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AGRICULTURAL COMPETITIVENESS: MARKET FORCES AND POLICY CHOICE

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INTRODUCTION

Amartya Sen, economist and philosopher, has expressed surprise that modern economics has evolved in a way that characterizes human motivation in 'such spectacularly narrow terms' of self-interest. To paraphrase him, economics is supposed to be concerned with real people. It is hard to believe that real people could be completely unaffected by the reach of the self-examination induced by the Socratic question: 'How should we live?', a question which is also a central motivating one for ethics. He asks, 'Can the people whom economics studies be really so unaffected by the resilient question and stick to the rudimentary hard-headedness attributed to them by modern economics?' (Sen, 1987). Sen further expresses surprise at the contrast between the self-consciously 'non-ethical' character of modern economics, with the historical evolution of economics being largely as an offshoot of ethics. Both branches ultimately relate to politics, though in rather different ways, one branch with 'ethics' and the other he terms 'engineering'. Sen observes that the ethics-related tradition goes back to Aristotle (Ross, 1980) who saw economics as the study of wealth, but viewed politics as the master art, with the rest of sciences, including economics, being used to serve political ends. In the words of Aristotle, economics 'legislates as to what we are to do and what we are to abstain from ... so that this end must be good for the man' (quoted in Sen, 1987).

At a deeper level, economics, according to Sen, is concerned with the assessment and enhancement of more basic goals ultimately related to ethics and politics, addressing the questions of how we should live and what is good for us. The engineering aspects, on the other hand, he argues are related to what Kautilya, an advisor and minister to the Indian emperor Chandragupta, described in the fourth century BC as the logistical approach to statecraft, including 'the science of government' and 'the science of wealth' (Sen, 1987). In Sen's view, the engineering aspect of economics has been by far the most dominant, and it has been very fruitful in helping us understand a number of important questions. These include the tragically real but ethical question of the simultaneous presence of hunger and wealth, occurring through the general economic interdependence of income and production. But whereas predictive

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economics is allowed to influence welfare economics, ideas from welfare economics are rarely allowed to influence predictive economics. Actual action is believed to derive from self-interest alone, when indeed human motivation for action, including economic action, is more complicated.

Notwithstanding Sen's chastisement of fellow economists in dealing with ethical issues, generalizations of utility functions formally introduce others' utility levels in preference functions. Samuelson's social indifference curves approach the issue (Samuelson, 1956). Boulding's integrative system is a means of introducing interdependent utilities among groups at different levels of community aggregation (Boulding, 1993), while Becker's treatment of social interactions formally introduces others' well-being directly into the individual's utility function (Becker, 1974). Nevertheless, these ideas and developments have not been widely utilized and adopted in everyday economic analyses. One approach to their introduction into the mainstream of economic analysis recognizes the interaction in the interests of individuals and groups at different levels of aggregation. Thus, at the micro level, one would gain pleasure from seeing family members and close friends prosper along with oneself. For various aggregate levels of preferences, one could argue that the aggregate would gain welfare by seeing prosperity among other groups with whom they have some connection. This framework explains why various institutions are formed to deal with domestic and international inequalities and differences.

In reality, however, despite being freed of superpower rivalries at the end of the Cold War, and contrary to expectations, governments of industrialized countries have turned inward. This is due in part to the lack of support among their constituents for addressing global welfare issues, in part to frustration with past aid, and to 'a long-simmering crisis of confidence in the capability of the state' (Salaman, 1994). Indeed, citizens of developed countries have increasingly turned to non-governmental organizations (NGOs) as a means of channelling their assistance to people in need globally. This disenchantment with governments in the Western world has had a profound adverse effect on analytical inquiry into the role and behaviour of institutions, in particular that of governments, which profoundly affects the welfare of the poor.

This paper addresses issues of welfare of the poor as it affects global welfare by exploring the role of agriculture and that of governments in its development. To do so, it first addresses the nature of differences between the adjusting (developing) and transition economies and explains why agricultural development is more important in addressing welfare of the poor in adjusting countries than in transition economies. It argues that governments must play an important role, not just in the conventional areas of provision of public goods, but also in the more controversial areas of pricing and subsidies, and the distribution of goods, services and assets. In a later section the effects of the roles of governments in these areas on welfare of the poor is illustrated by presenting examples of South and East Asia, Africa, Latin America and the US South. The paper argues that, in the absence of steps to ensure an equitable distribution of assets, the burden of generating employment for the poor falls much more heavily on the public sector than, for example, where a successful land redistribution occurs, which the paper argues has historically almost always involved non-market solutions. Following North (1990), the paper

argues, however, that government behaviour and the institutions that ensue from it may be rather more a result of historical accident than a conscious design. Thus it tells us little about how to design policies and institutions to achieve desired outcomes.

ADJUSTING AND TRANSITION ECONOMIES

The non-OECD part of the global economy is typically divided into two groups, namely the low- and middle-income countries located in Asia, Africa and Latin America, referred to as developing (and more recently as adjusting) countries; and countries of Eastern Europe and the former Soviet Union, emerging from central planning, referred to as transition economies. Since the end of the Cold War, attention has shifted from addressing the problems of developing countries to those of transition economies in need. Therefore differences between adjusting and transition economies are pertinent in understanding changes in welfare of the poor and its relationship to global changes.

Adjustment refers to macroeconomic reforms in developing countries facing a combination of external shocks (particularly terms of trade changes) and internal economic mismanagement. It is aimed at addressing macroeconomic imbalances, such as balance of payments and fiscal deficits, typically associated with large price distortions, the excessive role of governments and industrial protection. Adjustment involves demand as well as supply management and focuses on price as well as non-price measures. Typical measures include exchange rate adjustments, trade, fiscal and financial sector reforms, institutional reforms in the labour and goods markets, and sectoral reforms in agriculture and industry. Adjustment measures are intended to reduce the role of the government and increase the role of the private sector. However, price reforms cannot work without well functioning markets. Adjustment, therefore, often has to be complemented by government investment in physical and institutional infrastructure to ensure well functioning markets. This is why adjustment has increasingly come to be viewed as a long-term phenomenon.

Transition refers to the shift of centralized economies to dependence on market forces, the emphasis being on the establishment of private property, and the development of a legal and institutional framework such that market forces and individual initiative replace central directives. But the difference between adjusting and transition economies is one of scale rather than one of substance. It relates to the initial size of the public sector and degree of intended or actual change. Typically, the term 'transition economies' has been used in the context of Central and Eastern Europe, though it could be argued that China and Vietnam are in both adjusting and transition stages. Moreover, given the hyperinflation and large budget deficits in many transition economies, they too have been undergoing adjustment similar to that undertaken by developing countries. In addition, the distinction between IMF-type short-term stabilization and World Bank-type long-term adjustment has become blurred over time as a result of the strong interaction between the short- and long-term policies and outcomes.

It is clear, however, that one difference between the transition and adjusting economies relates to the structure of their agricultural sectors. Large farms in

transition economies, at times consisting of several thousand hectares, mimic an industrial enterprise more than agriculture. They generate public revenues centrally, and so finance public services such as education, health and infrastructure. The entire operation is more like that of a city-state than a village as we know it. Although small individual plots have been allotted in socialist countries for farming, and have enjoyed greater factor productivity, the indivisibility of the capital invested in large farms poses the major problem in the reform process. The countries lack rural infrastructure necessary to divide large farms, as well as the household-based tax system needed to replace the centralized extraction of surpluses. By contrast, in China, with per capita cultivated land of only 0.10 hectare in 1978 (Lin *et al.*, 1993), the restoration of private property to households engaged in collective agriculture through the individual responsibility system involved a relatively simple reform.

It should be realized that differences in the size of land holdings between adjusting and transition economies cannot be generalized. In Latin America, South Africa and Zimbabwe, patterns of land distribution are similar to that in the former socialist states, albeit the ownership is in private hands. Indeed, even the means used to acquire land from peasants by the ancestors of current owners of large farms in many developing countries were not too dissimilar from those pursued in the former socialist states. Thus, in Sen's parlance, some of the ethical, as well as the engineering, questions in transition economies are more dissimilar in degree than in substance from those in developing countries.

Nevertheless, differences between the adjusting and transition economies are pertinent in terms of ultimate outcomes. First, most transition economies are middle-income countries, with Albania being the only exception in the Central and East European group. They have already undergone structural transformation. The shares of agriculture in the labour force and GDP range from 8 to 20 per cent at most. The majority are well endowed in terms of natural resources, with only 8 per cent of the global population and 20 per cent of the global agricultural resources.

In sharp contrast, in the low-income developing countries, where nearly three-quarters of the world's one billion poor live on less than a dollar a day, agriculture contains the greatest share of the poor. It also contributes a large share of labour force, GDP and exports. Increasing factor productivity in the agricultural sector is therefore crucial for growth in total factor productivity. Also public goods are of greater significance at early stages in achieving increases in factor productivity, owing to a combination of scale economies in the provision of certain infrastructural and other services, the long gestation lags in the realization of benefits and the limited ability of rural households to finance service provision. In addition, effective decentralized community and cooperative organizations, involving active participation of the farm population in successful agricultural development, would also be needed to replace government provision. However, Taiwan does provide a case of one of the most effective examples of a smallholder agriculture-led economic development; it had neither a Ministry of Agriculture nor a Ministry of Planning. The Joint Commission on Rural Reconstruction (JCRR) played a catalytic role in developing smallholder agriculture by coordinating the planning and im-

plementation of interventions in several sectors through strong community-based organizations. Thus there is no monolithic public sector that serves the interests of the poor in all successful cases.

Yet to stress the difference in the nature of the 'public' role between the low-income developing countries and the middle-income transition economies is not to deny that, prior to their collapse, transition economies experienced a major slowdown in the growth of total factor productivity, including that in their agricultural sectors. Farming failed to deliver the range and the quality of goods demanded by their citizens at declining unit costs, in part as the result of pervasive government failure. The collapse of the political systems was thus, in significant part, a result of the growing disjuncture between consumers' rising expectations and the ability of the economies to deliver.

Nevertheless, the per capita calorie consumption of between 3000 and 3300 is similar to, or higher than, the OECD levels. Hunger is not a problem in transition economies, although dairy and livestock products, and fruits and vegetables tend to be in short supply. In view of Engel's law, and the stagnant or declining population in the short and medium terms, demand growth in calorie terms cannot be expected to be dynamic. The interest in transition economies on the part of the Western world is prompted more by the commercial opportunities on offer to their agroindustrial enterprises. Obviously, also, the intellectual attraction in studying the process of market development is strong.

By contrast, nearly 90 per cent of the 100 million annual increase in the global population is occurring in developing countries. Therefore demand growth following agricultural development must be rapid, albeit for domestically produced goods and services of a labour-intensive nature. Where agriculture succeeds, incidence of rural poverty declines more rapidly than in urban areas since every dollar invested in agriculture generates three to four times more employment than does the manufacturing sector (Timmer, 1994). With agricultural growth, rural income distribution (as measured by Gini coefficients) tends to become more equal than in urban areas, in large measure because labour tends to be used at well below its marginal product (Naylor, 1994). Rural development reduces urban migration and the pressure to invest in costly urban infrastructure. Thus ensuring that each household has at least some productive assets, and particularly land, is one of the most important ways of creating employment and incomes. The more equal the distribution of land, the more robust the growth process.

Thus whereas the benefits to Western countries may be immediate from the growth in transition economies in terms of investment and export opportunities, they are likely to be of a lesser overall long-term significance when compared to large benefits to be derived from the eradication of global poverty. The same argument applies in the case of social sectors. Transition economies have had universal access to education, health and other services, and the current problem is one of fiscal affordability of their level and coverage. Developing countries, on the other hand, show a vast range in terms of social indicators both within and among them. In particular, the countries in Latin America and Africa have experienced a considerable slowdown of growth in social provision as a result of the decline in per capita incomes during the

1980s (Table 1). The recovery which began in the early 1990s has been stronger in Latin America than Africa, where it has been both variable and anaemic. Thus the welfare issues in developing countries are not just vast, but of a more pressing nature.

TABLE 1 *Average annual growth in GNP per capita*

Area	1965–73	1973–80	1980–90	1989	1990	1991
Sub-Saharan Africa	1.7	0.9	–1.3	0.5	–1.4	–0.6
Middle East and North Africa	6.0	1.7	–2.5	–0.2	–0.2	–1.3
Latin America and Caribbean	4.6	2.2	–0.4	–1.1	–1.4	1.7

Source: World Bank (1993) .

There are other stylized differences in transition and adjusting countries, albeit of degree. Most transition economies are going through political as well as economic transitions, drastically changing the nature and the role of the state, both in terms of who represents the interests of the people and, even more fundamentally, which people's interests the state represents. Developing countries, by contrast, appear to be experiencing relatively more stable political systems, although generalizations are difficult. National unity is in question in a number of African countries as the result of ethnic conflict. In addition, many developing countries have been undergoing transition to Western-style democracies in the last decade, South Africa being the latest to join the ranks.

Nevertheless, the Western-style modern state is relatively new in developing countries, as well as in transition economies. There is often an absence of broadly shared national boundaries, historically shared political and cultural values, a lack of balance of power among the legislative, executive and judiciary branches of the government, an absence of a free press or human rights, and so on. All too often the perceptions of the people as to what constitutes a nation do not coincide with those of the major interest groups in the country, such as the military, the monolithic political party or single individuals, each of which may singly or jointly control the apparatus of the government. The extreme adverse consequences of the divergence of people's and government's views as to the nature of the state are evident in the former Soviet Union, East Germany, the Czech and Slovak Republics and Yugoslavia, as well as in Sudan, Somalia, Rwanda and Burundi.

Restoring and maintaining macroeconomic balance in countries such as those listed above raises basic questions about policy. They concern the issues of who are to be the beneficiaries, to what ends policies are to be addressed, and whether they can be pursued with predictability or consistency. The policy-

making process is immensely more complex without the existence of a cohesive state, for policy implies purposive action and the presence of functioning institutional arrangements (rules, laws, customs, conventions, prices, habits and entitlements) giving policy its empirical content (Bromley, 1994). Implementation of policy calls for compliance with rules. Governments give operational content to policies. Technical progress, rates of discount and risks associated with economic activity are critically determined by policy and, through it, resource allocation and income distribution. Stability, consistency and predictability of policies cannot be guaranteed without a strong legitimacy of the state.

Modern economic analysis has tended to take for granted the underlying institutional structures which determine the rules by which factors and products are mobilized, and from which the existence and the competitiveness of markets are determined. North (1994), in discussing the evolution and importance of a society's institutions, emphasizes the difficulties that nations have in finding the right mix of institutions within their polity: 'most societies throughout history got "stuck" in an institutional matrix that did not evolve into the impersonal exchange essential to capturing the productivity gains that came from the specialization and division of labour that have produced the Wealth of Nations'.

In the same way that the state and its institutions are important, so information is crucial. For instance, unknown political upheavals tend to provide an appearance of political and economic stability which may be far removed from the reality in terms of their consequences for human welfare. The destabilization of international capital markets prompted by the internal political struggle in Mexico is the latest such example. Sen has reminded us that the deaths of between 30 million and 50 million Chinese during the 'great leap forward' were known only a decade or two later in a country that has an otherwise admirable development record. He argues that the missing information was the result of an autocratic state. In contrast, in India, a free press has tended to ensure broad knowledge of the extent of hunger and droughts, leading to public outcry and causing public agents to act promptly to address the temporary problems as they arise. However, similar pervasive knowledge about the incidence of chronic poverty does not result in its eradication through the provision of universal primary education or an effective land reform in a democratic India, an issue which is explored further below.

Other intangible factors matter in policy formulation and implementation, including political will, leadership and analytical and administrative capacity. Idachaba (1994) has argued that the many sources of policy failures in Nigeria can be attributed to the absence of a visionary leadership and the lack of cohesion in the successive regimes about the objectives, purposes and guiding principles of policy. The result is a great gulf between nominal and intended policy, as well as the nominally intended and the real beneficiaries, as distinct from the genuine policy mistakes and their unintended gainers and losers. More generally, the 130 or so local and regional conflicts which go unreported in the Western press reflect the human suffering, food shortages and massive migrations caused by non-functioning states, and lead to an obvious failure of markets to emerge or operate competitively.

AGRICULTURE-LED DEVELOPMENT

Agriculture continues to play a pivotal role in the development of economies around the world, despite the all too frequent discrimination against the agricultural sector. We explore the impact of the nature of the state in two major developing economies, China and India, focusing on the space that each country has had available in the formulation and implementation of policies, institutions and investments, with very different outcomes for human welfare.

Global growth from a welfare perspective

One of the exciting features of the last quarter-century is the number of low-income developing countries which have moved into middle-income status, while involving broad sections of their populations in the growth process. While the so-called 'East Asian Tigers' were the first to do so, China has also made important progress since the late 1970s. Annual economic growth rates have ranged between 8 and 12 per cent for well over a decade, with per capita income doubling in the decade ending in 1987, an accomplishment which it took the United States almost 50 years to achieve, and Japan almost 35 years (Stern, 1994).

Some 170 million people were lifted out of poverty in the decade of the 1980s in China alone. With exports increasing at an annual rate of 17 per cent from 1979 to 1992, or more than a sevenfold increase, China, which was once a major importer of food, has become an exporter. It alone attracted 40 per cent of the direct foreign investment flowing to developing countries. The success of South Asia, which also contains nearly a billion people, has been less spectacular, but nevertheless significant, with a steady increase in per capita incomes for four successive decades. India's exports increased at 20 per cent, with foreign investment of \$4–8 billion in 1994, and it is expected to maintain or exceed this performance.

But the faster structural transformation, with more broad-based increases in agricultural factor productivity accompanied by higher overall levels of employment, and a more dramatic reduction of the incidence of rural poverty than in East Asia, is in no small measure due to the authoritarian nature of the Chinese state. Its influence on the choice of policy instrument is explored below since, for a variety of reasons (such as declining commodity prices, growing food surpluses and environmental concerns) agriculture in developing countries has been relegated to the 'back burner' and the role of governments in East Asian agricultural and overall success is poorly understood.

In Asia agricultural households have contributed a substantial increase in food production, saved scarce foreign exchange to enable financing of the import of essential goods for industrialization, generated raw materials for industry, ensured declining real food prices and low wages for the manufacturing sector, and facilitated expansion of employment and income. The households have generated raw materials critical for the initial, simpler forms of value-added in the process of industrialization. Low food prices have helped maintain political stability, enabled governments to concentrate on the chal-

lenges of economic modernization, enlarged domestic markets for industrial goods and services, and ensured stronger rural to urban linkages. In short, the broad-based increase in agricultural factor productivity has ensured agriculture's contribution of labour, capital, government revenues, output and markets to the rest of the economy.

An unappreciated contribution of agriculture is also the increased entrepreneurial capability fostered through the process of learning by doing in agriculture. Governments, too, have been engaged in an active process of learning by doing through the provision of public goods. To do so they have had to modernize the way they operated. Indeed, the speed at which the modern-day developing countries have achieved transformation is in no small part due to the role their governments have played in bringing science and technology, physical infrastructure and an array of services to small farmers, services typically provided by markets in Europe and North America at similar stages of their development. But the successful governments have also subsidized agriculture, fostered local institutions and ensured an equitable land distribution.

By way of illustration, more than 90 per cent of the world's rice is produced and consumed in Asia by more than 90 per cent of the world's rice farmers (IRRI, 1993). Asia is also where more than 50 per cent of the world's poor live. Increasing productivity of rice farming alone is one of the most important ways of reducing poverty. But with rapid urbanization, by 2020 nearly half of Asia's projected population of 4.2 billion will be in the urban areas. Thus by 2020, the world must produce 350 million additional tons of rice, some of it outside Asia, compared with the 520 million tons produced in 1993. Asia must not only produce more, but at the national level must have the foreign exchange to pay for increased rice imports, and at the level of poor households must provide the purchasing power to ensure that they can acquire imported rice.

The distributional challenge

East Asia has both the import capacity and the domestic purchasing power to make use of imported foods to meet internal food needs. India has the import capacity but the poor do not have the capacity to pay for the imported foods. Also in Latin, and particularly Central, America, agricultural growth has been concentrated in limited areas. Of course in much of sub-Saharan Africa neither the governments nor the populations can afford food imports. Large numbers of households make meagre incomes in unsuitable areas. In this connection, agriculture is now a major source of budget deficits involving subsidies on irrigation, electricity, water and chemical inputs. Such subsidies typically benefit a small portion of the farming population which wields a disproportionate amount of political power. An important question relates to the role of the state in pricing to achieve rapid and broad-based economic growth.

Are international prices an appropriate reference point for domestic price determination in developing countries? Rice provides an interesting example in this respect. During the last 25 years, global rice production doubled, the

world market price fell more than 40 per cent and per capita rice consumption increased by an average 25 per cent. The sustained high growth rates in rice production were achieved in Asia for the most part by ignoring the border price paradigm for rice, the staple food. During this period, Asian governments have also used subsidies on fertilizers, irrigation and pesticides to encourage rice and other production, creating massive employment and incomes. With the elimination of subsidies, the comparative advantage of agricultural activities is changing substantially.

Since 1985, the increase in rice production has fallen in eight countries that produce 70 per cent of production (IRRI, 1993). But with only 4 per cent of the global production entering world trade, international prices do not necessarily reflect the shaky balance of supply and demand. Moreover, industrialization, urbanization, environmental concerns and diversification out of rice are claiming many prime rice areas out of rice production. Timmer (1994) argues that deviation from border pricing is justified since the border price paradigm is incomplete and biased, resulting in lower value being placed on agricultural commodities than their 'true' worth, particularly at an early stage of development. He justifies his case by observing that the reduction in urban bias in Asia is itself a result of the rapid increase in agricultural production, stimulating increased labour allocation in the manufacturing sector via the reduction in the real wage through the effect of food prices on the cost of labour, and thus stimulating overall economic growth. But Asian governments have also invested heavily in physical infrastructure and human capital, and maintained a favourable macroeconomic policy environment.

In Timmer's view, four factors explain why world market prices fail to provide appropriate signals to developing countries for valuing the importance of their agriculture:

- (1) the need to maintain an appropriate balance between domestic production and imports (including food aid prompted by subsidy policies of developed countries);
- (2) the special role of agriculture in alleviating poverty given the large share of total and poor population in agriculture, and the substantially higher efficiency of expenditures in agriculture in terms of the effect on reducing poverty in rural relative to urban areas;
- (3) the learning by doing value in developing the rest of the economy;
- (4) the increased use of labour at far below its marginal product in 'own activities' owing to considerations of food security and subsistence.

But an equally important issue is the correct reference to be used in place of world prices.

The role of land distribution

The new institutional economics stresses that the nature of contractual arrangements, and the income and wealth distribution, matter because they affect the incentives and multiplier effects from agriculture (Stiglitz, 1993). For instance,

share cropping is more likely to occur under conditions of land inequality, typically also associated with an inefficient allocation of capital when valued in terms of social prices. Therefore Stiglitz argues that advice to adopt market systems is too simplistic when problems of unequal land distribution, imperfect information and incomplete risk markets are serious. They can have a profound impact on both efficiency and equity. Agriculture is particularly risky and small farmers tend to be at a greater disadvantage relative to large producers.

Notwithstanding these risks, agriculture under centrally planned systems of management has worked less well than under market conditions, for many reasons. First, under the public sector, organization and management of agriculture, and institutional surrogates for markets, tend to be poorly organized to adapt to information and incentives. Also information tends to be poorly processed owing, in part, to the hierarchical relations which vest decision-making authority away from the scene of economic activity. Shirking becomes a central problem, individual initiative tends to be lacking, soft budget constraints replace hard budget constraints, and job and salary security inhibit quick responses to new and critical information. Thus the reduction of risks faced by farmers tends to be achieved at huge costs under the public system of management.

Then what should be the role of government, if not in production or distribution? The non-controversial roles of government have been clear enough: protection of property rights, enforcing contractual obligations to foster competition, and the provision of public goods such as agricultural research, technology, information and infrastructure. The more controversial roles involve redistributing assets through forced measures, stabilizing prices, absorbing risks and providing credit. If the government goes where private markets fear to tread, it needs to do so cautiously and with considerable safeguards. The point is well stressed by the fact that even the governments of industrial countries are not immune to the ubiquity of soft budget constraints, as illustrated by the US savings and loan rescue which cost US taxpayers between \$250 billion and \$500 billion (Stiglitz, 1993).

Governmental reforms

Designing an appropriate incentive structure for public institutions is not easy. Governments must adopt modern contractual statutes and design systems which fairly, effectively and quickly enforce contracts. Programmes that directly address market failures and the presence of rural poverty are more desirable than those which reduce risk or attenuate incentives.

For instance, investment in infrastructure is a way of reducing risks, improving resource allocation and improving information. Nevertheless, the experience of successful East Asian countries also demonstrates that governments can play important roles even in other controversial areas such as the distribution of private property, with positive long-run effects on efficiency and equity in the allocation of resources at the farm level. Nevertheless, interventions raise complex political and ethical as well as economic issues.

It is now generally recognized that equality in private ownership of property is highly desirable (Stiglitz, 1993). This means that privatization programmes undertaken by governments should aim to maintain as much equality and tradeability of assets as possible. This is because the earlier assumption that the rich save and the poor consume has been demonstrated to be lacking in validity. Moreover, if wealth is unequally distributed, the level and composition of effective demand tend to be skewed in favour of more capital-intensive goods with a profound adverse next round of effects on income distribution (Lele and Mellor, 1981). However, if wealth is unequally distributed and labourers do not own their land, rental contracts are a more desirable option than not having them. Nevertheless, they have two problems: workers bear the risks with cash rental systems and implicitly pay high taxes through shared tenancy arrangements.

The post-Civil War history of the United States South illustrates the effects of unequal distribution of wealth. The major disagreement resolved by the US Civil War (1861–5) was that over freedom for the former slaves, a predominant component of prewar Southern agriculture. Despite the ethical significance and importance of their freedom, the newly freed men had no land, no physical capital and little human capital owing to the prohibition on educating slaves. It is now widely argued by economic historians that the complete lack of wealth held by the freed men accounted for most of the income differential between blacks and whites in the South through most of the remaining nineteenth century (DeCanio, 1974).

A comparison of the East Asian economies and the Latin American economies is also instructive in the implementation of land reform. Grabowski (1993) argues that the East Asian economies were successful with their land reform because the reform redistributed power to the countryside, encouraging the government to pursue policies favouring agriculture and ultimately, economic development. By contrast, in countries where power is concentrated in the hands of government or industry, agriculture is discriminated against and economic growth is slow (Grabowski, 1993).

This message is consistent with the Latin American experience with land reform. De Janvry and Sadoulet (1987) argue that land reform failed to materialize in Latin America because modernization strengthened large landowners:

The state sought first to modernize the medium and large farms as the most cost-effective approach to raising TFP. Successful modernization created economic power which reinforced the political power of landlords. They, in turn, were able to use this power to obtain credible promises of non-expropriation and to successfully engage in rent seeking. This third distortion (credible promises or institutional rents) made redistributive state interventions to compensate, through institutional change, for the initial two market distortions (no land or credit market and moral hazards in hiring labour) impossible. The result is a heavy social cost in terms of forgone TFP levels that could have been achieved by redistributive land reform and the perpetuation of an extremely unequal pattern of landownership. The policy implication is that land redistribution should have been sought outright, before modernization endowed the landlords with enough power over the state to make land reform economically impossible.

Furthermore, most land reforms in Latin America maintained state control in one form or another over redistributed lands (Ortega, 1990).

The issue of land reform is critical. Although it threatens the tenets of private property, its lack often increases the risk of an impending land grab, increasing risks and attenuating incentives to invest for those who do possess land. Drawing an example from Africa, Zimbabwe's reform programme still has not benefited a majority of the land-hungry. Similarly, there is a possibility that South Africa may not be able to achieve an effective land redistribution through market mechanisms to create the level of employment necessary to fulfil the expectations of its population.

The choice of controversial governmental policies such as land redistribution creates moral and ethical dilemmas going beyond the standard rubric of positive economics. North, Anderson and Hill (1983), in commenting on the US Civil War, note that such moral and ethical dilemmas are questions which cannot be resolved by an appeal to economic reasoning. In the context of the United States, a Civil War was fought to resolve the issues. How political processes address these dilemmas by means other than war is an important issue for political scientists to address. In the present-day context, how a democracy and an authoritarian political system handle such dilemmas is illustrated by the examples of India and China, and the differing effects on growth and equity. The significance of the India–China contrast is to develop a better understanding of what countries can do for themselves. Their recent performance and liberalization experiences are, therefore, worth reviewing in a longer historical context.

Comparison of experience in China and India

China's agricultural production increased from a rate of 2.9 per cent growth during 1952–78 to an annual growth rate of 7.1 per cent during 1978–84 and, even when it decelerated, it was 4.1 per cent during 1984–9. This is the fastest overall growth rate of agriculture experienced by any country.

It is often argued that liberalization of agriculture explains the historically unprecedented growth in the Chinese agricultural production, and that is certainly true. But the recent performance record also needs to acknowledge the strong, and often coercive, role the government played for nearly 30 years prior to liberalization. During that period, the crucial local organizational and institutional foundations were laid and there were massive investments in physical infrastructure. On top of these assets, major incentive changes in the post-1979 period could easily result in rapid output growth of the kind that an initially more liberal system, such as India's, has been unable to achieve.

For instance, monopoly procurement of cereals was established in China in 1952, to ensure a cheap supply of food to urban areas. Even when the market liberalization outlined below took place, a significant portion of the cereal production was still being obtained, in the 1980s, by quotas for compulsory procurement of grain at predetermined prices. A major land reform was also completed in 1952 to redress the dual problems of high rents and fragmented land holdings. By 1957, 753 000 advanced cooperative farms were developed,

with 119 million households. Collectivization was surprisingly successful in the earlier years (mid-1950s). A total of 24 000 communes were developed, involving 120 million households. Billions of hours of labour were mobilized in China through non-market mechanisms and the communal system of production, which could not have been achieved in a democratic India. Although the incentive structure in China was inadequate, and perhaps even undesirable during the earlier period from the viewpoint of personal freedom, China did develop vast supplies of highly labour-intensive public goods such as irrigation dams, canals, soil conservation measures and rural roads. But these steps were of course not adequate. The agricultural crisis of 1959–61 was a major impetus to undertake further measures in the agricultural system. From 1962 to 1979, an agricultural research system had already begun to produce improved planting material, and a monopoly public-sector distribution system of seeds and chemical fertilizers had been established throughout the country.

The post-1979 reforms consisted of the following:

- (1) Price reforms: average prices increased by 20 per cent, and marginal price increases amounted to 40 per cent since households were allowed to sell above-quota production in the market.
- (2) Institutional reforms: the household responsibility system enabled farm households to acquire land leases by modifying the system of contracting out collectively owned land and other quotas, including those for outputs and other resources.
- (3) Market reforms: there was a greater role of markets to improve allocative efficiency, which resulted in agricultural diversification as farmers began to do more cash cropping and animal production for the market.

The reforms were fine-tuned over time by increasing the length of land leases, and allowing exchange of labour and land. But because increases in producer prices were not accompanied by parallel increases in consumer prices or in prices of inputs, subsidies in the agricultural sector have been large, amounting to over \$1 billion annually. China clearly needs to further liberalize its markets, address the problems of regional disparities and reduce the level of subsidies.

India's production success has been less spectacular than that of China in overall terms, partly because its initial conditions were far less favourable. For example, Indian yield levels in the early 1950s were the lowest in South Asia and, of course, considerably lower than China's, since a greater share of Indian agriculture depends on rainfall. Although production increased at about 2.7 per cent in the post-'green revolution' period (1966–90) compared with 2.3 per cent in the 1950 to 1967 period, almost all of the growth was concentrated in a few states with irrigated areas. Their growth was far more dramatic than all-India growth rates indicate. Overall total factor productivity (TFP) increased by nearly 45 per cent, and in rice by 15 per cent, in the immediate post-'green revolution' (Rao, 1994) and this continued in the 1980s. In the 1980s, the contribution of seeds and fertilizers to TFP growth was greater than that of irrigation, contrasting with the experience of the 1970s (Rao, 1994).

The portion of India's food grains coming from Punjab, Haryana and Uttar Pradesh increased from 27 per cent in 1968–9 to 36 per cent in 1989–90. Over the same period, the portion of public cereal procurement from these three states increased from 65 per cent to 80 per cent. In those few states, performance was similar to that in China (Lele and Bumb, 1994). In India also the state played an active role in the 'green revolution' in much the same way as in East Asia, basically through land reform, irrigation research, price supports and input distribution. The increase in total factor productivity in India also resulted in a decline in the relative prices of agricultural products in the 1980s, with consumers benefiting relatively more than producers. Real rural wages increased, but wage increases caused a steep decline in the employment elasticity with respect to agricultural output. According to India's National Commission on Rural Labour, factor substitution induced by the rise in the real wage seems to have been far more important in reducing employment elasticity than the character of the technological change in agriculture (Bhalla, 1991). The employment effects have been uneven among regions, factor substitution in certain states being attributable to the fact that technology is particularly suitable to the areas which are infrastructurally developed, and where wage rates are already high relative to technologically and infrastructurally less developed regions.

Unlike the situation in China, the Indian land reform measures undertaken in the 1950s were haphazard, and left a large share of the rural households landless. Also India's community organizational efforts have been hamstrung by fragmented class, caste and religious structures difficult to handle in a democracy. Yet India has not experienced starvation deaths such as those that occurred in China, even in its worst Bengal Famine of 1942, or in 1965–7, when nearly 50 million people were at risk of starvation death (Johnson, 1971). Nevertheless, incidence of chronic hunger is extensive, in part as the result of landlessness.

The large and continued incidence of landlessness (or near landlessness) has placed a greater burden on the agricultural sector to create employment. But since market mechanisms respond to increased real wages, public expenditures have had to play a major role in rural employment generation compared with agriculture. The government's poverty-alleviation programmes finance employment on farms as well as off, contributing at least 60 per cent of the increase in employment in the 1980s (Rao, Ray and Subbarao, 1988). This does not mean, however, that the potential for increasing employment through focusing public investment on agriculture has been exhausted. Part of the problem is the level of farm subsidies and their adverse effect on the level of public investments, and the strength of the interest groups which make it difficult to remove or reduce subsidies. Input subsidies on irrigation, inputs and electricity benefit the relatively better off farmers in the 'green revolution' states. Together they amounted to 90 per cent of the planned public expenditure in 1989–90, compared with one-third in 1980–81. Subsidies on surface irrigation during the 7th plan (of Rs 11,700 crores) alone exceeded the entire 8th plan expenditures on major and minor irrigation projects by three times (Rao, 1994).

Agriculture is a 'state subject' in the Indian constitution, and the central government has a limited role in agriculture, except through the formulation of

macroeconomic, fiscal and trade policies, and allocation of planned investments. Resources at the disposal of states for investment have been eroded by the provision of subsidies, and the union government has withheld assistance to the states to make up for the decline in their subsidies and other investments. It is also in a poor position to influence the actions of states in such matters as land redistribution, priority to agriculture, or reduction of subsidies particularly, as India has been and is less decentralized below the state level than has been China. However, even if Indian states were effectively more decentralized, with unequal asset distribution at the local level, it is not clear that decentralization can achieve equity. Paradoxically, paternalism through decentralization may be essential in situations of unequal distribution of political power (Lele, 1992). Because a democratic India has been more decentralized at the state level than was the case in China, it has also been less able to protect its poor from chronic poverty. However, with political liberalization in China (albeit gradual), the ability of the states to protect the poor can be expected to diminish, with the two countries converging to some extent in policies and their outcomes.

In the more immediate future, however, liberalization of markets and prices, while creating jobs, will in all likelihood not have the same direct impact on poverty in India as it had in China because of the latter's more effective land reform. Institutional mechanisms for participatory management of public resources at the local level are manipulated by the interest groups driven by caste, class, religion and ethnic forces in India. This means that democracies must expect less rapid and more inequitable economic growth than 'benign' authoritarian states. Weaker states may not achieve much growth at all, nor therefore can they sustain distributive policies.

CONCLUSIONS

North stresses the importance of the development of 'institutions that will permit anonymous, impersonal exchange across time and space' (North, 1994). However, the institutions which a nation possesses are developed incrementally, and choices can only be understood in the context of the evolution of those institutions. North argues that there is a fundamental path dependence to institutions, a process about which little is currently known (North, 1990). His message is humbling and it should cause external parties to pause in the development of policy advice for other nations, particularly in the design of institutions. Some of that complexity has been illustrated in the paper.

The paper has also stressed the role of agriculture in the development of adjusting economies, the critical role of institutions, including governments in particular, in the process and the complex welfare and efficiency effects of these policies, not just on the poor, but potentially on stimulating global growth.

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