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Trade Liberalization and Domestic Welfare with Scale Economies

Arijit Mukherjee

We show the welfare effect of trade liberalization, which attracts a more technologically efficient foreign competitor, in the presence of scale economies in the domestic firm. If the fixed cost of production of the domestic firm is moderate, the effect of trade liberalization on domestic welfare is non-monotonic with respect to the marginal cost difference between the domestic and the foreign firms. Hence, ceteris paribus, the importing country may not prefer to have a more cost efficient foreign firm if the marginal cost difference between the firms is moderate.

Key Words: Entry, Fixed Cost, Free Trade, Welfare

1. Introduction

Following the suggestion of World Trade Organization, many countries are going through the process of trade liberalization. While the traditional view with perfectly competitive product market suggests that trade liberalization increases welfare of the importing countries, recent research on imperfectly competitive product markets cast doubt on this conclusion.

Welfare loss from international trade in a Cournot oligopoly has been pointed out by Brander (1981) and Brander and Krugman (1983) in the segmented markets, and by Markusen (1981) in the case of integrated markets. Brander (1981) shows that there are gains from multilateral free trade if transport costs are sufficiently low, but there are losses from trade if transport costs are close to the prohibitive level. Brander and Krugman (1983) confirm the results of Brander (1981) with more general demand functions, and also show that multilateral free trade is always beneficial than no trade in the presence of free entry of firms. For the case of integrated markets, Markusen (1981) shows that multilateral free trade between two identical countries may affect them differently – the country with the small market gains from trade, but the country with the large market may lose from trade. While these papers consider multilateral free trade, Cordella (1993) and Collie (1996) show welfare loss from unilateral trade cost reduction. Mukherjee and Mukherjee (2005) extend Collie (1996) to show the welfare effects of unilateral trade cost reduction in the presence of technology licensing. Clarke and Collie (2003) show that unilateral trade (compared to no trade) is beneficial under Bertrand competition. Raff and Schmitt (2006) show the welfare reducing effect of a foreign entry in a vertical structure.

The existing literature looked at several important aspects of imperfectly competitive product markets, yet they paid little attention to scale economies, which may arise due to the existence of overhead capital. For example, Komiya (1975) pointed out that industries such as iron and steel, petroleum refining, petrochemicals, certain other chemicals, cement, paper and pulp, and sugar refining are characterized by heavy overhead capital. Whatever effort has been devoted to show the effects of scale economies has considered bilateral trade liberalization and symmetric cost firms (see, e.g., Brander, 1981 and Brander and

Post-Quota Regime and Comparative Advantage In Export Of India's Textiles and Clothing

Elumalai Kannan



The present study analyzes India's trading pattern in textile and clothing in the post-quota regime and estimates the comparative advantage in export of textile and clothing in the world market. The study uses secondary data compiled from UN Comtrade for the period 1990 to 2007. Analysis of data reveals that contrary to expectation, India's export share in the world market has not improved much during the Post-Agreement on Textile and Clothing period. Although Indian exporters seem to have expanded their textile exports markets, destinations for clothing exports are still concentrated only in traditional markets and have not expanded to new markets. Further, analysis of comparative advantage reveals that India is efficient in exporting low value products like textile fibres. Values of Revealed Comparative Advantage and Revealed Symmetric Comparative Advantage for several clothing items have declined during recent years indicating decrease in efficiency of India's exports. Thus, there is an urgent need for focusing policy attention to maintain export competitiveness through new investment, relaxation in regulations and efficient supply chain management.

Key Words: Textile, Clothing, Comparative Advantage, Export, Quota.

1. Introduction

Textiles and clothing are the traditional and labour intensive sectors of the Indian economy. Broadly, textile industry comprises two segments viz., organised sector and unorganised sector. While organised sector includes composite mills and spinning mills, the unorganised sector covers decentralised power loom, handloom, knitting and yarn, and fabric processing units. The unorganised sector accounts for about 90% of fabric produced in the country. Similar to textiles, clothing or apparel sector is highly fragmented and operated predominantly in small scale sectors. This could be attributed to small scale reservation policy applicable to woven apparels till 2001 and knitwear till 2005. The progressive de-reservation and elimination of export quotas has helped the industry towards consolidation. But, the consolidation drive was slow due to other constraints like rigid labour laws and policy bias against synthetic fibre (Kathuria and Bhardwaj, 1998).

Textiles and apparel production includes wide variety of activities such as ginning, spinning, processing, knitting and clothing. These activities are spread across rural, urban, semi-urban and large metro cities and have created employment opportunities either directly or indirectly to over 88 million people in 2005 (Planning Commission, 2006). In the organised factory sector, textile and clothing industry contributed about 19% of the total employment.

Textile industry uses different raw materials such as cotton, jute, wool, silk and man-made and synthetic fibres. Although man-made fibres and man-made filament yarn sectors have grown faster since early 2000s, India's textile industry is still dominated by cotton-based raw

International Factor Mobility, Skills Formation and Welfare

Sarbajit Chaudhuri



The paper examines the welfare consequences of an inflow of foreign capital and an emigration of skilled labour in a small open economy in terms of a four sector general equilibrium model in the presence of endogenous skills formation and imperfection in the market for unskilled labour. It finds that both foreign capital and emigration of skilled labour may be welfare-improving although the outcomes of these policies depend on the relative capital intensities of different sectors and the magnitude of imperfection in the market for unskilled labour. Measures like labour market reform and capital subsidy (or tax) to the appropriate sector may be resorted to improve national welfare and ensure higher skills formation.

Key Words: Foreign Capital, Skills Formation, Labour Market Imperfection, National Welfare, Labour Market Reform.

1. Introduction

The last two decades have witnessed a rapid growth of the global economy, reflected in reduced trade barriers, increased international trade, highly mobile capital and labour and the rapid transmission of technology across national lines. As an integral part of liberalized economic policy package FDI norms in developing countries have been relaxed considerably and several sectors, hitherto protected, have been opened up to foreign capitalists so that inflows of foreign capital take place in abundance in order to facilitate economic growth. It is important to mention that these countries have been able to attract a substantial amount of foreign capital during the period of economic reforms¹. After allowing FDI in key sectors such as telecom, insurance, food processing and even retail, policymakers of the developing countries e.g. India, are toying with the idea of permitting foreign investment in elementary and higher education.

As the Indian economy is growing at about 9%, she has started to experience a large gap between the demand for skilled labour and the supply of it. The role of agriculture in the economy in terms of its contribution to GDP is declining fast and the contribution of the industry, particularly the services sector, is increasing. Now, as the role of services sector is predominant, the question of shortage of skilled labour, therefore, arises. That is why with a sense of urgency, the government has initiated the national skill development mission. The policymakers have been doing intensive exercise as to how this mission could be brought into existence and the skill deficit could be mitigated. The private sector is being urged to be involved in every stage of the mission, particularly, in designing the process and supplying the faculty. The policymakers are even contemplating with the idea of allowing FDI in higher education.

Impact of Big Shopping Malls and Retailers on Employment and Consumer Prices in India

Kaliappa Kalirajan and Kanhaiya Singh

A recent Parliamentary Standing Committee report (Government of India, 2008) on India's retail sector has made a recommendation for "a blanket ban on domestic corporate heavyweights and foreign retailers from entering into retail trade in grocery, fruits and vegetables". On the other hand, a recent study conducted by the Indian Council for Research on International Economic Relations (ICRIER) at the behest of the Government of India indicates price benefits to farmers, lower prices to consumers and almost no effect on the traditional retailers (Joseph et al., 2008). These contrasting suggestions necessitate more intensive studies using primary data for taking better policy decisions concerning both organised and unorganised retail in India. It is in this context, using primary survey data, this paper examines whether the expansion of big shopping malls and organised retailing has generated more employment and whether consumers do enjoy price advantages.

KeyWords: Services Sector, Employment Generation, Shopping Malls, Consumer Price, India.

1. Introduction

The Census of India indicates the emergence of significant economic structural changes, particularly in the country's urban areas. At the national level, 'services' contributed about 55 percent to overall average growth in gross domestic product (GDP) in the last six years between 2002-03 and 2007-08. The post-reform period has been identified in the literature with a significantly slower growth in formal sector employment (Kalirajan and Bhide, 2004). In line with the global trends, 75% of new employment has been generated in the services sector. Compared to a 60% increase in aggregate employment during 1996-2006, employment in manufacturing rose by only 20%. What are the sources of services sector growth in India? Amongst the sub-sector of services, domestic retail trade is one of the fastest growing segments, and it formed about 13% of GDP during the last five years (Figure 1). After the information technology boom, growth of the retail sector in India is seen by researchers and policymakers as the next driver of the Indian economy. It is interesting to note that in contrast to the information technology sector that almost 65% of services sector income is being generated by the informal sector (Figure 2). The National Sample Survey Organisation (NSSO) carried out a sample survey in 1999-2000, which showed that of a total workforce of 397 million only 28 million workers were employed in the organised sector. Thus, about 92% of the Indian workforce was employed in the unorganised sector during that period.

Some Further Aspects of Rates of Growth Computations

Amarjit Singh Sethi



Keeping in view certain limitations associated with the computational methodology for usual exponential rates of growth, Sethi (2008) suggested some alternatives for estimating rates of growth. The present paper is an augmentation in this very direction. Besides offering some points of clarification on rates of growth, a rational approach has been suggested for estimating exponential rates of growth in a time series involving negative values. A simple methodology has also been proposed to identify turning points along temporal growth path of a stochastic variable. Further, a general formulation has been presented to estimate at such turning points, kinked rates of growth for which a (hitherto unavailable) computer program has been developed in R-language.

Key Words: Exponential Rates of Growth, Turning Points, Dummy Variables Technique, Kinked Rates of Growth, R-language.

1. Introduction

Beyond doubt, rates of growth computation is one of the most frequent feature in empirical investigations from the point of view of its applicability by almost all the scholars in social sciences. A number of researchers (like Radford, 1967; Dandekar, 1980; Reddy, 1978; Rao, 1980; etc.) have made contributions from time-to-time towards methodology of growth rates. Sethi (2008) pointed out certain limitations associated with the usual methodology for estimating exponential rates of growth, and suggested some remedial measures. The present paper is an augmentation in that direction. The paper has been broadly divided into four sections. The second section presents analytical treatment on some points of clarification on rate of growth of a sector vis-à-vis its contribution towards aggregated rate of growth. A suitable measure of structural changes flows from the treatment in the section. Section 3 deals with a treatment on pooled rate of growth over sub-periods. An alternative approach for estimating rates of growth from a time series involving negative values has been outlined in section 4, whereas section 5 deals with an identification of turning points along the path of relative growth rates. A generalisation to the method of estimating kinked growth rates (as also a computer program for the same; Appendix 1) is presented in section 6. And, finally, concluding remarks on the paper are given in section 7.

2. Analytical Treatment

Quite often, the interest lies in examining the nature and pace of growth in an aggregate which is composed of a number of components. These components may be varying grossly in their relative sizes. For instance, national income from Secondary Sector is constituted broadly by three components viz., (1) Manufacturing, (2) Construction and (3) Electricity, Gas & Water Supply. Generally, the relative share of the Manufacturing sector is much more

Spot-Forward Rate Relationship Revisited: An Analysis in Light of Non-Linearity and Chaos



Gagari Chakrabarti, Chitrakalpa Sen, Amitava Sarkar

This paper re-investigates the spot-forward rate relationship in the context of Rupee-Dollar exchange rates in light of non-linearity, particularly chaos theory. Instead of presupposing a linear relationship between the lagged forward rate and the spot rate, the paper maintains that if the underlying model is true, the deviation between changes in spot rate and appropriate forward rate might be taken as the error of prediction. An analysis of the intrinsic nature of such deviation series corresponding to one, three and six month forward rates reveal them to be non-linear with long-memory. The deviation series corresponding to one and three month forward rates appear to be chaotic. Six month series, however, is deterministic but not chaotic. Hence, in short and medium run, it is difficult, if not impossible, to explain the behaviour of deviations from expected spot-forward rate relationship. Unpredictability, disorder and discontinuities are inherent properties and not aberrations for such deviations.

Key Words: Spot-forward Rate Relationship, Rupee-Dollar Exchange Rates, Long-memory, Non-linearity, Chaos

1. Introduction

A great deal of literature in international finance centers on the unbiased forward rate hypothesis, which argues that in an efficient market, the expectations of the economic agents about the future values of exchange rate determinants are fully reflected in the forward rates (Chiang 1988). In particular, the forward exchange rate observed at any time t is the 'market determined certainty equivalent' of the future spot exchange rate at time $t+1$ (Fama, 1984). Any deviation from this will give rise to significant arbitrage opportunity.

This paper, while examining the validity of unbiased forward rate hypothesis in the context of Rupee-Dollar exchange rates in recent year tries to provide an alternative framework. This paper starts from the premise that the proportionate changes in forward rates at a particular point of time should estimate the same in future spot rate under the unbiased forward rate hypothesis. This is possibly more intriguing rather than simple exploration of whether forward rates are unbiased predictors of future spot rates as it helps capture the intrinsic dynamics of the future spot series in a better manner. Our approach differs further from the conventional methods where spot rate is regressed on one-period lagged forward rates. Instead of presupposing a linear relationship between the two exchange rate series, we assume that if the underlying model is true, no matter what form does it take, the deviation between actual spot rate changes and the appropriately corresponding forward rate changes would be minimum possible under the unbiased forward rate hypothesis. An

WTO and Sanitary & Phytosanitary Agreement

Rajesh Gangakhedkar



The formation of WTO in the year 1995-96 was a significant development in the annals of free trade. It was perceived that WTO would achieve what its predecessor GATT could not, i.e, a regime of 'Non discriminatory free trade'. The various Agreements of WTO such as Trade Related Intellectual Property Rights (TRIPs), Agreement on Agriculture (AoA) and General Agreement on Trade in Services (GATS) are mired in controversies since they came into force. The differences of opinion among the member countries continue to haunt the successful conclusion of Doha round of negotiations. The Agreement on Sanitary and Phytosanitary measures (SPS) is no exception to the controversial nature of WTO Agreements. This study focuses on SPS Agreement. The study discusses the intricacies of SPS Agreement, the controversies in it, and its implications for developing economies like India. The study also discusses some of the disputes related to SPS Agreement and focuses on the recent developments with an attempt to give suggestions for successful implementation of the Agreement.

Key Words: Sanitary, Phytosanitary, Harmonization, Transparency, Assessment, Risk.

1. Introduction

Every country needs to ensure that the food being supplied to the consumers is safe to eat. It is also necessary to ensure that strict health and safety regulations are not being used as an excuse for protecting domestic producers. The Agreement on application of sanitary and phytosanitary measures sets out the basic rules for food safety and animal and plant health hazards.

To be precise, the SPS Agreement includes those measures that protect:

- Human or animal life from risks arising from additives, contaminants, toxins or disease causing organisms in their food;
- Human life from plant or animal carried diseases; and
- Animal or plant life from pests, diseases or disease causing organism.

Apart from these aims, the Agreement seeks to prevent or limit other damages to a country from the entry, establishment or spread of pests. The genesis of SPS measures can be traced to the provisions in GATT. One such provision is Article XX-b, which stated that 'countries can take necessary measures to protect human, animal or plant life or health'. However the SPS issue got impetus during Uruguay round, because of the concern of GATT members to have unambiguous rules regarding SPS. There was an apprehension that, SPS measures may be used as a protectionist device and may become a barrier to trade. Hence the need to have clear set of rules, containing rights and obligations of various people for ensuring food safety and animal plant health. It is also expected that such an Agreement would benefit the consumers as they are ensured that the food they consume is safe. The