

Chapter Five

Economics Under Conditions of Contemporary Globalization

This chapter presents a review of some essential economic principles, followed by a review of significant changes underway in global economics.

Economies have goals that are inter-related and under the impact of globalization, these goals sometimes compete or displace one another. Consider these six basic goals of an economy:

- Growth
- Full Employment
- A Stable Currency
- A Fair Distribution of Wealth
- A Livable Environment
- Economic Freedom

Observe some of the ways they can relate. Long-term patterns in capitalism show us growth having cycles where it intensifies or slows down, the rise and fall now part of globalized, co-dependent national economies. Significant Growth, of more than, say, 3 percent now usually creates more employment in less costly producer countries while moving jobs away from wealthier consumer countries, that is, it tends to shift full employment where production costs less. Once rich countries begin losing their jobs, and with them, some of their wealth. And as growth increases, it often leads to so-called externalities, pollutants that threaten a livable environment (e.g., damage to water and air quality, plant and animals species, human health, and even losses of life itself). In the pricing of goods and services, these externalities are not acknowledged as part of the actual price of growth. For example, China, India, and the new producer nations of South East Asia currently suffer from the impact externalities caused by growth, and are trying to deal with these damages.

Intensifying growth combined with full employment provides a population growing income, which eventually sets off more demand for goods and services. Rising demand in turn can lead to inflation (prices rise rapidly, creating a lack of a stable currency).

In the producer nations in Asia, as well as in the United States, we see wealth from growth gravitating toward the top ten percent of earners. When wages of the larger labor force do not keep up with prices, these differences in income defeat such goals as fair distribution of wealth and economic freedom (the freedom to choose where you work and how you spend). A fair distribution of wealth and economic freedom establish humane goals—everyone in the economy having the basic necessities—food, shelter, clothing, education, health care, a livable environment, sufficient income to survive, all of which together go far to produce

the preconditions for societies to develop freedom of choice for their members.

National policies that embody these economic goals vary considerably. Many nations face significant, troubling differences between their poor, their middle classes, and their wealthy, leading to social conflicts, crime, and even violence. Provisions of the World Trade Organization (WTO), the North American Free Trade Agreement (NAFTA), the European Union (EU), and other transnational agreements emphasize various goals—growth and stable currencies in the WTO and NAFTA, for example—and in the EU a livable environment, economic freedom, and a fair distribution of wealth. The United Nations is presently urgently asking rich nations for \$30 billion annually to assure food for the world's poor (Martin, 2008). That the world now has more than 2 billion humans living on less than \$3 dollars a day and facing a world food crisis makes one failure clear—globalization has yet to establish an effective balance in achieving these six goals. While the United Nations provides a forum for nations to deal with global and regional problems, the absence of an effective system of global governance becomes all the more pressing an issue as world population increases by some 76 million a year. Wars over resources, genocides within nations, and disturbances within failed states continue to require intervention by outside nations or organizations such as North Atlantic Treaty Organization, the African Union, or the United Nations. For all of its successes, globalization continues to stumble uncertainly for want of agreements and binding provisions which all nations and their populations will observe.

The basic principle of scarcity at the core of all economics appears in various forms in many of the examples that follow. To revisit the formula:

When *wants* are greater than a *resource*, a *scarcity* exists.

$$W > R = S$$

Scarcity requires a choice as to whom will have the use of the scarce resource, and what so-called *opportunity costs* this choice will create for those who lose the opportunity to use the resource. In the process of allocating the resource, those making the choice reveal what they value more and what they value less.

For example, consider the United States' scarce resource of a single, limited natural preserve for arctic wildlife. Rising global oil demand means that some in the U.S.—the world's largest oil consumer—want to drill for oil in this U.S. arctic nature preserve. Thus far the U.S. has chosen to refuse these oil-drilling demands, preferring to keep this arctic resource pristine and beyond industrial development. The opportunity cost—less domestic oil for the U.S.—indicates that the U.S. values this part of its natural environment more than it values having domestic sources of oil available. The choice also shifts U.S. energy demand toward foreign, overseas sources of oil, and towards creation of alternative clean renewable sources of energy that can replace oil-based energy. The refusal for

arctic drilling may also reflect the new value placed on minimizing global warming, with greater attention and concern regarding the urgent need to cut the GHG emissions that more oil use would produce. Scarcity choices within nations thus have visible links with international commerce and pressing global issues.

Against this backdrop of the ebb and flow of national economies, transnational corporations, and newly formed sovereign wealth funds, we see petroleum scarcity acting as a catalyst in reshaping globalization. Many oil-scarce nations now compete globally for petroleum and natural gas sources, creating significant changes in the nature of global commerce.

Shifting Balances in Globalization

China, India, the smaller South East Asia nations, and Brazil have emerged as rapid growth economies competing more effectively with the US and the EU for industrial power. With jobs and capital moving from western industrial nations to lower wage countries in Asia, and immigrants moving to developed western countries but not yet being assimilated, societies in both Asia and the west face serious challenges to both their economies and their basic cultures.

Significant amounts of money are shifting away from their traditional sources, with political and economic power following the flow of money. Developing nations and countries with major oil reserves are becoming wealthy enough to invest significant capital in the U.S. and Europe. Developing nation governments have amassed some \$3 trillion dollars in sovereign wealth funds (\$1.7 trillion in China alone; Ruogu, 2008), and with oil selling for \$130 a barrel (as it did in the early summer of 2008), oil-selling nations acquire \$1.8 trillion annually from oil-buying nations. Looking for the best return on investment and in need of essential resources for their continued growth, developing nations now internationally pursue key commodities such as metal ores, oil, natural gas, and control of food sources. Their purchasing power gives them much greater leverage in international politics, power previously reserved for traditional western industrial nations plus Japan and South Korea. Their sovereign wealth funds now invest in huge transnational corporations, investment banks in the U.S., and even food sources such as soybean production in Latin America.

With many global food and commodity prices in mid-2008 up 250 percent since 2002, posing extremely serious threats of major food scarcities, the U.N Food and Agriculture Organization (UNFAO) summit meeting on Food Security in June of 2008 called for grain-growing countries to cut domestic grain subsidies, to eliminate import taxes and restrictions on international sales of grains, and to intensify research on increasing food production (Martin and Rosenthal, 2008). Wealthy nations have been asked to supply \$30 billion annually to redistribute food to more than 2 billion in under-developed countries who now struggle to afford basic nutrition.

Against this backdrop China, a co-leader with the U.S. in global grain production,

faces a looming crisis as it exhausts non-renewable aquifers in its northern wheat growing regions, foreshadowing a grain shortfall for China of 40 million tons (Brown, June 4, 2008). The food crisis reflects not just higher energy prices but shrinking water sources in key grain growing countries such as China, the western U.S. and India (Brown, June 4, 2008).

The economic growth avidly pursued by most economies is itself now being viewed as another powerful global catalyst, this one leading toward a catastrophic global market failure—climate change, global warming, and sea level rise as devastating by-products of industrial commerce. This urgent set of global problems now threatens all markets and, over time, civilization itself. Consequently assumptions about growth, and its reliance on fossil fuels have become the center of a global controversy—the demands of a rising global population still heavily reliant on fossil fuel energy for its economic survival versus the need to transform all economies rapidly toward non-fossil fuel commerce that is sustainable, carbon neutral, and environmentally sensitive.

According to the Intergovernmental Panel on Climate Change (IPCC), in the next decades we will see global warming disasters beginning to destroy existing economies if nations fail to launch a concerted global effort curbing GHG emissions. The United Nations seeks just such a global GHG emissions limits agreement by December of 2009, supplanting the Kyoto Agreement. The world's two largest emitters of GHG, the U.S. and China, with roughly 50 percent of all emissions, have yet to subscribe to the urgent need for an emissions treaty (Intergovernmental Panel on Climate Change, 2007).

The more integrated and interdependent that the economies of the world become, the more globalization accelerates many of its patterns. This pattern of shared, accelerating changes—partly the result of the global population rising by some 76 million annually—amplifies the need to develop effective forms of global governance. The World Trade Organization has requirements of its members but struggles with enforcement. WTO talks at Doha have failed to reach further extensions of free trade agreements, much less establish more effective global trade governance with labor rights and environmental safeguards (ABC News, 2008). The United Nations has extended its reach to attempt to deal with food shortages, refugees, a Law of the Seas convention, public health, atomic energy, development goals, an international court of justice, and more recently climate change, but despite all of these efforts, it still does not provide effective governance for labor rights, human rights, failed states, environmental safeguards for water, air, and soil, and a host of other issues generated by the onrush of globalization.

Meanwhile, global elites—transnational firms, cartels, hugely wealthy individuals, and sovereign wealth funds—enhance and concentrate their power beyond the reach of the checks and balances of free market systems or forms of governance, intensifying global inequalities. According to David Rothkopf, “The

top 250 companies have sales equivalent to about a third of global GDP superclass [members] influence millions of lives across borders on a regular basis” (Rothkopf, 2008). Commentary on all five of these phenomena listed above is interwoven in the discussion that follows.

A Shift in Economic Balances

Global economics appear to be moving quickly from an interwoven global market dominated by western industrial nations toward a heavy reliance on Asia as the primary producer of consumer goods, and a much larger share of heavy equipment. It follows that Asia is becoming more powerful politically, wealthier, and more of an investor globally.

Some observers say that the growing dominance of a small number of huge economies such as the U.S., China, the EU, and India carries growth and its underlying consumerism too far. For example, as an economy serving 4.5 percent of the world’s people, the U.S. presently produces roughly \$14.4 trillion a year, roughly a quarter of everything produced in the world. It exports roughly 11 percent and imports 14 percent of the value of its GDP, leaving a U.S. trade deficit of some \$817 billion per year (that is, \$817 billion more in imports than exports). Via this trade deficit, the U.S. consumes more than it produces, and must borrow money to continue its buying. On the other hand, this U.S. purchase of imports supports the rapidly rising economies of China, India, and other global exporters. As these developing countries grow wealthier, they develop their own middle class demands for more of their own goods, and become gradually less reliant on exports to western industrial countries. China’s rising trade surplus with the U.S. runs roughly \$256 billion annually (Foreign Trade Statistics, 2008), much of which China has invested back into U.S. federal bonds.

The extraordinary growth in Gross Domestic Product (GDP) in the economies of China (9.8 percent in 2008) and India (9.4 percent in 2008) illustrates a dramatic shift of industrial production toward Asia—what World Bank President Robert Zoelick calls “new poles of growth. . . .new stakeholders in globalization. . . a welcome diversification of the sources of growth” (*The Economic Times*, 2008). Growth data for the region emphasize the pattern:

- Global firms plan 77 percent of their new Research and Development facilities in China and India; Chemical companies recently have closed 140 facilities in the U.S. and plan 50 new facilities of \$1 billion or more in China.
- U.S. investments in 51,555 enterprises in China reached \$56 billion in 2007, up 350 percent over the last decade (Ruogu, 2008).
- Foreign students, many from China and India, now exceed in number American students in U.S. science and engineering graduate programs (Augustine, 2008).

To explain the immense scale of China's exports, \$321 billion in 2007, James Fallows writes that from:

“Hong Kong and Shenzhen harbors, cargo ships left last year carrying the equivalent of more than 40 million of the standard 20-foot-long metal containers that end up on trucks or railroad cars. That's one per second, round the clock and year-round—and it's less than half of China's export total” (Fallows, 2007).

As part of the consequences of their growth, China, India, and smaller producer nations such as Indonesia, Thailand, Vietnam, Bangladesh, and Singapore all face a struggle to put their growth on more economically, socially, and environmentally sustainable paths. The balance of Asia's growth versus its negative global consequences reflects an intensifying global pattern—growth triggering tipping points leading to rapid environmental changes and disasters.

Rapid growth in Asia, however, has created a new wealth class, and moved roughly half a billion people in Asia into a new middle class, a huge achievement. The increased demand for consumer goods has, as expected, set off serious inflation, particularly soaring food prices. In China, for example, pork prices have spiked as more people can afford grain-fed meat regularly in their diets. In 2008 China faced crop losses, serious water shortages, soaring oil prices, and rising grain imports in an attempt to make up for its own grain shortfalls of 10 percent (*Economist*, April 19, 2008). India scrambles to feed 17 percent of the world's people with less than 5 percent of earth's water and 3 percent of its farmland (*Economist*, April 19, 2008). These food challenges result partly from a global pattern that includes:

“the food riots now spreading across the planet because the prices of staples are soaring, while stocks of basics are falling. In the last year, wheat (think flour) has risen by 130 percent, rice by 74 percent, soya by 87 percent, and corn by 31 percent, while there are now only eight to 12 weeks of cereal stocks left globally (Klare, 2008).

Despite a 2008 government claim by China that it had 40 percent of a year's grain demand in storage, global grain reserve stocks are at an all time low. As one observer put it, the world is one bad harvest away from food scarcity spreading the kind of political and social failures that have recently set off food riots in 33 countries.

Food and commodity prices also explain in part why inflation runs over 8 percent in India, and 7.4 percent in Indonesia, nations where growth also creates more domestic demand. After observing a decade-long flow of inexpensive export goods from cheaper labor in Asia, global economists now describe *inflation* as Asia's most significant export. Prices on Asian goods and services are rising worldwide.

Population Growth, and Electrical Demand

With 1.1 billion people and a rising middle class of 325 million, India has huge growth underway despite, “inadequate infrastructure, a cumbersome bureaucracy, corruption, labor market rigidities, regulatory and foreign investment controls, and high fiscal deficits. India eliminated quotas on 1,420 consumer imports in 2002” (TDS, 2008). The country also suffers from electrical shortages of as much as 25 percent during peak demand hours, causing business shutdowns (Mahapatra, 2007). At \$1 trillion of annual GDP, India’s economy is now the 12th largest globally. Its largest trading partner and investor is the U.S., with rapid growth in services such as outsourcing and software production leading the way. Two-thirds of India’s population, however, still depends on agriculture for income (TDS, 2008). India’s government still supplies some with free electricity, does little to stop the theft of power in urban settings, and, with seventeen reactors operating and five more under construction, seeks new power from nuclear sources (Nuclear Power Corporation of India, 2008).

China and India’s national governments struggle to deal effectively with population growth. For example, with 49 percent of China’s population involved in farming, “the average farm size in China . . . has fallen from 1.5 hectares in the 1970’s to barely 0.5 hectares now” (*Economist*, April 19, 2008). Moreover, China experiences 117 male births for every 100 female births, posing long-term issues of demographic balance. India has 1.129 billion people or 15 percent of the global population surviving on 4 percent on earth’s land. 40 percent are under the age of 15, and population densities are the highest for any comparably sized geographic area (Population of India, 2008). While both of these economies grow rapidly in the first decade of the 21st century, the size and nature of these two populations, and their demands on natural resources raise questions about their long-term food security, water security, and energy availability.

More on Energy: China’s Oil Demand

China’s oil demands rose 86 percent in the last decade, from 4 million barrels a day (mbd) in 1997 to 8 mbd in 2008. This demand left China importing 4 mbd, putting serious pressure on oil sources and contributing to a dramatic global rise in oil and other energy fuel prices. At its present growth rates, China will need 12 mbd of oil by 2020, and 27 mbd by 2030, with imports reaching 10.8 mbd by 2030. By contrast U.S. oil use remains static at roughly 21 mbd, rising prices and improved efficiencies modulating growth in demand.

Peak oil is arriving at the present global production level of 86 million barrels a day. As the easily accessed oil has been found and used, and mature wells are losing some 4.5 mbd in production, the world probably cannot sustain much more than 100 mbd of production, nor can the globe, with earth’s atmosphere already at 385 parts per million of CO₂, survive the greenhouse gases (GHG) from

burning that much oil. China has established a \$6 billion capital source in oil-rich Venezuela, and will be investing in Venezuelan infrastructure to secure more oil from there. China has made similar arrangements for oil in Chad and Nigeria, and buys substantially from OPEC countries. According to observer Michael Klare, strong global competition for remaining oil reserves may take the form of China and the U.S. rattling swords or forming cooperative ventures such as super light-weight vehicles and advanced forms of bio-fuels not based on food crops (Klare, April 30, 2008). In the larger picture we see a new global economic order struggling to emerge.

Energy Uses and Their Costs

Electrical demand in China's economic powerhouse, Guangdong Province, has grown a staggering 34 percent year on year since 2002 (China State Power Information Network, 2008), with coal—the fuel for electrical generating plants—rising 170 percent in price since January, 2007. While government controls the production and distribution of electrical power, and has attempted to control inflation by limiting energy prices, many private coal suppliers in China and overseas coal suppliers set their own prices. As coal prices in 2008 skyrocketed to \$125 a metric ton responding to demand, state electrical suppliers cut coal purchases, which in turn led to shortfalls and blackouts in electrical power (Victor, 2008). Analyst David Victor frames it this way:

Economic activity, by design, is shifting away from state-owned enterprises and central planning. But Beijing doesn't have structures in place to control those aspects of the economy it doesn't own outright. Market reforms are making Beijing less and less relevant to what's really going on in the economy, threatening to turn China into a "weak state." (Victor, 2008)

Local governments in China are now said to be eyeing the acquisition of private coal mines to acquire their profits and secure fuel for their electrical sources (Reuters, 2008).

As an example of the interwoven nature of globalization, China's rising coal and oil demands are now beginning to set off higher prices for coal (and in turn electricity) overseas in parts of China's new coal supplier, the United States (Lazzaro, 2008). These prices and coal's serious emissions problems in turn intensify the push for clean, renewable energy sources in both China and the U.S.

Serious Damages from Growth

A recent study by the World Bank cites a huge submerged cost of China's heavy reliance on coal to produce energy, plus its growing auto traffic and rising numbers of diesel burning trucks for its exports. The report indicates that as

many as 750,000 Chinese a year are dying as a result of serious air pollution. Acid rain falls on one-third of China, destroying water quality, crops, and human health. Cities are choked with heavy, cancer-causing air pollution. Moreover, airborne particulate matter from China now arrives in Japan, South Korea, and even the western parts of the United States (*Cost of Pollution in China*, 2007). While China has announced measures to reduce the problem, its national government, a collaborator in the recent *Cost of Pollution in China* report, admits that it has been ineffective in regulating pollution and its consequences.

Intense economic growth in China, India, and other Asian producers also remains grossly inefficient in its uses of scarce oil, driving global oil prices higher, and intensifying global warming with higher GHG emissions. The energy efficient economy of Japan consumes .8 bbl of oil to produce \$1000 of GDP. The U.S. economy reached that same level of oil efficiency in 2000 and is now surpassing it. Australia and New Zealand use 2.1 bbl per \$1000 of GDP. The rest of Asia is extravagant in its demands on oil resources. India uses 3.7 bbl and China uses 5.1 bbl of oil to produce \$1000 worth of GDP. In their commerce, Malaysia, Thailand, Vietnam, and Indonesia consume oil at rates close to that of India (Wu, 2007). With global warming now a vital, pressing concern, western industrial countries and Japan must export energy efficiency technologies and expertise to Asia's producers as the race continues between searching for ever greater oil resources versus reducing GHG emissions to halt global warming.

Global Action

As the December, 2007 United Nations conference at Bali on global warming and CO₂ emissions demonstrated, the governments behind growing major economies have begun recognizing that humanity has over-reached the limits of the natural resources supporting globalization—the atmosphere, the oceans, and forests and lands. We are experiencing what biologist Garrett Hardin called *The Tragedy of the Commons*, with the toxic by-products of rising global commerce leading to collapses of our shared common environment around the globe. The Tragedy of the Commons is explored in the following chapter—*The Revolution: Toward A Sustainable Environment and Global Economy*.

Transport and Food Costs

As a subset of the overload of GHG emissions into the atmosphere and the oceans, the massive global commerce in freight and food is responsible for an estimated 3 percent or more of all CO₂ emissions. Under “the Convention on International Civil Aviation, signed in Chicago in 1944 to help the fledgling airline industry, fuel for international travel and transport of goods, including food, is exempt from taxes...There is also no tax on fuel used by ocean freighters” (Rosenthal, 2008). Per ton transported, ocean shipping is said to use roughly one-sixtieth the energy used for air freight. Because massive trade reliant on fossil fuels contributes significantly to global warming, the EU is presently moving

to include fuel taxes on such shipments into and out of the EU, the world's biggest customer for consumer goods at 495 million (Rosenthal, 2008). Moreover, in pursuit of land to grow food, deforestation causes 17 percent of global CO2 emissions (The Nature Conservancy, 2008).

With oil demand roughly static in the U.S., oil sellers cite increasing Asian demand as a principal cause of oil prices tripling in two years. While their countries are initiating clean energy projects, and China has set a goal of improving energy efficiency 20 percent by 2010 (Lin et al., 2006). Asian economies have yet to show concrete evidence of improvement in energy efficiencies or GHG emissions.

By-products of Growth and Inflation

In the face of huge U.S. federal government deficits as well as a soaring trade deficit, the dollar—long acknowledged as the primary global currency—continues to devalue on international markets. Partly because of rising oil demand and threats of shrinking oil supplies, and partly because oil is denominated globally in dollars, the price of petroleum has soared. Goods and food from China and India have begun to arrive in the U.S. and the E.U. with significantly higher prices. In the face of a U.S. banking crisis, with housing prices shrinking, an unfolding recession, and slowing demand for high value items such as cars and household furniture, China and India have increased their focus on their own domestic demand and overseas investment of some of their income from global trade.

Impacts of Inflation

As of early 2008, workers in China can be guaranteed pensions, collective bargaining rights, and long term hires (turnover of personnel in Guangdong factories is 70 percent annually), sending wages spiraling up, raising operating costs for factories by up to 40 percent. Add to this picture the fact that demand in the U.S. is dropping in a recession, and the result is that over 10 percent of Guangdong Province's 70,000 factories are closing, as are factories elsewhere in China (Roberts, 2008). The single province of Guangdong employs some 18 million factory workers, 4 million more than the total number of U.S. factory workers (Fallows, 2008). Many producers in China indicate that they will relocate their production toward lower labor and inflation rates in Vietnam, India, and elsewhere in South East Asia (Roberts, 2008).

Simultaneously unrest in China is intensifying amid its growth. On March 30, Singtaonet.com reported on a rare breakdown of government statistics on "mass incidents"—a euphemism for public protests—for the first eight months of 2006. It revealed that around 19 percent of them were triggered by wages, welfare conditions and other basic survival issues; 15 percent by land acquisitions and forced evictions; 8 percent by corporate restructuring and corporate bankruptcy; 6 percent by civil disputes; 5 percent in relation to other disputes involving land,

mines, forests and water; and 2 percent by shares and stock market capitalization issues. Beijing has revealed that there were *87,000 mass incidents* in China in 2005 (Cheng, 2007).

Just as China secures for itself a dominating global presence with its industrial capacity, changes in its own rising domestic demand, softening in global demand, and a massive, tragic earthquake in Sichuan Province requiring significant emergency aid and capital expenditures have combined to leave China facing an entire new set of imbalances.

Oil prices combine with China's increasing domestic demand to produce an inflation rate of 11 percent, leaving hundreds of millions of low wage workers and farmers struggling to buy necessities while its new middle class moves up the food chain toward consuming more protein. According to Le Boucher in *Le Monde*, "The "dragon" swallows half of global pork production, ditto for cement, a third of steel production." Production losses from earthquake damage, and the huge recovery effort supporting displaced and injured people have led to aid arriving from global sources—signaling that China is a valued global partner fully integrated into global forms of exchange. Nonetheless, China faces fast rising global prices in food, energy, ores, and other commodities, which means its export prices must rise. At its current rate of growth, China has yet to find ways to:

- Limit its inflation
- Balance government owned versus private industries
- Regulate effectively in the provinces
- Deal with growing inequalities in wealth and stem the tide of civil unrest
- Limit its population
- Reverse the devastating environmental damage from its growth
- Find immediate remedies for its serious air pollution and water shortages
- Solve its long term food security and water problems)
- Recover from a shattering earthquake while hosting the International Olympics (Le Boucher, 2008).

As measured by its sizable economic growth, China presently constitutes a major success in the shifting balance of globalization. As measured by the World Bank, however, 5.8 percent of China's 9.9 percent growth in GDP is lost to the negatives produced by inefficient and damaging economic processes. [That is, roughly 60 percent of claimed GDP growth is lost to environmental damage, crop damage, water pollution, and the loss of human lives and damage to human health (World Bank, 2007). By way of comparison, the United States, with less than one-quarter of China's population, loses 70,000 to the 750,000 lives a year to air pollution despite much stricter controls than China employs (WHO, 2007).

Combine these challenging circumstances with a recession engulfing its principal customer, and a global crisis in credit, and one can understand why thousands of

China's factories are going out of business, and producers in Asia face pressure to shift production where lower costs prevail—what globalization critics label as “the race to the bottom” (Grieder, 1997). These recent changes in domestic and global commerce also explain some of the pressures creating the civil unrest. India so far seems to be weathering these same global changes well, except for growing food and energy scarcities.

Governments as Major Global Investors and Transnational Corporations

The transnational corporations that have dominated globalization are now seeing competition from the advent of state-owned enterprises such as the energy firms Gazprom and China Petrol (the latter is now the world's largest company at \$1 trillion, and is owned by the Chinese government) that can seriously influence regional and global energy supplies. Consider the political and economic reach of these new giants:

“China's Sinopec, for example, has established a strategic alliance with Saudi Aramco, the nationalized giant once owned by Chevron and Exxon Mobil, to explore for natural gas in Saudi Arabia and market Saudi crude oil in China. Likewise, the China National Petroleum Corporation (CNPC) will collaborate with Gazprom, the massive state-controlled Russian natural gas monopoly, to build pipelines and deliver Russian gas to China. Several of these state-owned firms, including CNPC and India's Oil and Natural Gas Corporation, are now set to collaborate with Petr leos de Venezuela S.A. in developing the extra-heavy crude of the Orinoco belt once controlled by Chevron. In this new stage of energy competition, the advantages long enjoyed by Western energy majors has been eroded by vigorous, state-backed upstarts from the developing world” (Klare, 2008).

Wealth and political power gravitate toward those who control oil and gas resources, and have the enviable role of exporters. 82 percent of proven oil reserves exist in just ten countries: Saudi Arabia, Iran, Iraq, Kuwait, the United Arab Emirates, Venezuela, Russia, Libya, Kazakhstan, and Nigeria. And with 56 percent of natural gas in just three nations—Iran, Russia, and Qatar—nearly a trillion dollars flowed to oil and gas producer-exporters in 2006 and oil prices have risen 150 percent since then (Klare, 2008). With oil and gas prices reaching new records in 2008, this transfer of wealth to petrochemical producing nations is becoming an exaggerated centerpiece in global commerce. The oil oligopoly nations together are transforming rapidly into financial powers with which the U.S., the EU, China, and India must cooperate, and even see as sources of new capital.

The huge flow of money to six Middle East states and Central Asia from selling oil and natural gas—over \$650 billion in 2007—is also creating massive wealth, reshaping the six nations of the Gulf Cooperation Council, consisting of the United Arab Emirates, Saudi Arabia, Oman, Qatar, Bahrain, and Kuwait (IMF,

2008). With an estimated \$2.4 trillion accumulated recently, these countries have set off on ambitious plans to build new cities, develop new ports, create hundreds of thousands more domestic jobs, and invest abroad in more aggressive ways (*Economist*, 2008c).

Oil income to oil rich states now shifts back toward oil purchase sources. For example, Citigroup, the huge American bank, in 2008 sold the Abu Dhabi Investment Authority \$7.5 billion and Kuwait Investment Authority \$12.5 billion worth of its shares tying these overseas sovereign wealth funds to American credit markets (Klare, 2008). While the U.S. government in the 1980s outlawed any investments that the U.S. decided might threaten *National Security*, sovereign wealth funds continue to invest in American banks and investment banks struggling to recover from their losses in the global subprime mortgage credit collapse. The EU wants a set of rules for investments within the EU by Sovereign Wealth Funds, plus an IMF code of conduct for them. Meanwhile, the list of exporting nations whose sovereign wealth funds invest in global trade is mounting.

China presently has over \$1.7 trillion in dollar reserves that are growing by \$1 billion a day. It has created the China Investment Company (CIC), a sovereign wealth fund, which wants to invest in the U.S. According to economist Peter Navarro, however, the U.S. fears that as part of a shift in power to Asia, China will:

“strip companies of jobs, research, development, and technology. . . As he told a Congressional panel in February, his fears grow out of China’s pattern of behavior: its unfair trade practices, currency manipulation, technology espionage, and a refusal to crack down on counterfeiting” (60 *Minutes*, 2008).

Despite evidence that it attempts to hack evidence off U.S. business and government computers and use such information to gain economic advantage (Yost, 2008), China protests that it has no such malicious intentions and promises transparency in its dealings. So far the CIC has invested \$5 billion in U.S. investment bank Morgan Stanley, helping it acquire the collapsing investment giant Bear Stearns, and it has \$3 billion worth of the investment firm Blackstone, whose stock has rapidly lost value. The question of further investments in the U.S. or the EU by China remains unresolved, but if a U.S. and global recession continues, capital to shore up sagging U.S. credit markets will be much sought after to ensure a secure banking system and the economic prospects of the U.S.

The Perspective of History

To keep these multiple recent shifts in globalization in a useful perspective, it would seem only fair to recall the long tradition over the last three hundred years of early globalization in the forms of colonialism, imposed regimes, and

absentee-owner foreign policies engaged in by the western imperialist nations from the 15th through the 19th centuries, and the subsequent quasi-imperialism of the U.S. later in the exploitation of natural resources and cheap labor in nations around the world, including China. Witness in the history of China the Opium Wars of the 19th century and the Boxer Rebellion at the turn into the 20th Century, as reactions against foreign domination. An implicit threat now appears when newly rich nations operating through the mechanism of sovereign wealth funds such as those of Dubai or Kuwait, or via major enterprises such as Petro China or Gazprom, take control of firms or whole industries. These can then, through losses, poor management, or political intent, come to impair the economic balance or strength of the countries where they purchase or sell their commodities. Gazprom's threats in 2007 to limit natural gas supplies to parts of Europe have pushed the EU toward rapid installation of renewable energy. China, in turn, has become so major a buyer of soybeans from Brazil that it has influenced farmers to deforest extensive parts of the Amazon jungle, and moved the Brazilian government to improve roads and harbors to aid in the flow of soybeans (Barrionuevo, 2008).

Global economics and politics already intermingle visibly in the U.S.-led war in Iraq, where the fledgling Iraqi government continues to refuse the U.S. control of its major oil resources, despite persistent U.S. attempts. The resolution of both this dispute and the war remain an open-ended question affecting everything from the global price of oil to U.S. debt and the value of dollar.

The Global Credit Crisis

In mid-April of 2008 the *New York Times* reported that, "The collapsing of the housing bubble in the United States is mutating into a global phenomenon," citing real estate prices collapsing across parts of Europe—Britain, Ireland, Spain, Poland—and as far as northern India, where prices have fallen 20 percent (Landler, 2008). Flawed subprime mortgages sold in investment packages called Collateralized Debt Obligations (CDOs) have turned up on the books of U.S. investment banks, hedge funds, pension funds, and European and Asian banks, leaving these firms and funds with bad loans, shrinking assets, and the housing on which they hold mortgages losing value.

The crisis has taken the form of a sinkhole, enlarging with new revelations of still more bad mortgages and over-leveraged investment firms caught with massive losses. And, in a companion piece of news, retailers large and medium-sized around the U.S. have begun closing down tens or hundreds of stores, or declaring bankruptcy. The huge U.S. auto industry continues to close factories and lay off workers. The cause: sinking demand and loans no longer available from newly cautious lenders (Martin, 2008).

Sidebar; The Financial Crisis of 2008

The 2008 financial crisis began in the U.S. quietly around 2000, when a

housing boom in the U.S. led lenders to create packages of mortgages known as Mortgage Backed Securities – MBS. Housing prices were increasing rapidly. Loans on houses, business buildings, and shopping malls were packaged together and rated by securities rating systems on their likelihood of repayment.

Federally backed but privately held loan giant Fannie Mae issued and guaranteed as much as \$580 billions annually of these MBS's. (Quarterly Report, 2008, Federal National Mortgage Association Fannie Mae, August 8. Available at: <http://biz.yahoo.com/e/080808/fnm10-q.html>) Freddie Mac issued a high volume of seven different kinds of MBSs with similar guarantees. as did Sallie Mae, the student loan corporation, with billions of dollars in loans.

But many of the packages contained Adjustable Rate Mortgages (ARMs) and mortgages held by buyers who had made no down payments, i.e., home buyers considered “sub-prime” because their income barely qualified or actually did not qualify them for loans as they lied about their incomes. Also some loans had balloon payments coming due after several years, and ARMs had higher interest rates triggered to rise if U.S. bond interest rates rose. So the pooled mortgages contained mixes of loans with varying and uncertain risks, and raters failed to assess the true risks that backed the value of the MBS. Pools of student loans also found their way into the same kind of securities, with ratings not reflecting their true risks

The Crisis Unfolds

The failure of loans in MBS began in late 2006, as housing prices leveled off and began in some places to drop. By March of 2008 Countrywide Financial, a huge lender, had gone under and was acquired by Bank of America. Next the major investment bank Bear Stearns failed with too many bad loans in its MBS packages, the U.S. Treasury supplied \$29 billion for its purchase by Morgan Stanley, another large investment bank for. The U.S. government saw Bear Stearns as too big to fail, as it would threaten confidence in the entire U.S. financial system, and the value of the dollar globally. For the next months major firms such as Citibank continued to announce losses of \$7 to \$13 billion as housing prices dropped, job layoffs rose, and loan defaults continued to rise. Then on September 11 the Treasury Department announced it would take over Fannie Mae and Freddie Mac because while the firms guaranteed the loans in the MBS, they no longer had enough funds to function. Too many loans were defaulting. On September 15 the fourth largest U.S. investment bank Lehman Brothers announced the largest bankruptcy in U.S. history, and defaulting loans left the huge insurer AIG and Washington Mutual Bank trembling on the edge of bankruptcy. In single day the U.S. stock market lost over 4.5% and markets around the world plunged as well.

Just where failing debt and lack of confidence in financial institutions will

leave the U.S. and global economies remained an open question, one whose answer may take years to establish.

Inflation, A Food Crisis, and Civil Unrest

Against a backdrop of a recession in the U.S., a combination of causes have set off inflation on global scale. These include: a population increasing by 76 million or more a year; more domestic demand in developing countries than can be readily met; and the relentless global rise in demand for everything from metal ores and cement, to water, to health care, to natural gas and oil, and to food. For example, “According to the World Bank, global food prices have increased by 83 percent in the last three years” (Martin, 2008).

Moreover, the food price index of the Food and Agriculture Organization of the United Nations, based on export prices for 60 internationally traded foodstuffs, climbed 37 percent last year. That was on top of a 14 percent increase in 2006, and the trend has accelerated. In some poor countries, desperation is taking hold. In June of 2008 protests have erupted in Pakistan over wheat shortages, and in Indonesia over soybean shortages. Egypt has banned rice exports to keep food at home, and China has put price controls on cooking oil, grain, meat, milk and eggs.

According to the F.A.O., food riots have erupted in recent months in Guinea, Mauritania, Mexico, Morocco, Senegal, Uzbekistan and Yemen” (Bradsher, 2008).

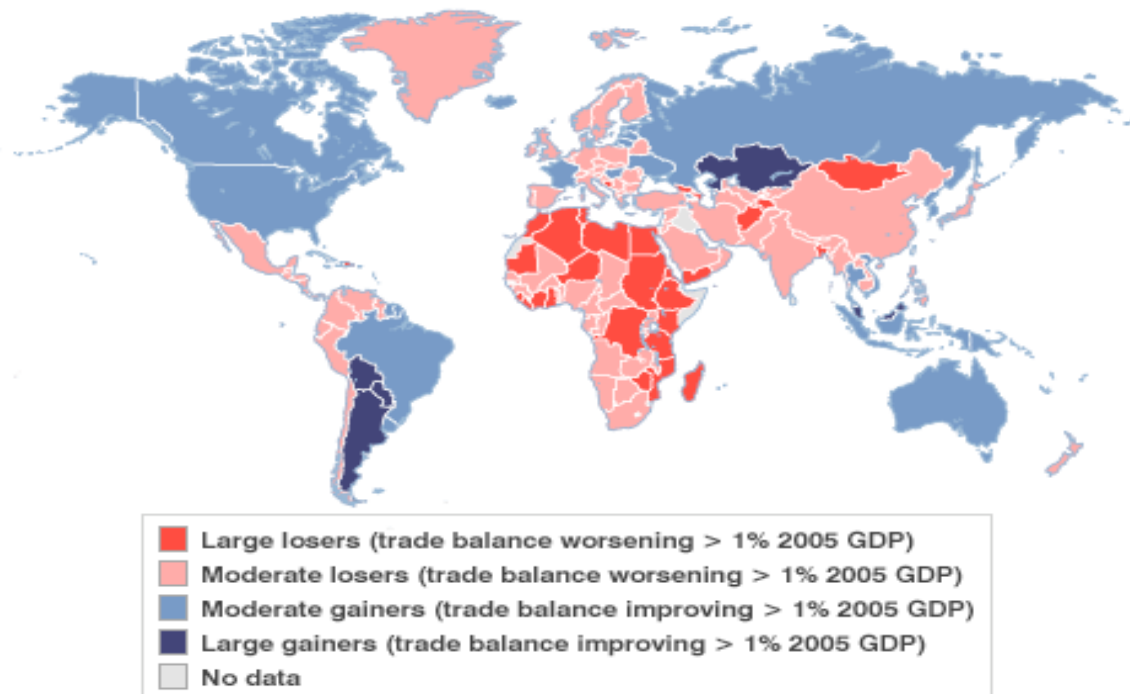
The market for food is now global, with the highest bidder receiving the products, often from a distant source, and the poor left *outside* of what economists label as *effective demand*, unable to buy because of poverty. Upwards of 2.5 billion people live in threat of having too little or no food, demonstrating a global failure to establish a fair distribution of wealth. Regional resource shortages such as droughts in northern China’s grain-growing areas, and in Australia’s wheat farming regions, plus overtaxed aquifers have reduced grain available in the face of rising demand. A wet spring and early summer in the U.S. threatens grain harvests. For seven of the last eight years, the world has now consumed more grain than it has grown, drawing down reserve stores to a record low of 55 days worth of supply (Brown, April 16, 2008). Grain shipments in effect are also water shipments, as it takes 1000 tons of water to grow one ton of grain, and 1500 to 2000 pounds of water to grow one pound of beef (Worldometer, 2008). Consequently, the World Food Program in spring 2008 urgently sought an additional \$500 million atop the \$3 billion it has been promised because prices have been moving food out of reach of the poor (Weisman, 2008). Diminishing economic stability obviously threatens social and political stability (Bradsher, 2008).

“Dominique Strauss-Kahn, the managing director of the International Monetary Fund, said the food crisis posed questions about the survivability of democracy and political regimes . . . World Bank and I.M.F. officials noted that political instability had already hit countries as disparate as Haiti, Egypt, the Philippines and Indonesia because of food shortages, forcing some countries to limit food exports” (Weisman, 2008).

Figure 5-1 reproduces the United Nations Food and Agriculture Hunger Map. The darker the color, the higher the percentage of the population that is hungry. As the world presently produces enough food to feed its 6.7 billion people, this huge imbalance in food distribution represents a massive failure of global markets to distribute to those most in need. It generates related pressures as well including subsidies for grain to be turned into fuels such as ethanol and bio-diesel that exacerbate food inflation by an estimated 25 percent; and, with oil involved at every stage of food production from planting and fertilizer to harvesting, processing, and distributing, peak oil and a dominant oil cartel, OPEC, contribute to global starvation. (These relationships between food and fuel are discussed more thoroughly in Chapters Ten and Eleven.)

Figure 5-1 World Food Distribution

2007 - 2008 IMPACT OF PROJECTED FOOD PRICE INCREASES ON TRADE BALANCES



SOURCE: USDA

Varying Views of Globalization

Amid these dramatic economic changes we offer two distinctly different stories of

global economics, the same phenomenon seen from different perspectives, each of which makes claims about the next uncertain steps we may expect from globalization.

The globalization as progress narrative describes global economics as a system of maturing free trade in an evolving, cohesive global market—the first time in history that producers and consumers around the world have had global markets for nearly everything. Opponents, or what in Chapter One we characterized as the globalization as disaster narrative, describe the same economic phenomena as a market failure on a scale more massive than any the world has ever seen. In this negative narrative, market-based global problems now threaten not just a serious worldwide economic downturn, but through advancing global warming, threaten the entire system of civilization as we know it. The sheer scale of the threats posed in the negative narrative and the urgency to act that it demands make it difficult for many to grasp what it presents. The problems threatening current global economic systems and nature provide a catalyst for developing an entire new global economic system, one that readjusts production and consumption to operate within the limits of nature.

The Pro-Globalization Economic Scenario

Globalization relies on a widespread belief in markets, which the pro-globalization narrative describes as flexible, self-adjusting, and highly effective, operating better with ever more information among buyers and sellers, and fewer regulations. Modern industrial economies can look back on roughly two hundred and fifty years of experience in refining how markets work. Through history markets have experienced long-term periods of strong growth, followed by cycles of serious economic decline. While there is no mechanism to deal with these market surges and declines on a global basis, nations have moved to avert the downturns with fiscal and monetary policies—tax cuts or raises, and changes in interest rates—both affecting demand. The pro-globalization viewpoint relates how markets in everything from autos and energy, to food and information services balance changes in supply and demand to serve producers and consumers.

In this story, both sellers and consumers have and use the critical ingredient in all markets—abundant information about products, services, quantities, quality, and prices to make well informed choices possible. Behind these individual choices by sellers and buyers sits the *invisible hand*, the ebbing and flowing aggregate of all the choices being made, supposedly achieving an equilibrium, which was cited by Adam Smith, the original free market proponent, as the power that makes markets self-adjusting systems. This pro-free trade, market-based story, then, suggests that in one form or another, markets can always adjust to the changes they experience.

Unfortunately this positive version of global markets tends to accept but ignore

some serious drawbacks: normal losses of enterprises going out of business; inequalities of wages, leaving large segments in poverty in some countries; whole industries collapsing in the face of innovation or resource depletion; sizable investments and savings being lost when markets suddenly shift; slavery and other forms of labor exploitation, thus continuing widespread poverty; stock markets suddenly plummeting; and inflation destroying the livelihoods of vast numbers of citizens—all of these and more being some of the normal, yet critically important risks that markets entail.

The neo-liberal, pro-globalization narrative tells us that the World Trade Organization (WTO), the Organization for Economic Cooperation and Development (a thirty nation organization of countries that accept the principles of representative democracy and free market economy), plus regional agreements such as the North American Free Trade Association (NAFTA) all ostensibly work toward free trade—countries removing trade barriers such as tariffs, quotas, licensing, and informal arrangements that exclude or limit foreign trade. These international organizations represent the willingness of competing nations to pursue the benefits of comparative advantage, each nation deciding what forms of specialization and production serve it to best advantage amid robust global trade.

This market-based narrative of global trade also has underlying assumptions about what should be measured, and it is these gross measurements that commonly appear as business news—Gross Domestic Product (GDP) being the total dollar value of goods and services produced by a country, plus figures for unemployment, export versus import trade balances, stock market index values, currency values, changes in consumer prices, and yardsticks for industrial production. For example, in 2006 the world total GDP, a measure of total worldwide market production, amounted to \$48.5 trillion, with \$13.4 trillion of that produced by the United States, and \$2.6 trillion produced by China (World Bank, 2008). Notably, the U.S. presently has a huge and growing trade imbalance, spending nearly \$707 billion more on consumer goods and services than it produces, much of that outflow going for overseas oil, and for goods and services from China and India.

The Anti-Globalization Economic Narrative

In contrast, the contrary view of markets and their standard measurements tells us a dramatically different story of global economics. Critics of globalization tell us that these standard measurements fail utterly to tell us all of the frightening costs of growth. Of this global economy that has grown so heavily dependent on U.S. deficit spending around the world, former Chairman of the U.S. Federal Reserve Board Paul Volcker said, using the past tense, “It was not sustainable.” By this he meant that the global market could not continue sustained growth based on deficit spending by the U.S. The spending represents U.S. borrowing that allows the country and its people to actually live beyond their means

(Volcker, 2008). U.S. household debt presently sits at 139 percent of discretionary income. There is a price to be paid for this eventually. Another observer, Lester Brown, presents a breathtaking, yet still darker view than Volcker:

Our early twenty-first century civilization is on a path that is destroying and disrupting the natural systems on which it depends. We are consuming renewable resources faster than they can regenerate. Forests are shrinking, grasslands are deteriorating, soils are eroding, water tables are falling, and fisheries are collapsing. . . We are discharging greenhouse gases into the atmosphere faster than nature can absorb them. As a result earth's temperature is rising, ice sheets are melting, and the sea is rising (Brown, 2008a).

The disaster narrative of globalization emphasizes that human economics relies on natural resources—oceans, rivers, air, soil, forests, and weather—to make commerce and growth possible. Economics and markets on any scale are actually extensions of the larger natural systems that make them possible, the Commons that Garrett Hardin referred to in *The Tragedy of the Commons*. Ironically, the measurements of growth traditionally have excluded externality costs. For example, if all the U.S. military and government expenditures to secure oil globally for the U.S. were counted, as well as all of the devastation to the environment and the health problems that these military pursuits of oil security entails, the cost of gasoline presently would have to add in \$12 per gallon more worth of externality costs to the current price of gasoline (Brown, 2008a).

Ironically, market measurements of growth also omit other hard realities, such as the death and destruction caused by wars, losses of human life in epidemics, deaths caused by industrial pollution—as China has finally begun exploring—and losses via global crime. All of these involve costly damage to human life, health, productive capacity, and nature. Some of these very real massive losses appear in economic statistics instead measured as *growth*. For example, war gives employment to soldiers who train, kill, and destroy, but we count soldiers' wages, the production of bombs and other war material, and profits to arms manufacturers as inputs to GDP, ignoring the damage and costs in human lives and property that wars create. Income to health care providers and pharmaceutical companies helping the sick and injured also counts as economic growth. But as we can see from the Union Carbide disaster in 1984 at Bhopal, India, where thousands died from the accidental release of an industrial toxin, we have a classic example of the real costs in lives and money that growth statistics ignore. The monetary fines subtracted from the Union Carbide accounting for this disaster were measured as a loss in production, but the associated legal costs caused by the disaster were included as growth in GDP. And so it goes with misleading measurements. These calculations mean that standard measures of growth keep those who read these measurements from seeing the much larger

and very real submerged and total costs that economic behaviors actually include.

According to the disaster narrative of global economics, the \$300 billion dollars or more of annual income to international crime also go largely unmeasured and unreported, and ironically the cost of police worldwide to pursue and suppress crime is measured as growth, not as a loss caused by people breaking the law. (We discuss global crime in Chapter Thirteen.)

From one viewpoint these one-sided measures supply businesses, investors, and consumers with the information that makes market exchanges possible. From the point of view of critics of globalization, however, because these measures omit the alarming burdens of industrial life on humanity and on nature, they lead consumers, producers, and policymakers to believe that these damages have no significant bearing on economies and life. In this view, *what isn't in the measurement does not truly matter*. Widespread human poverty, however, and disastrous declines in nature that have followed the rise of globalization show us the losses that should be subtracted from any measurement called growth.

Standard market measurements such as GDP lead those reading them to ignore such serious phenomena as the following.

- Intergovernmental Panel on Climate Change data showing a speed up in global warming, polar ice melting, and sea level rise that threaten hundreds of millions of residents in shoreline areas with disruption and displacement. The cause, emissions of greenhouse gases from industrial-based societies.
- The growing number of failed states propelled by population growth, crime and corruption, the mal-distribution of goods, collapsing environments, failures by governments to enforce laws, and globalization itself.
- Defense industry oligopolies profiting heavily from wars, with a handful of transnational corporations controlling the global production and prices of weapons systems.
- The massive number of annual deaths and illnesses caused by industrial pollutants that increase health care costs and loss of life.
- The abject poverty of some 2.5 billion humans, too poor to participate in most markets, their natural resources depleted, their labor often exploited, their misery ignored.
- Massive pollution of seas and shoreline waters, with reefs destroyed; pollution of urban air, rivers and other fresh water sources, and waste disposal sites. Oceans globally now have hundreds of identified dead zones (*Science News*, 2008).
- Vast areas of deforestation and desertification caused by market-based abuses of vital natural resources.
- Species extinctions, and fisheries depleted to the point where they cannot re-populate.

In short, each of these disasters represents a failure of markets to consider the full costs of their operations, and to introduce these costs into pricing and resource conservation. One needs to add to this list a 2008 global banking crisis, unprecedented weakness of the U.S. dollar, rising inflation, food shortages, and a recession spreading from the United States through global markets. These market failures will actually appear as diminishing some measurements of growth, but not for what they are, which is parts of a complex puzzle that carries threats not just to globalization, but to civilization itself.

Only in the last several years have observers begun to juxtapose the growing number of alarming negative phenomena against the standard measurements of how economies serve world populations. We now face Hardin's *Tragedy of the Commons*.

In what follows directly, imagine the world, its resources, its atmosphere, and its oceans as the *commons*. Imagine each business—small or large—seeking gain in the commons as a *herdsman*, bringing a flock of animals to graze. Here is how Garrett Hardin described what he called *The Tragedy* we face.

If a pasture is run as a commons open to all, the right of each to use it is not matched by an operational responsibility to take care of it. It is no use asking independent herdsmen in a commons to act responsibly, for they dare not. The considerate herdsman who refrains from overloading the commons suffers more than a selfish one who says his needs are greater. Christian-Marxian idealism is counterproductive. That it sounds nice is no excuse. With distribution systems, as with individual morality, good intentions are no substitute for good performance . . . If everyone would only restrain himself, all would be well; but it takes only one . . . to ruin a system of voluntary restraint. . . Further growth of population and growth in the per capita conversion of natural resources into pollutants require that the system of the commons be modified or abandoned in the disposal of 'externalities,' . . . drifting toward ultimate ruin" (Hardin, 1974).

Consequently a frightening larger picture of global economics emerges. In it civilization itself is now imperiled by the results of global markets ignoring their huge and very real external costs—global warming, sea level rise, and the feminization of nature through chlorinated hydrocarbons and pharmaceutical residues. To this we need to add the massive dislocations of people and commerce that are only just beginning as climate change and environmental destruction force people to relocate. As author Lester Brown puts it, "One thing we do know is that business as usual will not continue for much longer. Massive change is inevitable. Will the change come because we move quickly to restructure the economy or because we fail to act and civilization begins to unravel" (Brown, 2008a) Brown captures the essential dilemma facing globalization, reinforcing the anti-globalization narrative, yet positing the beginnings of the third narrative of global economics—how innovation and

effective changes can resurrect a new form of growth that encompasses all of its costs and supports the nature on which it relies. For a review of how such a transformed global economy might address its current problems effectively and create a new sustainable le globalization, see Chapter Six on *The Revolution: Toward A Sustainable Environment and Global Economy*.

For further investigation and information

International Herald Tribune Managing Globalization Blog

<http://blogs.iht.com/tribtalk/business/globalization/>.

Yale Center for The Study of Globalization

<http://www.ycsq.yale.edu/>

An interesting graphic can be accessed through a New York Times website that allows one to view as of mid-September the extraordinary depth of the financial crisis in the United States. When you access the graphic, run your cursor over the boxes.

<http://www.nytimes.com:interactive:2008:09:15:business:20080916-treemap-graphic.html%3Fth&emc=th>

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