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Agricultural Trade Liberalisation and Economic Growth in Developing Countries: Analysis of Distributional Consequences

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The article analyses the impact of agricultural trade liberalisation on economic growth as well as on the welfare of rural livelihoods in developing countries through technological transformation in the agricultural sector. The article, based on existing literature, considers the background and reasons for the policy shift in developing economies away from agricultural protection and toward trade liberalisation. It attempts to shed light on the debate over the distributional consequences resulting from trade liberalisation. It also analyses how agricultural trade policy reforms affect poverty and inequality, since the majority of the population of developing countries is involved with agriculture, and these households are predominantly rural poor and functionally landless. The study found that trade liberalisation in the agricultural sector has had positive impacts on the agricultural sector but has contributed very little to poverty reduction because of the lack of income distribution and inequality measures in the policy sphere. The article might be useful for policy makers and researchers.

Keywords: agriculture, developing countries, growth, inequality, trade liberalisation

Introduction

The impact of agricultural trade liberalisation on economic growth, poverty and inequality in developing countries has recently become an important issue in the debate over international trade and development policy analysis. The World Trade Organisation and international development agencies that are involved with trade policy and poverty reduction have recently allotted substantial resources to analysing this issue. From the Uruguay Round to the Hong Kong Declaration, the WTO has put significant emphasis on agricultural trade liberalisation and its impact on development and poverty reduction (Hossain and Deb, 2003). Similarly, developing countries have put considerable importance on assessing the distributional consequences of domestic policies with a view to reducing poverty and inequality.

In developing countries, agricultural trade reforms may affect households in different ways, as households are diverse in nature in terms of their involvement with this process. A good number of studies have been carried out in the field of agricultural trade liberalisation and its impacts, but their combined focus on policy measures has not been addressed clearly. The objective of this article is to analyse how agricultural trade liberalisation affects economic growth through technological transformation as well as how it affects the welfare of rural households in developing countries. Technological transformation in agriculture means shifting its technological status from traditional to modern or semi-modern conditions (Todaro and Smith, 2009). This study analyses the arguments for the policy shift of developing economies away from agricultural protection and toward trade liberalisation. It also focuses on the debate over the distributional consequences resulting from trade liberalisation. This debate is mostly to do with the impact of agricultural trade policy reforms on poverty and inequality, since the majority of the population in developing countries is involved with agriculture, and these households are predominantly rural poor.

The arrangement of this article is to discuss agricultural reforms and economic growth in the next section, followed by a discussion of distributional consequences, and conclusions in the final section.

Agricultural Reforms and Economic Growth

Agriculture is an important sector for developing countries due to its multifunctional roles, including food production, environmental protection, generation of income and employment, development of the rural non-farm sector, maintenance of macroeconomic stability through stable food pricing, food security and so on. This sector has been highly protected in the past, both in developed and developing countries. However, since the 1980s and the emergence of the neoclassical

orthodoxy as a new development paradigm, many developing countries have adopted agricultural trade liberalisation and market reform programmes with a view to reducing government control over both agricultural input and output markets, lowering tariff and non-tariff barriers and allowing market forces to work in agriculture (Salim and Hossain, 2006). These reform efforts are based on the arguments and belief that agricultural trade reform contributes to technological transformation and improves the productivity of agricultural inputs through competition and efficient factor allocation, leading to higher economic growth. It has been observed that the agricultural input market becomes more competitive through diffusion of modern production technology and knowledge in agriculture as a result of agricultural trade liberalisation. This improved technology contributes to agricultural growth and to the welfare of rural households. This view is particularly realistic because of the fact that technological progress through a combination of irrigation, fertilisation and use of hybrid seeds can significantly enhance growth in agriculture and contribute to poverty alleviation. The achievement of significant growth in agriculture induced by technological innovation has been demonstrated in many Asian countries through the green revolution since the 1960s, and this growth spread rapidly as a demonstration effect throughout the region in the 1970s and 1980s (Byerlee, Diao and Jackson, 2005). These changes in technology, which might include a combination of irrigation, fertilisers, pesticides, high-yielding varieties of rice seeds and so on, have gained popularity in developing economies, especially in densely populated regions, as a strategy to achieve self-sufficiency in food production and maintain food security.

Agricultural growth in developing countries has recently received greater attention due to its potential for poverty reduction. The dominant paradigm shift to a structural transformation approach since the 1980s has seen agriculture as an “engine of growth” in countries that are in the early stages of development. This view is particularly significant because of agriculture’s high share of economic activity and strong growth linkages with the rest of the economy (Byerlee et al., 2005). In this paradigm, growth in agriculture has the greatest implications for the welfare of rural livelihoods, because this sector is dominated by small-scale family farmers (Byerlee et al., 2005; Valenzuela et al., 2005).

Agricultural trade liberalisation facilitates technological transformation in the agricultural sector through improved access to imported inputs, machinery and knowledge, leading to an increase in the productivity of agriculture. Agricultural productivity growth may have more immediate multiplier effects that improve the well-being of the majority of poor households. This argument is based on the fact that

most of the poor households are located in rural areas, and agriculture comprises the largest component of the rural economy in developing countries.

Technological change in agriculture may alleviate poverty through higher economic growth. It may reduce poverty both directly, by raising the welfare of poor farmers who adopt an innovation, as well as indirectly, by reducing food prices for net buyers (Valenzuela et al., 2005). It may also reduce poverty through labour effects by generating employment both in the farm sector and in non-farm sectors and by raising wages. These growth-linkage effects might be powerful when agricultural growth is driven by broadly based productivity increases in a rural economy dominated by small and medium-sized farm households (Byerlee et al., 2005). Because of these strong growth-linkage effects, agricultural growth can lead to wider economic growth in a developing country during its early stages of industrialisation.

Agricultural trade liberalisation may contribute to growth through its direct effects on the agricultural sector and through its multiplier effects on non-farm sectors. The direct effects are due to re-allocation of resources toward competitive activities in agriculture, and the indirect effects are through creating backward linkage with input markets and forward linkage with processing and output markets (Klytchnikova and Diop, 2006). The role of agriculture in rural development was the primary focus of development economics during the 1980s and 1990s. This rural perspective was based on the argument that agricultural productivity growth stimulates the rural non-farm sector, especially where infrastructure and an investment climate are already in place (Byerlee et al., 2005). Agricultural trade liberalisation leads the agricultural sector to improve productivity through technological transformation. Agriculture has strong and direct forward linkages to agricultural processing and backward linkages to input-supply industries (Byerlee et al., 2005). These linkages drive faster growth in the rural non-farm sector. These strong growth-linkage effects of agricultural trade liberalisation through technological transformation can lead to wider economic growth in many developing countries during the early stages of industrialisation, a strategy known as “agricultural-demand-led-industrialisation” (Byerlee et al., 2005). This strategy stresses the significant role of agricultural productivity growth in achieving industrialisation through expanding demand for goods produced by domestic industry.

It is argued that the success in agriculture achieved by a few East Asian countries, such as Japan, South Korea and China, was generated by a technological breakthrough in the form of high-yielding varieties of rice in combination with farmers’ access to fertilisers and irrigation; these factors resulted in a significant improvement in agricultural productivity growth (Byerlee et al., 2005). Although they did not follow liberal import policies, these countries adopted policies to liberalise agricultural input

markets and invested in agricultural input industries to foster innovation and domestic production through foreign aid and bilateral cooperation (Byerlee et al., 2005). It is notable that the East Asian success has been a source of inspiration that has prompted many developing countries of other continents to liberalise input sectors. These initiatives are based on the objective of improving the productivity of agricultural inputs through technological innovation, with a view that higher productivity growth will help to alleviate poverty on a greater scale.

Agricultural trade liberalisation contributes to economic growth through increasing food production and helping to maintain macroeconomic stability. From a theoretical point of view, however, it is argued that agriculture-led development has been based largely on the experience of Asian countries and does not explicitly recognise the potential for trade in food products. This argument is based on the fact that food is basically a non-traded product in developing countries. It has been estimated that the major staple, rice, is traded at a rate of less than 5 percent of Asian consumption (Byerlee et al., 2005). The interesting fact is that only a few Asian countries, such as India, Vietnam and Thailand, are exporters of rice. However, most countries consider agriculture as an important sector because of its role in domestic food production, and they therefore pursue food self-sufficiency policies, in large part to avoid macroeconomic and political instability from food price shocks (Byerlee et al., 2005).

The above analysis indicates that the present trade liberalisation policies of developing countries are based on macroeconomic variables, with a particular focus only on the role of agriculture in economic development in terms of technological innovation and transformation, food production, etc. But issues like the capability to supply natural resources such as land/man ratios, investment capability and environmental sustainability are also important for sustainable agricultural growth. The economic condition of an individual country is also actively related to the agricultural growth of that country. For example, although many Asian countries undertook initiatives to apply technological transformation in the agricultural sector, only Japan, South Korea and Vietnam have achieved sizeable growth compared to other fellow countries, because the economic conditions were not the same for all countries. Thus, socio political factors are also important determinants of agricultural growth in developing countries and have been ignored in present trade liberalisation policies.

Debate on Distributional Consequences

Agricultural trade liberalisation contributes to growth through technological transformation and productivity improvement. However, the distributional impact of this growth is mixed despite the fact that the spread of this technological transformation has been faster than the spread of any previous phenomenon in the history of technological innovation in agriculture. Even where agriculture retains comparative advantages, the liberalisation of trade raises questions about the pro-poor effects of agricultural productivity improvement due to issues related to income distribution. Therefore, the effect of agricultural trade liberalisation on welfare has been a subject of great debate in the development economics literature.

Advocates of trade liberalisation argue that agricultural trade liberalisation will expand the small domestic market, provide access to foreign direct investment, create greater competition, facilitate technology transfers, generate marketing networks and provide much-needed technical and managerial skills (Annabi et al., 2006). It is also argued that these changes lead to higher economic growth and reduce poverty.

There has been a substantial debate on welfare gains and losses from economic growth resulting from technological transformation as a result of agricultural trade policy reform. This debate is much more on distributional consequences and welfare implications rather than net gains and net losses (Orden, 2006). The first fundamental theorem of welfare economics argues that, subject to certain exceptions such as externalities, public goods, economies of scale and imperfect competition, every competitive equilibrium is Pareto optimal. The second fundamental theorem states that every Pareto-optimal allocation of resources can be realised as the outcome of competitive equilibrium after a lump-sum transfer of claims on income (Blaug, 2007). However, Pareto optimality may not be achieved in the farm sector in the sense that agricultural trade liberalisation may affect some groups of rural households adversely, despite the gains from this process experienced by other groups – gains which are greater than the losses. Moreover, perfect competition may not exist in agriculture due to some externalities in the form of market failure in developing countries. Externalities in this case may be the result of lack of complete information, the existence of transaction costs that cannot be internalised in all cases, and possibly market interference by vested interest groups such as business syndicates and political lobbyists (Gawande, 2005). Nevertheless, it is argued that agricultural trade reform expands the non-farm sector in a rural economy as a multiplier effect. Wages in the non-farm sector are usually higher than in the agricultural sector due to higher productivity of labour (World Bank, 2004). Therefore, some wage labourers may shift from agriculture to the non-farm sector, where they can earn higher wages. This will

represent a Pareto improvement due to the development of the non-farm sector that results from agricultural trade liberalisation, in the sense that some labourers are better off and other agricultural labourers are not worse off (Todaro and Smith, 2006).

Although agricultural trade liberalisation may improve productivity through technological innovation, this growth may not be pro-poor. However, some economists, for example Byerlee et al. (2005), argue that the interaction of productivity growth, farm income, employment and food prices could lead to pro-poor outcomes, depending on two key conditions. First, agricultural productivity per unit of labour must increase to raise farm income, but agricultural productivity per unit of land must increase at a faster rate than that of labour in order to raise employment and rural wages. Second, increased total factor productivity (TFP) in agriculture must result in a decrease in real food prices, but TFP must increase faster than food prices decrease in order for farm profitability to rise and for poor consumers to benefit from lower food prices. However, the question of inequality has not been considered in the above analysis.

The impact of agricultural trade liberalisation on the welfare of rural households depends not only on how income is distributed among them but also on what happens to average living standards of rural households. Even with a given same level of productivity, growth may result in various levels of poverty reduction in different developing countries, depending on their respective policies and income distribution. Ravallion (2004) argues that policies are therefore needed for rapid poverty reduction in addition to policy approaches that promote higher growth. He suggests that two sets of factors can be identified as the main proximate causes of the differing rates of poverty reduction at a given rate of growth: the initial level of inequality, and how inequality changes over time. The higher the initial inequality in a country, the less the gains from growth tend to be shared. Similarly, the greater the changes in inequality over time, the lower the gain by the poor from that growth (Ravallion, 2004; Todaro and Smith, 2009).

One of the key issues raised repeatedly in development economics is the mechanism through which an economy can grow quickly and at the same time achieve a more productive use of underutilised resources (Ruda, 2007). This is another way of saying that development economics and good development strategies are about identifying technological transformations that lead to higher economic growth while simultaneously contributing to a decline in the numbers of underemployed and unemployed workers, which will ultimately accelerate poverty reduction. Various growth theories, such as neoclassical growth models, new endogenous growth theories and evolutionary models of economic change, identify technological progress as the

key source of economic growth (Gore, 2007). However, the way in which technological progress is understood to take place and to affect economic growth differs amongst them. Krugman (2000) argues that despite the fact that trade liberalisation is an important policy factor for development, trade can explain only a very insignificant part of the growth in an economy; rather, technology is responsible for growth. This is partly because trade liberalisation may not directly affect economic growth but rather facilitate technological transformation through diffusion of advanced knowledge and production techniques, leading to productivity improvement and economic growth.

Much of the current debate in development economics is focused on fundamental issues such as the impacts of agricultural trade liberalisation on poverty as opposed to the effects of proximate factors such as macroeconomic policy (Durlauf, Kourtellos and Tan, 2007). The relationship between economic growth and poverty has recently become an important issue within development policy analysis. There has even been serious criticism of existing growth theories because of their weakness in explaining growth-poverty relationships and their restrictive assumptions. Gore (2007) argues that neoclassical and new endogenous growth theories, based on the aggregate production function and the general equilibrium framework, are not good for the poor because their conceptual structure does not enable a good explanation of growth-poverty relationships. In contrast, alternative growth theories that take account of the technological capabilities of economic agents and their institutional matrix, the dynamics of production structures and the role of demand are good for the poor in this sense. This situation has raised a new dimension for development studies: the search for an alternative theoretical framework for the analysis of pro-poor growth. A theory is regarded as a good mechanism for the poor if it provides a good explanation of poverty trends and thereby enables the design of effective poverty reduction policies (Gore, 2007). Technological progress can cause gains for some people and losses for others. Therefore, the overall impact depends on the economy-wide outcome. Thus, the links between technological progress and poverty are important to explore in the context of analysing how technological progress affects economic growth and how growth, in turn, relates to poverty reduction.

It is observed that agricultural growth reduces poverty through direct effects on farm productivity, incomes and employment. It also generates indirect effects on the welfare of rural households through the growth linkage with the non-farm sector as well as through its impact on food prices (Byerlee et al., 2005). There has been an argument that the poor typically spend a high share of their income on staple foods, and therefore they benefit from a decline in the price of staple foods induced by

productivity improvement. Benefits are largest for the urban poor as well as for rural labourers and small farmers (who are functionally landless), since they are net food buyers.

Development of the non-farm sector in rural areas as a multiplier effect of agricultural trade liberalisation has been growing in importance due to its role in poverty reduction through generation of income and employment. For example, Ravallion (2004) argues that the intensity of poverty in the Indian states where non-farm growth has not occurred is much higher than in the states with non-farm sector growth. The interesting fact is that the non-farm sector has developed in rural India, where agriculture has transformed significantly through technological progress, indicating an important implication that agricultural trade liberalisation contributes to the development of the rural non-farm sector through its spill-over effects. The nature of spill-over effects suggests that growth in agriculture not only benefits the agricultural community but also positively influences non-agriculture sectors through forward and backward linkages and lower food prices. But issues like the level of poverty and the depth of inequality in developing countries have not been considered in their policies.

Although agricultural trade liberalisation has made a significant contribution to economic growth through technological transformation in the agricultural sector, understanding the process of pro-poor economic growth and explaining the vast differences in economic performance across countries have been fundamental challenges for economists as well as for policy makers (Kong, 2007). Recently, many developing countries such as Bangladesh have achieved significant progress in agricultural growth, but reduction of rural poverty has been relatively insignificant (Klychnikova and Diop, 2006). Thus, a criticism arises against existing growth theories regarding their poor capabilities in explaining poverty reduction. Despite the huge amount of empirical research generated by growth theories, there is remarkably little consensus on which mechanism is the most salient in explaining pro-poor growth. The main reasons for the lack of empirical consensus on growth determinants are related to model specification, the choice of control variables and measurement shortcomings (Durlauf et al., 2007). Universal applicability is questionable where income distribution is an important factor.

Based on conventional wisdom, Anderson (2004) argues that higher economic growth will contribute to a larger reduction of poverty, and aggregate economic growth differences have been largely responsible for the differences in poverty alleviation across regions. He argues that initiatives that boost economic growth are therefore likely to be helpful in poverty reduction. Agricultural trade liberalisation is

such an initiative that tends to boost economic growth through enhancing the productivity of agricultural inputs. However, it may also alter relative product prices, which in turn may affect factor prices (Anderson, 2004). Hence, the net effect of agricultural trade liberalisation on poverty reduction also depends on the directions of those domestic product price changes and how they affect domestic factor prices. It is argued that if the price changes are pro-poor, then they will tend to reinforce any positive growth effects of agricultural trade reform on the poor. Moreover, the outcome of this reform also depends on complementary pro-poor domestic policies as well as on the income distribution policy of the specific country.

Although trade liberalisation has facilitated agriculture to grow faster through diffusion of modern technology and knowledge, and recently many developing countries are experiencing higher economic growth, agro-pessimists argue that the contribution of agriculture to development is passive. According to this group, agriculture has a very insignificant role in growth as well as in poverty reduction (Lewis, 1954). Moreover, agricultural trade liberalisation may worsen the condition of the poor in the form of higher prices, due to the fact that the price of food in liberalised markets will tend to be determined more by world price than by domestic productivity (Byerlee et al., 2005). This argument arises due to the fact that governments of many developing countries use their control over external trade to hold domestic food prices below world prices (Ravallion, 1990). Similarly, technological transformation as a result of agricultural trade liberalisation is sometimes seen as a source of impoverishment in the form of loss of employment. Thus technological transformation is seen as a process of creative destruction: jobs and livelihoods are destroyed in some sectors whilst they are created in others (Gore, 2007). Therefore, there may be some who gain as well as some who lose as a result of agricultural trade liberalisation.

Hence we can say that trade liberalisation contributes positively to the growth of production and consumption and to improving lifestyle, but policies should be based on the resource base, the level of poverty and the depth of inequality in a given country.

Conclusion

From the above analysis, it is argued that agricultural trade liberalisation contributes to economic growth through facilitating technological innovation and reallocation of productive resources. Recently, many developing countries have adopted liberalisation policies as a means to improve productivity in agriculture with an aim at reducing poverty. Although agricultural trade reform contributes to

economic growth, its welfare impact on rural livelihoods has been a subject of great debate in development economics and policy analysis. This is partly because of the limitations of existing growth theories in explaining the linkage between growth and poverty and partly due to the lack of empirical consensus. Despite the fact that many developing countries have been experiencing significant economic growth over the last two decades, this debate is not settled yet; instead it has become more substantial than ever because of the significant variations in poverty reduction across countries. Sound distributional policies such as progressive income taxes and redistribution of benefits to the poor (in the form of welfare benefits, social benefits, income transfers, etc.) may play a significant role in narrowing the income gap between rich and poor and achieving positive welfare impacts on rural livelihoods from agricultural trade liberalisation. Trade liberalisation policies in developing countries should be based on their resources, level of poverty and depth of inequality.

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