Kulwant Rai
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PROFESSIONAL SKILLS

Advanced quantitative and analytical skills in statistical modeling and data management, SAS programming (10 years work experience), and hand-on experience in 'think tank' and business school environments.

EDUCATION

M.A. Economics, University of Virginia, 2006
(Specialization: Computational Economics and Econometrics)

M.A. Economics, Delhi School of Economics, India, 2001
(Specialization: Econometrics)

B.A. (Honors) Economics, SGTB Khalsa, University of Delhi, India, 1999
(First in class certificate)

WORK EXPERIENCE (10 yrs in Corporate Finance, Banking and Entrepreneurship)

- ***Research Director,* Tayloe Murphy Center, Darden, University of Virginia** (www.darden.edu/web/Tayloe-Murphy-Center) (2010 to present)

  Responsible for knowledge generation, sharing and dissemination; establish networks with governments, donors, academic institutions, private sector entities, and non-government organizations to further center's goals; identify, design and conduct research on issues of interest to the center; lead quantitative analysis related to research projects; interact with various stakeholders at different stages during the completion of projects; communicate technical concepts and findings to non-technical audience; provide leadership and support to reporting staff and ensure their on-going learning and development; work with management to extend the reach and presence of the center.

- ***Research Analyst,* Darden, University of Virginia** (www.darden.edu) (2003 to 2009)
  - Conducted research for Corporate Finance projects and Corporate Lawsuits using statistical modeling, SAS programming, and strategic problem solving.
  - Empirically analyzed private investment in public equity; effect of merger of investment bank and commercial banks on their equity underwriting business; cost to foreign firms for entering US financial market.

- ***Research Officer,* International Monetary Fund** (www.imf.org) (Feb 2009 to Apr 2009)
  Conducted research on Latin American Banking Crisis using quantitative and statistical tools, which produced empirical estimates for economic and policy analysis.

- ***Instructor of Economics,* University of Virginia 2007-2008**

- ***Grader,*** **University of Virginia 2005-2006**
- ***Senior Research Analyst,*** **Institute of Economic Growth** (www.iegindia.org) (2001 to 2003)
  - Undertook extensive quantitative analysis as part of the team working on *Monthly Monitor*.
  - Conducted study of foreign investments in Indian stock market.

COMPUTER, PROGRAMMING & OTHER SKILLS

- Operating systems: Windows and UNIX.
- Proficient in SAS (including SQL, and Macros), FORTRAN, MATLAB, and STATA.
- Experienced in developing Microsoft Excel macros using VBA.
- Working knowledge of C#, Regular Expression, VBA, Bash Shell Scripting, GIS, GAUSS, SPSS, E-Views, Shazam, Microfit, LIMDEP, Perl, HTML, PHP, Latex, R and RATS.
- Advance programming skills: Coding user defined (not canned) Maximum Likelihood Functions in STATA; name matching algorithm in SAS; programming automated codes for estimating demand for "n" commodities; converting code across different softwares. Related software publications:
  - **DISEQ: A Program to Implement MLE for Markets in Disequilibrium**, under review with *Stata Journal*, 2011.
  - **Combine Datasets using Inexact Character Variables in SAS**, under review with *Journal of Statistical Software*, 2011.
  - **Demand-system estimation using QUAIDS: Update 2**, under review with *Stata Journal*, 2011.
  - **Str_Chg: A Program to Test for Structural Break and Parameter Instability with an Unknown Break Point**, under review with *Stata Journal*, 2011.
  - **Black Scholes: Option Value, Greeks and Implied Volatility in Excel** (using VBA). Under progress.
- Advanced econometric skills: maximum likelihood estimation, Monte Carlo simulations, survival analysis, probability models (multinomial logit, and probit), simultaneous equation models, quadratic almost ideal demand systems (QUAIDS), co-integration, GARCH, structural break tests, macro economic forecasting, Heckman selection model.
- Data handling and management: Creating large database from various data sources involving SQL and other methods (viz: WRDS, CRSP, Compustat, US Census, CPS, NSS-Indian Household Survey Data, SIIP, ICPSR, State and district level data related to US economy).
- Possess a certification for successful completion of the University of Virginia and Virginia Tech collaborative Bootcamp in High Performance and Parallel Computing.

PUBLICATIONS

- **The Global Credit Crunch and Foreign Banks' Lending to Emerging Markets: Why Did Latin America Fare Better?**, with Herman Kamil. *IMF Working Paper, WP/10/102.* Western Hemisphere Department. International Monetary Fund. Washington D.C.2010.

- **Perdido En La Traducción: The Opportunity in Financial Services for Latinos**, with Gregory Fairchild. Research Report. *Darden School of Business*. University of Virginia. 2010. www.darden.edu/web/Tayloe-Murphy-Center/Research/Latino-Finance/

- **Stronger Fundamentals Pay Off**, Western Hemisphere. *Regional Economic Outlook*. World Economic and Financial Surveys. International Monetary Fund. Washington D.C. May 2009. Provided inputs as part of the team.
- **Determinants of Foreign Institutional Investment in India: The Role of Return, Risk and Inflation**, with NR Bhanumurthy. *The Developing Economies*, Japan, Volume 42, Number 4 (December 2004).

- **Monthly Monitor** July 2001 to July 2003, with BB Bhattacharya, NR Bhanumurthy and Sangita Chakravarty. It is a monthly publication of *Institute of Economic Growth*, New Delhi that explains short -term economic scenario in India.

- **A Short-term Time Series Forecasting model for Indian Economy**, with BB Bhattacharya, NR Bhanumurthy and Sangita Chakravarty. *IEG Discussion paper* number 72/2003.

RESEARCH IN PROGRESS

- Is Franchising Beneficial to the Survival Analysis of Startup Firms? with Gregory Fairchild. Under progress.

- Effect of CDFI Support on Survival of Firms, with Gregory Fairchild. Under progress.

REFERENCES

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