

**Agricultural Export Diversification in Sri Lanka:  
An Analysis of Intensive and Extensive Margins during 2000-2010**

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### **Introduction**

Trade theories, from Adam Smith and David Ricardo to the Hecksher-Ohlin-Samuelson model, emphasised the importance of specialisation in producing and exporting goods based on their comparative advantage to achieve economic development. However, diversification in the export sector generated much attention in the trade literature later on. The seminal contributions including the Prebisch-Singer thesis (Prebisch, 1950, Singer, 1950) and the “big push” arguments advocated by Rosenstein-Rodan (1943) viewed economic diversification rather than specialisation as a determinant of economic development.

There exists ample empirical evidence to suggest that export diversification had led to stabilisation of export earnings, upgrading of value addition and enhancement of economic growth of many developing countries (Ali et al., 1991; Ghosh and Ostry, 1994; Bebczuk and Berrettoni, 2006; Hesse, 2008). The experiences in many developing countries reveal a switch from import substitution strategy (which was characterised by heavy import controls) to export promotion and outward orientation strategy, in order to reap benefits of export diversification.

The Sri Lankan experience is no exception. The country followed an import substitution strategy up until 1977 and switched on to an export promotion strategy there onwards. The policy framework of the current government, *Mahinda Chinthana*, directs the

country to diversify from traditional agricultural exports, *i.e.*, tea, rubber and coconut, to non-traditional agricultural exports such as vegetables and fruits. The structural change in the overall export basket of the country, primarily due to the above shift in policy regime, is well documented. The ways in which agricultural exports got diversified however have not been well investigated in the literature.

## Objective

The objective of this paper is to analyse in detail the pattern of agricultural export diversification in Sri Lanka. The concentration across product-lines and export markets and penetration into new markets and development of new product lines are examined for the period 2000-2010 using disaggregated data at Harmonised System (HS), 6-digit levels for the chapters 1-24 obtained from Sri Lanka Customs. The data set comprises of 516 product lines and 233 destinations of Sri Lankan exports.

## Concepts and Measures

### *Concentration Ratios*

Export concentration ratios reflect the degree to which a country's exports are concentrated on a small number of products or a small number of trading partners. The value of exports of the top 3, 5, and 10 products and markets as a percentage of total exports are presented to depict the concentration among products and markets respectively.

### *Extensive Margins*

Extensive margin depicts the number of country-product relationships an exporting country possesses (Besedes and Prusa, 2008). A country can experience a change in its extensive margin by exporting to a country that had never been serviced, by exporting a product that had never been previously sold abroad, or by exporting an already exported product to a destination country previously not served. The extensive margins were presented using the number of new markets penetrated into with existing products and with new products. The average export values between two periods, for a given product line (a 6-digit level of HS code), were compared to ascertain whether there was a penetration or not.

### *Intensive Margins*

Intensive margin depicts the extent of relationships that survive and deepen over time (Besedes and Prusa, 2008). Diversification at the intensive margin occurs when the distribution of trade across existing export lines become even. The intensive margins

were presented using the number of product lines that were in existence from period 1 to period 2 irrespective of the export market.

### **Results of the Analysis**

Concentration ratios calculated at HS 2-digit level show that, out of the 24 categories, 98%, 94% and 90% of exports were occupied by the top 10, 5 and 3 product lines in 2010, indicating a significant concentration in exports. The product line "HS 09: Coffee, tea, mate and spices" is on the top accounting for an average of 67.65% of total agricultural exports. This product line is dominated by black tea. The geographical concentration of exports seems to be lesser than that of product concentration. The share of the top ten countries was around 60%.

The results of extensive and intensive margins reveal that the diversification of the agricultural export basket has predominantly occurred through strengthening of the existing relationships, *i.e.*, intensive margins. Of the 516 product lines (HS-6 level) exported during 2000-2004, 441 (83.52%) product lines were sustained, 87 (16.48%) new product lines entered and 75 product lines lost their existence during 2006-2010 (irrespective of the destination). Of the 195 export destinations in 2000-2004, 178 (85.58%) markets were sustained, 30 (14.42%) new markets entered and 17 markets were lost (irrespective of the product line) in 2006-2010.

### **Conclusions**

The above results indicate that the diversity of the agricultural export basket in Sri Lanka is narrow and is limited to a few products and few markets. Despite the policy influence, the country has been relying more on intensification than on diversification of its agricultural export basket.

### **References**

- Ali, R., Alwang, J. and Siegel, P.B. (1991). Is export diversification the best way to achieve export growth and Stability? A look at three African Countries. World Bank Working Papers No. 729.
- Besedes, T., and Prusa, T.J. (2008). The role of extensive and intensive margins and export growth, NBER Working Papers 13628.

Bebczuk, R. N., and Berrettoni, N. D. (2006). Explaining export diversification: An empirical analysis. CAF Research Program on Development Issues.

Ghosh, A.R., and J. Ostry (1994). Export Instability and the External Balance in Developing Countries. IMF Working Paper No. 94/8, International Monetary Fund, Washington, DC.

Hesse, H. (2008). Export Diversification and Economic Growth. Working Paper 21, Commission of Growth and Development