

## Demand and Supply Factors in the Determination of India's Disaggregated Manufactured Exports: A Simultaneous Error-Correction Approach

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### Abstract

This paper is an investigation of the demand and supply factors underlying the long-term behaviour of India's disaggregated manufactured exports. Broadly, there are two divided views on India's export behaviour: while the predominant view stresses the importance of supply and policy related factors, other studies find the significance of world demand in export determination. The issue is more important than empirical estimation of determinants of exports; it is theoretically motivated as India has been able to expand exports across sectors in tandem with changes in trade regimes. However, the fact of varying export growth across different sector does not lend support to the observation that only policies explain export performance, rather it highlights the importance of other demand and supply factors at the sectoral level. An imperfect substitutes demand-supply model of export determination is set out and the model is estimated in an error-correction framework using systems method. The model explains behaviour of disaggregated exports well. It shows the importance of demand as well as supply effects in the determination of India's disaggregated exports except textiles and garments.

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**References:**

Ali, I, 1985: "India's Manufactured Exports: An Analysis of Supply Factors." Report No. 31. Manila: Asian Development Bank.

Arize, A., 1990: "An Econometric Investigation of Export Behaviour in Seven Asian Developing Countries", *Applied Economics*, 22(7): 891-904.

Athukorala, P., and J. Riedel, 1994: "Demand and Supply Factors in the Determination of NIE Exports: A Simultaneous Error-Correction Model for Hong Kong: A Comment", *Economic Journal*, 104(427):1411-13.

Athukorala, P and J. Riedel, 1996: "Modelling NIE Exports: Aggregation, Quantitative Restrictions and Choice of Econometric Methodology", *Journal of Development Studies*, Vol. 33 (1): 81-98.

Bhagwati, J., and T. N. Srinivasan, 1975: *Foreign Trade Regimes and Economic Development: India*, New York: Columbia University Press (for the NBER).

Brahmbhatt, M., T. G. Srinivasan, and K. Murrell, 1996: "India in the Global Economy", Policy Research Working Paper 1681, International Economic Analysis and Prospects Division, Washington D. C.: World Bank, November.

Das, D. K., 2003: "Manufacturing Productivity under Varying Trade Regimes: India in the 1980s and 1990s." ICRIER Working Paper No. 107. New Delhi: Indian Council for Research on International Economic Relations.

Engle, R. F. and C. W. J. Granger, 1987: "Co-integration and Error Correction Representation, Estimation and Testing", *Econometrica*, 55(2): 251-276.

Funke, M. and S. Holly, 1992: "The Determinants of West German Exports of Manufactures: An Integrated Demand and Supply Approach", *Weltwirtschaftliches Archiv*, 128(3) 498-511.


Gatt, J. 1995: "An Econometric Analysis of the Determinants of Maltese Exports of Manufactures." Working Paper Series No. 198. The Hague: Institute of Social Studies.

Ghosh, J. 1990: "Exchange Rates and Trade Balance Some Aspects of Recent Indian Experience", *Economic and Political Weekly*, 25 (9): 441-445, March.

- Goldstein, M., and M. S. Khan, 1978: "The Supply and Demand for Exports: A Simultaneous Approach", *Review of Economics and Statistics*, 60 (2): 275-86.
- Holly, S. and K. Wade. 1991: 'UK Exports of Manufactures: The Role of Supply Side Factors.' *Scottish Journal of Political Economy*. 38 (1): 1-18.
- Hsiao, C. 1995: 'Statistical Properties of the Two Stage Least Squares Estimator under Cointegration. Working Paper. Los Angeles: University of Southern California.
- Johnston, J. and D. Dinardo, 1997: *Econometric Methods*, Singapore: McGraw-Hill Book Co.
- Joshi, V. and I.M.D. Little, 1994: *India: Macroeconomics and Political Economy, 1964-1991*, Delhi: Oxford University Press.
- Krishnamurthy, K. and V. Pandit, 1995: "India's Trade Flows: Alternative Policy Scenarios: 1995-2000", Working Paper No.: 32, Delhi: Centre for Development Economics, Delhi School of Economics.
- Lall, S. 1999: "India's Manufactured Exports: Comparative Structure and Prospects", *World Development*, 27 (10): 1769-86.
- Lucas, R. E. B., 1988: "Demand for India's Manufactured Exports", *Journal of Development Economics*, 29 (1): 63-75.
- Mackinnon, J., 1991: 'Critical Values for Cointegration Tests', in R.F. Engle and C.W.J. Granger (eds.), *Long-Run Economic Relationships: Readings in Cointegration*, Oxford: The University Press.
- Marjit, S., and A. Ray Chaudhuri, 1997: *India's Exports*, Delhi: Oxford University Press.
- Muscattelli, V. A. and S. Hurn, 1992: "Cointegration and Dynamic Time Series Models", *Journal of Economic Surveys*, 6 (1): 1-43.
- Muscattelli, V.A., T. G. Srinivasan, T.G., and D. Vines, 1992: "Demand and Supply Factors in the Determination of NIE Exports: A Simultaneous Error-Correction Model for Hong Kong", *Economic Journal*, 102 (415): 1467-1477.
- Nayyar, D., 1976: *India's Exports and Export Policies in the 1960s*, Cambridge: Cambridge University Press.
- Nayyar, D., 1988: 'India's Export Performance: Underlying Factors and Constraints', in R.E.B. Lucas and G.F. Papanek (eds.), *The Indian Economy: Recent Development and Future Prospects*, Delhi: Oxford University Press.
- Panchamukhi, V.R., 1978: *Trade Policies in India: A Quantitative Analysis*, Delhi: Concept Publishing Company.
- Perron, P., 1989. 'The Great Crash. The Oil Shock and the Unit Root Hypothesis', *Econometrica*, 57(6):1361 - 1401.
- Phillips, P. C. B. and B. E. Hansen, 1990: "Statistical Inference in Instrumental Variables Regression with I (1) Processes", *Review of Economic Studies*, 57: 99-125.
- Sarkar, P., 1994: 'India's Balance of Payment and Exchange Rate Behaviour since 1971: A New Approach', *Economic and Political Weekly*, 29(1/2): 43-48.
- Sinha Roy, S., 2001: 'India's Trade Database: Contours, Inconsistencies and Ways Ahead', *Economic and Political Weekly*, 36(1): 51-58.
- Sinha Roy, S., 2004: *Factors in the Determination of India's Exports*. Unpublished Ph.D. Thesis submitted to Jawaharlal Nehru University, New Delhi, Thiruvananthapuram: Centre for Development Studies.
- Sinha Roy, S., 2005 a: 'Post-reforms Exports Growth in India: An Exploratory Analysis', in S. Marjit and N. Banerjee (eds.). *Development, Displacement and Disparity: India in the Last Quarter of the Century*. Hyderabad: Orient Longman Limited.
- Sinha Roy, S., 2005 b: 'Persistence in India's Manufactured Export Performance', in S.D.Tendulkar et al. (eds.). *India: Industrialisation in a Reforming Economy*, New Delhi: Academic Foundations.
- Srinivasan, T.N., 1998: 'India's Export Performance: A Comparative Analysis' in I.J. Ahluwalia and I.M.D. Little (eds.), *India's Economic Reforms and Development: Essays for Manmohan Singh*, Delhi: Oxford University Press.
- Virmani, A., 1991: "Demand and Supply Factors in India's Trade", *Economic and Political Weekly*, 309-314 February. Wadhwa, C.D. 1988 : 'Some Aspects of India's Export Policy and Performance', in R. Lucas and G. Papanek (eds), *The Indian Economy*, New Delhi: Oxford University Press.
- Winters, L. A. 1981: *An Econometric Model of the Export Sector: UK Visible Exports and their Prices 1955-1973*. Cambridge Studies in Applied Econometrics: 4. Cambridge: The University Press.
- Wolf, M. 1982: *India's Exports*. New York: Oxford University Press (for the World Bank).

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Original Equilibrium is determined at point E, when the original demand curve DD and the original supply curve SS intersect each other. OQ is the equilibrium quantity and OP is the equilibrium price. The effect of decrease in both demand and supply on equilibrium price and equilibrium quantity can be better analysed under three different cases. As both demand and supply increase in the same proportion, equilibrium price remains the same at OP, but equilibrium quantity rises from OQ to OQ1. Case 2: Increase in Demand > Increase in Supply: When increase in demand is proportionately more than increase in supply then rightward shift in demand curve from DD to D1D1 is proportionately more than rightward shift in supply curve from SS to S1S1 (Fig. You can help correct errors and omissions. When requesting a correction, please mention this item's handle: RePEc:ecj:econjl:v:104:y:1994:i:427:p:1415-17. See general information about how to correct material in RePEc. For technical questions regarding this item, or to correct its authors, title, abstract, bibliographic or download information, contact: (Wiley-Blackwell Digital Licensing) or (Christopher F. Baum). If you know of missing items citing this one, you can help us creating those links by adding the relevant references in the same way as above, for each referring item. If you are a registered author of this item, you may also want to check the "citations" tab in your RePEc Author Service profile, as there may be some citations waiting for confirmation. World demand factors are found important in explaining Pakistan's

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export performance at the disaggregated level. Most disaggregated exports are responsive to world demand and relative prices. The degree of this responsiveness is relatively high for value added exports than that of primary or low value added exports. "Demand and Supply Factors in the Determination of India's Disaggregated Manufactured Exports: A Simultaneous Error-Correction Approach." Working Paper No. 383. CDS, Trivandrum.