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Economic Transition As A Crisis Of Vision:
Comparing Classical And Neoclassical
Theories Of General Equilibrium

By

John Peters and John Elliot
University of Southern California
and
Stephen Cullenberg
University of California, Riverside

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INTRODUCTION

Beginning in the early 1990s, Western economists were invited to play key advisory roles in the transition of the former socialist countries to market economies. One can only imagine the intellectual seductiveness and policy appeal of such an invitation, one that was in effect asking Western economists to make over the former socialist countries in their own image. A decade after the beginning of the transition, however, we would argue that the efficacy of shock therapy as economic policy advice is at least as questionable as the efficacy of shock therapy as medical treatment. This point has also been made forcefully by Joseph Stiglitz [1999]. Stiglitz argues that the failures of shock therapy and so-called "rapid" reform in the former socialist countries have much less to do with governments failing to administer the appropriate shocks, and much more to do with the fact that the economic theory underlying transition, inspired by the Arrow-Debreu [1954] general equilibrium vision of the world, misunderstands the nature and workings of capitalism and the economic system in fundamental ways. The "failures of the reforms that were widely advocated go far deeper -- to a misunderstanding of the very foundations of a market economy, as well as a failure to grasp the fundamentals of reform processes." For Stiglitz, "part of the problem [of shock therapy] was an excessive reliance on textbook models of economics" [Stiglitz 1999, 3].

The attraction to the neoclassical, Arrow-Debreu general equilibrium vision of the world is that it is regarded, implicitly or explicitly, as providing the formal theoretical basis of Adam Smith's classic insight that the unintended consequences of economic agents acting in their own best interests will lead to social coherence rather than chaos.¹

Arrow-Debreu general equilibrium, it is commonly thought, captures the very essence of Adam Smith's invisible hand, and thus it follows that an Arrow-Debreu vision of the economy best informs the process and policy recommendations for economic transition. However, as we shall argue the classical vision of a capitalist economy put forward by Smith, Ricardo and Marx differs in critical ways from the neoclassical vision of a capitalist economy embodied in the Arrow-Debreu model of general equilibrium. Indeed, as Garegnani has argued the very notion of equilibrium, its vision and meaning, changed as the Arrow-Debreu model of general equilibrium became the dominant mode of representing the workings of market economies. As we shall discuss, these competing paradigms of equilibrium clash on a number of fundamental issues -- efficiency, power, the role of markets, time, the nature of exchanges, and the importance of institutions. It is primarily the neoclassical vision of the economy that underlies the current shock therapy policy recommendations, and which we believe, along with Stiglitz, has had devastating effects on the transitional economies. In contrast, we shall analyze shock therapy through the theories of the classical economists in order to suggest alternative policy recommendations.

The organization of the paper is as follows. In the following section, we compare the Arrow-Debreu and classical theories of general equilibrium, focusing on the following seven issues: efficiency, the role of markets, the importance of institutions, time, the nature of exchange, power, and the types of conditions sought by the theories. Third, we turn to the issue of transition, and argue that to their detriment, many transition efforts have been based on a neoclassical view of equilibrium, rather than on a classical, dynamic theory of equilibrium and market development. Fourth, as Adam Smith's name

is often invoked in connection with the former socialist countries' transition to market economies, we look to the work of Adam Smith with regard to proposals for shock therapy, and argue that Smith, far from being a supporter, would very much be a critic of shock therapy and transition as often currently practiced. We conclude by offering final thoughts and some policy recommendations.

CLASSICAL AND NEOCLASSICAL THEORIES OF GENERAL EQUILIBRIUM

Table 1 below identifies seven issues in equilibrium theorizing, and summarizes what we generally characterize as the classical and neoclassical conceptualizations of each issue.

Table 1 about here.

Efficiency, the Role of Markets, the Equilibrium Conditions

Classical Theory. The classical economists were concerned with the creative role of markets in realizing dynamic efficiency. The economy was envisioned as an “ongoing, self-reproducing process of production and accumulation” [Foley 1990, 666]. The function of markets in classical economics was not merely to facilitate exchange once production had occurred, but rather, to unleash the creative role of markets. For Smith [1976 (1776)], the “greatest improvement in the productive powers” of labor, and hence output, is the division of labor, which in turn is a positive function of the extent of the

market [7]. The role of markets for Smith is to enable production to expand both qualitatively and quantitatively, and thereby, to foster the “wealth of nations.”

Marx was also impressed by the creative, powerful role of markets in capitalism, expanding production possibilities and enabling the economy to develop in ways not remotely possible under feudalism. For Marx, the power of capitalism to unleash the productive powers of society was self-evident.

The bourgeoisie, during its rule of scarce one hundred years, has created more massive and more colossal productive forces than have all preceding generations together. Subjection of Nature’s forces to man, machinery, application of chemistry to industry and agriculture, steam navigation, railways, electric telegraphs, clearing of whole continents for cultivation, canalization of rivers, whole populations conjured out of the ground.

What earlier century had even a presentiment that such productive forces slumbered in the lap of social labor? [1848 (in Sweezy 1964), 10].

The classical vision further articulates the role of markets and system-wide equilibrium by arguing that markets play a crucial role in a disequilibrium system of exploration of profit opportunities. To this effect, the classicals presented the idea of a systemic tendency toward the equalization of profit rates across industries. In their attempt to maximize profits, capitalists will search for and explore profit opportunities, increasing investment where profit opportunities lie, and decreasing investment in sectors where profit opportunities become less attractive. Smith argued that the tendency to

search for the highest rate of profit occurs in an actual economy and in real historical time and that natural prices represent the center of gravity of the economy given its specific institutional structure.

The natural price . . . is, as it were, the central price, to which the prices of all commodities are continually gravitating. Different accidents may sometimes keep them suspended a good deal above it, and sometimes force them down even somewhat below it. But whatever the obstacles which hinder them from settling in this center repose and continuance, they are constantly tending towards it [1976 (1776), 65].

Marx [1910 (1898)] argues that the equalization of profit rates is the

consequence that generally obtains whenever, from whatever reason, the average rate of profit comes to differ in different spheres of production. Capital and labor would be transferred from the less remunerative to the more remunerative branches; and this process of transfer would go on until the supply in the one department of industry would have risen proportionately to the increased demand, and would have sunk in the other departments according to the decreased demand. This change effected, the general rate of profit would again be equalized in the different branches [19].

The approach to general equilibrium developed by Smith and Marx is one of adjustment toward an equal rate of profit within a system-wide markup pricing model. That is, the prices of production (similar to what Smith called the “natural” price) will be determined in the long-run by a markup of profit over costs that is equi-proportionate across industries. The theory of system-wide equilibrium in classical theory thus asks the question of what prices are necessary, given a particular set of institutions and production structure, to reconcile with a long-run equal rate of profit. This is an exploration and adjustment story through capitalist markets that takes place in real historical time. The goal is to understand this process as it develops toward the applicable center of gravity. We are therefore looking for “necessary” and not “sufficient” prices given the historical set of institutions inherited by the economy.

Neoclassical Theory. Modern neoclassical equilibrium theorizing is built on a Walrasian [1954 (1874)] foundation. In neoclassical general equilibrium theory (hereafter, GET), we do not search for the necessary conditions under which general equilibrium will obtain; GET is concerned with determining the possible conditions under which a general equilibrium *could theoretically exist* -- hence, the set of equilibrium prices in GET reflect “sufficient,” and not “necessary,” conditions. The definition of a Walrasian general equilibrium of a pure exchange economy is quite straightforward, and consists of two elements. First, there must exist consumption bundles and a price vector such that at the particular price vector, individual utility is maximized. The second element is that the end result of all of the exchanges which occur to obtain the first condition must lead across-the-board to market clearing (no excess demand or supply). The bulk of the work on GET, from Walras to Arrow-Debreu, focuses upon showing the

possibility of the existence of this general result. This is what is meant by the “proof of the existence of general equilibrium.”²

The emphasis in neoclassical equilibrium is not on production and dynamic efficiency as in classical equilibrium, but rather on static, allocative efficiency. In fact, in the implied economy of GET, sometimes described as a pure exchange economy, production does not play a fundamental role in the discussion. In contrast to the classical theory where the dynamic interaction of production and exchange (circulation) plays a central role in the analysis, GET offers a one-sided theory of a capitalist economy focusing on exchange and regarding production as a relatively passive set of input-output relations. Markets do not play a production-based, creative role in neoclassical equilibrium, but rather are for the purposes of facilitating exchange. As Foley puts it

[The] owners of commodities seek to exchange with each other to reach more satisfactory proportions in their holdings. . . They spend the day haggling over the relative prices of apples and lettuce, until they find equilibrium prices at which the amounts offered for sale are just matched by the amounts demanded. The same produce goes home at the end of the day in different carts [Foley 1990, 666].

This is not a production-based story. Rather, it is an exchange story. In fact, one completes the logical sequence of the proof of the possibility of the existence of general equilibrium without saying a word about the dynamic role of markets and equilibrium. In contrast to the classical view of markets and equilibrium, which sought to explain why

markets exist and why they function the way they do, and to develop a causal schema between social phenomena, neoclassical GET makes no causal claims whatsoever. The extent of GET is to say that a general equilibrium solution *can* be found to an axiomatic economy, hence saying that at least in principle, a general equilibrium solution to the blackboard economy is *possible*.³

There is no equal rate of profit condition in neoclassical equilibrium. This means that the classical story of adjustment and of exploration of profit opportunities through entry and exit fails to have a counterpart in neoclassical GET. In fact, the neoclassical version of the story does not search for necessary conditions at all; rather, neoclassical equilibrium theory investigates under what possible conditions a general equilibrium *could theoretically exist*, i.e., it searches for sufficient conditions. David Kreps [1990] admits that “one thing that the concept of a Walrasian equilibrium doesn’t provide is any sense of *how* markets operate. There is no model here of who sets prices, or what gets exchanged for what, when, and where” [195, emphasis in original]. Similarly, Kenneth Arrow has remarked that each “individual participant in the economy is supposed to take prices as given and determine his choices as to purchases and sales accordingly; there is no one left over to make a decision on price” [1959, 43]. Thus, with regard to the issues of efficiency, the creative role of markets, and equilibrium conditions sought, the neoclassical general equilibrium program is largely silent on some of the key issues which inspired Adam Smith and the classics -- that is, the dynamic nature of competition, exploration, markets, equilibrium, and disequilibrium.

If the issues deemed so important by the classicals are swept aside by neoclassical GET, then what does GET contribute beyond the classicals? One could argue that it is

the formal, mathematical solution to general equilibrium that accounts for GET's popularity. More importantly, we would argue, are the powerful normative claims of GET, claims that provide a confident rationale for much of the shock therapy policy recommendations. The normative claims of neoclassical equilibrium are the two so-called fundamental welfare theorems -- first, that any competitive equilibrium is Pareto-optimal, and second, that any desired Pareto optimum can be achieved as a competitive equilibrium given a suitable redistribution of initial endowments [Arrow and Hahn 1971, 6]. Given the large number of technical assumptions one has to make in order to draw out the two welfare theorems from the axiomatic edifice, the popularity of these normative claims may seem peculiar. However, as Alexander Rosenberg [1992] suggests, the link to the two welfare theorems is one of the strongest elements of neoclassical equilibrium, allowing GET to become a framework for mathematical political philosophy. Hahn makes a similar point when he writes: "It is well known that on certain assumptions an Arrow-Debreu equilibrium of an economy can be shown to be Pareto-efficient. Everyone who has understood this latter concept and the assumptions required to prove the result also understands that to claim this efficiency for any actual economy would be a singularly weak claim in an argument designed to persuade us that the economy is also in some sense morally to be approved" [1973, 4]. For Hahn, the Arrow-Debreu model of GET is primarily useful as a negative heuristic, telling us in a counterfactual sense what the economy must look like in order for the claims of existence and optimality of an equilibrium set of prices to hold. GET suggests to us the limits of policy advice rather than providing a formal theoretical framework guaranteeing the efficacy of such advice.

Time, the Nature of Exchange, Institutions, and Power

Classical Theory. It is not possible to read the classical economists without realizing that their analyses are set in real historical time. As Joan Robinson put it the "main preoccupation of classical economists was with an historical process of accumulation in a capitalist economy and its relation to the distribution of the product of industry between the classes of society while the neo-classicals concentrated upon conditions of equilibrium in a stationary state" [1974, 48]. For classical theory, decisions "to consume today are analyzed in the light of their consequences for the future. Time in the classical model has no end; the economy always faces a continuing future" [Foley 1990, 666]. Moreover, the classical economists did not shy away from the gritty world of institutions, for as Robinson makes clear, "the classics. . . were concerned with actual contemporary problems and put their arguments in terms of the structure and behaviour of the economy in which they were living, while the neoclassics enunciated what purported to be universal laws, based on human nature -- greed, impatience and so forth." While the analyses of the classicals were continuously framed within a particular institutional framework, the neoclassicals "rarely say anything at all about the kind of economy to which an argument is to be applied. The suggestion is that the same laws which govern the supposed behaviour of Robinson Crusoe are equally valid for the conduct of the Gosplan, or rather for what its conduct ought to be, and for analysing the vagaries of Wall Street" [Robinson 1974, 53].

Exchange in classical economics takes place both at equilibrium and disequilibrium prices. Prices fluctuate in real markets and thus not all purchases can be

called equilibrium purchases, as it is the very act of exchange that drives the dynamic adjustments that the classicals see as central to the nature of a capitalist economy. Market prices for the classicals can be explained by “the quantity which is actually brought to market, and the demand of those who are willing to pay the natural price of the commodity [Smith 1976 (1776), 63]. For the classical economists, when quantity demanded is greater than quantity supplied, the market price will have a tendency to increase, and should quantity demanded be less than quantity supplied, we can expect market price to fall. A variant of the classical equilibrium framework outlined here is taught to all introductory economics students as the partial long run analysis which results in a zero rate of profit as an equilibrium condition.⁴ In stark contrast, the neoclassical GET that provides the core of graduate education has stripped modern equilibrium theorizing of this and other stories of dynamic adjustment, reformulating equilibrium in non-historical and allocative terms.

Furthermore, the existence and importance of time in classical economics allowed Marx to discuss temporal aggregate demand problems almost half a century before John Maynard Keynes and Michal Kalecki. Marx was clear in his criticism of Say’s law, and based his critique on the recognition of the role that real historical time plays in opening the door for aggregate demand problems and economic crises.

Nothing could be more foolish than the dogma that because every sale is a purchase, and every purchase a sale, therefore the circulation of commodities implies an equilibrium of sales and purchases. If this means that the number of actual sales is equal to the number of purchases, it is a

mere tautology. But its real purport is to show that every seller brings his own buyer to market with him. . . .No one can sell unless someone else purchases. But no one is forthwith bound to purchase because he has just sold [Marx 1975 (1867), Vol. I, 113].

Power provides a degree of tension within classical economics. For Marx, of course, differential power between those who own the means of production and laborers who do not, facilitates the exploitation of the former by the latter. For Smith, power is explicitly recognized as a potential obstacle to the efficacious or equitable operation of the invisible hand and market system generally. For example, “people of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices” [Smith 1976 (1776), 145].

Does power then destroy the operation of the equilibrium mechanism in classical economics? No, but it does outline some obstacles which can potentially exist for the market mechanism. Power in classical economics does not destroy the framework of adjustment to equilibrium, but rather identifies key areas where public action will be necessary to promote or supplement competition and to allow for the operation of dynamic adjustment.

The analyses of Marx and Smith do not only extend the scope of the classical argument; they also help to correct what some contemporary economists perceive as a logical flaw of neoclassical GET. Under perfectly competitive, long-run equilibrium, power, in effect, is evicted from the analysis. By contrast, in classical economics, “power

helps the market to function” [Wintrobe 1998, 33n]. For instance, workers are believed to be “in need of a master” [Smith 1976 (1776), 73] and therefore are “obligated” to offer to sell their labor-power to some capitalist employer [Marx 1975 (1867), Vol. I, 169]. In the absence of differential power, workers would become proprietors, the labor market would atrophy, and “surplus values” would be competed away. Hence, the “notion that markets spontaneously solve these problems [of the effects of differential power on competition and equilibration] by themselves, so widely believed and propagated, is simply logically incorrect” [Wintrobe 1998, 33n].

Neoclassical Theory. Neoclassical equilibrium is not set in real historical time but rather in logical time, where questions of dynamic adjustment are reduced to the concept of stability, and where stability is theorized as mechanical movements in reversible Euclidean space. The specific and variegated institutional details of history that matter so much in classical theorizing have no counterpart in neoclassical equilibrium. For GET, exchange does not occur at disequilibrium. Rather, the auctioneer, an “ad-hoc” addition to the neoclassical equilibrium system, calls out prices until equilibrium prices are reached, and only then does exchange take place, exchange which allows for the simultaneous clearing of all markets. The clearing of all markets which emerges as a result of the prior implementation of market clearing prices requires the auctioneer to be correct each time equilibrium prices are acted upon; that is, in GET, the stability stories are all decided at time “0,” and are not acted out through the ebbs and flows of real historical time. In fact, GET provides no vision of the everyday trading by market participants, because trading outside equilibrium, or “false trading,” is not allowed in the analysis.

Stated differently, the exchange which occurs once the auctioneer has hit the nail on the head in the selection of prices, will by definition follow a path of equilibrium, for if this were not the case, people would not have acted upon the auctioneer's announcement of the particular prices. Therefore, the description of exchange in GET is not that prices adjust when out of disequilibrium (a dynamic, and classical-oriented theory); rather, the story is that trading does not take place until the auctioneer calls out market-clearing equilibrium prices. Therefore history, or time, plays no significant role.⁵ Process and uncertainty (in contrast to risk) drops out of the discussion, and hence the dynamic issues focused upon by the classical economists (and other issues identified later by Keynes, Kalecki, and the institutionalists) are pushed off the table in neoclassical GET. Finally, neoclassical GET is coherent only if we assume that no power exists in the economy. No one can have a significant degree of power (with the exception of the auctioneer, of course, who is assumed to be omnipotent) so as to influence prices or output. Should any degree of market power be present, the market-clearing equilibrium of GET will not obtain. And more importantly, unlike in classical theorizing where we are provided with policy leads for how to think about and address issues of power, in GET, practical policy issues of power are not addressed, as it is simply assumed that no individual person or firm has it.

Two Frameworks not on the Same Track

Thus, we would argue that neoclassical equilibrium has not “disproven” or “undermined” classical theories of equilibrium in a direct sense. Rather, GET has

undermined the equilibrium stories of Smith and the classics indirectly, by shifting the discussion of dynamic capitalist development toward a static, ahistorical, blackboard exercise devoid of discussion of the processes of actually existing economies.

Unfortunately, as we shall now examine, this trend in neoclassical economics toward static conceptions of equilibrium, rooted in Walras and culminating in Arrow-Debreu, has had an impact on the policy prescriptions offered by economists.

CLASSICAL VS. NEOCLASSICAL ECONOMICS – SHOCK THERAPY VS. MARKET DEVELOPMENT

Neoclassical Shock Therapy vs. Classical Market Development

If the trend toward static over dynamic, exchange over production, ahistorical over historical, and so on, were a debate limited to academia, perhaps this trend would not be so alarming. However, these trends in economics and equilibrium theorizing have had a devastating influence on policy. And, as we argue to their detriment, the shock therapy programs implemented in the former Soviet Republics and some Eastern European countries have been generally based on a neoclassical view of equilibrium, rather than on a dynamic theory of equilibrium and market development.

Keith Griffin [1998] provides an excellent summary of shock therapy as an exercise in comparative statics. The goal of shock therapy in the former Soviet Republics and Eastern Europe was to transform as rapidly as possible command economies into market economies characterized by neoclassical general equilibrium conditions.

Consistent with neoclassical economics, the details of the transition, or historical factors, were considered to be relatively unimportant. Rather, importance was placed upon the desired end-result of the process – having a market economy in general equilibrium. Institutions were thus torn down overnight, and it was expected that the institutions of capitalism would quickly emerge to take the place of the old institutions. These reforms included such things as the rapid privatization of state-owned enterprises, the immediate dismantling of central planning and controls, the comprehensive and instantaneous liberalization of prices, foreign and domestic, and the use of foreign capital to ease the pain of adjustment.

The vision of change underlying shock therapy was thus a mechanical one; it was "assumed that using the proposed stabilization measures as stimuli, the desired induction to changes in economic behavior was virtually guaranteed, as a chemist's combining of particular elements is certain to produce a specific reaction" [Angresano 1996, 459]. But as argued by the classical economists, economies are socially and historically embedded in institutional settings, and therefore from the classical point of view the applicability of the pre-given and nomothetic theoretical framework of shock therapy, insensitive to society-specific particularities where power is real and the emergence of new institutions not automatic, is questionable.⁶

And indeed, shock therapy has often failed miserably in practice [Griffin 1998; Stiglitz 1999].⁷ The argument behind so-called "rapid reform" was that though the pain of reform would be severe, it would be short-lived, because the market economy would emerge to replace the old system quickly. The alternative was seen as reforming slowly,

which may lessen the pain at any one point in time, but draw out the disease for longer than would be the case once the correct dose of shock therapy was administered.

This "rapid vs. gradual" transition metaphor turned out to be quite misleading, however. The so-called rapid reformers, notably Russia, taking a neoclassical view of equilibrium and markets, focusing on the outcome and not the historical process, and placing over-emphasis on allocative efficiency (vs. dynamic market development), have yet to recover on all accounts, while the evolutionary reformers, such as China and Vietnam, by proceeding sequentially in their reforms, by paying attention to the details of transition (and thus history), by placing importance on dynamic market development, and by more effectively managing a disequilibrium system (rather than assuming a quick adjustment to an equilibrium one) have reformed much more quickly than the so-called "rapid" reformers of shock therapy. Similarly, while China and Vietnam proceeded on an experimental basis, exploring and fostering the development of different institutional arrangements, the shock therapy countries made the mistake of ignoring their lack of capitalist institutions, or assumed the problem away by holding that such institutions would emerge automatically and quickly enough. As we have learned from the classical economists (and more recently as well, the Keynesians and institutionalists), however, capitalist institutions do not emerge overnight, and therefore to focus merely on the outcome and not the process is ill-advised.

The Russian and Chinese Experiences

Taking a brief look at the reform efforts and comparative performance of the Russian and Chinese economies, we can see that China, representing an evolutionary approach to reform inspired more by a classical vision of equilibrium and the development of markets, has fared much better than Russia, a prime example of rapid shock therapy consistent with an Arrow-Debreu, neoclassical vision of the market economy.⁸

Comparative Performance. The contrast between China's and Russia's approaches to reform extend to their respective performance.⁹ Average annual growth in China's GDP, 1990-1997, was 11.6 percent, while the Russian economy experienced negative growth at an average rate of 7.7 percent. China's gross domestic investment over the same period grew at an average rate of 14.2 percent, while Russia's gross domestic investment shrunk at an average rate of 14.9 percent. [World Bank 1999]. All told, since 1989, Russia's GDP has almost halved, while China's has nearly doubled [Stiglitz 1999, 1].

It should be remembered, moreover, that even in the context of the inefficiencies of Soviet central planning, growth remained respectable up to the shock therapy era. Soviet growth in the seven year period ending in 1988 averaged an annual rate of 3.5 percent, while post-shock therapy Russian growth has been negative [Griffin and Khan 1995, 162]. Average life expectancy in Russia has also plummeted over the course of transition, falling from 69 years in 1989 to 65 years in 1999 [U.S. Bureau of the Census]; Russia's mortality crisis claimed an estimated 1.3 to 3.1 million people between 1990 and 1995 alone [Bloom and Malaney 1998, 1]. China's growth since the introduction of reforms in 1978, on the other hand, is especially impressive in that reform brought on a

slow acceleration in growth; that is, though China's pre-reform economic growth was impressive, reforms seem to have accelerated this rate of growth, and in no year since the introduction of reforms has China's growth been negative, in stark contrast to the Russian case.

Finally, in terms of distribution, the Chinese experience with reform has been much more egalitarian than that of Russia. In China, rapid growth and a commitment to an egalitarian distribution of assets and productive resources (in particular in agriculture) have dampened pressures that may otherwise significantly increase inequality and poverty in the course of reform.¹⁰ In contrast, Russian inequality has risen sharply since the introduction of reforms. Individuals living below Russia's official poverty line increased from 27 percent in 1992 to 41 percent in 1995, such that there "are indications that a group of long-term poor may have emerged" in Russia [Klugman and Braithwaite 1998, 44-45].

The Vision of Markets and Market Development, Real Historical Time, Power, and the Importance of Institutions. Chinese reform since 1976 has been based on a sequential (or historical) approach of flexible and pragmatic trial-and-error. Chinese reformers "were flexible, adapting to changing circumstances rather than adhering to a strict ideology or loyalty to past commitments" [Angresano 1996, 531]. For China, reform was a disequilibrium process of exploration of economic organization, for what worked and what didn't work. China's incremental and sequential reform allowed it to explore various organizational structures of production, including "urban and rural collectives (TVEs), joint ventures and individually owned (private) enterprise, [and] experimental institutions or regions (e.g., a stock market, special economic zones)"

[Angresano 1996, 544]. The vision of markets in Chinese reform was thus consistent with a classical focus on dynamic market development, economic exploration, and on a regional basis, diversity of reform outcomes.

The evolutionary nature of Chinese reform allowed for the development of institutions necessary for the creation and evolution of new working rules and capabilities. This was the method employed in Chinese agriculture, industry, and foreign trade [Griffin and Khan 1995, 156-157]. There were several alternative arrangements proposed to the agricultural commune, and still more variants experimented with on a regional and local basis.¹¹ After a period of local and regional experimentation, a national model, the household responsibility system, was agreed upon and adopted, with allowances for local variation. In industry, reform didn't attack the large state-owned enterprises wholesale, but rather first focused upon creating cooperative, individual, and private businesses from village and township enterprises. Thus, the "weight of the state sector in industrial output was rapidly reduced by allowing small-scale private enterprise to emerge" [Griffin and Khan 1995, 157]. In foreign trade, China did not follow the standard recipe of rapid tariff, quota, and foreign capital reform, but rather, proceeded on an experimental basis by promoting carefully selected joint ventures, by slowly liberalizing trade and adjusting the exchange rate, and by promoting semi-free trade in two Special Economic Zones. When the latter proved to be successful, freer trade was promoted in several coastal cities. With an emphasis on sequence and regional variation, China's reforms were just as much bottom-up as they were top-down. This "lack of uniformity [of reforms], abhorrent to a Western-trained economist, had positive advantages during a period of transition: it enabled policymakers to avoid the political

confrontations that would have been created by an attempt to impose a uniform national policy from the beginning, it provided valuable experience and information that could be used to fine-tune policies and it gave policymakers time to build political support on the basis of demonstrated achievements" [Griffin and Khan 1995, 157].

In contrast to the Chinese experience, Yeltsin's Russia, throughout much of the 1990s, followed a more revolutionary approach, popularly characterized as "shock therapy" or the "big bang." The goal was to replace the former (state) socialist economy with a market capitalist system, embodying such measures as: abandonment of the remnants of the old arrangements for central planning, allocation, and control; privatization, both of large state enterprises and emergence of new, small and medium-sized firms; elimination of state controls over most prices; macroeconomic stabilization to check inflation, through austere monetary and fiscal policies; and freeing of the economy from obstacles to international trade and investment.

Shock therapy was more than the sum of these various policies, however imperfectly or incompletely applied in practice. The intention at least, was to start afresh, wiping out all vestiges of the prior Soviet system and starting at institutional ground zero. It was believed that the communist system had to be leveled quickly to prevent the old elite from foiling plans to move to a market economy based on private property, and to make that move irreversible. Consistent with a neoclassical, general equilibrium view and focus, experimentation and exploration of various forms of social organization and institutional development were, at best, secondary concerns, and systemic reform was seen as something that could be best accomplished rapidly and comprehensively. Such a perspective is informed by a neoclassical view of the economy, where the institutions

upon which an economy is built are believed to emerge spontaneously once the state gets out of the way of natural market forces. "Economic problems solve themselves: markets spring up as soon as central planning bureaucrats vacate the field" [Sachs 1993, xiii].

Unfortunately, and in contrast to the neoclassical presumption, however, economic problems do not solve themselves, and desirable market structures do not emerge spontaneously in the absence of a working institutional and regulatory framework.

While creativity and experimentation should have been the "order of the day" to remobilize social resources, Russian shock therapy was very much top-down [Stiglitz 1999, 9]. In contrast to the Chinese reforms, Russian shock therapy involved little experimentation and exploration; Russian reform was systemic and homogeneous, rather than experimental and encouraging of regional diversity. Again, this stems from a neoclassical view of markets as primarily allocative: "Get the prices right, and the rest will follow" [Chen 1993, 140]. Thus, while in China "emphasis was placed on growing out of systemic inefficiencies and on using a high rate of investment to reallocate resources and increase microeconomic efficiency," in Russia, "policymakers seem to have been unduly preoccupied with systemic reform and static allocative efficiency at the cost of stifled growth" [Griffin and Khan 1995, 165]. Proponents of shock therapy based on "market fundamentalism" in both Russia and the West, tend to neglect or reject history in the process of economic transformations and transitions [Amsden, Kochanowitz, and Taylor 1994, 4]. At the very least, this results in a "highly abstract type of theorizing which dominates modern Western economics [and] does not lend itself to understanding the complex process of institutional change and development which characterizes a transition from one economic system to another" [Kotz, with Weir 1997, 275]. In

extreme versions of such arguments, historical context and specificity are rejected outright in favor of a kind of theoretical universalism. Peter Aven, for example, Minister of Foreign Economic Relations in Russia, claimed (in 1992) that "there are no special countries from the point of view of economists. If economics is a science with its own laws -- all countries and all stabilization plans are the same" [cited in Goldman 1994, 106].

Classical and other perspectives (for instance, institutionalist, Post Keynesian), by contrast, while no less generous in praise of capitalist market economies, emphasize historical context and specificity, and draw "lessons" from history concerning the pace and comprehensiveness of transitional change. First, rapid, especially both rapid and comprehensive, transitions into capitalism in history have been rare at best. The classic instance of capitalist transition - out of feudalism in Western Europe in early modern times - and its transplantation to North America - took several centuries. Countries that played the economic game of "catching-up" to Great Britain in the late nineteenth century - notably, Germany, Russia, the United States, and Japan, took at least decades. The reconstruction of the capitalist economies of West Europe after World War II, and transitions to industrializing capitalism in such developing countries as South Korea on the one hand and to hybrid forms of economy in former state socialist countries such as China on the other, similarly can be measured in decades rather than months or just a few years. Thus, "history shows that gradual economic transitions can indeed work" [Kotz with Weir 1997, 193].

Second, according to Yeltsin's critics, inside and outside Russia, what we might call transitional incrementalism not only can work, but may well be essential or

necessary. Because market capitalism is decentralized, with many loci of decision-making, it "necessarily takes a significant period of time to develop." Shock therapy's conceptualization of rapid and comprehensive transition to capitalism is inconsistent with the institutional inheritance from Soviet state socialism. "It may be that the only effective way" to construct capitalism out of state socialism is to follow the lead provided by capitalism's emergence out of feudalism, as the Chinese have done, and build "at the edges" and in the "interstices" of the "pre-existing economic system." Moreover, shock therapy in Russia has generated dramatic inegalitarian shifts in the distribution of wealth, power, and income, away from the majority of working people, pensioners, and farmers, to bankers and financial "oligarchs," mafia-like families and groupings, and some industrial managers and former members of the party-state elite. Growing inequality, combined with overall depression, inflation, and stagnation, has brought massive social costs, political disillusion, and erosion of an already fragile democracy, and threatens to "undermine the entire process of transition to capitalism in Russia." Another lesson from history is that "activist governments" have typically regulated and guided emerging markets and capitalists in practice, ranging from provision of credit, to industrial policies, to support to infant industries. Such measures, rather than thwarting capitalist market development, "seem to be essential to the success of that process today." Even if Russia were willing to wait for the decades, if not centuries, that a (relatively) "spontaneous" strategy of capitalist creation might well require, it is "unlikely that, in the face of powerful industrialized capitalist economies as competitors, Russia could ever achieve an industrialized capitalist economy without an activist state to guide its development" [Kotz with Weir 1997, 193-194, 197-199].

ADAM SMITH ON SHOCK THERAPY

A cursory examination of Adam Smith's *Wealth of Nations* might lead one to include Smith as an early supporter of "shock therapy." In a well-known commentary, Smith states that removing "all systems of preference or restraint," the "*obvious and simple system of natural liberty establishes itself of its own accord*" (emphasis added). Taken at its face value, and leaving aside Smith's several qualifications, this statement does suggest an element of spontaneity in the emergence, not only the operation, of "natural liberty." There are, however, powerful qualifications, leaving Smith's net position closer to an evolutionary, than to an automatic, one. First, Smith here presupposes a "modern commercial society" and, *in that context*, says in effect that "natural liberty" (or "free competition"), in the absence of systems of preference or restraint, is derivative from self-interest. This is a fairly strong claim, especially given Smith's recognition of the proclivities toward collusion and monopoly; but it is nowhere near as strong as the (mis)interpretation of this passage as claiming that a commercial society *itself* historically emerges automatically. Second, Smith then states that, in a regime of "natural liberty," "every man" is "left perfectly free to pursue his own interest in his own way." But only, he adds, "as long as he does not violate the laws of justice," that is, only within a functioning legal and moral system. Third, Smith proposes to "completely discharge" government from the impossible task of "superintending the industry of private people, and of directing it towards employments most suitable to the interests of society." But this is a program for limited government, *not* for *laissez-faire*,

as is evidenced by Smith's specification of the duties of government within a system of natural liberty, that is, national defense, internal order and justice, and "erecting and maintaining certain public works and certain public institutions," for example, education and other forms of public infrastructure. It is important that Smith here proposes to limit government by function, not by size. A government might be restricted to Smith's three major duties, but be quite large as well as activist, especially at a low level of economic development or in transition out of a former Communist economic system. Fourth, Smith cites important exceptions to the general principle of freedom of trade; for instance, he states that because defense is "of much more importance than opulence," the Navigation Acts are "perhaps the wisest of all the commercial regulations of England." He further observes (albeit with some qualification) that by foreign trade regulations such as tariffs, "a particular manufacture may sometimes be acquired sooner than it could have been otherwise, and after a certain time may be made at home as cheap *or cheaper* than in the foreign country" [Smith 1976 (1776), 479, emphasis added]. This *infant industry* argument clearly shifts from a static, allocational focus, typical of neoclassical analyses, to a dynamic, developmental one, more characteristic of classical approaches. Smith also states that if "high duties or prohibitions" were removed "all at once," considerable "disorder," including severe unemployment, might well ensue. He concludes by stating that to suppose that free trade "should ever be entirely restored in Great Britain" is "absurd" and utopic [Smith 1976 (1776), Vol. I, 484-93; Vol. II, 208-09]. Finally, even if we suppose that the emergence as well as the operation of free competition has elements of automaticity, presumably because it is rooted in a "certain propensity of human nature," namely the propensity to "truck, barter, and exchange," that process, as Smith

observes, is “very slow and gradual” [Smith 1976 (1776), 17]. Thus, Smith’s characterization of the emergence and evolution of modern commercial society is much richer than many contemporary interpretations of and proposals for “shock therapy.”

CONCLUSION

In an effort to make economics more relevant to the problems of actually existing economies, Ronald Coase argued in his Nobel lecture that mainstream economics focuses on "a system which lies in the minds of economists but not on earth", calling the result "blackboard economics."

Even more surprising . . . is the neglect of the market or more specifically the institutional arrangements which govern the process of exchange. . . . The value of including such institutional factors in the corpus of mainstream economics is made clear by recent events in Eastern Europe. These ex-communist countries are advised to move to a market economy, and their leaders wish to do so, but without the appropriate institutions no market economy of any significance is possible. If we knew more about our economy, we would be in a better position to advise them [1992, 713-714].

Robert Heilbroner and William Milberg have argued that contemporary economic

thought is plagued by a crisis of vision [1995]. Perhaps this crisis is most evident in modern neoclassical, general equilibrium theorizing, which seems to be largely irrelevant to the workings of, and problems facing, actually existing economies. The problem, as argued by Deirdre McCloskey, is that for all of the time and attention it has received from the economics discipline "the general equilibrium theorem of Arrow and Debreu . . . [does] not, strictly speaking, relate to anything an economist would actually want to know." For unsurprisingly, "under some assumptions the equilibrium does exist and under others it does not; under some assumptions the equilibrium will be efficient and under others it is not. Well, so what? Sometimes it rains and sometimes it does not. In some universes the moon is made of green cheese and in others it is not" [McCloskey 1994, 135].

In the early 1980s, Hahn reflected on the use of GET as an argument for the free market policies of Margaret Thatcher and argued that her economic policies were based on a dangerous misappropriation of the Smithian metaphor of the invisible hand as everywhere equally applicable. He argued instead that a "wishy washy, step by step, case by case approach seems...to be the only reasonable one in economic policy" [1982, 21]. And he despaired that "The age of prophets and of witches is upon us and such an age is not friendly to reason." Given the results of the recent shock therapy "experiments" his despair was all too prescient.

What is needed is an economics that focuses upon the workings and problems of actually existing economies. In other words, as Joan Robinson has argued, economics should be "concerned with actual contemporary problems" and thus, put its "arguments in terms of the structure and behaviour of the economy" in which we live [1974, 53]. While

the classicals acknowledged and discussed the issues of power, the creative and dynamic role of markets, the exploration of profit opportunities, history, and institutions, all of these issues are assumed away, or at best given minimal importance in neoclassical general equilibrium theory. And because it is an Arrow-Debreu general equilibrium vision of the world that underpins shock therapy on a theoretical level, it is little wonder why mainstream Western economists were often ill-equipped to offer useful advice to policymakers confronting transition in their own economies.

The challenge to develop a more satisfactory economics is upon us. Indeed, the failures of shock therapy demonstrate the need for a better economics. Our argument has been that some of the important lessons we seek may be found by looking back "to clasp the hands" of the classicals [Robinson 1974, 48].

ENDNOTES

1. We recognize that there are many meanings to the terms “neoclassical” and “classical” and some would argue by linking the term neoclassical to Arrow-Debreu general equilibrium models we have presented an overly narrow conception of neoclassical theory today. We are also aware that others will consider our classifying Marx as a classical economist as inappropriate. We wish to maintain this basic dichotomy in this paper, however, because we feel it captures well the basic differences that has informed the analysis of systemic change in the transition economies and especially as regards the shock therapy policy recommendations.
2. See David Kreps [1990] for the formal proof of the possibility of general equilibrium.
3. Deirdre McCloskey [1994, 133] writes: "From everywhere outside of economics except the department of mathematics the proofs of existence of competitive equilibrium will seem strange. The proofs do not claim to show that an actual existing economy is in equilibrium, or that the equilibrium of an existing economy is desirable. . . . [Instead, it shows] that certain equations describing a certain blackboard economy have a solution, but they do not give the actual solution to the blackboard problem, much less to an extant economy."
4. At the undergraduate introductory level, the notion of long run partial equilibrium that is taught is indeed of a much more classical nature. In this analysis, the entry and exit

in and from competitive industries results in price adjustments until price is equal to minimum long run average cost, thus enforcing the zero profit equilibrium condition.

The zero profit condition in this context is equivalent to the equal rate of profit condition of the classicals, because the neoclassical notion of cost embodies the opportunity cost of alternative investments. This partial equilibrium approach derives from the work of Alfred Marshall [1952 (1924)], who, for some purposes (such as equilibrium), can be considered more in the classical than the neoclassical tradition.

5. Some observers may (inaccurately) argue that “time” does enter into GET with Arrow and Debreu’s theory of contingent claims markets. The basic idea is that in making consumption decisions, the consumer can trade not only oranges for apples today, but oranges today for oranges tomorrow. This does not qualify as recognizing and accounting for real historical time. Uncertainty in this theory, moreover, is once again pulled under a classic probabilistic structure where either subjective or objective probability distributions are assumed known, effacing the concept of uncertainty of its strategic importance in real time capitalist decision-making.
6. James Angresano [1989] provides a contemporary classical-institutional theoretical and research framework which places economies in their socially-embedded contexts.
7. Reviews of the transition literature can be found in Elliott [1997], Elliott and Hall [2000], Hall and Elliott [1999], and Hall [1999].

8. Both Stiglitz [1999] and Griffin and Khan [1995] argue that it is useful to compare the reform experiences of various countries, including China and Russia. While some may charge that this comparison is unfair due to different starting points (with China behind Russia and hence in a position to catch-up more easily), Stiglitz argues that such a comparison is justified, as China had to confront both the challenges of development and transition while Russia faced (relatively) only the latter [1999, 3]. A more controversial issue is why the shock therapists refused to look to China for potential reform lessons. In a 1992 paper, for example, Jeffrey Sachs and David Lipton were content to state that the Chinese case had "little relevance" for the reform experiences of Europe and the former Soviet Republics. It is also interesting that Sachs and Lipton saw no reason to further justify their assertion, suggesting a lack of concern about the importance of institutional specificity.
9. We do not claim that an evolutionary transition strategy is *invariably* better than rapid reform. Transition strategy in Belarus, for example, has been more gradualist than in the former Soviet Union, but it has exhibited an even more abysmal economic record. Likewise, the Czech Land implemented a transition program even closer to shock therapy than did Russia; but its economic performance has been much stronger.
10. A missed opportunity in Chinese reform thus far, however, is the large gap between urban and rural incomes. Per capita, household income in urban China is 2.42 times that in rural areas [Griffin and Khan 1995, 178]. This figure, moreover, understates the urban/rural gap, as consumer subsidies are higher in urban areas.

11. We do not argue, of course, that China's reformers have always chosen the correct reform paths, that their outcomes have been perfect or optimal, or that their reforms have brought about the best possible institutions. For example, the argument could be made that the agricultural commune could have been saved and reformed rather than abandoned. See Griffin [1984] for a discussion of the variety of reform experiments in rural China.

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Table 1: Equilibrium in Classical and Neoclassical Economics

<u>Issue</u>	<u>Classical</u>	<u>Neoclassical</u>
Efficiency	Dynamic; Developmental	Allocative
Role of Markets	Creative role within a “disequilibrium” system of exploration	To facilitate exchange
Equilibrium Conditions	Necessary; Equal rate of profit condition (center of gravity) within a system-wide markup pricing model	Sufficient; Consistency; Center of gravity issue not addressed; goal to find prices where equilibrium “could” exist
Time	Real historical time	Ahistorical; Logical; Euclidean
Nature of Exchange	Exchange occurs in real historical time at dis- equilibrium and equilibrium prices	Exchange occurs only once equilibrium prices are reached
Power	Provides a degree of tension within the theory and points to policy implications	Destroys the framework of equilibrium
Institutions	Central to analysis; Necessary to economic activity	De-emphasized; Hinders smooth operation of the system