

**Structural Contradictions of Current Capitalism:  
A Keynes-Marx-Schumpeter Analysis**

**James Crotty  
Economics Department  
University of Massachusetts, Amherst  
Revised Version: May 2001**

**This paper was written for presentation at the Conference on  
AGlobalization, Structural Change and Income Distribution@ to be held in  
Chennai, India starting on December 14, 2000. I am grateful to the Ford  
Foundation and the Political Economy Research Institute at the University  
of Massachusetts for generous support of my research.  
(Copyright James Crotty, 2001)**

## **Introduction: the Great Debate Over Global Neoliberalism**

A central lesson drawn from the experience of the decades between the World Wars was that the economic and political fate of the world could not safely be entrusted to unregulated, free market national and global economic systems. History warned that this was a path to economic instability, global depression and political chaos. In the aftermath of World War II, national economies, even those in which markets played a very powerful role, would be placed under the ultimate control of governments, while international economic relations would be consciously managed by the International Monetary Fund (IMF) and World Bank. Trade was expected to rise in importance, but it was thought at the time that the degree of global financial integration would remain modest, with cross border money flows under tight government control. The global prosperity that characterized the quarter century following the war -- the “Golden Age” of modern capitalism -- reinforced belief in the wisdom of social regulation of economic affairs.

The economic instability that erupted in the 1970s as the structures of the Golden Age unraveled has led us back to the future. The troubles of that decade created a powerful movement, led by business and, especially, financial interests, to roll back the economic regulatory power of the state, replacing conscious societal control with the “invisible hand” of unregulated markets -- just as in the period preceding the Great Depression.

The analytical foundation that supports the standard Neoliberal policy prescription of maximum deregulation, liberalization, privatization and global economic integration is Neoclassical (or Walrasian) general equilibrium theory. This is the only fully specified and widely sanctioned theoretical paradigm offered by economists to justify their support for Neoliberalism and the IMF and World Bank rely on Neoclassical general equilibrium models to support Neoliberal policies.<sup>1</sup>

In the standard Neoliberal view, absent government interference, both national economies and the integrated global economy are believed to operate efficiently, more or less like the models of a perfectly competitive market system found in neoclassical

micro economic textbooks. In an unregulated economy with maximum competitive intensity, relative price and profit signals create micro economic efficiency: resources flow to their most productive possible uses. Competitive pressures also keep factor markets at or near market clearing; in equilibrium, there is full employment and optimal capacity utilization. Since interest rates, set in efficient financial markets, assure that investment will equal saving at full capacity output, Say's Law is valid. Aggregate demand always equals full capacity aggregate supply. Given Say's Law, full employment is assured, and inflation control becomes the only legitimate macro policy objective. To contain inflation, Neoliberals support reliance on monetary rather than fiscal policy, and the independence of Central Banks from democratically elected officials.

When fully liberalized, global financial markets will allocate world savings efficiently. Therefore, Neoliberals argue, as global integrations proceeds, real interest rates should decline (once inflation is defeated), investment should rise, and the flow of funds from the capital rich North to the resource rich South should increase. The most productive investment projects will be funded, no matter where in the world they are located.

Since markets allocate resources efficiently, developing country governments are urged to end their reliance on industrial policy. Replacing state economic guidance with liberalized markets will thus improve output and productivity growth rates in the less developed world.

In sum, defenders of global Neoliberalism argued that it would raise real GDP, productivity, and investment growth rates well above their values in the troubled 1970s, equaling or perhaps exceeding Golden Age performance, while eventually lowering unemployment, inflation and real interest rates. Financial markets would become more stable. Economic performance in developing countries would improve as capital and technology flows their way, creating eventual convergence between North and South.

The next section critically evaluates key Neoliberal micro economic hypotheses. Keynesian and Marxian critics of macro economic aspects of Neoliberalism argue that Say's Law has no legitimate defense, even as a crude approximation to empirical reality. Therefore, as the world discovered to its dismay in the Great Depression and its delight

in the Golden Age, the state must use macro policy in pursuit of rapid growth and full employment or these objectives will not be consistently achieved. Ceding to monetary policy almost complete responsibility for demand management, while declaring price stability to be the sole legitimate macro policy objective, will retard long-term growth, raise the risk of financial instability, and perhaps even lead at some point to a new depression. Needless to say, a defense of the necessity of government aggregate demand management does not imply either that state economic institutions and policies are always adequate for this crucial task, or that all governments at all times have had the technical and organizational capacity -- or the political will -- to do the job effectively. Government regulation of aggregate demand is a necessary, *but not a sufficient*, condition for healthy, egalitarian growth.

In a world of non-clearing markets, key macro variables are determined through the complex interaction of private and public institutions and practices. I argue that in the Golden Age, a *virtuous circle* was formed connecting rapid aggregate demand growth under government Keynesian macro policy management, 'corespective' (or partly cooperative) relations among firms in important oligopolistic industries, and worker friendly or high-road enterprise-labor relations. In stark contrast, Neoliberal globalization has created a dynamic interaction among pro-business states (that consider low inflation the only worthwhile macro policy objective), fierce or cutthroat competition in all globally contested markets, and anti-worker, low road labor relations. This triad constitutes an economic *vicious circle* that makes it impossible to sustain rapid growth, full employment, high investment spending, rapid productivity growth, and distributional equity.

Critics of Neoliberalism concluded that extensive liberalization and global integration would lead to the following developments. Inflation obsessed independent Central Banks and instability in global financial markets would keep real interest rates high. With macro policies no longer focused on growth, real GDP and productivity would fail to rise at Golden Age rates. High unemployment, in concert with weaker unions and low road labor relations, would slow real wage growth and raise inequality. Financial markets would become unusually unstable. Developing countries that adopted

Neoliberal principles would experience slow long-term growth, greater instability, sharply rising inequality and increased foreign economic domination. These problems were not believed to be the inevitable result of greater global integration. Rather, they are caused by the uniquely destructive mode of integration associated with Neoliberalism.

In Crotty 2000, I reviewed empirical evidence relevant to an evaluation of global economic performance in the two-plus decades since the onset of the Neoliberal revolution. The evidence to date supports Neoliberalism's critics. The promised benefits of Neoliberalism have yet to materialize, at least for the majority of the world's people. Global income growth has slowed, as has the rate of growth of capital accumulation. Productivity growth has deteriorated, real wage growth has declined, inequality has risen in most countries, real interest rates are higher, financial crises erupt with increasing regularity, and average unemployment has risen. The less developed nations outside East Asia have fallen even further behind the advanced. In the aftermath of the Asian crisis and IMF-imposed neoliberal restructuring, growth in many Asian countries has slowed as well.

### **Schumpeterian Versus Neoliberal Micro Theory and the Globalization Debate: The Importance of Natural Oligopolies**

#### *Does Maximum Competition Really Lead to Maximum Efficiency?*

Many of the most important global markets, in goods and services, are significantly mis-characterized by the basic assumptions of neoclassical micro theory. Global trade and investment are dominated by key industries – such as autos, electronics, semiconductors, aircraft, consumer durables, shipbuilding, steel, petrochemicals, and banking, for example – which I will call *core industries*. They can be realistically characterized in the following way. First, they have large economies of scale, both in the production process (at the plant level), and with respect to the firm as a whole, in advertising and distribution efforts that build and maintain brand loyalty, in supplier networks, in access to finance, in research and development, and in the organization of the firm itself.

Second, because of scale economies, the capital investment required to enter these industries with best practice or minimum cost capability is very large. For example, General Electric, Ford Motor Company, and IBM have total assets of \$304 billion, \$275 billion, and \$82 billion respectively (United Nations, 1999, chapter 3, p. 2). Entrance at minimum efficient scale thus creates a non-trivial increase in industry capacity.

Third, the production process is not subject to the ‘law’ of diminishing returns. The standard neoclassical assumption of perfect substitution among inputs in the short-run production function, which underpins the law of diminishing returns, is not empirically accurate: short-run factor substitutability is in fact quite limited. Thus, marginal cost will either fall, remain constant (a standard heterodox assumption), or will rise but slowly as output increases, at least until capacity is reached. In the new information-technology and telecommunications industries, marginal cost is often at or near zero.

Fourth, the assets of the firm, both physical and organizational, are significantly immobile, irreversible, or specific. Once in place, they lose substantial value if re-allocated to a different industry or sold on a second hand market. For example, it was estimated in a recent study of the aerospace industry that “capital that flowed out of the sector sold for only one-third of its estimated replacement cost” (Ramey and Shapiro, 1998, abstract).

Fifth, rational agents cannot generate expectations of future economic states that are either objectively correct, or that they subjectively believe to be complete and correct. The future is unknowable in principle: we live in a world of fundamental or Keynesian uncertainty.<sup>2</sup>

Consider first the neoclassical assumption that firms are relatively free to enter and exit all industries. This is the *sine qua none* of the neoclassical thesis that maximum competition achieved through global liberalization will create static allocative efficiency in the global economy. Unrestricted exit assures the quick flow of capital out of industries with below average profit rates, freeing resources to move to above average profit rate industries. Free exit is thus a condition of existence of efficient asset

reallocation in response to changes in relative prices.

However, when productive assets are substantially irreversible, the neoclassical defense of allocative efficiency in unregulated markets is dramatically weakened because exit is not free, but entails a major capital loss for the firm. A firm that moves from an industry with below average profits to an industry with above average profits will have substantially less capital in the new industry than it had in the old. Even if the new industry has a significantly higher profit rate, it may well be more profitable for the firm to stay put.

*But if there is little freedom of exit, it follows logically that there cannot be substantial freedom of entry, even for newly produced capital.* Free entry eventually eliminates the profit rate differential that enticed it; that is what ensures efficiency. A neoclassical firm with perfectly mobile capital can enter an industry to take advantage of even a temporary profit rate differential, then exit without cost when it disappears, to enter some other temporarily profitable industry. However, when capital is irreversible, and economies of scale prevail, entrance entails substantial risk of major loss. Any firm considering entry would know that were the profit rate in the new industry to fall below average in the future, it would not be able to exit except at great capital loss. Entry into core industries is thus unlikely unless demand growth has been quite rapid and industry profit rates high for an extended period, the entrant has some revolutionary innovation, or incumbents have misused their market power and become extraordinarily inefficient. In normal times, therefore, core industry firms can sustain above-average, oligopoly profits. Since this argument about exit barriers applies both to existing and new capital, asset specificity drastically undermines the claim that unregulated markets have either static or dynamic allocative efficiency. To the extent that core industry firms appear to operate efficiently, and historical evidence suggests that their performance is at times exemplary, it must be the result of dynamic efficiencies that do not exist in neoclassical theory.<sup>3</sup>

Asset irreversibility undermines freedom of entry through a second, independent channel. A profit maximizing outside firm will only enter an industry if its post entry revenues are expected to cover the full cost of the capital and organizational assets

needed to survive in the industry. But a firm already in the industry knows that if it were to exit, it would lose a substantial part of the value of its physical and organizational assets. The opportunity cost of the continued use of existing assets is thus measured by the best alternative return on their use multiplied by their post exit value, which might be, say, one-third their within industry value. Thus, an incumbent firm will remain in the industry even if, in this example, price covers only one-third of its within industry capital costs.

Suppose incumbent firms want to deter entry. They can threaten potential entrants with a vicious price war upon entry. The fact that incumbents can survive for years even if price drops so low that revenues cover little more than variable cost, whereas a rational outsider would never enter unless price was expected to cover average total cost, makes their price-war threat credible. The greater the degree of asset specificity, then, the greater the power of incumbents to deter entry. As Oster puts it: “Heavy reliance on specific assets encourages firms to stay in an industry even when times are bad, simply because there is nothing else they can do with these assets” (1999, p.37).

In the neoclassical model of perfect competition, profit maximizing firms always raise output if price exceeds marginal cost. This increases industry supply, driving output price down. In equilibrium, therefore, price must equal marginal cost; in the absence of this property, competitive markets would not exhibit static efficiency. A necessary condition for the coherence of this model is its assumption of perfect factor substitutability in production. It is this assumption that makes the ratio of capital to labor fall as the number of workers increases, which in turn causes marginal cost to rise rapidly as output is increased. Since fixed costs are assumed to be relatively unimportant, *marginal cost will exceed average total cost everywhere but at very low output levels*. This property is reflected in the standard cubic total cost functions used in neoclassical textbooks, which generate quadratic marginal cost functions. The marginal cost pricing associated with perfect competition is thus consistent with equilibrium in the neoclassical model because in equilibrium the firm receives (just) enough revenue to cover both its variable cost and the cost of using its capital assets.

But since core industry firms have significant scale economies, and short run factor substitution is quite limited, fixed costs will be large, as will fixed costs per unit, and marginal cost will rise slowly, if at all, with output. A simple total cost function, such as  $C = k + xQ$ , where  $C$  is total cost,  $k$  is total fixed cost,  $x$  is marginal cost (assumed constant and very small relative to  $k$ ), and  $Q$  is output, incorporates these assumptions. Since marginal cost is  $x$ , and total cost per unit is  $(k/Q + x)$ , *marginal cost is everywhere below average total cost in core industries*. A recent article noted that “instead of decreasing returns to scale, which the textbooks argue keep companies from getting too big, the new economy is characterized by increasing returns to scale.” It cites digital telecommunication firms as examples, noting that they are driven “almost inevitably to massive scale.” They can “be difficult and costly to build; but once built, they can be expanded almost at will, since the [marginal] cost of replicating digits is minuscule.” (Wall Street Journal, 2000).

Therefore, if, in a core industry, competition were to keep price equal to marginal cost, as would be the case with maximum competition, firms could never earn enough money to recoup their investment in fixed capital. In equilibrium, the average firm would be losing money: *under perfect competition, neither the firm nor the industry could reproduce itself over time*. Thus, the assumptions that core industry fixed costs are large, that marginal costs rise slowly, if at all, and that most firms earn, on average, enough to reproduce themselves, are logically incompatible with the assumption of perfect competition. This logic brings us to a conclusion that is central to the globalization debate. *The assumption of perfect competition is crucial to a defense of global Neoliberalism based on neoclassical economic theory, yet core industries cannot possibly be organized for long periods of time through perfect competition.*

Assume that liberalization induces aggressive new firms to enter a profitable core industry, triggering an all out war over market share that threatens the survival of incumbents. Even if this war pushes price well below average total cost, most firms are unlikely to exit because of the large, assured capital loss exit will bring. Even if the war goes on for quite a while, firms may rationally refuse to exit. Every firm knows that at some future period, when enough firms have been forced to exit, the survivors will earn

oligopoly-enhanced profits once again. But, given fundamental uncertainty, no firm knows for sure that it will not be among the survivors. Facing the certainty of large losses if they exit, and a positive but uncertain chance of above average profits if they survive the struggle, most firms will remain in the fight, prolonging industry losses. In the case of core industries then, the maximum competitive intensity sought by Neoliberal reforms may lead not to efficient resource allocation, but to the dynamic inefficiency associated with long-term excess capacity, low profits or losses, and excessive indebtedness.

Core industries are what John Maurice Clark called “*natural oligopolies*”: their firms *must cooperate* sufficiently to maintain industry price far enough above marginal cost to cover total cost per unit for the average firm. Joseph Schumpeter designated such interfirm relations, that include both competitive and cooperative dimensions, “*corespective competition*.” Since core industries include many of the largest and most important industries in national economies and in world trade and investment, and serious ‘natural’ barriers to entry and exit are inherent in their basic structure, the central Neoliberal thesis that maximum liberalization, creating maximum competitive intensity, will lead to stable and efficient economic outcomes is fundamentally mistaken. For this reason, *there is no legitimate foundation for the presumption that liberalization will lead, through increased competitive intensity, to the efficient allocation of new or existing resources around the globe.*

#### *A Theory of Natural Oligopolies*

A useful theory of globalization requires a theory of the behavior of natural oligopolies. The idea that most important industries do not have the necessary attributes to be efficiently organized through perfect competition is not new; it can be found in the work of many modern theorists (such as, for example, Best 1990, Bowring 1986, Chandler 1990, Lazonick 1991, Oster 1999, Perelman 1999, Porter 1980, and Sylos-Labini 1962). But in the history of economic thought, the theory of natural oligopoly is most closely identified with the work of Joseph Schumpeter 1976 [1943] and John Maurice Clark 1961. In their view, the great bulk of economic activity takes place either in small enterprises whose environment is best described by the theory of monopolistic

competition, or industries where scale economies are so large relative to the size of the market that they must be organized as natural oligopolies to operate efficiently over the long run.

Fixed cost per unit will be dangerously high in core industries unless firms can operate near optimal rates of capacity utilization, where the excess of marginal cost over average total cost is smallest. The reproduction of the industry over time thus requires enough cooperation among incumbents to maintain price above average total cost and keep excess capacity from becoming too large. Fortunately, the economies of scale associated with these industries and the substantial immobility of their assets constitute entry barriers that limit the number of firms who can achieve minimum efficient scale. Thus, they simultaneously create the need for, and the conditions required for, cooperation among leading firms. The smaller the number of firms, the easier it is to establish coordination agreements and prevent defection from them.

“Corespective” rather than perfect or cutthroat competition is required in natural oligopolies for at least four reasons. First, price must be held significantly above marginal cost, especially in times of sluggish demand and high excess capacity, when the incentive for firms to cut price and increase production to reduce fixed cost per unit is at its highest. Consider that the industry price wars that took place in the last decades of the nineteenth century in the US, when rising economies of scale and rapid technical change were causing dramatic declines in total cost per unit at optimal operating rates, led to such widespread losses and bankruptcies that they ushered in a merger and consolidation wave, culminating in the rise of the Great Trusts of the era.

Second, high trend excess capacity must be avoided. The industry has to establish some method of investment coordination that can prevent supply from running too far ahead of demand. Excess capacity lowers the industry profit rate. The restriction of excess capacity to the amount needed to accommodate expected future demand and provide a cushion against uncertainty creates an environment conducive to cooperation because it guarantees that no competitor can significantly profit from severe price cutting. The very act of building disproportionate capacity is therefore likely to destroy interfirm cooperation because it will induce other firms to over-invest in self-defense, in

preparation for a price war.

Third, corespective competition may be a necessary, though not a sufficient, condition for the adoption and maintenance of partly cooperative or 'high road' labor relations. High road labor relations were adopted by most of the successful core industry firms in the post World War II era. To be able to initiate and react efficiently to innovations and to environmental change of all types, and to sustain a high degree of production efficiency, firms need a loyal, experienced and flexible labor force, one that has maximum firm specific skills. To attract and maintain such a workforce, firms may have to offer workers a subset of benefits such as job security, wages that rise with experience, decent treatment on the job, acceptance of unions, and a fair share of the company's productivity gains. It is especially likely to offer these benefits in economies where unions are strong, unemployment is low, and the government supports the labor movement. Destructive competition, on the other hand, eliminates firms' ability to maintain the high road because it perpetually undercuts their profits, forcing them, as a condition of short-term survival, to minimize cost at each point in time. Short term cost minimization requires wage cuts, replacement of high with low-wage workers, work speedup, renegeing on implicit contracts, and layoffs whenever demand fails to grow as fast as productivity.

Fourth, and most important, *corespective competition in natural oligopolies is necessary to achieve fast paced capital accumulation and rapid innovation*, the forces that create high long-term productivity growth. It is difficult to induce long-lived investment and innovation in the unprofitable and uncertain environment that destructive competition generates. Cooperation is conducive to investment and innovation because it raises the industry profit rate and prevents profits created through investment or innovation from being eroded by excessive competition. It also lowers the uncertainty associated with the expected return on investment (see Crotty, 1992). Note that in periods with fast paced capital accumulation, rapid innovation, and rising productivity, *sustained industry demand growth is a necessary condition for cooperative behavior* because without it, the industry cannot avoid rising excess capacity, which leads to price wars. In the real world, micro behavior is macro founded

– and vice-versa.

Natural oligopoly theorists such as Schumpeter and Clark insist along with Marx that the great accomplishments of capitalism result from the combined effects of capital accumulation (including the buildup of human capital) and innovation, which includes, but is not limited to, technical change. In the twentieth century at least, private capital accumulation has been concentrated in natural oligopolies, which have also been the site of the implementation, if not always the invention, of the most productive economic innovations. It is the dynamic efficiency largely associated with natural oligopolies that matters in the long run.

There are good reasons why so much capital investment and such a disproportionate share of innovation has taken place in natural oligopolies. Huge capital investments in long lived, immobile assets of the kind needed to compete in natural oligopolies put the owners of the firm at risk of great potential loss. And major innovations often require years of trial and error, large investments in R&D and in engineering talent, numerous false starts, and many mistakes in implementation, even after the right general path has been identified. Yet though the costs of innovation are often great, the possible sources of failure are almost too numerous to list.

Given such risk, why is any firm willing to enter industries with large economies of scale, and why should any firm seriously contemplate shouldering the large, certain costs of a major innovation when the benefits? What provides the necessary incentives and what keeps perceived risk down to manageable levels?

The theory of perfectly competitive markets is not helpful here, because it cannot deal with significant scale economies and denies the existence of fundamental uncertainty. Indeed, given its assumptions, it would be irrational for any neoclassical firm to ever undertake a costly search for a major innovation. If capital is perfectly mobile, entrance free, and all economic knowledge available free to everyone, there is no incentive to engage in costly innovation. The knowledge associated with any innovation is assumed to be immediately and freely available to all, so no competitive advantage accrues to the innovator. If the innovation reduces unit costs, perfect competition guarantees that price will quickly fall, eliminating the above average profits innovation

brings. Industrial organizational theory acknowledges this fundamental flaw in the theory of perfect competition, and deals with it by recognizing the need for patents, and tax incentives for R&D spending. However, many important innovations have not had patent protection, and many firms and industries have managed to maintain above average profits even after the patents that created them ran out. How is this to be explained?

The theory of corespective competition in natural oligopolies stresses the fact that large, risky investments will not be undertaken unless the organization of the industry offers both high rewards and insurance against excessive risk and uncertainty to the successful investor. Corespective behavior provides the key insurance policy; as long as it prevails, destructive competition will not trigger the excess capacity associated with an investment war, or lower price by enough to eliminate above average profits, or generate excessive uncertainty. Barriers to entry make it possible for such industries to maintain above average profit rates for decades. Industry competitors will of course try to copy or improve on the initial innovation, but once we acknowledge that information is asymmetric, often tacit, and costly and time consuming to acquire even where acquisition is possible, the profits created by an innovation are likely to accrue to its initiator for a long time.

Schumpeter also called attention to the fact that significant innovations often come in cumulative bursts, rather than in a single once-and-for-all change. One firm changes a product or process, another finds a way to improve on it, and so forth. It often takes experience and learning by doing to establish the innovation's final form. This phenomenon, which "profoundly affects" the efficiency with which firms respond to technical change, is "invariably overlooked." To be dynamically efficient and avoid the premature obsolescence of its capital stock, a core industry must allow firms either to extend the time between the introduction of new techniques, or to skip over some stages of a cumulative innovation process.

This is what might be called *ex ante* conservation of capital in expectation of further improvements. ... A new type of machine is in general but a link in a chain of improvements and may presently become obsolete. In a case like this it would obviously not be rational to follow the chain link by link regardless of the capital loss to be suffered each time. (Schumpeter, 1976 [1943], p.98)

Destructive or perfect competition makes firms “follow the chain link by link,” creating a coordination failure that is, as Schumpeter stresses, irrational for the industry. Each firm has to invest in every possible phase of the innovation process because if it skips a link that its competitors acquire, it will lose customers and endure rising excess capacity because its products are inferior to, or its variable costs higher than, those of other firms. Under destructive competition, a wave of innovative activity could leave in its wake a mass of obsolete, devalued capital. If these investments are large and entail substantial debt financing, the industry could develop severe financial fragility. In contrast, corespective behavior allows dominant firms to coordinate investment -- to manage the pace of implementation of innovation, permitting maximum industry gains from the process. One vintage of capital may be kept in place long enough to generate revenues that cover its cost before the next vintage of capital is adopted, or one stage of a multi-stage process of capital embodied technical change may be skipped altogether. Firms can wait for the next, superior vintage before investing. In this way, the destructive dimension of Schumpeter’s “gale of creative destruction” can be minimized without sacrificing its creative dimension.

For a core industry to remain viable and be dynamically efficient, its key firms must strike a balance between competition and cooperation. Too much competition can destroy the industry rather quickly, while too little will ensure its long-run decline. When corespective relations are stable, competition that puts industry growth and profitability in jeopardy tends to be avoided. This helps prevent excessive price competition and capacity expanding investment wars. However, the intensity of struggle across other dimensions of competition may be quite intense. Firms may fight within broad limits over market share through advertising, and by developing more effective marketing and distribution systems.

By far the most important forms of competition over the long run involve *new products, improved technology, and organizational change*. The kind of competition that is crucial for dynamic efficiency, Schumpeter insists, is not the kind of price competition focused on in neoclassical theory.

In capitalist reality as distinguished from its textbook picture, it is not [price] competition which counts but the competition from the new commodity, the new technology, the new source of supply, the new type of organization (the largest scale unit of control, for instance) – competition which commands a decisive cost or quality advantage and which strikes not at the margin of the profits and outputs of the existing firms but at their foundations and their very lives. This kind of competition is...the powerful lever that in the long run expands output and brings prices down... (Schumpeter, 1976 [1943], pp. 84-85)

His point about the main cause of long-term price decline is extremely important. Dominant firms in natural oligopolies cannot set price as high as they please. Though large barriers to entry give them a good deal of pricing leeway, in the long run they cannot let price or profit rates get so high that they entice outsiders to enter the industry. Over time, prices will fall as the result of declining unit cost, entry prevention pricing, and a desire to avoid the loss of customers to substitute products.<sup>4</sup> *There is a strong incentive to cut costs over time, because it is the low cost firms that have the strongest exit options should corespective behavior break down.* Indeed, if one firm develops a large enough cost advantage and has created substantial excess capacity, it is in position to initiate a war to reorder relations of domination in the industry. All firms, if only in self defense, must try to keep pace with the industry's low cost producer. In a properly functioning natural oligopoly, falling unit cost leads to falling prices over the long haul.

But there is no guarantee that natural oligopolies will always function efficiently. They are subject, one might say, to the law of uneven development. An initial distribution of relative power among firms, leading to a particular mode of domination and cooperation, is likely to change over time, possibly triggering an outbreak of war within the industry. Alternatively, if the barriers to entry are too high, cooperation may become too cozy and competition too weak, eventually creating a large gap between the best available technology and current industry practice, and between the potential and actual efficiency of incumbent firms. These gaps will lead to anti-social behavior and dynamic inefficiency. They are also likely to eventually induce a successful invasion of the industry by more technologically and/or more financially powerful domestic or foreign firms, though perhaps not for decades.

The policy lesson to be drawn from this discussion is that society cannot depend solely on markets to ensure that powerful groups of corporations will operate in a manner consistent with the interests of the majority of the population -- no matter what form of competitive relations prevails in core industries. The argument that “perfect” competition will destroy core industries does not imply that corespective competition assures socially efficient performance. It is imperative that the competitive environment be effectively regulated by government bodies that are both competent and politically insulated from the corporations they oversee.

The implications of this analysis of core industries for the debate on globalization are self-evident. The acceleration of liberalization across the globe in the past two decades strongly eroded the conditions necessary for the maintenance of corespective behavior in many of the world’s most important industries, as state imposed barriers to entry fell almost everywhere, financial capital began to move rapidly back and forth across national borders, technological change made it easier to shift real capital around the world and locate virtually any corporate function any where without significant loss of efficiency, and, most important, the long-term rate of growth of global aggregate demand declined. This raised the intensity of competition in most of the globe’s core industries.

Of course, there were benefits associated with these changes. Important new, technologically advanced industries emerged. Some inefficient firms were forced to improve or die; the creative destruction of intense competition is needed from time to time. Some firms from the developing world benefited from aspects of liberalization, if not from the destructive competition it brought, because they gained greater access to foreign financial capital, and created needed economies of scale by moving into newly opened Northern markets. Some developing nations, such as China, were able to access large amounts of foreign capital, largely on terms set by the government.

But for most developing nations, neoliberalism has been an unmitigated disaster, as discussed below. Financial liberalization caused banking, currency and financial crises to erupt with increasing frequency across the developing world, leading to IMF-induced recessions followed by accelerated, IMF-mandated liberalization policies.

Governments are losing their ability to guide development through credit allocation and industrial policy, and provide needed public goods and services. In the current period of destructive competition, it is becoming ever more difficult for firms from less developed nations to successfully enter high-tech, high value added global industries, an outcome that effectively blocks the development process. Finally, foreign firms and banks increasingly dominate key domestic Third World markets.

It must be remembered that natural oligopolies cannot reproduce themselves over long periods under excessive competitive intensity. At some point, the competitive wars raging across global industries will begin to create winners and losers, the forces of consolidation will overwhelm the forces of competition, and industries will begin to re-oligopolize. We have already seen this process emerge in many industries in the great merger and acquisition boom of the 1990s.

Karl Marx developed perhaps the most important single insight into the relation between competition and cooperation in the history of economic thought. He believed that neither pole of this relation ever gained permanent domination over the other; rather, their relation changed dialectically across time. In the following quotation, the term monopoly should be broadly interpreted as cooperative interfirm relations.

In practical life we find not only competition, monopoly and the antagonism between them, but also the synthesis of the two, which is not a formula, but a movement. Monopoly produces competition, competition produces monopoly. Monopolists are made from competition; competitors become monopolists. ... The synthesis is of such a character that monopoly can only maintain itself by continually entering into the struggle of competition. (Marx, 1963, p. 152, emphasis added)

At the present moment, the drive to re-oligopolize in core industries grows ever more intense even as the winds of destructive competitive continue to howl across the globe.

### **Structural Contradictions of Global Neoliberalism: From the Virtuous Circle of the Golden Age to the Vicious Circle of the Neoliberal Era**

Integrating insights from Keynesian and Marxian macro theory with Schumpeterian and Marxian perspectives on competition leads to the conclusion that long-term, widely shared prosperity cannot be achieved by unregulated markets. Rather,

it requires the creation of an effective, historically contingent, complex, interrelated set of government and private institutions and practices. In the Golden Age, governments could act effectively only because of the healthy condition of the private economy, and the private sector could grow rapidly only because of effective government economic policy. Global Neoliberalism has destroyed the conditions required for a productive, symbiotic relationship between state and market, and between micro and macro economic activity.

To achieve sustained economic good times, governments must regulate industrial and financial markets, see to it that aggregate demand grows fast enough to maintain high employment, keep excess capacity low, secure the conditions needed for corespective relations among core industry firms, and take whatever actions are required to counter the market's natural tendency toward inequality and instability. If the state performs these tasks adequately, markets may work reasonably well for a time: the macro foundations for efficient microeconomic performance will be in place. But market processes eventually undermine the initial conditions that enabled them to function successfully. Any set of government institutions and policies adequate to generate egalitarian growth in one period, will become to some degree obsolete and ineffective as conditions in the market economy evolve over time. The challenge to design institutions capable of exercising adequate social control over markets, though not necessarily the political power needed to do so, is thus presented anew to each generation.

Consider the conditions that generated the Golden Age. First and foremost, class power relations were such that a growth-with-equity policy regime was *politically* feasible. The 'social contracts' of the era committed most interest groups to at least passive support of progressive national economic policy objectives. Elites went along in part because strong capital controls and low levels of trade and investment flows after the war left them without an effective run-away option. In the absence of cross border mobility, industrial firms and rentiers could not credibly threaten to undercut government economic policies they did not like. Their fates were thus tied to the health of their national markets; to grow and remain profitable, industrial and financial capital

needed a prosperous domestic economy with high employment and rapidly rising mass consumption.

Given these conditions, and the general fear of the political consequences of a return to depression, governments around the developed world accepted responsibility for regulating aggregate demand growth. Under the political conditions of the time, Western governments, with varying degrees of enthusiasm, lent their support to unions, passed worker friendly collective bargaining laws, regulated business, tightly controlled financial markets, and built social welfare systems that gave workers reasonable exit options in their negotiations with employers and held poverty and inequality in check. These laws and regulations, in concert with strong union movements, sustained low unemployment and high road management-labor relations in many core industries, helped maintain a better power balance between capital and labor in both the political and economic spheres than had previously been the case. An important lesson from the Golden Age experience is that state guided growth functions most effectively when: (1) the interests of the majority of the population strongly influence the political process; and (2) the institution and policy structure is such that government has the power needed to effectively regulate business behavior.

Core industries played an influential role in Golden Age developments. Natural oligopolies across the North -- in autos, steel, rubber, aluminum, consumer durables, and so forth -- had a disproportionate share of physical capital, profit and investment spending, did most private sector research and development, and generated the highest productivity gains. Consistent with John Kenneth Galbraith's theory of counter-veiling power, they also were the industries with the largest and most militant unions; this facilitated a relatively equitable sharing of oligopoly 'rents' through productivity based real wage increases.<sup>5</sup> These industries were dominated by a small number of firms -- such as the "big three" in US autos and steel, which made interfirm cooperation feasible. An analogous situation prevailed in East Asia and in high growth Latin American countries, where large firms in key industries thrived in part because they were protected from the most destructive aspects of competition.

Thus, conditions necessary for corespective interfirm relations were present in

the Golden Age. Aggregate demand was rising rapidly, so firms could reasonably expect their industry to achieve sustained growth. This meant that capacity utilization could remain high even in the face of rapid investment and innovation, a necessary condition for cooperative interfirm relations. Corespective relations in turn kept average profit rates high and contained instability and uncertainty, providing the incentives needed to induce long-lived investment and innovation. In this environment of contained uncertainty and assured high profits, firms in core oligopolies could engage in long-term planning, generously fund R&D, offer lifetime employment to most workers (thereby making labor a quasi-fixed firm asset), and manage the introduction of new technologies to ensure that capital equipment did not become obsolete before its pay-back period was over. Long-term horizons also permitted the development of efficient supplier networks, and made the provision of 'patient' capital possible. Moreover, profits were high enough to finance most investment internally and, since real interest rates were low, indebtedness was held within safe bounds.

Most important, long term planning horizons made it possible for firms to choose the high road labor relations that made possible the productivity enhancing "implicit contracts" that industrial relations experts were so enamored with, at least until recently. High road relations are usually associated with the Japanese firms that dominated world trade in the 1980s, but they were also used by successful German firms and core US industrial firms in the Golden Age. Some aspects of high road relations are also found in successful, non-Japanese East Asian firms, though at times accompanied by brutal suppression of labor rights. Acceptance of high road labor policies did not prove that top corporate managers were progressive, union-loving people. It suggested only that given the conditions of the time, humane treatment of labor was either understood to be an effective means to achieve key firm goals, or that, at a minimum, serious labor conflict was seen as too costly to provoke. Of course, from time to time, aggressive managements tested the strength and resolve of unions.

However, though high road labor relations are efficient and productive in the long run, they cannot survive slow demand growth and the cutthroat competition, high excess capacity and low or negative profit rates it brings. Chances of short-term survival

are maximized by aggressive cost cutting of all kinds. Under duress, firms will fire workers, speed-up the labor process, cut wages and benefits, and attack unions. *High road labor relations require coresponsive competition, which in turn requires adequate demand growth.*

To close the virtuous circle, we observe that sustained growth is not possible even if governments are committed to it, without coresponsive competition and high road labor relations in the core of the economy. In the Golden Age, core firms were able to invest at an impressive rate and achieve a remarkable record of technological improvement. This produced the high productivity rates of the era, which raised potential aggregate supply. Fast paced investment spending plus real wage gains in line with productivity growth in the core, which kept upward pressure on wages in more competitive sectors, helped keep private sector aggregate demand growth in line with aggregate supply. Conditions in the private sector thus made it easier for governments to perform their required tasks. They could use Keynesian macro policy and the social welfare system to support growth, moderate instability and inequality, augment private sector demand where necessary, regulate business in the public interest, and maintain private sector confidence that the whole process could be sustained over time.

The general trend in the developing world was also toward state-led development, based on industrial policy (through which the state directs resources toward sectors of the economy seen as crucial to the development process), control of domestic credit flows, manipulation of interest rates, taxes and government spending in pursuit of high growth, and government regulation of trade and cross border flows of real and financial capital. This was obviously the case in Asia, where the spectacularly successful “East Asian Model” relied heavily on state economic intervention, but it was true as well of much of Latin America. Some of these governments were authoritarian, some were corrupt, and some did a poor job of economic management; state power to regulate economic affairs is clearly no guarantee of successful economic performance. However, on average, good growth rates were widely achieved. In the words of Harvard economist Dani Rodrick:

The postwar period up until 1973 was the golden age for economic growth. Scores of developing countries experienced rates of economic expansion that were

virtually unprecedented in the history of the world economy. (1999, p. 68)

The demise of the Golden Age is an oft-told tale -- though not everybody has the story right (see Bowles et al, 1990; Brenner, 1999; Crotty, 1999a). By the tempestuous 1970s, reflecting the law of uneven development, several decades of growth and change had reduced the effectiveness of the Golden Age matrix of public and private institutions and policies. This forced Northern elites and electorates to consider a change of economic regimes. They could have chosen either to reform the existing system of government managed growth so it could achieve its traditional objectives in the new environment, or, alternatively, they could have changed course, letting lightly regulated global markets determine the broad outlines of the economic future. The process through which this choice was made is examined in Crotty (2001). For current purposes it is sufficient to note that powerful economic elites, especially in the US, in pursuit of their own self interest rather than the public good, chose the market dominated option. Global Neoliberalism was the result. It has by now created a new and destructive dynamic inter-relation among public and private sector institutions and policies, turning the virtuous circle of prosperity into a vicious circle of slow growth, destructive competition and low road labor relations.

#### *Sources of Slow Growth in the Global Neoliberal Regime*

The slowdown in global aggregate demand growth since the 1970s is a crucial component of the complex set of forces that caused a general deterioration in economic performance in the Neoliberal era. This does not imply that strong global growth rates would be necessary for a healthy global economy under all possible institutional frameworks. There are economic reforms that would make the maintenance of full employment in the developed world possible at much lower rates of growth than are currently required for this purpose. And environmental problems are likely to force governments to redesign modes of growth in the intermediate future. My argument is rather that rapid demand growth is required for global prosperity *under existing institutions and policies*. Six constraints on global aggregate demand growth are identified.

First and most important, the slow growth of wages and mass consumption brought on by global Neoliberalism has stifled demand. One study of 19 developed countries (not including the US) found that after rising rapidly through the early 1970s, real compensation growth fell to 1.2% a year in 1979-89 and again to 0.7% in 1989-96 (Mischell, Bernstein and Schmitt, 1999: 362). Wages have been restrained by high average unemployment, the decline of unions, weaker government support for collective bargaining, and a worldwide slowdown in productivity growth. More intense international competition has destroyed coresponsive inter-firm relations in most industries, causing firms to cut wages and slash jobs. Fear of job loss has risen dramatically due to greater import competition, the increased mobility of physical capital, the 1990s merger and acquisition explosion (brought on in large part by the onset of destructive competition), and chronic job “churning” (associated with labor-saving technical change and new corporate strategies of downsizing and re-engineering). By weakening labor’s bargaining power, job insecurity has lowered both real wage and household income growth. Moreover, increased global openness – in particular, the entry of workers from China, India and the former Soviet Union into the global labour pool - and improvements in technology have made it easier for multinational corporations to substitute low-wage labor for higher-paid labor -- which may contribute to lower global wage inequality, but reduces global labor income nonetheless. Finally, growth in workers’ disposable income has been retarded by a shift in the tax burden from mobile capital to immobile labor, rising household debt burdens, and, recently, a shrinking social safety net.

Second, the evolution of the global financial system has depressed global growth. High real interest rates were imposed after 1980 by independent, conservative, and inflation-obsessed central banks. The natural predilection of independent Central Banks for high real interest rates was reinforced by the spread of financial deregulation in the 1980s and 1990s. Rentiers were increasingly able to use capital flight to punish countries that used low interest rates to pursue growth and employment. Moreover, the heightened instability of global financial markets has significantly increased the incidence of banking and currency crises, which induce serious recessions in the areas in

which they occur, and lead financial investors to demand larger risk premiums on loans.

Third, the growth of investment spending has slowed in the Neoliberal era due not only to high real interest rates, but to sluggish aggregate-demand growth as well. Slow demand growth retards investment, which in turn further slows demand growth in an ongoing multiplier-accelerator process. Investment has also been restrained by low profit rates in most industries most of the time, and by excess capacity and increased uncertainty. But beyond this, much investment in recent years has been labor-saving and labor-disempowering, undertaken in response to destructive competition and in support of a shift from high road to anti-worker labor policies. Thus, the increased aggregate demand it created has been counteracted to some degree by the job and wage losses associated with it. Finally, the conservative attack against government spending has led to a slowdown in public investment of all kind.

Fourth, fiscal policy has become increasingly restrictive. Large cuts in the social safety net and an abhorrence of fiscal deficits are part of the Neoliberal revolution. Government social spending in Europe and North America is still large. But there is no question that after rising significantly in response to slow growth and high unemployment rates in the 1980s, government spending as a share of income has peaked, and in many countries begun to decline, as conservative political forces become ever more powerful. The structural budget deficit for the advanced countries fell by 3.4% of GDP in the 1990s, creating a huge drag on aggregate demand growth (International Monetary Fund 2000).

Fifth, the expanding role of international institutions such as the IMF and World Bank has slowed global growth. As more developing countries experienced national insolvency over the past two decades, the Fund and the Bank have stepped in with ever-larger loans. But they have invariably mandated austerity macroeconomic policies plus Neoliberal restructuring in return for their money. The growth of Fund-Bank mandated austerity-plus-restructuring programs around the developing world has severely constrained global aggregate demand. It has been estimated that something like 40% of the world's population living in 55 countries is under IMF dictate.

Finally, widespread liberalization of domestic financial markets and cross border

capital flows has slowed developing country growth in two important ways. First, liberalization has created serious, recurrent speculative boom-bust financial cycles that have constrained average growth rates. Second, by weakening or eliminating capital controls and state regulation of credit allocation, financial liberalization has made it difficult to adopt and impossible to maintain the state guided development models that were in large part responsible for the high Third World growth rates experienced in the Golden Age and the decades-long East Asian “miracle.” The most effective of these models relied on capital controls to help stabilize financial markets and limit speculation, facilitate government control of interest rates, reinforce state control over the allocation of credit flows (an important tool of industrial policy), and prevent the disruption of sustained economic expansion by capital flight.

Financial liberalization has dramatically increased turbulence in global financial markets. “Financial crises seem now to happen with almost monotonous regularity,” The Economist recently observed (1999b). Moreover, every serious developing country financial crisis of the past two decades was preceded by financial liberalization. A recent United Nations report states that “financial deregulation and capital account liberalization appear to be the best predictors of crisis in developing countries.” (United Nations, 1998).

Liberalization of domestic financial markets and cross border capital flows was a key cause of the recent Asian crisis.<sup>6</sup> According to Joseph Stiglitz, the World Bank’s chief economist, “it is unlikely that the [Asian] crisis could have occurred without the *liberalization of capital accounts*” (Stiglitz, 1998). Problems began with the acceleration of financial liberalization in the 1990s. Foreign investors were anxious to take advantage of the opportunity to profit from the “miracle” economies of Asia that such liberalization offered. When Asian markets opened to them, they poured money in. In 1996 alone, there was a net inflow of \$93 billion in private foreign capital into the five countries most affected by the crisis. Most of the capital was short term, and most of the short-term capital was bank loans, not portfolio investment. Korea alone doubled its foreign debt from \$60 billion in 1994 to \$120 billion in 1996; two thirds of this debt was short term. Much of the foreign money was used, either directly or via intermediation through

local financial institutions, to help fuel speculative investment booms.

The huge capital inflows to East Asia in 1996 were followed by a net capital outflow of \$12 billion in 1997. This one-year turn around of \$105 billion was about 11% of the pre-crisis GDP of the five affected countries. No financial system in the world, no matter how modern or well regulated, could have withstood such drastic capital flow volatility without experiencing economic trauma. By contributing to the outbreak of severe financial crisis, the irresponsible deregulation of domestic financial markets and the weakening of controls over international capital flows across Asia helped bring the fastest growth area on earth to its knees. The shift from high growth to stagnation in Asia lowered global growth to about two percent a year in 1998 and 1999.

The greatest threat to developing country growth prospects in the longer run in the current era may come not from the effects of recurrent short term financial instability per se, but rather from the pervasive pressure in this period to eliminate state led development models. It is hard to think of a single example of high growth sustained over a long period in a developing country, in either the prewar or post war era, in which the government did not consistently violate key tenets of Neoliberalism and deliberately interfere in important ways with market processes. Until the crisis, Asia was living proof that TINA – “there is no alternative” to neoliberalism -- was an ideological slogan rather than a scientific law. If the current IMF-driven liberalization of Asia results in the replacement of East Asian development models with Neoliberal structures, it will likely signal the end of above average growth rates in the area, and thus perhaps a permanent decline in global growth rates.

*Closing the Vicious Circle: Slow Growth Triggers Destructive Competition,  
Which Further Lowers Growth*

According to the business press, chronic excess capacity in many global industries is a fact of life in the Neoliberal era. Business Week (1999) noted that: “supply outpaces demand everywhere, sending prices lower, eroding corporate profits and increasing layoffs.” The Economist (1999a) worries about “a malign deflation caused by excess capacity and weak demand,” speculating that the gap between sales and capacity

is “at its widest since the 1930s.”

This widespread growth in global excess capacity raises a puzzling question. Why hasn't global supply adapted to the reduced pace of global demand growth in the past two decades, creating sluggish but balanced growth? A theory of natural oligopoly suggests an interesting answer. *By reducing the trend growth rate of aggregate demand, Neoliberal policies created an initial problem of excess supply in most core industries. This destroyed the conditions necessary for corespective competition. An outbreak of destructive competitive processes then caused over-investment in many global manufacturing and service industries, which, as explained below, continuously reproduced excess capacity.*

Neoliberalism destroyed the conditions necessary for corespective behavior. As a result, we have witnessed an outbreak of what I call “coercive competition” in manufacturing and elsewhere, based on cut-throat pricing, the destruction of secure oligopoly rents, over-investment relative to demand, (leading to chronic excess capacity), and faced-paced technical innovation that often renders recently constructed capital goods prematurely obsolete, and the debt that financed them unpayable (see Crotty, 1993). Note that this over investment is limited to globally contested core industries. Since there has been a pronounced decline in the rate of increase of all other forms of fixed capital investment, including government investment, and since even in core industries investment undertaken solely to expand capacity has dried up, there is no logical inconsistency between the fact that the growth rate of global fixed capital formation has declined, and the argument that coerced investment had increased.

With their survival threatened by fierce competition, much of it international in character, large firms in the industrialized North were forced to adopt shorter planning horizons. Semi-cooperative management-labor relations were now considered unviable. Firms believed they had to slash labor costs through downsizing and wage cuts to survive beyond the short-run. Conflict-driven labor relations policies became the order of the day (see Howell, Duncan and Harrison, 1998). Coercive competition quickly altered the strategies of US and British firms, which had the weakest institutional, legal, and cultural commitment to the high road. But coercive competition is inexorably

deconstructing the traditional practices of European and even East Asian firms as well. Ironically, the new Anglo-American firm is at its strongest under conditions of instability and adversity, and relatively weakest in stable, prosperous eras, because its emphasis on flexibility shifts the costs of adversity and instability from the firm and its shareholders to workers and governments.

But how does coercive competition lead to chronic excess capacity in globally contested core markets?<sup>7</sup> Under co-competitive competition and adequate demand growth, core industries are highly profitable. Therefore, large multinational corporations from mature industrialized economies want to continue to dominate them. However, as the post-war period evolved, firms from developing countries that desired to move up the technology/productivity/value-added ladder, such as Japan, Korea and Taiwan entered many of these industries. Each new wave of entrants, like the countries of South East Asia in recent decades, added to the potential for market overcrowding, making inter-firm cooperative relations increasingly difficult to maintain. Had global aggregate demand growth remained strong, the newcomers would have been easier to accommodate. In the Golden Age, fast growth and limited international competition allowed Northern oligopolies to maintain some degree of co-competitive relations even as Japan and, later, Korea and Taiwan began their slow ascent up the export pecking order. But, as we have seen, Neoliberalism severely constrained global demand growth. With sluggish demand, established players must quickly exit from the industry as new firms enter to avoid chronic excess supply, falling prices and low average profits. This obviously did not happen.

Why do new entrants keep coming and why don't established firms withdraw from these markets as profits deteriorate? *Emerging countries have to pass through most of the rungs on the technology ladder if they are to achieve economic development*; they cannot go directly from labor-intensive textile exports to auto and semiconductor exports. They *must* either invest in core industries or give up any hope of becoming developed nations. But established firms have reason not to exit; they have huge sunk physical, human and organizational costs that will largely be destroyed if they are forced to pull out of the industry. If it were known in advance which firms would

ultimately lose the struggle for survival, the losers would exit early to cut their losses. And those who are demonstrably weaker than their opponents often do leave, or are taken over by financially stronger firms. Given the importance of many of these markets and the huge sunk costs required to enter and thrive in them, most competitors try to ‘stay in the game’ even as competition mounts, hoping to survive the current struggle so they can reap the secure, above average profits expected to emerge when the eventual winners are in a position to *re-oligopolize* the industry.

The key to understanding the continued reproduction of excess capacity in core global industries is this: *firms that decide to stay in the game must continue to invest in the face of these seemingly disastrous industry conditions* -- and largely because of, not in spite of, these problems. In an article that focused on the complex role of competition in Marxian investment theory, I labeled this phenomenon “*coerced investment*.” (Crotty, 1993). Price-profit pressures *force* firms that have decided to ‘stay in the game’ to invest to raise product quality and lower costs of all kinds, including labor costs, administrative costs, the cost of sales and distribution, intra-firm communication and control costs, transportation costs, and the cost of supplies.

Firms must invest to take advantage of the ever-larger returns to scale made possible by rapid technical change. Investment is also needed to shed labor through downsizing and re-engineering, and to increase direct monitoring and control of labor, because the implicit contracts and worker loyalty that previously elicited energetic labor effort have been destroyed. Firms must invest to acquire best practice technology for both cost reduction and quality reasons; in core markets such as autos, semiconductors and airplanes, the acquisition of best-practice technology often requires huge capital investments of ever increasing size. Finally, they must invest to get inside the borders and on the ground floor of expected high growth developing markets, a designation that now rapidly shifts back and forth across geographical boundaries. Of course, plant closings take place along side coerced investment, but their impact is too weak to eliminate industry excess capacity. With profits and cash flow at low levels, a high percentage of this investment will be debt financed. Significant investment in the face of excess supply, low profits, and financial fragility is required of any firm that hopes to

emerge as a winner when the destructively competitive phase of the game is over.

Many of these coerced investments appear at first glance to be irrational and, for this reason, they cannot exist in Neoclassical theory. From the perspective of the economy or society as a whole, many *are* irrational. But Neoliberalism has created massive coordination failures that make it individually rational for firms to behave in ways that are collectively destructive. The point that must be stressed is that *sluggish aggregate demand growth and chronic excess aggregate supply reinforce one another as part of Neoliberalism's vicious circle*. The more competitive pressures develop, the more they force firms to cut wages, smash unions, substitute low for high wage labor, and pressure governments to cut social and infrastructural spending so that taxes on corporations and the rich can be slashed without creating budget deficits. But these actions constrain global aggregate demand ever more tightly, creating yet stronger competitive intensity, and so on. In Crotty 2000 I argue that this destructive cycle operates in global financial as well as industrial markets.

#### *In Prospect: Re-Oligopolization On a Global Scale*

The most powerful firms in the most fiercely contested global core industries have not been content to let this process follow its destructive course to the bitter end. Excessive competition that continues long enough will eventually begin to identify winners, who, when they are few enough in number, will seek to restore the cooperative relations necessary to raise the industry profit rate. In Marx's words, "competition produces monopoly." *Since the mid 1990s, core global industries have experienced an ongoing merger and alliance wave of historic proportions*. Since 1994, M&A activity has skyrocketed; in 1999 global merger deals were worth \$3.4 trillion (with \$1.7 trillion in the US), about six times their 1994 value. There was \$850 billion of cross border mergers in 1999, ten times the 1991 amount (Business Week, 2000a; Financial Times, 2000).

The rapid pace of investment is dividing the competitors into those who are in decline and those who remain relatively strong. Though technological superiority influences this sorting process, *it is mainly those with deep pockets, not efficiency in design and production, who are winning this life and death struggle*. The global auto

industry provides one of the most vivid examples of this consolidation process; it involves mergers, as well as alliances of every form imaginable. Consistent with the “deep pockets” thesis, it is cash rich GM, Ford, and Daimler-Chrysler who are winning the global auto wars even though GM, Ford and Chrysler do not make the world’s best cars. It was reported recently that GM has \$11 billion in cash holdings, while Ford has \$21 billion in cash (Business Week, 2000b). GM and Ford have been roaming the world in search of desperate, debt-ridden but technically efficient auto firms to buy on the cheap. They have done well in this pursuit.

We are thus at a disorderly, intermediate stage in the consolidation process. Coerced investment continues to reproduce excess capacity, and competition continues to severely constrain prices and profit margins. Yet core industries are, at the same time, building cooperative relations across numerous firms and many aspects of business. The financially strong are eating the weak, and the consolidation process has gathered enormous momentum. At some point, if consolidation continues, more universal co-respective arrangements may be put in place. The winners will try to eliminate global excess capacity (by shutting down the losers’ factories), and will be back in position to regulate investment, control price, and restore good profit margins. But success may continue to evade the consolidators unless the pace of global demand picks up, which it shows no sign of doing.

## **Conclusions**

The logic of this essay implies that to attain global prosperity, governments must play important roles at both micro and macro levels of economic activity. But in the current environment, capitalist class forces dominate the political process, and their worldview, Neoliberalism, determines which economic ideas are ‘respectable’ and sets the parameters within which political economic discourse takes place. *Progressive economic change will therefore not be possible unless and until the political and ideological balance of power shifts significantly.* Progressive, labor oriented political movements are needed to reduce the influence of large corporations and wealthy individuals on the setting of political priorities, increase the political influence of

workers and the majority of citizens, and thoroughly democratize the political process -- in substance as well in form.

Turning to policy specifics, governments must reassert their responsibility to regulate aggregate demand, and shift their policy priorities so that full employment growth once again is the dominant goal. *Growth is needed not just for its direct benefits, but to create important preconditions for dynamic efficiency in core industries.*

Reasonable growth is also necessary to make high road labor relations and a more progressive income division between capital and labor possible, but growth alone cannot assure this outcome. Labor needs an institutional foundation powerful enough to make large corporations understand that it is better to have workers as allies than as enemies. Empowering labor in pursuit of the high road requires not only a strong union movement, but also sustained full employment, a labor oriented government with effective collective bargaining laws, and a social safety net that gives workers an attractive exit option in their negotiations with business. None of these requirements can be met without appropriate government action. Such policies require the implementation of effective national and/or international regulation of cross-border capital flows, so that neither industrial nor financial capital can undermine them by threatening to run away. These conditions were present, at least in modest form, in many of the countries that participated in the prosperity of the Golden Age. National governments still have the power to accomplish these tasks; what they lack is the will to do so.

Assuming we avoid a global financial collapse and/or depression, many core industries are likely to re-oligopolize and restore cooperative relations. This raises an important question: *who will make sure that the necessary balance between cooperation and competition is maintained, and that global oligopolies do not abuse their great market power?* In the Golden Age, dominant firms in core industries had deep roots in one country and were at least potentially subject to that country's political will. In the current era, however, decision making power in consolidating core industries is likely to be distributed across truly transnational giant firms or multi-firm super groups. Yet transnational government agencies capable of ensuring that these new

oligopolies act in the public interest – the EU’s for example - are not democratically constituted and are open to capture by corporate interests.

In many global industries, barriers to entry are becoming virtually insurmountable. For example, no new firm could possibly compete with the big six auto super groups. What is to prevent these super groups from acting cooperatively to push workers and governments across the globe into a desperate competition for the good jobs, advanced technology, and high productivity that only they possess. It is difficult enough for governments to create and effectively implement a structure of incentives and punishments to guide industrial development when the firms involved are clearly subject to their political jurisdiction. *The creation of effective forms of social regulation of the emerging global corporate super groups, whether at the national or transnational level, is one of the great policy challenges of our times.*

Successful development by poor and middle-income countries cannot take place under the Neoliberal rules of the game. *No country has ever developed successfully in the post World War II era without extensive state interference in market processes. Developing country governments must rely on industrial policy, and therefore on capital controls and tightly regulated financial markets, to have a chance at equitable growth.* A collective effort to restore the right to utilize these policy tools is most likely to be successful, but as Malaysia recently demonstrated, even a small, isolated country can impose a regime of capital controls effectively on its own if necessary. The restoration of capital controls in both advanced and developing countries will also reduce exchange rate instability and make global financial crises, and the deep recessions that follow in their wake, much less likely.

The arguments in favor of fully liberalized domestic and global financial markets are so weak they border on the absurd. Advanced country governments should tighten their regulation of domestic financial markets dramatically. The liberalization of even short-term capital flows in East Asia, where many countries have savings rates in excess of 30 percent of national income, was inexcusable. It helped create the conditions that

made the Asian financial crisis possible. Liberalization of short-term capital flows benefits Northern financial institutions and the world's wealthy elites and injures everyone else. Former World Bank Vice President Joseph Stiglitz recently asked a question that almost no one in authority has had the courage to answer publicly, though everyone knows the correct answer.

Did America and the IMF push [financial liberalization] policies because we, or they, believed these policies would help East Asia or because we believed they would benefit financial interests in the United States and the advanced industrial world? And, if we believed our policies would help East Asia, where was the evidence? ... There was none. (Stiglitz 2000)

The international institutions that currently manage global integration -- the IMF, the World Bank, and the WTO -- are saturated with Neoliberal ideology and dedicated to the pursuit of the interests of global finance and multinational corporations. They must be replaced with new institutions that support egalitarian growth and encourage state-guided development models. They also must guarantee the right of nations to control capital flows. And, mimicking the medical maxim that the first obligation of a doctor is to do no harm, they must stop imposing austerity macroeconomic policy on countries that need their help in times of crisis.

In sum, the evaluation of the current global economic trajectory presented here is quite pessimistic. If the world continues down the path of Neoliberalism, economic prospects for the majority of people, in both developed and developing nations, are dismal. More of the same disappointing performance that we have experienced in recent decades may be the most likely scenario, but it is also quite possible that serious political and economic instability will erupt -- just as it did in 1930s, in the last market dominated era. There is thus an urgent need to reverse course. It is essential that the Neoliberalism be replaced by domestic and international public and private institutions and policies dedicated to the pursuit of the security and prosperity of the majority of the population, rather than the maximization of the wealth and power of national economic elites.

## REFERENCES

- Best, Michael. The New Competition: Institutions of Industrial Restructuring (Cambridge: Harvard University Press, 1990).
- Bowles, Samuel, Gordon, David, and Tom Weisskopf. After the Wasteland (Armonk, New York: M.E. Sharpe, 1990).
- Bowring, Joseph. Competition in a Dual Economy (Princeton: Princeton University Press, 1986).
- Brenner, Robert. Turbulence in the World Economy (London: Verso Press, 1999).
- Business Week (1999) January 25
- Business Week (2000a) March 6, p. 32
- Business Week (2000b) November 20, p.160
- Clark, John M. Competition as a Dynamic Process (Washington, D.C.: The Brookings Institution, 1961).
- Chandler, Alfred. Scale and Scope: The Dynamics of Industrial Capitalism (Cambridge: Harvard University Press, 1990).
- Crotty, James, "Neoclassical and Keynesian Approaches to the Theory of Investment," Journal of Post Keynesian Economics, 14 (4), Summer 1992, pp. 483-96.
- Crotty, James, "Are Keynesian Uncertainty and Macrotheory Incompatible? Conventional Decision Making, Institutional Structures and Conditional Stability in Keynesian Macromodels." In Gary DymSKI and Robert Pollin, eds., New Perspectives in Monetary Macroeconomics: Explorations in the Tradition of Hyman Minsky (Ann Arbor: University of Michigan Press, 1994, pp. 105-142).
- Crotty, James, "Rethinking Marxian Investment Theory: Keynes-Minsky Instability, Competitive Regime Shifts, and Coerced Investment," Review of Radical Political Economics, 25 (1), March 1993, pp. 1-25.
- Crotty, James, "Are Keynesian Uncertainty and Macrotheory Incompatible? Conventional Decision Making, Institutional Structures and Conditional Stability in Keynesian Macromodels." In Gary DymSKI and Robert Pollin, eds., New

- Perspectives in Monetary Macroeconomics: Explorations in the Tradition of Hyman Minsky (Ann Arbor: University of Michigan Press, 1994, pp. 105-142).
- Crotty, James and Gerald Epstein, "In Defense of Capital Controls." In Leo Panitch, ed., Socialist Register 1996: Are There Alternatives? (London: Merlin Press, 1996, pp. 118-49).
- Crotty James and Gary Dymksi, "Can the Global Neoliberal Regime Survive Victory in Asia?: The Political Economy of the Asian Crisis," International Papers in Political Economy, 5 (2), 1998. (Paper available at Political Economy Research Institute website: <http://www.umass.edu/peri/research.html>.)
- Crotty, James, "Review of Robert Brenner's 'Turbulence in the World Economy'," Challenge, 42 (3), May-June 1999, pp. 108-118.
- Crotty, James , "Slow Growth, Destructive Competition and Low Road Labor Relations: A Keynes-Marx-Schumpeter Analysis of Neoliberal Globalization," Journal of Economic Development (Korea), 6 (2), December 2000, 1-73. (Paper available at Political Economy Research Institute website: <http://www.umass.edu/peri/research.html>.)
- Crotty, James, "Trading State-Led Prosperity for Market-Led Stagnation: From the Golden Age to Global Neoliberalism." In Gary Dymksi and Dorene Isenberg, eds., Housing Finance Futures: Housing Policies, Gender Inequality, and Financial Globalization on the Pacific Rim (Armonk, New York: M.E. Sharpe, 2001, forthcoming). (Paper available at Political Economy Research Institute website: <http://www.umass.edu/peri/research.html>.)
- Eatwell, John. International Financial Liberalization: The Impact on World Development (New York: United Nations Development Program, 1997).
- The Economist (1999a) February 20, p.15.
- The Economist (1999b) June 12, p.65.
- Financial Times (2000) January 1, p.9.
- Howell, David, Duncan, Margaret, and Bennett Harrison, "Low Wages in the US and High Unemployment in Europe: A Critical Assessment of the Conventional Wisdom," New School for Social Research, Center for Policy Analysis Working

- Paper Series, August 1998.
- International Monetary Fund, World Economic Outlook, (Washington: International Monetary Fund, April 2000, p. 132).
- Lazonick, William. Business Organization and the Myth of the Market (Cambridge: Cambridge University Press, 1991).
- Marx, Karl. The Poverty of Philosophy (New York: International Publishers, 1963).
- Mishel, Lawrence, Jared Bernstein and John Schmitt, The State of Working America 1998-99 (Ithaca, New York: Cornell University, 1999)
- Oster, Sharon. Modern Competitive Analysis (New York: Oxford University Press, 1999).
- Perelman, Michael. The Natural Instability of Markets (New York: St. Martin's Press, 1999).
- Porter, Michael. Competitive Strategy (New York: The Free Press, 1980).
- Ramey, Valerie and Matthew Shapiro, "Displaced Capital," National Bureau of Economic Research, Working Paper 6755, October 1998.
- Rodrik, Dani. The New Global Economy and Developing Countries: Making Openness Work. (Washington, D.C.: Johns Hopkins University Press, 1999).
- Schumpeter, Joseph. Capitalism, Socialism and Democracy (London: George Allen & Unwin Ltd., 1976 [1943]).
- Stiglitz, Joseph, "Sound Finance and Sustainable Development in Asia," Address to the Asia Development Forum, March 12, 1998.  
<http://www.worldbank.org/html/extdr/extme/jssp031298/htm>.
- Stiglitz, Joseph, "What I learned at the Asian Crisis," The New Republic, April 17, 2000.
- Sylos-Labini, Paolo. Oligopoly and Technical Progress (Cambridge: Harvard University Press, 1961).
- United Nations, Trade and Development Report (New York: United Nations, 1998).
- United Nations, World Investment Report: 1999 (Geneva: United Nations, 1999).
- Wall Street Journal (2000) January 17, p.A1.

## ENDNOTES

---

<sup>1</sup> There is a second set of Schumpeterian arguments that have been used to defend Neoliberalism. It is argued that such “New Economy” industries as software and telecommunications have large economies of scale and zero marginal cost. Therefore, they must be allowed to function as temporary monopolies because marginal cost pricing would destroy them. Liberalization is supported to make the output market as large as possible so that these temporary monopolies can take fullest advantage of alleged limitless scale economies. See Crotty, 2000 for a critical evaluation of this position.

<sup>2</sup> A careful analysis of decision making under Keynesian or fundamental uncertainty is presented in Crotty 1994.

<sup>3</sup> Entry would be constrained by the potential for capital loss even if the firm knew the precise expected value of entry. Under neoclassical assumptions, the risk parameters associated with investment are known with certainty, and could, in principle, be insured against, although the cost of insurance would itself be a significant barrier to entry. However, if the joint assumption of imperfect asset mobility and fundamental uncertainty is adopted, reallocating capital from one industry to another or buying new long-lived, industry specific capital goods involves a dangerous gamble whose precise parameters can never be known. Rather, these parameters must be conjured up through expectations or guesses or hunches about the future. Under fundamental uncertainty, expectations are subject to potential instability, herd behavior, contagion, boom euphoria and panic. When expectations are euphoric, there may be more investment from both insiders and outsiders than industry profits can justify. Over-investment and excessive entry in heated booms therefore may take place from time to time.

4. Clark stresses the important role played by smaller firms in core industries in maintaining downward pressure on price. Because they have limited production capacity, small firms can raise output and shave price without triggering an aggressive response from the larger, dominant firms.

5. In the theoretical perspective adopted in this paper, corespective relations are necessary to achieve rapid technical change, a strong rate of capital accumulation, and high rates of productivity growth in core industries. Thus, the high value added flows created in these industries cannot properly be labeled “rents.”

6. For an extensive analysis of the Asian crisis, see Crotty and Dymski 1999.

7. Much of Robert Brenner’s 1999 book is devoted to a development and defense of the

---

argument that destructive international competition, especially among US, German and Japanese multinational firms, was the main cause of the end of the Golden Age, and of the longevity of the ongoing global economic crisis.