized the logical possibility of a global 'cosmopolitan' political structure. The vision of a cosmopolitan consciousness was at the heart of Karl Marx's view of the progressive character of capitalist globalization. In the epoch of capitalist globalization, national economic boundaries have been broken down on an unprecedented scale. International trade as a proportion of global GDP rose from 40 percent in 1990 to 55 percent in 2004. The large corporation has become increasingly an international entity in terms of its markets, its ownership, its management and its language of internal communication. Between 1995 and 2004, there were over 800 cross-border mergers and acquisitions of over US$1 billion. In other words, over 800 firms that were formerly based in a given country 'gave up their passports' for that of another country. Former leading 'national champions' now often are led by foreigners and have more shares owned by foreigners than by those of the country in which they have their headquarters. English has become the common language of most international firms. Capitalist globalization has helped to create a global culture among the mass of the population. Total tourist arrivals, facilitated by cheap air travel, increased from 450 million in 1990 to over 700 million in 2004. English has established itself as the common language of the global mass media. International sports events such as the Olympics and World Cup unite vast swathes of the world's population.

An inter-connected, cosmopolitan world has come into being in the epoch of capitalist globalization. It is hard to imagine that such a world could experience a major military conflict.

Capitalist Contradictions in the Epoch of the Global Business Revolution

> It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us… (Dickens 1859).

Capitalist freedom is a two-edged sword. In the epoch of capitalist globalization, its contradictions have intensified. As human beings have taken to new heights their ability to free themselves from fundamental constraints through the market mechanism, so they also have reached new depths in terms of the uncontrollability of the structures they have created. Global capitalism has created uniquely intense threats to the very existence of the human species at the same time that it has liberated humanity more than ever before from fundamental constraints. The contradictions of capitalist globalization comprehensively threaten the natural environment. They have stimulated a ferocious international struggle to secure access to scarce resources. They have produced an extraordinary concentration of business power in the hands of a relatively small number of firms headquartered in the high-income countries. They have contributed to intensified global inequality within both rich and poor countries and between the internationalized global power elite and the mass of citizens rooted within their respective nations. They have produced a world of potentially extreme financial instability. Behind these contradictions looms the threat of nuclear warfare.

The Environment

In 1962, Rachel Carson's book, *The Silent Spring*, warned of the potentially destructive consequences for the natural environment if human beings continued to treat it as a resource to be exploited rather than as a complex living ecology of which they are merely one part. Her fears have come to fruition. The tropical rain forests are the home to by far the majority of animal and plant species. Over the past two decades, serious deforestation has taken place in developing countries, especially in tropical areas. Between 1990 and 2005, Brazil and Indonesia alone experienced a combined annual decline in their forested area of over 46 million square kilometres (0.5 and 1.6 percent per annum respectively), amounting to 56 percent of the total world decline in forested area. Less than 1 percent of the world's oceans are protected from over-fishing. It is estimated that the proportion of 'collapsed species' rose from zero in 1950 to 40 percent in 2003, and will reach 100 percent by 2050 unless drastic action is taken to conserve the global commons of the high seas.

Across large parts of the developing world, expansion of the capitalist market economy is associated with a long phase of intensification of environmental deterioration. Poor countries find it hard to avoid the transition from 'poor and clean' to 'large and dirty', before they can advance towards a situation of being 'rich and clean'. For example, airborne particulates in Cairo are 159 micrograms per cubic metre and 99 micrograms in Beijing, compared with just 22 micrograms in New York. China is not only the home to the most dynamic part of the global economy, but also contains 16 of the world's 20 most polluted cities. A high priority for developing countries is to attempt to solve their own urgent pollution problems, which arise from lack of coordination of the market economy.

The high-income economies are locked into a pattern of production and consumption that is profligate in the use of fossil fuels. At its heart is the system of transport of goods and people based on trucks and automobiles. The developing countries have an average of less than 50 motor vehicles per 1,000 people compared with over 800 in the United States. The high-income countries consume 5,400 kilograms (oil equivalent) of primary energy per capita, compared with 1,400 kilograms in the middle-income countries and 500 kilograms in the low-income economies. Prior to 1800, emissions of carbon dioxide are estimated to have been 260 parts per million (ppm). These increased to 397 ppm in 2005, and in the absence of strict controls, are predicted to reach 800 ppm in 2100. It is now recognized by almost all scientists that the path of development followed by today's high-income countries would be unsustainable if it were generalized to the developing countries. It is critically important for the sustainability of life on the planet to find a new development path in which the market mechanism is brought under collective control.

Oil is critically important to the current pattern of market-led development. It will take decades to displace oil with new sources of commercially viable primary energy, such as solar power or large-scale construction of nuclear power stations. The vast bulk of the world's oil supplies are located in the Middle East. There is a serious possibility of conflict over access to these oil supplies. It will take decades also to produce commercially viable technologies for carbon sequestration. In the absence of such technical progress, there are serious possibilities of international conflict between high-income and developing countries over global warming. The high-income countries produced most of the accumulated stocks of carbon dioxide, but developing countries will produce an increasing share of the increments to world carbon dioxide output. Developing countries produce only small amounts of carbon dioxide per capita even though their contribution to the total increments of carbon dioxide production is high and rising. Moreover, the citizens of developing countries live in highly polluted environments, so that solving serious domestic pollution problems is regarded by most citizens as more important than solving the world's pollution problems.

Challenge of the Global Business Revolution

As we have seen, contrary to the predictions of mainstream economists, the period of capitalist globalization has witnessed a dramatic process of merger and acquisition and industrial consolidation. Leading firms have been able to take advantage of economies of scale in procurement, research and development, branding and human resource acquisition.

Alongside the explosive consolidation of business power in the modern sector of the global economy, there exists a sea of small and medium-sized firms across the developing world, using labour-intensive techniques to produce low quality, low value-added goods and services for poor people.

After more than two decades of the global business revolution, business power is concentrated in the hands of firms with their headquarters in the high-income countries. Despite large changes in the nature of the large firm in this period, most of their shareholders and senior managers also are from the high-income countries. Although developing countries account for over 84 percent of the world's population, firms from these countries account for less than one-tenth of the *Fortune 500* and the *FT 500*. Moreover, most of these are state-owned firms in the financial services, natural resource and telecommunications sectors, which operate in protected domestic markets.

Research and development is a critical component of long-term competitive capability in the modern sector. We have already noted that the 'Global 1250' group of firms stands at the centre of global technical progress. Within the Global 1250, firms from the top ten countries, all high-income countries, account for 94 percent of the total. The information technology (IT) sector is by far the most important. The Global 1250 contains 225 IT hardware companies, of which 62 percent are headquartered in the United States, and 111 software and computer service companies, of which 71 percent are headquartered in the United States. Five small European countries (Switzerland, The Netherlands, Sweden, Finland and Denmark), containing a total of 43 million people, have 112 firms in the Global 1250. The 'BRIC' countries (Brazil, Russia, India and China) contain over 2.7 billion people, but have a combined total of only 12 firms in the Global 1250.

The world of industrial competition that has emerged in the period of the global business revolution is not 'flat'. Rather it is profoundly unequal. If developing countries are to nurture their own large, globally competitive firms, they have to devise new forms of industrial policy appropriate to the challenges of this period. Insofar as they are successful in this endeavour, it will in its turn pose a challenge for policy makers in the high-income countries. They have devoted a great deal of energy during the period of capitalist globalization to establishing an international competitive environment in which support for 'national champion' firms has been removed. This flies in the face of the policies that they themselves pursued during the early modern industrialization experience. Without exception they protected their infant industries, which gave them the breathing space to catch up with the world's leading firms at that time.

Inequality

Capitalist globalization has been extending its reach for over two decades. One should now be able to judge accurately the implications of capitalist globalization for the worldwide class structure. A distinct global elite has emerged. Its members inhabit the upper reaches of global corporations. They constitute a tiny fraction of the world's population and earn exceptionally high incomes. They share an international culture based around a common language, English. They read the same newspaper (the *Financial Times*) and share common values. They stay in the same global hotels. They buy the same globally branded luxury goods. They own residences in several countries. Their children attend the same international private schools and finish their education at the same global elite universities. They attend the Davos Economic Forum. They have less and less attachment to a particular country.

The long-term trends in global inequality are unambiguous.[2] If global inequality is measured in terms of the average per capita income of countries (using the purchasing power parity exchange rate, unweighted by population), then the Gini coefficient more than doubled from 0.20 in 1820 to around 0.52 in the 1980s. As we have seen, there is some evidence that there has been a small decline in global inequality in recent decades, with broad agreement that this is almost entirely due to China's rapid growth. The estimates that suggest some decline in global inequality in the recent past use unweighted average per capita income for each country.

Attempts have been made to estimate global inequality incorporating data on inequality within countries. These reveal no trend change in global inequality in recent decades. They also show a far greater extent of global inequality than alternative measures. In 1998, using the purchasing power parity exchange rate, and incorporating inter-country measures of income distribution, the Gini coefficient of global income distribution is estimated to have been 0.64, with the top 10 percent receiving 50 percent of global income. This level of inequality is 'perhaps unparalleled in world history': 'If such extreme inequality existed in smaller communities or in a nation-state, governing authorities would find it too destabilising to leave it alone, or revolutions or riots might break out' (Milanovic, 2007: 32). Using the official exchange rate to convert national income data to a common standard reveals an even greater extent of global inequality. Using this measure, the global Gini coefficient in 1998 was no less than 0.80, with the top 10 percent accounting for 68 percent of total global income.

The United Nation's World Institute for Development Economics Research (WIDER) has recently completed a meticulous study of the distribution of global wealth in the year 2000. It estimates that the total global amount of household wealth is US$125 trillion, which is three times the total amount of global GDP. It estimates that the Gini coefficient for the distribution of household wealth is 0.89. The top 2 percent of households account for 50 percent of the total and the top 10 percent account for 80 percent of the total. The bottom 50 percent account for 1 percent of the total. That the world of capitalist globalization has produced such a fantastically unjust distribution of accumulated wealth is cause for deep reflection.

The integration of global markets has had profoundly contradictory results for the citizens of the high-income countries, including the United States. On the one hand, it has helped to raise real incomes due to the falling real price of imported consumer goods. On the other hand, it has helped to increase inequality. The liberalization of capital and product markets since the 1980s has opened up a vast world of low-priced labour across the 'transition' and 'developing' countries. Global labour markets are being integrated mainly through the migration of capital to poor countries and through the export of goods and services from poor to rich countries. This places intense pressure for international equalization of wages and conditions of work through the operation of the 'law of one price'. These pressures add greatly to the impact of technological change, which has replaced a wide swathe of white-collar office jobs that demanded modest skills, while demand for unskilled jobs in the service sector, such as restaurants, retail and domestic help, has surged. From the 1960s to early 1980s, the income share of the top decile of the US population was stable at around 32-33 percent but thereafter it rose to around 43-44 percent in 2000-02, which was the same income share that they received in the 1920s and 1930s. The share of the top 1 percent of the distribution rose from less than 8 percent in the late 1960s and 1970s to around 15-17 percent at the end of the 1990s. There is widespread public angst across the whole political spectrum about the growth of inequality within the United States and its relationship to globalization.

Developing countries also are in the throes of widespread increases in inequality, closely linked with their integration into the global capitalist economy. The presence of large pockets of multinational firms within fast-growing low and middle-income countries has brought the 'twenty-first century' to these countries in terms of employment and remuneration, with pay and conditions of work determined by global standards. However, those employed in these conditions constitute only a small fraction of the non-farm population. Surrounding them is a vast and far larger 'sea' of urban informal sector employment, for whom pay and conditions of work are set by the standards of the rural underemployed masses, not by international markets. During the 'Lewis' phase of economic development, a fundamental constraint is set to the growth of real wages for urban unskilled labour by the availability of unlimited supplies of underemployed rural labour. Over the past two decades, income inequality has increased within fast-growing developing countries. In East Asia, inequality has increased significantly over the last several decades. For example, in China, the Gini coefficient of urban income distribution rose from 0.16 in 1978, to 0.34 in 2002, while the overall Gini coefficient rose from 0.30 to 0.45 in the same period. In Latin America, inequality increased almost uniformly in the 1980s, though the deterioration was less pronounced in the 1990s.

Finance

Financial markets have an inherent propensity towards speculation and asset price bubbles. Keynes famously warned of the dangers of financial speculation:

> Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done (Keynes 1936: 159).

The initiating factor in speculative bubbles is typically the optimism generated by a feeling that the economy has entered a 'new era'. No period has created a greater sense of a new era than the past two decades of capitalist globalization.

Once the speculation process gets under way, powerful positive feedback loops drive markets ever higher. Monetary expansion is endogenous to the economic system. In spite of the efforts of monetary authorities to control the supply of money, it has tended to expand in periods of asset price inflation to finance speculation. Credit is extended on the basis of increased collateral asset prices, which supports still further increase in asset prices, and still further credit expansion. In the period of capitalist globalization, the volume of new 'money' that is being created through speculation in newly developed financial instruments dwarfs the 'real' economy. At the end of 2006, central bank 'power money' amounted to around 10 percent of global GDP, but amounted to just 1 percent of total global liquidity. So-called 'broad money' amounted to around 122 percent of global GDP, but still accounted for only around 11 percent of total global liquidity. Securitized debt amounted to around 142 percent of global GDP, but still accounted for just 13 percent of total global liquidity. Derivatives, which didn't exist twenty years ago, now amounted to no less than 802 percent of total global GDP, and fully 75 percent of total global liquidity. In other words, 'cyber money' now amounts to more than eight times the total global output of goods and services.

The period of capitalist globalization has witnessed a powerful decline in the real price of goods and services alongside an unprecedented global asset bubble, fuelled by the huge increase in money in its myriad forms. The asset bubble has been self-reinforcing, with speculation driving up asset prices in a self-reinforcing cycle around the world. The asset bubble has affected almost all assets, including equities, property, energy, raw materials, agricultural products, bonds and works of art. In the high-income economies, the asset prices bubble, especially that in property, has formed the foundation for an explosive growth of credit, to fund both speculation and current consumption. The level of household debt in the US has risen remorselessly, from 60 percent of household income in the mid-1980s to over 120 percent in 2004.

The global financial system is now deeply integrated across national boundaries, far more deeply even than the integration of production systems. The massive extent of repacking and sale of debt means that debt is far more deeply distributed throughout the economy than was the case before the global business revolution. This provides a source of stability and enhances the ability of the financial system to ride out relatively small-scale crises, but it means that the whole global financial system is far more susceptible to a giant financial crisis should it erupt.

The transition from primarily national to global markets has not been accompanied by a strengthening of international regulatory governance. The IMF, the institution that is supposed to guide the global financial system, has been described as a 'rudderless ship in a sea of liquidity'. The problem for regulators has been exacerbated by the fact that the global financial system has developed instruments of such great complexity and at such a high speed, that no one understands how to regulate the whole system, even assuming that the political mechanisms existed to do so.

There is a palpable sense of deep unease among policy makers. In 2007, at a variety of different meetings, deep fears were expressed by a wide range of financial system regulators about the absence of control over the global financial system consequent upon the new forms of liquidity creation, due to their complexity, absence of regulatory oversight and their international nature. Kenneth Rogoff, former chief economist at the IMF, issued an alarming warning about the absence of global governance over the financial system:

> Whatever happened to all the grandiose plans for improving the global financial architecture? Over the past couple of years, all introspection seems to have vanished. Instead, the policy community has developed a smug belief that enhanced macroeconomic stability at the national level combined with financial innovation at the international level have obviated the need to tinker with the system…. There is no problem that markets cannot solve…. Contrary to market perceptions, global central banks have only very limited instruments for dealing with a genuinely sharp rise in global volatility, particularly one that is geo-politically induced (*Financial Times*, 8 February 2007).

Explosive Interaction

The contradictions of capitalist globalization are capable of explosive interaction, possibly even erupting into open warfare. The United States has a stock of 8,000 active or operational nuclear warheads, with an average destructive power that is twenty times that of the Hiroshima bomb, which killed around 200,000 people. Of these nuclear weapons, 2,000 are on hair-trigger alert, ready to be launched with fifteen minutes of warning. The United States has never endorsed the policy of 'no first use'. Robert McNamara, former US Secretary of Defense, believes that the world has never faced a greater risk of nuclear warfare. The US government regards nuclear weapons as central to its military strategy for 'at least the next several decades'. This provides an intense incentive for other nations to either expand their existing arsenal or develop nuclear weapons if they do not already possess them. McNamara (2005) characterizes the US nuclear weapons policy thus: '[It is] immoral, illegal, militarily unnecessary, and dreadfully dangerous. The risk of an accidental or inadvertent nuclear launch is unacceptably high'. The only rational policy, in his view, is to 'move promptly towards the elimination—or near elimination—of all nuclear weapons'. It is an extraordinary fact that in the midst of the 'Golden Age' of capitalist globalization, the world's dominant capitalist country should have the most terrifying, and steadily advancing, weaponry at the centre of its military strategy. The British Astronomer Royal, Lord Rees, believes that 'the odds are no better than fifty-fifty that our present civilisation on Earth will survive to the end of the present century'.

Conclusion

Capitalist freedom to compete has been at the heart of human progress since the dawn of human civilization. In the current epoch of capitalist globalization, the pace of progress has reached a new high point, with unprecedented advances in technology stimulated by the invisible hand of competition, led by the competition between giant oligopolistic firms battling for leading position on global markets.

However, capitalist freedom is a two-edged sword. In the current period of capitalist globalization, these contradictions have reached new depths that threaten the very survival of the human species. Capitalist freedom to pollute and consume exhaustible resources has led to a deep threat to the global environment. It has led also to the possibility of international conflict over global warming and over access to exhaustible resources, especially fossil fuels. It has resulted in an unprecedented concentration of business power, with oligopolies established deep into the value chain of a wide range of industries. It has resulted in unprecedentedly high levels of inequality in the distribution of income and wealth at a global level and intensified inequality within both rich and poor countries. It has resulted in the construction of an anarchic global financial system, which has produced an asset bubble of unprecedented dimensions. The collapse of the bubble could lead to a global financial, economic and socio-political crisis analogous in severity at least to that of the 1930s.

If human beings are to resolve the contradictions of capitalist globalization, it is urgently necessary to establish global mechanisms to contain the tiger of unconstrained global capitalism. However, to do so requires cooperation between real nations, with real national interests that often diverge from each other. It also requires cooperation between groups of nations at different levels of economic development. The richer group of countries have many interests in common that often diverge from those of the developing countries. For most human beings, 'global' is not their framework of reference or source of identity. For most people, apart from the family and religion, the 'nation' is the primary source of identity and the main forum within which they have a political voice. Although the forces of capitalist globalization are increasingly international, the national interest of citizens and national governments remains an immensely potent force.

A central issue in humanity's attempt to grope a way forward in this extraordinarily dangerous time is the relationship between the world's dominant power, the United States, and the two most powerful unified cultures, China and Islam, which each contain around 1.3 billion people, totalling around two-fifths of the world's population. The capability of human beings cooperating to ensure a sustainable future will stand or fall on these relationships. If their engagement is confrontational rather than constructive, the prospects for humanity are bleak. Many people within each of these cultures believe that there is an unavoidable 'clash of civilizations', between the West, on the one hand, and China and Islam on the other. In fact, there is no fundamental clash between Western capitalism and the civilizations of China and Islam. Despite their differences in culture, political structure and belief systems, it is the common elements in the long-term evolution of socio-economic systems of China, Islam and the West that are the outstanding feature when viewed from the perspective of the early twenty-first century and the swelling tide of globalization.

In both the East and the West, in both the medieval and the modern world, private property, extension of the market and pursuit of profit have been the central forces stimulating human ingenuity to achieve technical progress. Both in China and in the Islamic world, in both medieval and modern times, intellectuals and political leaders have wrestled with the conundrum of attempting to 'civilize' capitalism and establish a harmonious, stable society. In China this took the ideological form of Confucianism and the attempt since the 1980s to construct a form of Chinese socialism that 'learns from the past in order to serve the present'. In the Islamic world, in both medieval and modern times, the dominant discourse for taming and civilizing the market has been the Islamic faith, based on the Koran. Both China and the Islamic world have a rich potential contribution to make to resolving the contradictions inherent in the nature of capitalist globalization.

Modern capitalist globalization began in the 1970s. The removal of constraints on the operation of the market mechanism has proceeded remorselessly across the whole world. The first 'wild' phase of modern capitalist globalization is drawing to a close, as the intensifying multiple contradictions become ever more apparent. The resolution of these multiple contradictions necessitates globally coordinated regulation of the capitalist system. As the 'wild animal' of global capitalism becomes ever larger and more powerful, it becomes ever more important that human beings, who have given birth to and nurtured this animal, establish a moral framework to regulate its activity, and thereby prevent the wild animal from devouring its creator, humanity. In order to resolve the contradictions of capitalist globalization, there is no choice other than to grope towards international cooperation. Such cooperation is necessary in order to avoid a global ecological disaster. It is necessary in order that both rich and poor countries reach mutual understanding about the challenges that globalization poses for the distribution of income and wealth in their respective countries. It is necessary in order that both rich and poor countries reach mutual understanding about the challenges posed by the explosive concentration of business power consequent upon the global business revolution. It is most urgently necessary in order to establish collective control over the global financial system.

The capitalist system is the product of the collective exercise of human intelligence. The way in which people choose collectively to exercise that intelligence is governed by their ethics. Ethics are the 'pole star' to guide humanity on its journey through history. The possibilities for a sustainable future for human beings are, in turn, deeply related to human beings' psychological needs. There have, since ancient times, been sharply polarized views of the fundamental human needs and the ethical systems corresponding to those needs.

The contradictory character of human psychology has been recognized since the great thinkers of antiquity. One may interpret Homer's great legends, *The Odyssey* and *The Iliad,* as concerned respectively with the 'life instinct' and the 'death instinct'. The former was a joyous celebration of human creativity and the pleasure of the human voyage of discovery. The latter was a remorseless pageant of horror and mutual destruction by men motivated by 'heroism'. Sigmund Freud, the founder of modern psychology, also came to the conclusion that the fundamental driver of human psychology was the struggle between the constructive, loving, 'life instinct' (Eros), and the destructive, selfish, 'death instinct' (Thanatos). The life instinct came from man's sense of his place within an infinite realm of being. The death instinct came from man's deepest fears, especially the fear of death itself. The death instinct inclined people to distrust and compete with their fellow beings, while the life instinct inclined people to trust and cooperate. In the wake of the horrors of the First World War, Sigmund Freud posed the question of the survival of the human species in stark terms:

> The fateful question for the human species seems to me to be whether, and to what extent, their cultural development will succeed in mastering the disturbance of their communal life by the human instinct of aggression and self-destruction.... Men have gained control of the forces of nature to such an extent that with their help they would have no difficulty in exterminating one another to the last man. They know this, and hence comes a large part of their current unrest, their unhappiness and their mood of anxiety. And now it is to be expected that the other of the two 'Heavenly Powers', eternal Eros, will make an effort to assert himself in the struggle with his equally immortal adversary. But who can foresee with what success and with what result? (Freud 1930: 145)

If humanity cannot find a 'mean', its prospects for survival are bleak. The destruction of human civilization may arise either from the internal self-destructiveness of extreme free market individualism or from the nihilistic response of those excluded and angered by the globalization of the free market.

The challenges that are faced by human beings are the product of people's own purposive activities, expressed mainly through the economic system. It is within their collective power to resolve these contradictions. The very depth of the challenges they now face may shock them into the action necessary to ensure the survival of the species. Alongside human beings competitive and destructive instincts are their instincts for species survival through cooperation. However great the challenge may be, human beings have the capability of solving the contradictions that are of their own making. It may only be the approaching 'final hour' that finally forces human beings to grope their way towards globally cooperative solutions. The falling of the 'dusk', as humanity looks into the abyss, may be the final impulse to produce the cooperative solution that is immanent within the unfolding of global capitalism: 'The owl of Minerva spreads its wings only with the falling of the dusk' (Hegel 1952: 13).

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NOTES

1 This article presents in compressed form the arguments in my book *Capitalism and Freedom: The Contradictory Character of Capitalist Globalisation*, London, Anthem Press, 2007.

2 Milanovic (2007) provides a summary of the recent evidence on the global distribution of income. Milanovic is Lead Economist at the World Bank's Research Department unit that deals with poverty, income distribution and household surveys.

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