

## Rethinking Scarcity: Neoclassicism, NeoMalthusianism, and NeoMarxism

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**ABSTRACT:** Neoclassical economic theory holds that scarcity is the inevitable and central economic problem, to which our present "free market economy" provides the optimal solution. Recently, this claim has been challenged by neoMalthusians associated with the Zero Population Growth and Ecology movements, who argue that our practice of continued economic growth is inconsistent with the reality of scarcity. While the neoMalthusians have provided the basis of a critique both of neoclassical theory and of our present economic system, their acceptance of the neoclassical view of scarcity has prevented them from developing an adequate theory of their own. To understand scarcity, we must move our focus away from the relationship between people and resources and center on the social relationships which constitute the core of economic life. NeoMarxian theory provides the basis for such analysis; it can be used to show that while advanced capitalism has institutionalized scarcity, it has also developed the means for its eradication.

Today, about one-half of the world's population is underfed, while even in the wealthy United States the majority of the population lives in perpetual, knowing neediness. Few people in the world are unacquainted with the experience of scarcity. Yet while the experience of scarcity is a common one, it is basically misunderstood by economists and lay-people alike. For scarcity is viewed as part of the "human condition," rather than as the product of today's wealthy society. This article will examine the recent economic debate about scarcity between the neoclassical and neoMalthusian schools, and then criticize their essential assumption of the inevitability of scarcity through the presentation of an alternate conception of economic life under capitalism, based in the Marxian theoretical tradition.

### THE NEOCLASSICAL VIEW: "SCARCITY IS THE PROBLEM AND THE MARKET, THE SOLUTION"

Over the past one hundred or so years, economic theorizing in the United States has been dominated by the neoclassical school whose theory extolls the virtues of the free market economy. In this same period, United States capitalism has experienced high levels of economic growth, creating in this country a clearly wealthy society. The gradual development of the welfare state, accelerated by the "Great Depression" of the 1930s, has seen to it that even the casualties of the system were minimally cared for. In the atmosphere of growth, wealth, and economic optimism which prevailed through the 1960s, social scientists and non-experts alike agreed that our market economy was properly managing the production process. Economists were looked upon favorably and their reigning neoclassical theory rarely was questioned.

Ironically, the picture that neoclassicists present of economic life is one of

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This paper has benefitted from the comments of J. M. Cypher, Susan Himmelweit, Marvin Sternberg, and John Willoughby of the *RRPE*, and from discussions at the Eastern Economic Association Meetings in Boston, March 1983.

scarcity, not wealth. Indeed, the founders of the neoclassical school — the leaders of the “Marginal Revolution,” such as Leon Walras, Stanley Jevons, and Carl Menger — portrayed scarcity as the prime mover of the economy.<sup>1</sup> They argued as follows: men have infinite needs, whereas, nature provides them with a finite quantity of resources with which to fill their needs; thus, they are confronted inevitably with scarcity, with insufficient means to meet their human ends or needs. Economic life — property, exchange, and production — is the result. Given scarcity, each individual tries to lay claim to as many resources as possible, and private property is created. Since differences in resource endowments and preferences cause their relative valuations of goods to differ, individual property owners find it beneficial to exchange goods with each other. Production arises because postponing present consumption can bring increased satisfaction in the future — that is, capital investment occurs because time is productive. Hence economic activity is grasped as the striving by individuals to “maximize utility” which is to be gained through the consumption of these resources.<sup>2</sup>

Building on this starting point, contemporary neoclassical economics views the market economy as the optimal solution to the universal human problem of scarcity. While unable to obviate the existence of scarcity, the market can, by carefully allocating resources, minimize its onerousness. Indeed, the market economy is organized to this end. The market’s invisible hand “allocates scarce resources among competing ends” by adjusting prices so that supply and demand come into equilibrium. The higher prices of the relatively scarce resources encourage firms to substitute other, less scarce resources for them in production, while the higher prices of goods manufactured with scarcer resources will allocate them among those who are most willing to pay for them. Resources are used in the most efficient manner and flow where they are most “demanded,” producing a Pareto Optimal allocation of resources where “no-body can be made better off without someone else being made worse off.”

Conceived of within this framework, economic policy centers on correcting deviations from this efficient allocation. Such deviations include imperfect competition, the existence of social goods and externalities, and macroeconomic imbalances. The central concern for scarcity and efficiency means that the search for economic equality must be tempered, for rewarding those who are the most economically productive is essential to the proper allocation of resources.

In sum, neoclassical theory views scarcity as an inevitable state, and as *the* economic problem. Scarcity demands that we use our resources extremely carefully — that is, so that they will be the most productive of utility. Luckily, our present, market economy, with its mechanism of supply and demand, is tailor-made to the problem of scarcity. It harnesses individual selfishness in the face of scarcity to the good of all.

### **THE NEOMALTHUSIAN COUNTERATTACK: “SCARCITY IS THE PROBLEM AND THE MARKET HAS BEEN MAKING IT WORSE”**

By the late 1960s and early 1970s, confidence in the infallibility of the “free market economy” had begun to wane. Growing awareness of ecological destruction, the first wave of the “energy crisis” (the gasoline shortage of

1973), and rapid population growth accompanied by persistent starvation in the so-called "developing countries" brought increasing concern about the problem of scarcity. Intellectuals and activists began to challenge the reigning orthodoxy that the market was taking care of scarcity, advocating an array of radical changes from zero population growth to simple living to the dismantling of nuclear power plants.<sup>3</sup>

The theorists associated with this movement use a new form of the Malthusian argument to claim that our present path of growing production and consumption is not viable.<sup>4</sup> Economic life is a balance between the needs of the population — dependent upon its size, growth rate, and standard of living — and the resources provided by nature; both renewable and non-renewable. NeoMalthusians argue that, since resources grow only arithmetically if at all, our exponential growth in population *and* in consumption levels is bound to bring us up against scarcity, shortages (even widespread famine) and the destruction of life on the planet. Our periodic energy shortages are but one manifestation of this inescapable law, the results of our exponentially growing consumption of a fixed supply of fossil fuels. NeoMalthusians also added new force to the Malthusian tradition by incorporating into it an awareness of the fragility of the ecological balance upon which all life depends. Production's many by-products, from heat to nuclear wastes to chemicals to "throw-aways," disrupt the ecological balance, crippling if not destroying many life forms, including our own.<sup>5</sup>

Some neoMalthusians have found an overarching way to discuss these inescapable limits of nature: e.g. the "Entropy Law" or Second Law of Thermodynamics which claims that matter/energy necessarily moves from low entropy (organized, high usable energy) to high entropy (unusable, disorderly, energy). The limited quantity of low entropy materials is the basis for absolute scarcity — while our production system appears to create order and low entropy, it can do so only by creating even more disorder and high entropy in the form of waste. Production is, hence, absolutely limited by the supply of low entropy material in our dwindling stocks of fossil fuels, our precariously balanced renewable resources, and in the ultimate source of our energy, the sun (Georgescu-Roegen 1971; Rifkin 1980).

NeoMalthusians insist, then, that clear limits to growth exist, as the Club of Rome argued in an early study by that name (Meadows 1974). The only way to avoid a crisis is for society to voluntarily limit growth, both in population and in GNP per capita — some even call for a reduction in our consumption levels. We must replace our growth-centered economy with a "steady-state" one, characterized by conservation and stability.<sup>6</sup>

### NEOMALTHUSIANS VERSUS NEOCLASSICISTS

While their policy prescriptions are diametrically opposed, neoclassical and neoMalthusian theory are, in fact, extremely similar. Both view economic life as a process of resource allocation in response to externally determined consumer needs. Both see scarcity as inevitable, due to an excess of "ends" over "means." The two simply disagree as to the possibility for continued economic growth in the face of scarce resources.

Neoclassical economists do not see economic growth as posing a problem

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since they see growth as the *result* of resource growth (especially population) and increasing resource productivity (due to capital investment and technical change), rather than as the *cause* of resource depletion. If one particular resource is becoming scarce, this will be reflected in its increased price, bringing about the requisite change in technique. And indeed, history has shown such dramatic technological advance as to allow both population growth and rising GNP per capita.

NeoMalthusians have challenged the neoclassical view of efficient resource allocation in the face of scarcity on its own terms. Given the fixity of non-renewable resources, particularly the fossil fuels, they see the present "allocation strategy" as extremely short-sighted. Today's growth rates in population and GNP per capita can not be sustained, for they are based not on a similarly growing stock of fossil fuels, but rather upon a fixed one. There will simply not be enough resources to allocate in the near future. Furthermore, the environmental pollution caused by our high levels of production is disrupting the fragile ecological balance needed to sustain life. The culprit is growth; the solution, to stop it.

Thus the two schools are deadlocked. The optimistic neoclassical group believes that continual technological change will allow sustained growth, while the pessimistic neoMalthusians argue that technological change can not happen quickly enough to save us from running out of fuel or otherwise self destructing. Since neither school has much of a theory of technological change, the argument reduces itself to empirically-based projections of time-series data into the future (Cole, et al. 1973). Neither camp has succeeded in convincing the other on this basis. The neoMalthusian attack has, however, impacted on the reigning neoclassical orthodoxy and on economic policy-making in three areas: development theory, analysis of externalities, and ethics. I will examine each, briefly.

NeoMalthusian warnings about population growth have been heeded by United States foreign policy experts and incorporated into the reigning "development theory." Traditional development theory considered population growth to be a growth in resources, a main cause of growth in GNP. It also held that industrialization and trade would bring economic growth to the "developing countries," eliminating their dire poverty and closing the income gap between rich and poor nations. However, the expected development has not materialized and theorists have had to acknowledge the widespread problem of structural unemployment in poor countries. As a result, neoMalthusian policies of population control have become part of the Western strategy of alleviating poverty in the Third World — increasing GNP per capita by slowing the rate of growth of population or even by reducing population size, absolutely.

Equally influential have been the neoMalthusian investigations into the environmental destruction caused by "industrialization" with pesticides, chemical fertilizers, waste energy, deforestation, nuclear waste, refuse, and more. Neoclassical theory provides an excellent starting point for such analysis with its discussion of "externalities," instances where private benefits (costs), which are reflected in the marketplace, diverge from the actual social benefits (costs). However, they argue that the government, intervening on behalf of the social good, corrects these divergences, bringing marginal private costs (be-

nefits) to equality with marginal social costs (benefits).<sup>7</sup> NeoMalthusians have challenged this complacent view, arguing that irreversible, life-threatening damage is being done to the environment. On this basis, they have mustered powerful ecology and anti-nuclear movements which, by bringing cases of environmental destruction to public attention, have made headway in achieving more active environmental protection policies.

Finally, neoMalthusians have worked to introduce discussion of the "normative" into mainstream economic discourse — in particular, a discussion of whether or not economic growth is desirable. Neoclassical theorists traditionally distinguish between positive and normative, and claim to dismiss the latter from their "positive science." The normative judgments implicit in their analysis — that more is better and that growth and efficiency are good — come, they argue, directly from consumers themselves, each of which is clearly striving to maximize his or her utility by consuming more. Economists can not presume to judge the correctness of these consumer preferences which drive the economy. NeoMalthusians, on the other hand, see growth as bad, since it destroys the ecological balance. This assessment has led them to criticize the behavior of consumers, which they see as the root of this problem. Seeking to maximize utility by consuming more and more is, they argue, unethical — something to be controlled or surpassed in the interest of harmony with nature and the long-run survival of the human race.

Their awareness of the environmental costs of growth has led many neoMalthusians from a critique of the growth ethic to a critique of materialism, *per se*, as an empty misdirection of human energies.<sup>8</sup> They advocate simple living, not only as more harmonious with nature but also as part of a higher level of existence; one which stresses cooperation, fulfillment in work, and spiritual development. Since they accept the neoclassical view of economic life as an interaction between sovereign consumers and nature, the neoMalthusians root today's consumerism in the human greed of freely-choosing individuals, rather than in the fabric of our advanced capitalist society. Thus, their critique of materialism takes the form of a moralizing plea to individuals to elevate their consciousness to a higher, non-material level, rather than that of a critique of capitalist institutions. Indeed, some neoMalthusians explicitly introduce religious dogma into their arguments, claiming that the real reason for today's problems is that, in their hubris over technological achievements, people have forgotten who the real creator is (Daly 1979).

NeoMalthusians have pointed out weaknesses both in neoclassical theory and in our present economic system. However, neoMalthusian theory shares the same basic paradigm as the neoclassical one, including its basic misconception — the assumption that scarcity is essential to the human condition and is the driving force behind our present day economy. Both neoclassical and neoMalthusian economists are blind to the fact that scarcity is a social product and, as such, can be abolished through social, especially economic, change.

### THE SOCIAL CONSTRUCTION OF NEEDINESS

Both neoclassical and neoMalthusian theorists trace the impetus for commodity production to sovereign consumers. As such, both see consumer needs as the prime mover; the determinant of economic activity which is not itself

economically determined. By assuming that needs are extra-economic, and derived from "human nature," neoclassical theory is able to see scarcity as an inevitable human condition to which our present economy is the best response. By assuming that needs are freely and consciously chosen, neoMalthusian economists can root our ecological problems in human greed, and hope to convince people to choose to control their appetites. In fact, needs are neither fixed in human nature nor freely chosen — they are social products, determined within the set of human interrelationships which constitute social life.

We can establish that infinite needs are not part of human nature by observing the absence of such needs among some humans, as the anthropologist Marshall Sahlins (1972) has done. His study of the few remaining hunting and gathering societies found what we would see as extreme deprivation *combined with* a shorter work week and more leisure time than we experience. How can one explain their many hours spent in sleep or religious activities while nature's abundance lay unexploited around them? In such societies, geographical movement is essential to the successful provisioning of food; "always enough to rapidly depreciate the satisfactions of property. Of the hunter it is truly said that his wealth is a burden . . . goods can become grievously oppressive" (Sahlins 1972:11). Hence, hunters and gatherers were content with their simple standard of living and were free from scarcity. They could consume all that they wanted, not because they were blessed with abundant resources, but because they did not want much. It is wealthy economies, paradoxically, that are plagued by scarcity, argues Sahlins — somehow the production of wealth is bound up with the proliferation of needs (Sahlins 1972: Chap. 1).

Needs vary, cross-culturally and through history, because they are social rather than natural. Neoclassical economics denies the sociality of need by reducing consumption to a relationship between an isolated individual and an object — indeed, each individual consumer is held to be unaffected by the preferences of others. Viewed in this way, needs must come from instinct or whim. In fact, the process of consumption is constructed within society, determined by shared ideas of what it means to be a member of that particular society. All consumers must engage in what Thorstein Veblen (1899) termed, "conspicuous consumption," consumption undertaken with consciousness of its significance to others, with knowledge of its meaning within society at large. The needs which drive consumption are learned within society. A person unacquainted with our advanced capitalist culture would not even be able to find a use for most of the contents of a modern department store. And even if they could, they would not know how to "consume it" — that is, not to take instinctually what they needed, but rather to exchange an appropriate quantity of money for it. Far from constituting the archtypical "economic man," such a person would find themselves institutionalized as crazy or criminal.

Not only are our needs social products, they are closely tied to the structure of the economy. Certainly, there are psychological, familial, and political elements in the social construction of needs. However, just as firms can not sell a particular commodity if consumers do not feel a need for it, so consumers can not need a commodity which has not been designed and produced by a firm. The process of need formation operates in an interaction with "supply," within the economy rather than outside of its bounds.

What is the process by which the system of commodity needs is articulated in advanced capitalism? Why are infinite needs part of capitalist economies? The clearest culprit seems to be the corporations' practice of advertising, most eloquently criticized in J. K. Galbraith's well-known work, *The Affluent Society* (1970: Chap. 11). Galbraith attacks the neoclassical notion of consumer sovereignty by pointing out what he calls, "the dependence effect." Seeking continual growth, firms must continually expand the system of needs by telling consumers that they need a constantly expanding bundle of goods in order to be happy. Economic growth can not be justified as a response to infinite consumer needs if these needs are in fact created by the producers. Galbraith suggests limiting advertising to deprive producers of their influence over consumer needs and allow consumers' "real needs" to emerge and dictate production. Paul Baran and Paul Sweezy (1966) were the first Marxists to develop an analysis of the expansion of needs under capitalism — they tied the development of advertising to advanced capitalism's problem of overproduction. Their conclusions differ from Galbraith's, however. Within capitalism, advertising and the neediness it engenders are necessary to prevent economic stagnation — proof that capitalism can never fill the real needs of the people (Baran 1957: xi-xviii).

While pinpointing the importance of expanding needs to the growth of firms, these analyses of consumption, now prevalent among both Marxists and liberals, are imperfect. Galbraith's assumes that some desirable set of "natural needs" would emerge if firms left consumers alone. But human needs are, by definition, *social*: orienting our lives to fill our instinctual, biological needs would deprive us of our humanity, reducing us to animals. And Galbraith, as well as Baran and Sweezy ignore the active role which consumers play in the articulation of needs. Firms do not and cannot impose needs on consumers. Indeed, what do marketing experts do but assiduously study consumers to discover potential new needs which they could fill? Firms can not successfully launch new products without, in this way, keeping in touch with consumer desires. And if firms did not generate new products, or advertise about them, would not consumers complain of a lack of material advancement? We can not simply blame the corporations for our endless neediness and the resultant inevitability of scarcity. We must realize that consumerism is integrally bound up with our very identities.

### INDIVIDUALITY AND SCARCITY

In capitalism, individuals are not simply passive pawns in the striving of firms for profits and growth. They are active participants. The self-seeking behavior discussed by neoclassical and neoMalthusian economists is indeed the motor of the capitalist economic machine. But because individuality itself is an historically specific social product, this striving for wealth can not be reduced to choices to be greedy, as the neoMalthusians would have it, or to human nature, as put forward by the neoclassicists. The neoclassical conception of individual choice must be wedded to the Marxian conception of the social determination of the individual (MacPherson 1973; Levine 1978, 1981; Matthaei 1983).

Individuality, as we know it, is part of the development of capitalism. In the nineteenth century, the development of wage labor and capitalist firms brought the emergence of the "self-made man." A man's position in the economic hierarchy began to reflect his own initiatives rather than the legacy of his parents. Both free to improve their economic lot and responsible for their failure to do so, men began to actively compete with each other for economic advancement. This competition was institutionalized in the labor force hierarchy, where a man's income became a measure of his relative worth. To achieve manhood, a male had to participate in this competition for more, complemented by a homebound wife who achieved her womanhood by filling his needs and those of his children (Wyllie 1954; Cawelti 1965; Dubbert 1979; Matthaei 1982: Chap. 5).

The maturation of American capitalism in the twentieth century integrated the consumption of commodities into the nineteenth century masculine competition for self-advancement. Rising standards of living transformed consumption from a sphere of subsistence to one of choice and self-expression. At the same time, the development of mass production and national advertising worked to universalize the system of needs, to make all families aware of the range of consumer goods, from simple necessities to luxuries. All had the ability to purchase wealth if they had adequate money, yet unequal ownership of wealth and the labor force hierarchy created systematic inequality in family incomes. Within the resulting hierarchy of consumption, all but the wealthiest were left "needy," seeing and wanting commodities they could not afford. Furthermore, since a family's position in the hierarchy of consumption reflected its success or failure in the struggle to earn income, elevation in the hierarchy through consuming more became an end in itself. Consumption goals became relative — consuming more, and, hence, increasing one's worth and status by elevating oneself in the hierarchy of consumption. Families were driven to work harder in order to improve their level of consumption over their life cycle, or to save in order to bring the family upward mobility in the next generation.<sup>9</sup>

Therefore, while economic growth and technical change have dramatically increased overall living standards in the United States in the course of the twentieth century, they have not alleviated the relative deprivation of the large majority of families.<sup>10</sup> Indeed, competition for wealth has intensified, drawing homemakers into the labor force in increasingly large numbers.<sup>11</sup> The relativity of neediness fuels the accumulation of capital, by driving families to sustained hard work, increasing levels of consumption, and the search for the new and better. Capital accumulation, likewise, fuels neediness by providing expanded consumption opportunities, both by increasing labor productivity and by creating new and better commodities.

In this way, neediness is bound up with the fabric of self-seeking, intrinsic to the construction of individuality within advanced capitalism. The neoclassical view of scarcity is, hence, backwards. Far from being the optimal solution to the problem of scarcity, our capitalist economy is at its root. Rather than alleviating scarcity's sharpness, its sophisticated system of production and technical change have served to institutionalize it.

The neoMalthusian solution of simplifying consumption is misguided.

Given the present social structure, consumption constitutes the main arena of freedom and self-expression in the United States. Not to struggle to consume more would be to abdicate one's most essential freedom, to ostracize oneself from others, and to rebel against the essential fabric of social life. True, contradictions within this structure of competitive consumption — including the continual frustration of wanting more — have led some to try to challenge it. However, the income inequality built into capitalism creates real deprivation in those on the bottom. It is not surprising that those extolling the virtues of a simple life are most often at the very top of the income distribution, freed from the pressures of relative deprivation. Furthermore, if we were somehow able to convince people to reject consumerism and simplify their lifestyles, the result would not be the saving of nature but rather a deep recession accompanied by plant closings and high unemployment. But to discuss this more, we must move on to the realm of commodity production.

### SOCIAL PRODUCTION

Neoclassicists and neoMalthusians see nature as posing an absolute limit on the production of commodities. This conclusion flows necessarily from their view of commodity production as primarily a physical process; part of the struggle of man against nature. For them, commodity production is a process through which man transforms natural resources into consumable form. Hence, the finitude of the natural world necessarily limits production, although technical change ("labor-saving," "capital-saving," or "resource-saving") can push out the production possibility frontier.

However, just as consumption can not be reduced to a relation between an isolated individual and an object, so production can not be properly grasped when reduced to a physical interaction between people and resources. Commodity production is first and foremost a social process determined by ideas and the social relationships that live them out. At the heart of commodity production is, not the allocation of resources to fill consumer needs, but the accumulation of capital; a self-determining and self-limiting process first analyzed comprehensively in the work of Karl Marx.<sup>12</sup>

While finite supplies of various natural resources place limits on the yearly output of particular goods, they do not limit capitalist production in general. Since its goal is not the fulfillment of any particular need or set of needs but, rather, the continued accumulation of capital, capitalist production is able to transcend these limits by continually redefining the system of needs and the commodities which fill them. In response to the limits of nature, capitalist commodity production has become more and more "unnatural." Firms have developed and applied natural science so as to place in their hands the power of designing and creating new commodities, the power to "play God." Central to this process is the production of machinery and other inputs, which gives capitalism the power to define and redefine its products in response to limited supplies of natural resources or labor. Capital transcends shortages in labor supply by replacing labor with machines. Capital circumvents shortages of particular natural resources by developing techniques which use different inputs, or by creating totally new products. Capitalist production is a process of

“permanent revolution” in which new techniques and new products are continually being born.

Study of the economic history of the United States reveals this dynamic. Capitalist firms have added nuclear and solar energy to coal and oil, supplemented traditional farming with chemical fertilizers or transformed it altogether with hydroponics, and replaced natural fibers and materials with synthetics. They have responded to the finiteness and external determination of the labor supply by introducing skill and/or labor-saving technological change, creating a world-wide *surplus* of labor. The exhaustion or pollution of certain resources has even served to contribute to the growth of the GNP by creating new needs. Energy shortages have promoted the sale of insulation, weather stripping, and various other gadgets. Water pollution has led to the sale of pure, bottled water; noise pollution to new construction materials, ear-plugs and ear-phones, white noise, and other gadgets. New industries have been formed in the struggle to limit environmental destruction, from “emission controls” for automobiles and factories to major clean-up projects. Even the destruction of our “labor resources” by unsafe working conditions, stress, and pollution has brought expanded production of commodities in the form of new drugs and increased health care services.

Capitalist production does not find its limit in nature’s scarcity, but rather in the internal contradictions of capital accumulation. Indeed, instead of being restricted by scarce resources, advanced capitalist production is plagued by the opposite problem — too much productive capacity. The maldistribution of income in advanced capitalist economies prevents them from realizing their productive potential. Demand for products often falls short of supply, not because consumers are satiated, but, because they lack purchasing power. Plants and equipment are not used at full capacity, and, rather than being plagued by labor scarcity, we are troubled by massive unemployment and underemployment.<sup>13</sup> One would think that the clear underutilization of these productive resources would overturn the notion that scarce resources are the problem. Instead, when this problem could no longer be ignored by mainstream economists, its study was relegated to a new discourse, that of macroeconomics. Neatly compartmentalized, the “Keynesian Revolution” left the micro-foundations of neoclassical theory intact; the primacy of scarcity and the resulting focus on choice and allocation have remained unchallenged.<sup>14</sup>

#### **CAPITALISM AND NATURE: THE PROBLEM OF THE ENVIRONMENT**

The fact that capital accumulation is not limited by nature does not deny the fact that it is destructive of nature. Conceptualizing production as resource allocation in response to scarcity has led neoclassical theory both to place false limits on the accumulation of capital, and to ignore the true dimensions of the “environmental problems” created by capitalist development. And while the Malthusian ecologists have pointed this problem out, their view of production as natural has made them attribute the problem simply to too much production, rather than to the capitalist manner of production.

The composition and flow of output in capitalist economies are geared to the

firms' struggles for profits and expansion rather than to nature's resources or to a set of predetermined consumer needs. Given their knowledge of natural science, such economies are not only able to be insensitive to the fragility and finiteness of our natural and human resources, but seem set upon exhausting them as rapidly as possible. Since the essential limit to firms in monopoly capitalism is the extent of the market, firms are led to work to maximize the production of salable output by creating products that will be discarded rapidly due to deterioration or changes in fashions.<sup>15</sup> Furthermore, means of production as well as consumer durables are constantly rendered useless as competitors introduce new and better commodities; this brings rapid, forced obsolescence to plants and equipment.<sup>16</sup> These dynamics lead not to the careful hoarding of natural resources but rather to their rapid depletion. The supreme example of the profitability of destruction is war, which, although destroying human life, land, and products to an ever-increasing degree, has historically stimulated capitalist economies to intensified production and technical change (Baran & Sweezy 1966: Chap. 7).

Finally, although capitalism has brought increasing understanding of nature, it has not fully applied this understanding. As the neo-Malthusians have pointed out, nature is not simply a pile of resources (either growing or depleting), but a system of interrelationships, an ecology, in which each environmental change has myriad ramifications. However, within capitalism, production decisions are made by individual firms in terms of profitability. The natural world is evaluated in a one-sided, partial manner, and the natural whole, the ecological balance, is ignored.<sup>17</sup> The sum of private production decisions not only does not bring the most efficient use of our resources, but indeed threatens to destroy life on earth. Meanwhile, the political power of capital has thus far prevented concerned citizens from forcing the government to take those measures necessary to "internalize the externalities."

While neoMalthusians correctly perceive a threat to the environment, their analysis of its roots, and their policy prescriptions, are misguided. They focus on population and output growth as the agents of environmental destruction, when the problem is our particular system of production and consumption; advanced capitalism extended on a world scale. Population control programs will *not* save the environment from this system. Indeed, these programs are being used by advanced capitalist countries to perpetuate this status quo, continuing a long history of racist oppression and genocide of Third World peoples (Harvey 1974; Enzenberger 1974).

### ELIMINATING SCARCITY

By enlarging the scope of economic theory so as to recognize that both the development of technology and the production of inputs, and the articulation and continual transformation of the system of needs, are economic phenomena, we come to the understanding that dissatisfaction with one's level of consumption or "scarcity" is not a natural, inevitable condition. It is, rather, part and parcel of life within our advanced capitalist economy. Poverty results from the unequal distribution of income and/or the failure of production as a socially-determined process. Continual neediness is the other side of the production of

wealth in capitalism. As such, it is bound up with individuality as we know it, and is tied to hierarchy, competition between individuals, and the competition of capitals. Our capitalist economy is not the necessary solution to scarcity, but rather lies at its root. The solution to our continual neediness lies not in increased production but in a qualitative restructuring of our economy.

The assumption of the inevitability of scarcity has led economists to focus on the problems of efficiency and growth. The true scope of economics is much larger than this, and the possibilities for economic progress much greater than has been imagined. As we have seen, our economic system not only produces a set of commodities, it also sustains a certain kind of people through their involvement both in production and consumption. Society has within its reach not only the end of scarcity but also the potential for elevating the human condition as well as reaching a new harmony with the natural world. Our knowledge of nature gives us the potential to truly socialize it, to transform it so as to best meet our needs — as well as to destroy it. Our ability to shape human character gives us the opportunity to begin to recast ourselves as more adequate human beings. Economics does not have to be the dismal science.

## NOTES

1. See, especially, "Social Wealth. Three Consequences of Scarcity. Value in Exchange and the Pure Theory of Economics," in Walras (1954: Part I, Lesson 3); "The Origin of Human Economy and Economic Goods," in Menger (1959: Parts I, Chap. II); and Jevons (1965).
2. See Levine's, "The Allocation of Resources," in Levine (1977: Part 2, Chap. 6).
3. For the neoMalthusian critique of neoclassical economists see, Nicholas Georgescu-Roegen (1981) and Herman E. Daly (1977: Chap. 5).
4. Some of the first works to develop neoMalthusian themes were, Carson (1962), Ehrlich (1968) and Meadows, et al. (1974). For a more recent version of this perspective, see Finin and Smith (1979). An excellent overview of neoMalthusian thought is provided by Harvey (1974) and Enzenberger (1974).
5. For a comprehensive presentation of Malthusian ecology, see Ehrlich, Ehrlich & Holdren (1977).
6. Daly (1977) outlines the institutional changes necessary for this transition. Transferable birth vouchers would put an absolute limit on the population size and auctioned resource depletion quotas would set absolute limits on the yearly consumption of resources and output of wastes. The termination of economic growth would be made more acceptable by a guaranteed minimum income, accompanied by upper limits on income and wealth, the combination of which would reduce relative neediness.
7. For a discussion of the inadequacies of the neoclassical analysis of externalities, from a Marxist point of view, see d'Arge and Hunt (1971).
8. For example, E. F. Schumacher claimed, in his best-selling book, *Small is Beautiful* (1973), that there is virtue in the necessity of reduced consumption, referring to "Buddhist economics." In other words, our materialist obsessions are keeping us from experiencing the higher, spiritual levels of fulfillment. Curbing economic growth and consumption is a necessary part of the needed reintroduction of spirituality and values into social life. By embracing the higher ethics of frugality, people can live in harmony with each other, and with the rest of the world.
9. For an excellent documentation of the development of neediness in the 1920s and 1930s, see Wandersee (1981: Chap. I). Also, see Ewen (1976).
10. This has been noted by a neoclassical economist, Richard Easterlin (1974), who applied J. S. Dusenberry's "relative income" hypothesis to the process of economic growth. However, understanding the relativity of neediness has not led neoclassical economists to discard their claim that the role of the economy is to fill, rather than to generate, needs.
11. See Matthaei (1982: Chap. 10), and Wandersee (1981). The percentage of married women in the labor force increased from 5.6 percent in 1900, to 11.7 percent in 1930, to 31.7 percent in 1960,

to 50 percent in 1980, in spite of the fact that the real incomes of husbands increased in each period (U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1970*, p. 133, and *Statistical Abstract of the U.S.*, 1980, p. 402). Since they assume that needs are always infinite, neoclassical economists interpreted this change as a response to rising real wages of women (which increase the opportunity cost of remaining in the home), along with housework-saving technical change; see Jacob Mincer's seminal article (1962).

12. See especially *Capital*, 3 Vols (1967). Although the conception of capital accumulation is central to Marx's theory, there are even echoes of the scarcity *cum* resource allocation conception of the economy in his work. In his methodology of historical materialism, Marx sees labor — as a struggle of man against nature — as the core of economic life, accompanied, of course, by the struggle of classes over the distribution of this scarce product. As Marx wrote in the *German Ideology*:

Thus the first fact to be established is the physical organization of these individuals and their consequent relation to the rest of nature . . . The writing of history must always set out from these natural bases and their modification in the courses of history through the action of men . . . Men can be distinguished from animals by consciousness, by religion or anything else you like. They themselves begin to distinguish themselves from animals as soon as they begin to *produce* their means of subsistence, a step which is conditioned by their physical organization . . . This mode of production must not be considered simply as being the production of the physical existence of the individuals. Rather it is a definite form of activity of these individuals, a definite form of expressing their life, a definite *mode of life* on their part. As individuals express their life, so they are. What they are, therefore, coincides with their production, both with *what* they produce and with *how* they produce. The nature of individuals thus depends on the material conditions determining their production.

Moreover, in his notion of prices of production, Marx grasps the price system and the market as reallocating the essential resource — labor — between sectors so as to equate their rates of profit (Marx 1967: Vol. 3, Part II). See Levine (1978, 1981) for a reinterpretation of Marxian theory which eliminates these elements.

13. This underconsumptionist strand of Marxist theory has been developed by Joseph Steindl (1952), Baran and Sweezy (1966) and, more recently, by Levine (1981).

14. The cooptation of Keynes' theories by neoclassical economics is analyzed most cogently by Joan Robinson (1978).

15. Prime examples of this are model changes in the automobile industry and the swings of fashion in the clothing industry. In both of these industries the struggle for growth and profitability bring an increase in the value of the inputs consumed to fill a need, rather than the opposite. See, for example, Fisher, Griliches, Kaysen (1962).

16. Joseph Schumpeter (1978) described this process as one of creative destruction.

17. For an excellent analysis and critique of modern science's view of nature see Carolyn Merchant (1980).

## REFERENCES

- d'Arge, R. C. and E. K. Hunt. 1971. Environmental Pollution, Externalities, and Conventional Economic Wisdom: A Critique. *Environmental Affairs* 1(2):266-286.
- Baran, Paul. 1957. *The Political Economy of Growth*. New York: Monthly Review Press.
- Baran, Paul and Paul Sweezy. 1966. *Monopoly Capital*. New York: Monthly Review Press.
- Carson, Rachel. 1962. *The Silent Spring*. Boston: Houghton Mifflin.
- Cawelti, John G. 1965. *Apostles of the Self-Made Man*. Chicago: University of Chicago Press.
- Cole, H. S., et al. 1973. *Thinking About the Future: A Critique of the Limits of Growth*. London: Chatto and Windus.
- Daly, Herman E. 1977. *Steady-State Economics*. San Francisco: W. H. Freeman and Co.
- . 1979. Ethical Implications of Limits to Global Development. In *The Morality of Scarcity: Limited Resources and Social Policy*, William M. Finnin, Jr. and Gerald Alonzo Smith (eds.), pp. 37-57. Baton Rouge: Louisiana State University Press.
- Dubbert, Joe I. 1979. *A Man's Place: Masculinity in Transition*. Englewood Cliffs, NJ: Prentice-Hall.
- Easterlin, Richard. 1974. Does Economic Growth Improve the Human Lot? In *Nations and Households in Economic Growth*, Paul A. David and Melvin W. Reder (eds.), pp. 89-125. New York: Academic Press.

- Ehrlich, Paul. 1968. *The Population Bomb*. New York: Ballantine Books.
- Ehrlich, Paul R., Anne H. Ehrlich and John P. Holdren. 1977. *Ecoscience: Population, Resources, Environment*. San Francisco: W. H. Freeman and Co.
- Enzenberger, Hans Magnus. 1974. A Critique of Political Ecology. *New Left Review* No. 84:3-31.
- Ewen, Stuart. 1976. *Captains of Consciousness: Advertising and the Social Roots of Consumer Culture*. New York: McGraw-Hill.
- Finnin, Jr., William M. and Gerald Alonzo Smith, eds. 1979. *The Morality of Scarcity: Limited Resources and Social Policy*. Baton Rouge: Louisiana State University Press.
- Fisher, Franklin M., Zvi Griliches and Carl Kaysen. 1962. The Cost of Automobile Model Changes Since 1949. *Journal of Political Economy* 70:433-451.
- Galbraith, John K. 1970. *The Affluent Society*. New York: New American Library.
- Georgescu-Roegen, Nicholas. 1971. *The Entropy Law and the Economic Process*. Cambridge, MA: Harvard University Press.
- . 1981. The Crisis of Natural Resources. *Challenge* 23:50-56.
- Harvey, David. 1974. Population, Resources, and the Ideology of Science. *Economic Geography* 50(3):256-286.
- Jevons, Stanely H. 1965. *The Theory of Political Economy*. 5th Ed. New York: A. M. Kelley.
- Levine, David P. 1977. *Economic Studies: Contributions to the Critique of Economic Theory*. Boston: Routledge and Kegan Paul.
- . 1978. *Economic Theory, Volume I*. Boston: Routledge and Kegan Paul.
- . 1981. *Economic Theory, Volume II*. Boston: Routledge and Kegan Paul.
- MacPherson, C. B. 1973. *Democratic Theory: Essays in Retrieval*. Oxford: Clarendon Press.
- Marx, Karl. 1967. *Capital, 3 Volumes*. New York: International Publishers.
- Marx, Karl and Frederick Engels. 1969. *Selected Works, Volume I*. Moscow: Progress Publishers.
- Matthaei, Julie. 1982. *An Economic History of Women in America: Women's Work, the Sexual Division of Labor, and the Development of Capitalism*. New York: Schocken Books.
- . 1983. Freedom and Unfreedom in Marxian Economics. *Eastern Economic Journal* IX(2):72-78.
- Meadows, Donella H., et al. 1974. *The Limits to Growth*. New York: Universe Books.
- Menger, Carl. 1959. *Principles of Economics*. Glencoe, IL: Free Press.
- Merchant, Carolyn. 1980. *The Death of Nature: Women, Ecology, and the Scientific Revolution*. New York: Harper and Row.
- Mincer, Jacob. 1962. The Labor Force Participation of Married Women. In, *Aspects of Labor Economics: A Report of the National Bureau of Economic Research*. Princeton: Princeton University Press.
- Rifkin, Jeremy. 1980. *Entropy: A New World View*. New York: Viking Press.
- Robinson, Joan. 1978. *Contributions to Modern Economics*. New York: Academic Press.
- Sahlins, Marshall. 1972. *Stone Age Economics*. Chicago: Aldine.
- Schumacher, E. F. 1973. *Small is Beautiful*. New York: Perennial.
- Schumpeter, Joseph. 1978. *The Theory of Economic Development*. New York: Oxford University Press.
- Steindl, Joseph. 1952. *Maturity and Stagnation in American Capitalism*. New York: Monthly Review Press.
- Veblen, Thorstein. 1899. *The Theory of the Leisure Class: An Economic Study of Institutions*. London: George Allen and Unwin.
- Walras, Leon. 1954. *Elements of Pure Economics or the Theory of Social Wealth*. New York: Irwin.
- Wandersee, Winnifred. 1981. *Women's Work and Family Values, 1920-1940*. Cambridge, MA: Harvard University Press.
- Wyllie, Irvin G. 1954. *The Self-Made Man in America: The Myth of Rags to Riches*. New Brunswick, NJ: Rutgers University Press.