

## LIBERALISATION, REAL WAGES AND JOBLESS GROWTH: GENERAL EQUILIBRIUM SYNTHESIS

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**Abstract:** *This presentation enlightens different channels through which liberalised trade policies can have differential impact on the organisation of production in different sectors that subsequently seep into the relatively larger share of the workforce, employed in the agricultural or non-agricultural informal sectors with wage earnings below or just above the poverty line. In terms of general equilibrium models of production and trade, this presentation brings together salient features of a developing dual South Asian economy like India, such as the dualism observed in domestic factor markets and co-existence of internationally non-traded goods, within the realm of general equilibrium framework that captures structural features of trade and production patterns for a typical developing country (DC hereafter) like India. First, I aim to explain why a DC like India may experience a jobless growth in the organised sectors during liberalised regime within the framework of a three-sector mobile capital version of Harris-Todaro (HT hereafter) type general equilibrium model describing rural-urban migration with agricultural dualism and a non-traded intermediate input. Main findings support the fact that as a consequence of different trade reform policies, organised sectors have experienced increased competition from foreign markets which has forced them to relax labour laws, with the freedom to switch towards relatively capital-intensive techniques of production, resulting in retrenchment of relatively less productive workers and ending up with jobless pattern of growth in these organised urban sectors during the liberalised regime. These results*

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### CURRENT POSITION & AFFILIATIONS

Assistant Professor (Lecturer), Economics Area, Indian Institute of Management (IIM) Kozhikode.  
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- the Centre for Research in Economic Development and International Trade (CREDIT), University of Nottingham (UK); □
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### EDUCATIONAL BACKGROUND

- Ph.D. International Economics, University of Nottingham (UK), 2012 – 2016, with distinction in compulsory PhD coursework on Economics (74.5% marks).
- M.Sc. (Master of Science) in Economics, University of Calcutta, 2009 – 2011: ranked second with distinction from the university, obtaining 75.5% marks. □
- B.Sc. (Hons) in Economics, University of Calcutta, 2006 – 2009. □
- Higher Secondary (10+2) Examination: 84.9% marks; □
- Secondary (10-level) Examination: 89.13% marks (topper from the school).

### GRANTS & AWARDS

- 09/2012 – 09/2015: Economic & Social Research Council (UK) Doctoral Scholarship (+3): for maintenance. □
- 09/2012 – 05/2016: Vice-Chancellor's Research Excellence Award (University of Nottingham): for fees.
- January 2012: "AACUED – TECHNO INDIA ACADEMIC EXCELLENCE" - Award for the excellent result in M.Sc. Economics from University of Calcutta. □

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Then I explore a controversial policy debate in DCs including India, concerning acquisition of agricultural land to set up Special Economic Zones (SEZs) in order to promote industrialisation. This essay critically analyses the implications of this policy, using a three-sector HT type general equilibrium model with the SEZ sector characterised with increasing returns to scale (IRS) sector, having an imperfectly competitive market. It is found that following an inflow of foreign capital due to the government policy of easing the entry criteria for FDI, the industry expands through spillover effects and in turn, the agricultural sector may expand for a sufficiently higher degree of scale economies in the SEZ sector through the general equilibrium implication on resource reallocation. The magnitude of urban unemployment may fall, albeit the workers in general will be worse-off due to reduction in the wage income. National income of the economy may increase and export by the SEZ sector may rise simultaneously, given a negligible income-elasticity of demand for the SEZ-good. These results are particularly interesting for their stark contradiction with the standard general equilibrium models of production and trade developed yet in this context and their policy implications.

Next, by utilising a four-sector general equilibrium framework with segmented labour and capital markets (domestic), I demonstrate that factor-specific technological progress only in the capital-intensive segment of the urban formal sectors may affect the urban informal workers adversely, while a technological progress (trade-induced) in the vertically integrated skill-intensive formal sector benefits them. The quantitative analysis demonstrates that when both of the formal sectors undergo capital-using technological progress, urban informal wage may improve, provided the vertically integrated formal sector could save more on the capital cost of production compared to the relatively capital-intensive formal sector and capital flows to the informal sectors. This helps understand trends in urban poverty given the strong association between urban informal wage and the degree of urban poverty.

Next, I develop a multi-sector full-employment general equilibrium model with internationally non-traded goods and international fragmentation in skill-intensive production, to understand the mechanism how trade-induced productivity improvement in the skill-intensive sector gets channelized to the informal sector(s) (in terms of real wages and employment conditions) through the existence of finished non-tradable and the 3 corresponding domestic demand-supply forces. The underlying developing economy is characterised by dual unskilled labour market with unionised formal and non-unionised informal sectors, consistent with the empirical literature on developing economies like India. Numerical analysis has also been performed to simulate how the changes in elasticities of factor substitution in production of different sectors account for the movement in informal wage and therefore the movement in skilled-unskilled wage gap. This essay challenges the view that the relative wage-inequality in a DC like India with rigid organised sector labour market has unequivocally been governed only by the increase in the skilled wages. An extension with involuntary unemployment of skilled labour using the 'fair wage hypothesis' has also been presented that effectively demonstrates the robustness of the results obtained under the full-employment model.

This presentation delivers tractable theoretical models and plausible predictions at hand that should rejuvenate empirical testability of liberalisation-structural change-welfare (in terms of wage-employment conditions) nexus. What have been identified here are the avenues through which trade can impact on real informal wage with dual labour market. One crucial channel is, of course, existence of internationally non-traded goods.

Although I have assumed competition (perfect competition and monopolistic competition, where the latter has been assumed in Chapter 4 within the SEZ- sector) in product markets, rather than more realistic assumptions of oligopoly and strategic behaviour, the general equilibrium models of trade and production presented in this presentation have been able to

*incorporate the salient features of a developing dual economy like India including large agricultural and non-agricultural informal sector(s), dualistic factor markets and non-traded activities in tractable manner.*

*DISCLAIMER: This presentation is a summary of my research during 2012-2016 as a Doctoral student in the University of Nottingham (UK) and subsequent published articles of mine in various academic journals (viz., Journal of Economic Integration, International Review of Economics & Finance) and book chapter (Chapter 10) in: D. Chakraborty and J. Mukherjee (eds.) Trade, Investment and Economic Development in Asia: Empirical and Policy Issues: Routledge.*

**Key words:** *liberalisation, real wages, jobless growth, equilibrium synthesis*

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