

# T.C.A. MADHAV RAGHAVAN

## CURRENT EMPLOYMENT

October 14 - Present     *Retainer Consultant*     **MoRD, Government of India**     New Delhi, India

- Monitoring and Evaluations (M&E) Expert
- Working with the Deen Dayal Upadhyay Grameen Kaushalya Yojana (DDU-GKY) - the flagship vocational training and skills mission of the Ministry of Rural Development (MoRD), Government of India
- Aim: Streamlining the operations of DDU-GKY, identifying and fixing problem areas in implementation.

## DOCTORATE

August 08 - Present     *Senior Research Fellow*     **Indian Statistical Institute**     New Delhi, India

- PhD programme in economic theory - thesis supervisor **Prof. Arunava Sen**.
- Areas of specialisation: Matching theory, axiomatic resource allocation.
- **Thesis submitted:** July 2014
- Skills acquired: Analytical problem solving, critical thinking, detail-oriented solutions.

## DOCTORAL RESEARCH

### **Essays on Fairness, Efficiency and Strategy-Proofness in Models with Exact Constraints**

- “Project Assignment via Priority Trading”. We consider a goods allocation problem on a domain where multiple agents may be given copies of the same object. We assume that such objects have a capacity constraint that must be exactly satisfied. We propose a rule which we call the Pairwise Priority Trading (PPT) Rule, and show that it characterises the set of all rules in this model that satisfy the standard properties of strategy-proofness, limited influence, unanimity and neutrality. It is also group-strategy-proof and Pareto efficient. The PPT rule can be thought of as a generalisation of the famous top trading cycles procedure to this particular environment.

- “Fair Assignment with Capacity Constraints”. We consider a matching problem in an environment where objects have the same maximum and minimum capacity. We propose a rule which we call the Deferred Acceptance with Improvements (DAI) rule, which is fair and constrained efficient in this exact capacity environment. We also identify a Pareto improvement procedure that always leads us to a fair and constrained efficient allocation. We show, however, that the DAI rule is not strategy-proof.

- “On Weak Group-Strategy-Proofness”. Group-strategy-proofness is the extension of strategy-proofness to groups of agents. This property comes in a standard form and a weak form. The distinction between the two forms is non-trivial as important rules in the literature fail the standard form but satisfy the weak form. We identify conditions (which we call ultra-weak Maskin monotonicity and weak non-bossiness) that are sufficient to ensure that a strategy-proof rule is weakly group-strategy-proof. We also demonstrate that the conditions are ‘weak enough’.

## EDUCATION

2005-07     *M.A Econ, 1<sup>st</sup> class*     **Delhi School of Economics, Delhi University**     New Delhi, India  
2002-05     *B.A (Hons.) Economics*     **McGill University**     Montreal, Canada

## WORK EXPERIENCE

February - October 09      *Research Assistant*      **Harvard Business School**      Cambridge, MA

- Question: Did industrial delicensing and liberalisation in India affect competitiveness in industry?
- Data: State-owned, private, and foreign-owned firms and their balance sheets from 1989-2007.
- The project was sponsored by the Brookings Institution, and published as NBER WP [15448](#).

June 07 - July 08      *Analyst*      **JPMorgan Services India Pvt. Ltd.**      Mumbai, India

- I worked directly with Adrian Mowat, Chief Asian and Emerging Market Equity Strategist at JPMorgan, ranked #2 in Asia Pacific in 2007-08 by *Institutional Investor*.
- My work comprised formulating, developing and tracking JPMorgan's equity investment strategy across the world's emerging markets. My beat was the north Asian markets of China, Korea and Taiwan, that had a combined weight of almost 50% of the benchmark MSCI equity index.

## ACADEMIC PUBLICATIONS

- "Foreign Direct Investment in India's Retail Bazaar: Opportunities and Challenges", with Anusha Chari, *World Economy*, Vol.35, Issue 1, pp.79-90, 2012.
- "The Crisis in Global Finance", with T.C.A. Srinivasa Raghavan, *Eternal India*, Vol.1, No.2, 2008.

## SEMINARS AND TALKS GIVEN

- CIREQ Montreal Matching Conference, Montreal, Canada, March 2014
- Conference on Economic Design, Lünd, Sweden, July 2013
- SING9 conference on game theory, Vigo, Spain, July 2013
- The *XI<sup>th</sup>* Meeting of the Society for Social Choice and Welfare, New Delhi, August 2012
- Doctoral Students Workshop, Indian Statistical Institute, New Delhi, March 2012

## AWARDS AND SCHOLARSHIPS

- March 2014: Travel grant from Shastri Indo-Canadian Institute
- 2008-2010: Special JR Fellowship, Indian Statistical Institute, sole recipient

## NEWSPAPER ARTICLES

- "**A prize to put regulators to work**", *Financial Express*, 15 October 2014  
The 2014 economics Nobel Prize winners.
- "**The maths behind a comedy**", *Business Standard*, 16 January 2014  
Review: *The Simpsons and their Mathematical Secrets*, Simon Singh.
- "**Divining stock price forecasts**", *Financial Express*, 16 October 2013  
The 2013 economics Nobel Prize winners.
- "**A look at some of India's biggest problems**", *Sunday Guardian*, 15 December 2012  
Review: *Indianomix: Making Sense of Modern India*, Vivek Dehejia and Rupa Subramanya.
- "**A prize for matchmaking**", *Hindu Business Line*, 17 October 2012  
The 2012 economics Nobel Prize winners.
- "**Says money to power, pass my bills and I'll pay yours**", *Sunday Guardian*, 29 January 2012  
Review: *The Price of Civilization*, Jeffrey Sachs.
- "**Gurus of macroeconomics**", *Hindu Business Line*, 12 October 2011  
The 2011 Nobel Prize winners.
- "**Economics for the layman**", *The Sunday Guardian*, 1 May 2011  
Review: *An Economist's Miscellany*, Kaushik Basu.
- **Columnist**, March - November 10, *The Sunday Guardian*  
Techno Babel: A weekly column on technology and society.

- **“A good climate for technology”**, *Mint*, 24 August 2009  
India need not wait for an international treaty to move towards cleaner technologies.
- **“Integrating factors”**, *Business Standard*, 17 April 2009  
Political radicalism in India remains at the fringes because we are largely an open society.
- **“Shock and alter”**, *Business Standard*, 20 March 2009  
If we are not careful, changes in incentives to save could sharply reduce aggregate savings and investment.

**Other interests:** Guitar, classic rock, cricket, European football, science writing, Japanese food, detective fiction, gardening

**Languages:** I speak three languages fluently - English, Hindi, Tamil - y un poco de español.