# Gabriel Rodríguez Full Professor

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This Version: April 5, 2018

#### Education

- 1. Ph.D. in Economics, University of Montreal (2000). Thesis: "Unit roots, Outliers and Cointegration Analysis with Macroeconomic Applications." Members of the Committee: Professor Pierre Perron (Advisor), Professor Jean-Marie Dufour (President), Professor Francisco Ruge-Murcia (Member), Professor John Galbraith (External Examinator) and Professor Roch Roy (Member of Graduate School). Fields: Econometrics, Macroeconomics, Finances.
- 2. M.Sc. in Economics, University of Montreal (1998).
- 3. Diploma of Special Course of Economics at Central Reserve Bank of Peru (1993).
- 4. Licence Degree, Economics, Pontificia Universidad Católica del Perú.
- 5. Bachelor Degree, Social Sciences (Major in Economics), Pontificia Universidad Católica del Perú.

#### Research Interests

Econometrics, Theoretical and Applied Time Series Analysis, Structural Change, Macroeconometrics, Macroeconomics, Monetary Policy, Fiscal Policy, Financial Econometrics.

### Work Experience

- 1. Full Professor (Tenured), Department of Economics, Pontificia Universidad Católica del Perú (since March 2010)
- 2. Senior Researcher, Research Department, Central Reserve Bank of Peru (since 2008 until March 2010).

- 3. Full Professor (Tenured) (partial time), Department of Economics, Pontificia Universidad Católica del Perú (since 2009 until March 2010).
- Full Professor (partial time), Department of Economics, Pontificia Universidad Católica del Perú (since 2007 until 2008).
- 5. Full Professor (partial time), Graduate School, Universidad del Pacífico (2007, 2008, 2009).
- 6. Associate Professor (Tenured), Department of Economics, University of Ottawa (2005-2008)
- 7. Assistant Professor (Tenured), Department of Economics, University of Ottawa (1999-2005).
- 8. Research Assistant (Professor Pierre Perron), University of Montreal (1996-1999).
- 9. Teaching Assistant of Econometrics B (Professor Jean-Marie Dufour), University of Montreal (1997-1998).
- 10. Teaching Assistant of Macroeconomics B (Professor Francisco Ruge-Murcia), University of Montreal (1996).
- 11. Economist, Central Reserve Bank of Peru (1993-1995).
- 12. Professor (partial time), Department of Economics, Pontificia Universidad Católica del Perú (1993-1995).
- 13. Teaching and Research Assistant, Department of Economics, Pontificia Universidad Católica del Perú (1990-1993).

### Awards/Honours

- 1. Member of the Scientific Committee of Latin American Meetings Econometric Society (LAMES), November 2018, Guayaquil, Ecuador.
- 2. Elsevier Research Excellence Award in Economics 2014-2017.
- 3. Research Award 2011, 2014, 2015, 2016, Pontificia Universidad Católica del Perú.
- 4. Award of Position of Professor-Researcher for 2014, 2015, 2016.
- 5. Award of a Researcher Fellowship, Department of Economics, Boston University to work with Professor Pierre Perron (January 20-April 15, 2013).
- 6. Economist ranked in Top 3% Economists of Peru according to the ranking of REPEC (www.repec.org) at March 2018.
- 7. Economist ranked in the Top 3% Economists of South America according to the ranking of REPEC (www.repec.org) at March 2018.
- 8. Economist ranked in the Top 3% Economists of Latin America according to the ranking of REPEC (www.repec.org) at March 2018.

- 9. Economist ranked in the Top 5% Economists of World Ranking according to the ranking of REPEC (www.repec.org) at March 2018.
- 10. Research Gate Score: 24.48 at March 2018.
- 11. Award of Project of Research (2012) organized by DGI (Pontificia Universidad Católica del Perú): "Explaining Transitions in the Peruvian Labor Market." (Co-Researcher).
- 12. Award of Project of Research (2011) organized by DGI (Pontificia Universidad Católica del Perú): "Inflation Expectations Formation in the Presence of Policy Shifts and Structural Breaks: An Experimental Analysis." (Principal Researcher).
- 13. According to Google Scholar Citation, I have 1101 citations (611 since 2013). My h-index is 16 which means that my publications have been cited at least 16 times (h=12 since 2013). My i10-index is 24 (17 since 2013).
- 14. Marie Curie Scholarship in *Time Series Econometrics*, University of Crete, Grece, 2007.

### Forthcoming Working Papers

1. Tellez De Vettori, G. E., R. Najarro Chuchón and **G. Rodríguez** (2018), "Duration Models and Value at Risk using High-Frequency Data for the Peruvian Stock Market," based on the Master Thesis of Tellez and Najarro, Pontificia Universidad Católica del Perú.

### Recent Working Papers

- Ataurima Arellano, M., E. Collantes Goicochea and G. Rodríguez (2017), "Empirical Modeling of Latin American Stock Market Returns and Volatility using Markov-Switching GARCH Models," based on the Master Thesis of Miguel Ataurima and the Licenciate Thesis of Erika Collantes Goicochea. Working Paper 436, Department of Economics, Pontificia Universidad Católica del Perú.
- Olivares, A., G. Rodríguez and M. Ataurima Arellano (2017), "Estimation of the Sovereing Yield Curve of Peru: Role of Macroeconomic Factors and Latent Factors," based on Master Thesis of Alejandra Olivares. Working Paper 435, Department of Economics, Pontificia Universidad Católica del Perú.
- 3. Olivares, A., **G. Rodríguez** and M. Ataurima Arellano (2016), "Estimation of the Sovereing Yield Curve of Peru: Role of Macroeconomic Factors and Latent Factors," based on Master Thesis of Alejandra Olivares. Working Paper **2016-004**, Superintendencia de Banca, Seguros y AFP.

#### **Publications**

- Bazán-Palomino, W. and G. Rodríguez (2018), "The New Keynesian Framework for a Small Open Economy with Structural Breaks: Empirical Evidence from Peru," forthcoming in Structural Change and Economic Dynamics. See also Working Paper 384, Department of Economics, Pontificia Universidad Católica del Perú.
- 2. Lengua Lafosse, P., and **G. Rodríguez** (2018), "An Empirical Application of Stochastic Volatility Models to Latin-American Stock Returns using GH Skew Student's t-Distribution," forthcoming in *The Quarterly Review of Economics and Finance*. See also Working Paper **405**, Department of Economics, Pontificia Universidad Católica del Perú.
- 3. Rodríguez, G., P. Villanueva and P. Castillo B. (2018), "Driving Economic Fluctuations in Peru: The Role of the Terms of Trade," forthcoming in *Empirical Economics*. See also Working Paper 389, Department of Economics, Pontificia Universidad Católica del Perú.
- 4. Alanya, W. and G. Rodríguez (2018), "Asymmetries in Volatility: An Empirical Study for the Peruvian Stock and Forex Returns," forthcoming in Review of Pacific Basin Financial Markets and Policies. See also Working Paper 413, Department of Economics, Pontificia Universidad Católica del Perú.
- 5. Alanya, W. and G. Rodríguez (2018), "Stochastic Volatility in Peruvian Stock Market and Exchange Rate Returns: A Bayesian Approximation," forthcoming in *Journal of Emerging Market Finance*. See also Working Paper 392, Department of Economics, Pontificia Universidad Católica del Perú.
- 6. Rodríguez, G. (2017), "Modeling Latin-American Stock and Forex Markets Volatility: Empirical Application of a Model with Random Level Shifts and Genuine Long Memory," North American Journal of Economics and Finance 42, 393-420. See also Working Paper 416, Department of Economics, Pontificia Universidad Católica del Perú.
- 7. Alvaro, D., Á. Guillén and **G. Rodríguez** (2017), "Modelling the Volatility of Commodities Prices using a Stochastic Volatility Model with Random Level Shifts," *Review of World Economics* **153(1)**, 71-103. See also Working Paper **414**, Department of Economics, Pontificia Universidad Católica del Perú.
- 8. Rodríguez, G. (2017), "Extreme Value Theory: An Application to the Peruvian Stock Market Returns," Journal of Quantitative Methods for Economics and Business Administration (Revista de Metodos Cuantitativos para la Economia y la Empresa) 23, 48-74. See also Working Paper 394, Department of Economics, Pontificia Universidad Católica del Perú.
- 9. Rodríguez, G. (2017), "Selecting Between Autoregressive Conditional Heterocedasticidity Models: An Empirical Application to the Volatility of Stock Returns in Peru," Revista de Análisis Económico-Economic Analysis Review 32(1), 69-94. See also Working Paper 400, Department of Economics, Pontificia Universidad Católica del Perú.
- 10. Delgado, A. and G. Rodríguez (2017), "Convergencia en las Regiones del Perú: Inclusión o Exclusión en el Crecimiento de la Economía Peruana (1970-2010)?" in Francke, P. and J. Rodríguez (Editores), Exclusión e Inclusión Social en el Perú, 249-294, Fondo Editorial PUCP.

- See also Working Paper **390**, Department of Economics, Pontificia Universidad Católica del Perú.
- 11. Quineche, R. and **G. Rodríguez** (2017), "Selecting the Lag Length for the M<sup>GLS</sup> Unit Root Tests with Structural Change: A Warning Note for Practitioners Based on Simulations Test for a Unit Root with Structural Change," *Econometrics* **5(2)**, Article 17. See also Working Paper **404**, Department of Economics, Pontificia Universidad Católica del Perú.
- 12. Perron, P., and **G. Rodríguez** (2016), "Residuals-based Tests for Cointegration with GLS Detrended Data," *The Econometrics Journal* **19**, 84-111. See also Working Paper **327** of the Department of Economics, Pontificia Universidad Católica del Perú.
- 13. Rodríguez, G. (2016), "A Comparative Note about Estimation of the Fractional Parameter under Additive Outliers," Communications in Statistics: Simulation and Computation 45(1), 207-221. See also Working Paper 356, Department of Economics, Pontificia Universidad Católica del Perú.
- Rodríguez, G. (2016), "Modeling Latin-American Stock Markets Volatility: Varying Probabilities and Mean Reversion in a Random Level Shifts Model," Review of Development Finance 6, 26-45. See also Working Paper 403, Department of Economics, Pontificia Universidad Católica del Perú.
- 15. Herrera Aramburú, A. and **G. Rodríguez** (2016), "Volatility of Stock Market and Exchange Rate Returns in Peru: Long Memory or Short Memory with Level Shifts?," *International Journal of Monetary Economics and Finance* **9(1)**, 45-66. See also Working Paper **393** of the Department of Economics, Pontificia Universidad Católica del Perú.
- 16. Ojeda Cunya, J. and **G. Rodríguez** (2016), "An Application of a Random Level Shifts Model to the Volatility of Peruvian Stock and Exchange Rate Returns," *Macroeconomics and Finance in Emerging Market Economies* **9(1)**, 34-55. See also Working Paper **383** of the Department of Economics, Pontificia Universidad Católica del Perú.
- 17. **G. Rodríguez** and R. Tramontana Tocto (2015), "An Application of a Short Memory Model with Random Level Shifts to the Volatility of Latin American Stock Market Returns," *Latin American Journal of Economics* **52 (2)**, 185-211.(formerly *Cuadernos de Economía*). See also Working Paper **385** of the Department of Economics, Pontificia Universidad Católica del Perú.
- 18. Delgado, A. and **G. Rodríguez** (2015), "Structural Breaks and Convergence in the Regions of Peru: 1970-2010," *Review of Developmet Economics* **19(2)**, 346-357.
- 19. Fallahi, F., and **G. Rodríguez** (2015), "Structural Breaks and Labor Market Disparities in the Canadian Provinces," *Journal of Economic Studies* **42(2)**, 322-342. It appears as Working Paper **322**, Department of Economics, Pontificia Universidad Católica del Perú.
- 20. Ventura Neyra, E. and G. Rodríguez (2015), "Explaining the Determinants of the Frequency of Exchange Rate Interventions in Peru using Count Models," Applied Economics Quarterly 61(3), 261-292. See also Working Paper 340 of the Department of Economics, Pontificia Universidad Católica del Perú.

- 21. Ramirez Carrera, D. and G. Rodríguez (2015), "The Stationarity of the Inflation in Latin-American Countries Reviewed When Additive Outliers are Detected", in Díaz-Roldán, C. and Perote, J. (eds.): Advances on International Economics, Chapter 5, Cambridge Scholars Publishing, United Kingdom: Newcastle.
- 22. Ramírez, D. and **G. Rodríguez** (2014), "Do Labor Reforms in Spain have an Effect on the Equilibrium Unemployment Rate?," *International Journal of Social Sciences Studies* **2(1)**, 105-120. See also Working Paper **367**, Department of Economics, Pontificia Universidad Católica del Perú.
- 23. Fallahi, F., and G. Rodríguez (2014), "Link between Unemployment and Crime in the U.S.: A Markov-Switching Approach", Social Science Research 45, 33-45. See also Working Paper 285, Department of Economics, Pontificia Universidad Católica del Perú.
- 24. Guillén, A. and G. Rodríguez (2014), "A Trend-Cycle Decomposition for Peruvian GDP: Application of an Alternative Method," *Latin American Economic Review* 23 (5), 1-44. See also Working Paper 368, Department of Economics, Pontificia Universidad Católica del Perú.
- 25. Rodríguez, G., and D. Ramírez (2014), "A Note on the Size of the ADF Test with Additive Outliers and Fractional Errors. A Reapraisal about the (Non)Stationarity of the Latin-American Inflation Series," *Economía XXXVII* (73), 113-132. See also Working Paper 357, Department of Economics, Pontificia Universidad Católica del Perú.
- 26. Aquino, J. C., and G. Rodríguez (2013), "Understanding the Functional Central Limit Theorems with Some Applications to Unit Root Testing Under Structural Change," *Economía* XXXVI (71), 107-149. See also Working Paper 319, Department of Economics, Pontificia Universidad Católica del Perú.
- 27. Maertens Odria, L. R., and **Rodríguez**, **G.** (2013), "Inflation Expectations Formation in the Presence of Policy Shifts and Structural Breaks: An Experimental Analysis," *Journal of Socio-Economics* (*Journal of Behavioral and Experimental Economics*) **44**, 59-67. It is a paper obtained from the Project winner of the Annual Call for Projects of the DGI (PUCP). See also Working Paper **339**, Department of Economics, Pontificia Universidad Católica del Perú.
- 28. Humala, A., and **G. Rodríguez** (2013), "Some Stylized Facts of Returns in the Stock and Foreign Exchange Markets in Peru," *Studies in Economics and Finance* **30(2)**, 139-158. See also Working Paper 2010-17, Central Bank of Peru. It also appear as Working Paper **325**, Department of Economics, Pontificia Universidad Católica del Perú.
- 29. Carrera, D., and **G. Rodríguez** (2013), "Have European Unemployment Rates Converged?," *Zeszyty Naukowe* **10**, 135-156. See also Working Paper 2009-007, Department of Research, Central Bank of Peru.
- 30. Maertens Odria, R. L., P. Castillo and **G. Rodríguez** (2012), "Does the Exchange Rate Pass-Through into Prices Change when Inflation Targeting is Adopted? The Peruvian Case Study between 1994-2007," *Journal of Macroeconomics* **34**, 1154-1166. See also Working Paper **314**, Department of Economics, Pontificia Universidad Católica del Perú.

- 31. Fallahi, F., H. Pourtagui, and G. Rodríguez (2012), "The Unemployment Rate, Unemployment Volatility, and Crime," *International Journal of Social Economics* **39** (6), 440-448.
- 32. Humala, A., and **G. Rodríguez** (2012), "A Factorial Decomposition of Inflation in Peru. An Alternative Measure of Core Inflation," *Applied Economics Letters* **19**, 1331-1334. See also Working Paper **315**, Department of Economics, Pontificia Universidad Católica del Perú.
- 33. Rodríguez, G. and A. Vargas Vásquez (2012), "Impacto de Expectativas Políticas en la Volatilidad de la Bolsa de Valores de Lima (BVL)," Economia XXXV (70), 190-223. See also Working Paper 323, Department of Economics, Pontificia Universidad Católica del Perú.
- 34. Rodriguez, J. and **G. Rodríguez** (2012), "Movilidad en los mercados laborales del Perú: 2007-2011," en Garavito C., and I. Muñoz (Editores) *Empleo y Protección Social*. Peru: Fondo Editorial de la Pontificia Universidad Católica del Perú.
- 35. Perron, P. and **G. Rodríguez** (2012), "GLS para eliminar los componentes determinísticos, estadísticos de raíz unitaria eficientes y cambio estructural," *Economía* **XXXV** (69), 174-203.
- 36. Fallahi, F., and **G. Rodríguez** (2011), "Persistence of Unemployment in the Canadian Provinces," *International Regional Science Review* **34(4)** 438-458. See also Working Paper **286**, Department of Economics, Pontificia Universidad Católica del Perú.
- 37. Lavoie, M. and **G. Rodríguez** (2011), "The Economic Impact of Professional Teams on Monthly Hotel Occupancy Rates of Canadian Cities: a Box-Jenkins Approach," Reprinted in Wladimir Andreff (Editor), *Recent Developments in the Economics of Sport*, Chapter **13**, Series: The International Library of Critical Writings in Economics series, Paris.
- 38. Ramírez, D. and **G. Rodríguez** (2011), Comportamiento de las Tasas de Desempleo Regional en España, Madrid: EAE, 308 p.
- 39. Humala, A., A. Herrera y **G. Rodríguez** (2011), "Volatilidad Financiera y Rentabilidades Cambiarias y Bursátiles en el Perú," *Moneda* **147**, 24-28.
- 40. Lavanda, G. and G. Rodríguez (2011), "Descomposición Histórica de la Inflación en Perú. Distinguiendo entre Choques de Demanda y Choques de Oferta," *Economia XXXIV* (67), 126-162. ISee also Working Paper 302, Department of Economics, Pontificia Universidad Católica del Perú.
- 41. Rodríguez, G. (2010), "Application of Three Non-Linear Econometric Approaches to Identify Business Cycles in Peru," *OECD Journal: Journal of Business Cycle Measurement and Analysis* 5 (2), 1-25. See also Working Paper 284, Department of Economics, Pontificia Universidad Católica del Perú.
- 42. **Rodríguez**, **G.** (2010), "Using A Forward-Looking Phillips Curve to Estimate the Output Gap in Peru," *Review of Applied Economics* **6** (1-2), 85-97. See also Working Paper 2009-010, Department of Research, Central Bank of Peru.

- 43. Rodríguez, G. (2010), "Estimating Output Gap, Core Inflation, and the NAIRU for Peru," Applied Econometrics and International Development 10(1), 149-160. See also Working Paper 2009-009, Department of Research, Central Bank of Peru.
- 44. Humala, A. and **G. Rodríguez** (2010), "Foreign Exchange Intervention and Exchange Rate Volatility in Peru," *Applied Economics Letters* **17**, 1485-1491.
- 45. **Rodríguez, G.** (2009), "Una Nota Empírica sobre Outliers Aditivos en Series de Inflación de América Latina," en Gonzales de Olarte E. y J. M. Iguíñiz Echevarría (Editores) *Desarrollo Económico y Bienestar. Homenaje a Máximo Vega-Centeno*, Peru: Fondo Editorial de la Pontificia Universidad Católica del Perú.
- 46. Humala, A. y **G. Rodríguez** (2009), "Intervención en el Mercado Cambiario y Volatilidad del Tipo de Cambio en el Perú," *Monetaria* **XXXII** (1), 47-62.
- 47. **Rodríguez, G.** (2008), "Eficiencia de la Política Monetaria y Estabilidad de las Preferencias del Banco Central. Evidencia Empírica para el Perú," *Revista de Estudios Económicos* 15, Banco Central de Reserva del Perú.
- 48. **Rodríguez, G.** (2008), "Efficiency of the Monetary Policy and Stability of Central Bank Preferences. Empirical Evidence for Peru," *Empirical Economics Letters* **7(1)**, 47-55.
- 49. **Rodríguez**, **G.** (2008), "Stability of Central Bank Preferences, Macroeconomic Shocks, and Efficiency of the Monetary Policy. Empirical Evidence for Canada," *Applied Economics Letters* **15** (6), 437–441.
- 50. Ashraf, M. A. and **G. Rodríguez** (2008), "Impact of Government Intervention on Inflation Control," *Applied Economics Journal* **15(2)**, 1-18.
- 51. Rodríguez, G., and I. Romero (2007), "The Role of Permanent and Transitory Components in the Fluctuations of Latin-American Real Exchange Rates," *Applied Economics* **39** (21), 2713-2722.
- 52. Rodríguez, G. (2007), Finite Sample Behaviour of the Level Shift Model using Quasi-Differenced Data," Journal of Statistical Computation and Simulation 77 (10), 889-905.
- 53. Rodríguez, G., and N. Rowe (2007), "Why U.S. Money does not Cause U.S. Output, but does Cause Hong Kong Output," *Journal of International Money and Finance* 26, 1174-1186.
- 54. Hui L. and G. Rodríguez (2006), "Unit Roots Tests and Structural Change when the Initial Condition is Drawn from its Unconditional Distribution," *The Econometrics Journal*, **9(2)**, 225-251.
- 55. Atallah, G., and **G. Rodríguez** (2006), "Indirect Patent Citations," *Scientometrics* **67(3)** 437-465.
- 56. Rodríguez, G. (2006), "The Role of the Interprovincial Transfers in the  $\beta$ -Convergence Process. Further Empirical Evidence for Canada," *Journal of Economic Studies*, **33(1)**, 12-29.

- 57. Balde, T., and **G. Rodríguez** (2005), "Finite Sample Effects of Additive Outliers on the Granger-Causality Test with an Application to Money Growth and Inflation in Peru," *Applied Economics Letters* **15**, 841-844.
- 58. Hui L. and G. Rodríguez (2005), "Human Activities and Climate Change. A Cointegration Analysis," *Environmental Modelling and Software* 20, 761-773.
- 59. **Rodríguez, G.**, and M. Sloboda (2005), "Modeling Non-Linearities in Quarterly Revenues of U.S. Telecommunications Industry," *Structural Change and Economic Dynamics* **16**, 137-158.
- 60. Lavoie, M. and **G. Rodríguez** (2005), "The Economic Impact of Professional Teams on Monthly Hotel Occupancy Rates of Canadian Cities: a Box-Jenkins Approach," *Journal of Sports Economics* **10** (10), 1-11.
- 61. **Rodríguez, G.** (2004), "Identifying Canadian Regional Business Cycles using the Plucking Model," Canadian Journal of Regional Science **27(1)**, 61-78.
- 62. Rodríguez, G. (2004), "An Empirical Note about Additive Outliers in Latin American Inflation Series," *Empirical Economics* **29(2)**, 361-372.
- 63. Lavoie, M., G. Rodríguez, and M. Secareccia (2004), "Similitudes and discrepancies in Post-Keynesian and Marxist theories of investment: a theoretical and empirical investigation," International Review of Applied Economics 18 (2), 127-149.
- 64. Perron, P., and **G. Rodríguez** (2003), "Searching for Additive Outliers in Nonstationary Time Series," *Journal of Time Series Analysis* **24(2)**, 193-220.
- 65. Perron, P., and **G. Rodríguez** (2003), "GLS Detrending, Efficient Unit Root Tests and Structural Change," *Journal of Econometrics* **115**, 1-27.
- 66. **Rodríguez, G.**, and Y. Samy (2003), "Analyzing the Effects of Labor Standards on U.S. Export Performance. A Time Series Approach with Structural Change," *Applied Economics* **35**, 1043-1051.
- 67. Emiray, E. and G. Rodríguez (2003), "Evaluating Short and Long-Term Forecasts for Canadian Air Passenger Data using Time Series Models," in *Crossing Borders: Travel, Trade Security and Communication. Proceedings of the 38th Annual Conference, CTRF*, Volume 1, University of Saskatchewan printing.
- 68. Lavoie, M., G. Rodríguez, and M. Secareccia (2002), "Transformational Growth, Interest Rates and the Golden Rule", in George Argyrous, Mathew Forstater, and Gary Mongiovi (eds), Growth Distribution and Effective Demand, Armonk, New York: M. E. Sharpe Inc.
- 69. Rodríguez, G. (1995), "Demanda de Dinero y Estacionalidad en el Mercado Monetario," Economia 16(32), Pontificia Universidad Católica del Perú.
- 70. Rodríguez, G. (1993), Consumo de Alimentos en Sectores Populares: El Caso de Villa Maria del Triunfo, Lima: Fundacion Friedrich Ebert.

#### Resubmitted

1. Rodríguez, G., J. A. Ojeda Cunya and J. C. Gonzáles Tanaka (2018), "An Empirical Application of a Random Level Shift Model with Time-Varying Probabilities and Mean Reversion to the Volatility of Latin American Forex Returns," revisions requested by *Portuguese Economic Journal*. See also Working Paper 415, Department of Economics, Pontificia Universidad Católica del Perú.

#### In Revision

 Olivares, A., G. Rodríguez and M. Ataurima (2018), "Estimation of the Sovereing Yield Curve of Peru: Role of Macroeconomic Factors and Latent Factors," revisions request by Journal of Economic Studies. See also Working Paper 435, Department of Economics, Pontificia Universidad Católica del Perú and Working Paper 2016-004, Superintendencia de Banca, Seguros and AFP.

### **Submissions**

- 1. Ataurima Arellano, M., E. Collantes and **G. Rodríguez** (2017), "Empirical Modeling of Latin American Stock and Forex Markets Returns and Volatility using Markov-Switching GARCH Models," submitted to *International Journal of Finance & Economics*. See also Working Paper **436**, Department of Economics, Pontificia Universidad Católica del Perú.
- Pardo, R. and G. Rodríguez (2017), "Distinguishing between True and Spurious Long Memory in the Volatility of Stock Market Returns in Latin America," submitted to *Empirical Economics*. See also Working Paper 395, Department of Economics, Pontificia Universidad Católica del Perú.

### Work in Progress

- 1. Guevara, C. and **G. Rodríguez** (2018), "Loan Supply Shocks and Business Cycle in Peru: Empirical Evidence Using a TVP-VAR Model with Stochastic Volatility," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 2. Martinez, J. and G. Rodríguez (2018), "Macroeconomic Effects of Credit Supply Shocks: Empirical Evidence for the Peruvian Economy," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 3. Ojeda Cunya, J. A. and **G. Rodríguez** (2018), "Economic Fluctuations in Peru: Empirical Application of an Alternative Bayesian Estimation of a TVP-VAR Model," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.

- 4. Cornejo Flores, G. and G. Rodríguez (2018), "Empirical Applications of Stochastic Volatility Models with Heavy Tails and Serial Dependence to Returns of Commodities," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 5. Osores, J. and **G. Rodríguez** (2018), "Effects of Fical Policy in Peru: An Empirical Application using a Sign Restrictions Approach," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 6. Rodríguez, G. and E. Zelada Sánchez (2018), "Measuring Output Responses to Fiscal Policy in Peruvian Business Cycle: An Empirical Application using a STVAR," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 7. Fernández Prada Saucedo, J. P. and **G. Rodríguez** (2018), "Modeling Dynamics of Volatility of Commodities Returns: An Empirical Application and Comparison of GARCH and SV Models," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 8. Portilla Goicochea, J. and **G. Rodríguez** (2018), "Evolution of Monetary Policy Transmission in Peru: An Empirical Application using a TVP-VAR with Stochastic Volatility and Mixture Innovations," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 9. Hasegawa, H., **G. Rodríguez** and P. Castillo B. (2017), "Does Central Reserve Bank of Peru Respond to Exchange Rate Movements?: Empirical Evidence using a DSGE-VAR Approach," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- Rivas, G. and G. Rodríguez (2017), "Modeling Returns and Volatility in Latin American Stock Markets: Empirical Application using STAR-STGARCH Models," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 11. Rodríguez, G. and R. Torres (2017), "Modelling Trend Inflation in Latin American Countries: An Empirical Application using a Bounded Approach," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 12. Condeña Llontoy, J. and **G. Rodríguez** (2017), "Fiscal Policy in Peru: An Empirical Application using a TVP-VAR Model," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- Ojeda Cunya, J. A. and G. Rodríguez (2017), "Peruvian Forex Market Volatility and Official Interventions of the Central Bank," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 14. Gavidia Pantoja, L. A. and **G. Rodríguez** (2017), "Analyzing Links in Latin-American Stock Markets. An Approximation based on Time Varying Copulas," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 15. G. H. Lozano and **G. Rodríguez** (2017), "Testing for Changes in Persistence and Common Breaks: Empirical Application for Latin American Inflations Series," Department of Economics, Pontificia Universidad Católica del Perú.

- 16. M. Daga Acevedo and G. Rodríguez (2017), "Testing for Changes in Persistence: Empirical Evidence for Latin American Inflation Series," Department of Economics, Pontificia Universidad Católica del Perú.
- 17. C. Choqueneira Torres and **G. Rodríguez** (2017), "Multiple Structural Changes in the Real GDP Growth Rates: Empirical Evidence for Latin American Countries using a QAR Model," Department of Economics, Pontificia Universidad Católica del Perú.
- 18. A. Andrade Toma and **G. Rodríguez** (2017), "Understanding the Effects of Inflation Uncentainty on Inflation in Latin America: An Empirical Application using a TVP-SVM Model," Department of Economics, Pontificia Universidad Católica del Perú.
- 19. Fallahi, F., and **G. Rodríguez** (2016), "Structural Change and Convergence of Labor Market across Canadian Provinces", manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 20. Palomino, J. and **G. Rodríguez** (2016), "Economic Growth and Spatial Convergence in the Regions of Peru: 1979-2012," Department of Economics, Pontificia Universidad Católica del Perú.
- Rodríguez, G. (2016), "Asymptotic and Finite Sample Behavior of ECR Tests for Cointegration using GLS Detrended Data," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 22. Rodríguez, G. (2016), "Searching for Exhuberance in Latin-American Stock Markets," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 23. Rodríguez, J. and G. Rodríguez (2016), "Explaining Transition Probabilities in the Peruvian Labor Market," manuscript based on a Chapter of the PhD Thesis of José S. Rodríguez. See Working Paper 334, Department of Economics, Pontificia Universidad Católica del Perú.
- 24. Rodríguez, G. and Zegarra, I. (2015), "Financial Cycles and Heterogeneous Speculators in Latin America: Using a STAR-GARCH Model," Department of Economics, Pontificia Universidad Católica del Perú.
- 25. Alvaro Polack, D. and **G. Rodríguez** (2014), "Multivariate GARCH Models applied to the Peruvian Exchange and Stock Returns," manuscript, Department of Economics, Pontificia Universidad Católica del Perú, Based on the Licenciate Thesis of Alvaro Polack.
- 26. Belapatiño, V. and **G. Rodríguez** (2014), "Regimes Changes in the Relationship between Public Investment and Private Investment," manuscript, Department of Economics, Pontificia Universidad Católica del Perú, based on the Licenciate Thesis of V. Belapatiño.
- 27. Rodríguez, G. and D. Ramírez (2013), "A Note about Detection of Additive Outliers with Fractional Errors," it appears as Working Paper 355, Department of Economics, Pontificia Universidad Católica del Perú.

#### Seminars, Courses and Conferences

- 1. "Estimation of the Sovereign Yield Curve of Peru: The Role of Macroeconomic and Latent Factors," Viernes Económico, LXV Curso de Extensión de Economía Avanzada, XI Curso de Extensión de Finanzas Avanzadas, Central Reserve Bank of Peru, January 26, 2018.
- "Modeling Latin-American Stock and Forex Markets Volatility: Empirical Application of a Model with Random Level Shifts and Genuine Long Memory," 42nd Meeting of the Spanish Economic Association, Barcelona, December 14-16, 2017.
- 3. "Empirical Applications of Stochastic Volatility Models with Heavy Tails and Serial Dependence to Returns of Commodities," XXXV Meeting of Economists of the Central Bank of Peru, October 24-25, 2017, Lima, Peru.
- 4. "Measuring Output Responses to Fiscal Policy in Peruvian Business Cycle: An Empirical Application using a STVAR," XXXV Meeting of Economists of the Central Bank of Peru, October 24-25, 2017, Lima, Peru.
- 5. "Modelling Trend Inflation in Latin American Countries: An Empirical Application using a Bounded Approach," XXXV Meeting of Economists of the Central Bank of Peru, October 24-25, 2017, Lima, Peru.
- 6. "Leading Indicators for Private Investment in Peru," XXXV Meeting of Economists of the Central Bank of Peru, October 24-25, 2017, Lima, Peru.
- 7. Participation at the Third Educational Mission, October 9-13, 2017, Montreal, Canada.
- 8. "Modeling Latin-American Stock and Forex Markets Volatility: Empirical Application of a Model with Random Level Shifts and Genuine Long Memory," 3rd International Workshop on "Financial Markets and Nonlinear Dynamics" (FMND), Paris, June 1-2, 2017.
- 9. Short Course of Econometrics, Universidad Nacional San Cristóbal de Huamanga (UNSCH), Ayacucho, Perú, May 17-19, 2017.
- "Modeling Returns and Volatility in Latin American Stock, Forex and Commodities Markets. Past, Current and Future Research" Faculty of Economics, Universidad Nacional Mayor de San Marcos, March 31, 2017.
- 11. "Modeling Returns and Volatility in Latin American Stock, Forex and Commodities Markets. Past, Current and Future Research" Viernes Económico, LXIV Curso de Extensión de Economía Avanzada, X Curso de Extensión de Finanzas Avanzadas, Central Reserve Bank of Peru, January 27, 2017.
- 12. "Asymptotic and Finite Sample Behavior of ECR Tests for Cointegration using GLS Detrended Data," accepted for the LACEA-LAMES 2016, Medellin, Colombia, November 10-12, 2016.
- 13. "Does Central Reserve Bank of Peru Respond to Exchange Rate Movements?: Empirical Evidence using DSGE-VAR Approach," XXXIV Meeting of Economists of the Central Bank of Peru, October 25-26, 2016, Lima, Peru.

- 14. "Estimation of the Sovereing Yield Curve of Peru: Role of Macroeconomic Factors and Latent Factors," XXXIV Meeting of Economists of the Central Bank of Peru, October 25-26, 2016, Lima, Peru.
- 15. "Driving Economic Fluctutations," Universidad Nacional del Centro (Huancayo), Peru, October 18, 2016.
- 16. "Asymptotic and Finite Sample Behavior of ECR Tests for Cointegration using GLS Detrended Data," 2016 Annual Meeting of the Canadian Economic Association (CEA), University of Ottawa, Ottawa, Canada, June 2-5, 2016.
- 17. "Modelling the Volatility of Commodities Prices using a Stochastic Volatility Model with Random Level Shifts," Viernes Económico, Department of Economics, Pontificia Universidad Católica del Perú, November 6, 2015.
- 18. "Duration Models and Value at Risk using High-Frequency Data for the Peruvian Stock Market," XXXIII Meeting of Economists of the Central Bank of Peru, October 27-28, 2015.
- 19. "Modelling the Volatility of Commodities Prices using a Stochastic Volatility Model with Random Level Shifts," XXXIII Meeting of Economists of the Central Bank of Peru, October 27-28, 2015.
- "Empirical Modeling of Latin American Stock and Forex Markets Returns and Volatility using Markov-Switching GARCH Models," XXXIII Meeting of Economists of the Central Bank of Peru, October 27-28, 2015.
- 21. "Modeling Latin-American Stock and Forex Markets Volatility: Empirical Application of a Model with Random Level Shifts and Genuine Long Memory," XXXIII Meeting of Economists of the Central Bank of Peru, October 27-28, 2015.
- 22. "Statistical Regularities in the Forex Markets of Peru, Colombia and Chile," by Ana Paola Gutiérrez (BCRP) and Marco Vega (BCRP). Panelist at the XXXIII Meeting of Economists of the Central Bank of Peru, October 27-28, 2015.
- 23. "Uncertainty of Exchange Rate and Capital Flows in Latin America: An Approximation GARCH-M Multivariate," by César Carrera and Rafael Nivín (BCRP). Panelist at the XXXIII Meeting of Economists of the Central Bank of Peru, October 27-28, 2015.
- 24. "Economic Growth and Spatial Convergence in the Regions of Peru: 1979-2012," PRSCHO 2015, Viña Del Mar, Chile, August 5-8, 2015.
- 25. "Modeling Forex Returns Volatility: A Random Level Shift Model with Varying Jump Probability and Mean Reversion. The Case of Latin America," Winter European Econometric Society, Madrid, December 15-16, 2014.
- 26. "Modeling Forex Returns Volatility: A Random Level Shift Model with Varying Jump Probability and Mean Reversion. The Case of Latin America," Simposio de la Asociacion Española de Economia (SAEe), Palma de Mallorca, December 11-13, 2014.

- 27. "Convergencia en las Regiones del Perú: Inclusión o Exclusión en el Crecimiento de la Economía Peruana (1970-2010)?," Viernes Económico, Department of Economics, Pontificia Universidad Católica del Perú, October 24, 2014.
- 28. "An Empirical Application of Stochastic Volatility Models to Latin-American Stock Returns using GH Skew Student's t-Distribution," XXXII Meeting of Economists of the Central Bank of Peru, November 4-5, 2014.
- 29. "An Application of a Short Memory Model with Random Level Shifts to the Volatility of Latin American Stock Market Returns," XXXII Meeting of Economists of the Central Bank of Peru, November 4-5, 2014.
- 30. "Modeling Returns Volatility in Latin-American Stock Markets: Random Level Shifts and Long Memory," Viernes Económico, Department of Economics, Pontificia Universidad Católica del Perú, September 26, 2014.
- 31. "Modeling Stock Returns Volatility using a Random Level Shifts in Latin America," Seminar at the Faculty of Economics, Universidad Nacional Mayor de San Marcos, May 12, 2014.
- 32. "Single-Equation Tests for Cointegration using GLS Detrended Data," presented at the 2013 Latin American Econometric Society in México, October 31-November 2, 2013.
- 33. Visitor Researcher, Department of Economics, Boston University, January 20-April 15, 2013.
- 34. "Multivariate GARCH Models applied to the Peruvian Exchange and Stock Returns," presented at the XXI Encuentro de Economistas del Banco Central de Reserva del Perú, Lima, 28-29 Octubre 2013.
- 35. "A Trend-Cycle Decomposition for Peruvian GDP: Application of an Alternative Method," presented at the DEGIT XVIII, September 26-27, 2013, Lima, Perú.
- 36. "Explaining the Determinants of the Frequency of Exchange Rate Interventions in Peru using Count Models," presented at the DEGIT XVIII, September 26-27, 2013, Lima, Perú.
- 37. "Growth of the Peruvian Economy and Convergence in the Regions of Peru: 1970-2010," presented at the DEGIT XVIII, September 26-27, 2013, Lima, Perú.
- 38. "Residual-Based Tests for Cointegration using GLS Detrended Data," presented at the 66 Meeting of the European Econometric Society in Málaga, Spain, August 27-31, 2012.
- 39. "Inflation Expectations Formation in the Presence of Policy Shifts and Structural Breaks in Peru: An Experimental Analysis," XXIX Meeting of Economists, Central Bank of Peru, October 2011.
- 40. "Some Stylized Facts of Returns in the Stock and Foreign Exchange Markets in Peru," Infiniti Conference on International Finance, Trinity College Dublin, June 12-14, 2011, Irlanda.
- 41. Visitor Researcher at the Department of Economics, Boston University, August 2010.
- 42. "Some Stylized Facts of Returns in the Stock and Foreign Exchange Markets in Peru," Seminar presented at Central Bank of Peru, April, 2010.

- 43. "Factorial Decomposition of Peruvian Inflation," Seminar presented at the XXVI Meeting of the Central Bank of Peru, Lima, November 26-28, 2009.
- 44. "Non Linearities and Long Memory in Aggregate and Dissaggregated Peruvian Inflation," Seminar presented at the XXVI Meeting of the Central Bank of Peru, Lima, November 26-28, 2009.
- 45. "Learning and Monetary Policy in Peru," Seminar presented at the XXVI Meeting of the Central Bank of Peru, Lima, November 26-28, 2008.
- 46. "Unit Roots: Revision and State of the Art," Seminar, Pontifical Catholic University of Peru, Lima, Peru, October 2008.
- 47. "Fractional Integration and Additive Outliers," 25th Meeting of the Canadian Econometrics Study Group, Montreal, September 26-28, 2008.
- 48. "Estimating Potential Output, Core Inflation and the NAIRU for Peru," Seminar presented at the XXV Meeting of the Central Bank of Peru, Lima, December 12-14, 2008.
- 49. "Using A Forward-Looking Phillips Curve to Estimate the Output Gap in Peru," Seminar presented at the XXV Meeting of the Central Bank of Peru, Lima, December 12-14, 2008.
- 50. "Fractional Integration and Additive Outliers," Seminar presented at the XXV Meeting of the Central Bank of Peru, Lima, December 12-14, 2008.
- 51. "Estimating A Time Varying Natural Interest Rate for Peru," Seminar presented at the XXV Meeting of the Central Bank of Peru, Lima, December 12-14, 2008.
- 52. Visitor Professor of the course "Econometrics 2" at the Department of Economics, Pontificia Universidad Católica del Perú, September-December 2007.
- 53. Course: "Estimation of Dynamic Stochastic General Equilibrium (DSGE) Models using Bayesian Techniques," Brasilia, Brazil, August 6-10, 2007.
- 54. Visitor Professor of the course "Selected Topics in Econometrics," at the Department of Economics, Pontificia Universidad Católica del Perú, May-July 2007.
- 55. Visitor Professor of the course "Selected Topics in Econometrics," at the Department of Economics of the Universidad del Pacífico, May-July 2007.
- 56. "Using Three Alternative Approaches to Identify Economic Fluctuations in Peru," Seminar presented at the XXIV Meeting of the Central Bank of Peru, Lima, December 13-15, 2007.
- 57. "Efficiency of the Monetary Policy and Stability of the Preferences in Peru," Seminar presented at the XXIV Meeting of the Central Bank of Peru, December 13-15, 2007.
- 58. "Advances in the Unit Roots Literature," Seminar at the Research Department of the Central Bank of Peru, October 2006.
- 59. "Advances in Unit Roots, Macroeconomic Preferences and Exchange Rates," Seminar at the Research Department of the Central Bank of Chile, September 2006.

- 60. Visitor Professor of the course "Selected Topics in Econometrics," at the Department of Economics of the Pontifical Catholic University del Perú, May-July 2006.
- 61. Seminar at the Department of Economics, University of Zaragoza, Zaragoza, Spain, December 2005.
- 62. Seminar at the Department of Economics, University of Castilla La Mancha, Madrid, Spain, december 2005.
- 63. Seminar at the Department of Economics, University of Zaragoza, Zaragoza, Spain, December 2004.
- 64. Seminar at the Department of Economics, San Pablo University, Madrid, Spain, December 2004.
- 65. Seminar at the Department of Economics, University of Castilla La Mancha, Madrid, Spain, December 2004.
- 66. Seminar at the Department of Economics, University of Toledo, Madrid, Spain, December 2004.
- 67. Seminar at the School of Economic Studies, University of Manchester, England, April 2004.
- 68. "GLS Detrending, Efficient Unit Root Tests and Structural Change when the Initial condition is drawn from its Unconditional Distribution," Carleton University, February 2004.
- Visiting Fellow at the School of Economics of the University of New South Wales, Sidney, Australia, January 2004.
- 70. "GLS Detrending, Efficient Unit Root Tests and Structural Change," Department of Mathematics of the University of Ottawa, November 2003.
- 71. "Residual-Based Tests for Cointegration with Quasi-Differenced Data," Conference on Common Features in Rio, Getulio Vargas Fundation, Rio de Janeiro, Brazil, July 2002.
- 72. "Residual-Based Tests for Cointegration with Quasi-Differenced Data," Annual Meeting of the Latin American Econometric Society, Getulio Vargas Fundation, Sao Paulo, Brazil, July 2002.
- 73. "GLS Detrending, Efficient Unit Root Tests and Structural Change," University of Alicante, Spain, February 2002.
- 74. "Estimation of the Taylor Rule for Canada under Multiple Structural Changes," XVI Meeting of the Latin American Econometric Society, August 2001, Buenos Aires, Argentina.
- 75. "Estimation of the Taylor Rule for Canada under Multiple Structural Changes," University of Ottawa, March 2001.
- 76. "Residual-Based Tests for cointegration with GLS Detrended Data," 35th Annual Meeting of the Canadian Economic Association, McGill University, June 2001.

- 77. "Searching for Additive Outliers in Nonstationary Time Series," V Meeting of the Latin American and Caribbean Economic Association, October 2000, Rio de Janeiro, Brazil.
- 78. "Searching for Additive Outliers in Nonstationary Time Series," 34th Annual Meeting of the Canadian Economic Association, British Columbia, Vancouver, June 2000.
- 79. "Additive Outliers and Unit Root Hypothesis with an Application to Latin American Inflation," 39th Meeting of the Société Canadienne des sciences économiques, Hull, Québec, June 1999.
- 80. "GLS Detrending, Efficient Unit Root Tests and Structural Change," University of Ottawa, February 1999.
- 81. "GLS Detrending, Efficient Unit Root Tests and Structural Change," Bank of Canada, February 1999.
- 82. "GLS Detrending, Efficient Unit Root Tests and Structural Change," University of Montreal, December 1998.
- 83. "GLS Detrending, Efficient Unit Root Tests and Structural Change," XVI Meeting of the Latin American Econometric Society, August 1998, Lima, Peru.
- 84. "GLS Detrending, Efficient Unit Root Tests and Structural Change," 38th Meeting of the Société Canadienne des sciences économiques, Québec, May 1998.
- 85. "Fluctuaciones en la Economia Peruana: 1970-1995," XXXII Meeting of Centre of Monetary Studies for Latin America (CEMLA), November 1995, Santo Domingo, Republica Dominicana.
- 86. "Relaciones de Corto y Largo Plazo entre Variables Monetario-Financieras y Actividad Real," XXX Meeting of Centre of Monetary Studies for Latin America (CEMLA), November 1993, Montevideo, Uruguay.

## Teaching in Canada

- 1. Applied Econometrics (Undergraduate), University of Ottawa.
- 2. Introduction to Econometrics (Undergraduate), University of Ottawa.
- 3. Probabilities and Statistics for Economists (Undergraduate), University of Ottawa.
- 4. Macroeconomic Theory 1 (Undergraduate), University of Ottawa.
- 5. Macroeconomic Theory 2 (Undergraduate), University of Ottawa.
- 6. Econometrics 1 (Master Program), University of Ottawa.
- 7. Econometrics 2 (Ph.D. Program), University of Ottawa/Carleton University.
- 8. Macroeconomics 4 (Master Program), University of Ottawa.

### Teaching in Peru

- Econometrics 2 (Undergraduate), Pontificia Universidad Católica del Perú (2007-II, 2008-II, 2008-II, 2009-II, 2010-II, 2010-II, 2011-II, 2011-II, 2012-II, 2012-II, 2013-II, 2015-II, 2016-II, 2017-II, 2018-II).
- Econometrics 1 (Undergraduate), Pontificia Universidad Católica del Perú (2010-II, 2011-I, 2012-I, 2012-II, 2013-II, 2013-II, 2015-II, 2016-II, 2017-II).
- Seminario Tesis 1 y Tesis 2 (Undergraduate), Pontificia Universidad Católica del Perú (2009-I, 2009-II, 2010-I, 2011-II, 2011-II, 2012-I, 2012-II, 2013-II, 2013-II, 2014-II, 2014-II, 2015-I, 2015-II, 2016-II, 2016-II, 2017-II, 2017-II, 2018-I).
- Seminario Tesis 1 y Tesis 2 (Graduate), Pontificia Universidad Católica del Perú (2011-I, 2011-II, 2012-I, 2012-II, 2013-II, 2013-II, 2014-II, 2014-II, 2015-II, 2015-II, 2016-II, 2016-II, 2017-II, 2017-II, 2018-I).
- 5. Econometrics, Extension Course of the Central Reserve Bank of Peru (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018).
- 6. Advanced Time Series Econometrics (Master Program), Pontificia Universidad Católica del Perú (2009-II, 2010-II, 2011-II, 2012-II, 2013-II, 2015-II, 2016-II, 2017-II).
- Topics in Econometrics (Undergraduate), Pontificia Universidad Católica del Perú (2006-I, 2007-I).
- 8. Quantitative Tools (Master Program), Universidad del Pacífico (2007-I, 2008-I, 2009-I, 2010-I).
- 9. Selected Topics in Econometrics (Master Program), Universidad del Pacífico (2009-I).
- 10. Econometrics, Course for Professors of the University Antenor Orrego of Trujillo, August 2008.
- 11. Econometrics, Course for Professors, Central Reserve Bank of Peru, 2007.

### Supervision of Students in Canada

- Advisor of a Master Thesis: Frederick Demers (2001), "Taylor Rule and Structural Change,"
  Department of Economics, University of Ottawa. Demers is currently working at Credit
  Suisse Asset Management, LLC (NYC). He previously worked at Bank of Canada and Caisse
  of Canada.
- 2. Co-Advisor of a PhD Thesis: Y. Samy (2003), "Trade and Labor Standards: A Theoretical and Empirical Analysis of the Linkages", Department of Economics, University of Ottawa. Samy is Director and Professor of International Affairs-International Economics and Economic Development at the The Norman Patterson School of International Affairs, Carleton University, Canada. Document published in Applied Economics 35, 1043-1051, 2003.

- 3. Advisor of a PhD Thesis: H. Liu (2006), "Essays on Unit Root Tests and Cointegration. Theory and Applications," Department of Economics, University of Ottawa. Liu is currently Assistant Professor at Malaspina University, Canada. Documents published in Environmental Modelling and Software 20, 761-773, 2005 and The Econometrics Journal, 9(2), 225-251, 2006.
- 4. Advisor of a PhD Thesis: Firouz Fallahi (2007): Three Essays on Non-Linear Applied Econometrics, Department of Economics, University of Ottawa. Firouz is currently Associate Professor at the University of Tabriz, Iran. Documents published in International Regional Science Review 34(4) 438-458, 2011, International Journal of Social Economics 39 (6), 440-448, 2012, Social Science Research 45, 33-45, 2014, and Journal of Economic Studies 42(2), 322-342, 2015.
- 5. Advisor for nine (9) Major Papers (Master Program), University of Ottawa.
  - (a) Ali Ashraf (2001), "Estimation of the Long Memory Parameter in the Presence of Additive Outliers: Some Simulation Evidence". Ashraf is currently Dean at International University of Business Agriculture and Technology, Bangladesh.
  - (b) Nodir Adburaimov (2002), "Analyzing Business Cycles in G-7 Countries using Logistic Smooth Transition Autoregressive (LSTAR) Models". Adburainov is currently working for Government of Uzbekistan.
  - (c) Dilshod Isamuhamedov (2002), "Analyzing Canadian Regional Business Cycles uisng Logistic Smooth Transition Autoregressive (LSTAR) Models". Isamuhamedov is currently working for Government of Uzbekistan.
  - (d) Indira Romero (2002), "Permanent and Transitory Components in Latin-American Real Exchange Rates: A Gibbs-Sampling Approach". Romero is currently working at the CEPAL in Mexico. Document published in Applied Economics 39 (21), 2713-2722, 2007.
  - (e) Michael Sloboda (2002), "Analysis of the Telecommunications Industry using Smooth Transition Autoregressive (STAR) Models". Sloboda is Teacher at Algonquin College, Ottawa, Canada. Document published in Structural Change and Economic Dynamics 16, 137-158, 2005.
  - (f) Erwin Gómez (2003), "Identifying Common Trends and Common Cycles. The Case of Colombian Sectoral Output and US Regional Income". Gómez is currently working for Transport Canada.
  - (g) Thierno Balde (2003), "Effects of Additive Outliers on Granger-Causality Tests: A Monte-Carlo Simulation Study". Balde is currently working at ONU. Document published in Applied Economics Letters 15, 841-844, 2005.
  - (h) Jana Nieto (2003), "Macroeconomic Market Disequilibria, Asymmetric and Non-Linear Adjustments in Inflation Rates of Canada and Mexico". Nieto is working for Government of Mexico.
  - (i) John Brodoff (2004), "The Market Volatility Risk Premium and Transaction Costs". Brodoff studies a PhD in Finances at Wisconsin University.

- 6. External Advisor for a PhD Thesis at University of Zaragoza, December 2005.
- 7. Member of Committee of two Major Papers, University of Ottawa.
- 8. External Advisor for a PhD Thesis at Carleton University.
- 9. Second Reader for twelve (12) Major Papers, University of Ottawa.

### Supervision of Students in Spain

1. Advisor of a PhD Thesis: Dionisio Ramírez (2008): Essays on Applied Econometrics on Regional Spanish Unemployment, Department of Economics, University of Castilla La Mancha, Madrid, Spain. Ramírez is currently Assistant Professor at the University of Castilla La Mancha, Spain.

### Supervision of Students in Peru

### Master in Economics and Master in Applied Mathematics

- Ojeda Cunya, J. A. (2018), "Economic Fluctuations in Peru: Empirical Application of an Alternative Bayesian Estimation of a TVP-VAR Model," Master Program of Economics, Pontificia Universidad Católica del Perú.
- 2. Martinez, J. (2017), "Macroeconomic Effects of Credit Supply Shocks: Empirical Evidence for the Peruvian Economy," Master Program of Economics, Pontificia Universidad Católica del Perú.
- 3. Olivares Ríos, A. (2016), "Estimation of the Sovereing Yield Curve of Peru: Role of Macroeconomic Factors and Latent Factors," Master Program of Economics, Pontificia Universidad Católica del Perú. Olivares Ríos is at Master Program in Economics of London Scholl of Economics, England.
- Ataurima Arellano, M. (2016), "Empirical Modeling of Latin American Stock Market Returns and Volatility using Markov-Switching GARCH Models," Master Program of Economics, Pontificia Universidad Católica del Perú.
- 5. Tellez De Vettori, G. E. and R. Najarro Chuchón (2016), "Duration Models and Value at Risk using High-Frequency Data for the Peruvian Stock Market," Master Program of Economics, Pontificia Universidad Católica del Perú. Tellez works at BBVA and Najarro works at Minister of Finance (MEF).
- 6. Alvaro, D. and Á. Guillén (2015), "Modelling the Volatility of Commodities Prices using a Stochastic Volatility Model with Random Level Shifts," Master Program of Economics, Pontificia Universidad Católica del Perú. Alvaro is at the PhD Program in Economics of London School of Economics, England. Guillén works at Apoyo Consulting in Peru.

- 7. Rodas, J. (2015), "Point Optimal Unit Root Test using GLS Detrended Data and Covariates in Structural Change Models," Master Program of Applied Mathematics, Pontificia Universidad Católica del Perú.
- 8. Calderón, A. (2014), "Method of Extreme Values: An application to Peruvian Stock Returns," Master Program of Economics, Pontificia Universidad Católica del Perú. Calderón is at the Master Program in Economics of Institute Torcuatto Di Tella, Argentina.
- 9. Pardo Figueroa, R. (2014), "Application of Spurious Long Memory Test to Peruvian Time Series," Master Program of Economics, Pontificia Universidad Católica del Perú. Pardo is Master in Economics of Pompeu Fabra, Spain. Pardo works at the Central Reserve Bank of Peru.
- 10. Flores, J. (2014), "Dynamic Factors Model with Expectations applied to a Leading Indicator of the Private Inversion," Master Program of Economics, Pontificia Universidad Católica del Perú. Flores works at the Minister of Finances of Peru (MEF).
- 11. Bazán-Palomino, W. (2013), "Identification of Multiple Structural Breaks in the New Phillips Curve, Dinamic IS and Taylor Rule for Peru," Master Program of Economics, Pontificia Universidad Católica del Perú. Bazán is at the PhD Program in Economics of Rutgers University, United States.
- 12. Aquino, J. C. (2013), "Understanding the Functional Central Limit Theorems with Some Applications to Unit Root Testing Under Structural Change," Master Program of Applied Mathematics, Pontificia Universidad Católica del Perú. Juan C. Aquino is at the PhD Program in Economics of Washington University in St. Louis, United States.
- 13. Cuenca, L. (2013), "Forecasting of Short-Term and Expectations Surveys: An Application to Private Consumption, Employment and Private Investment," Master Program of Economics, Pontificia Universidad Católica del Perú. Cuenca is at the MBA Program of Vanderbilt University, United States.
- 14. Lavanda, G. (2012), "Fondo de Equidad Intergeneracional Minero. Un Enfoque Redistributivo Intertemporal de los Ingresos Fiscales de las Actividades Mineras," Master Program of Economics, Pontificia Universidad Católica del Perú. Lavanda works at the Banco de Crédito, Peru.

#### Licenciate

- Boca, A. (2018), "Some Determinants of the Political Approbation: An Empirical Analysis Using a Fractional Cointegrated VAR Model," Department of Economics, Pontificia Universidad Católica del Perú.
- 2. León, C. (2018), "Detecting Financial Exuberance in Latin American Stock Markets," Department of Economics, Pontificia Universidad Católica del Perú.

- 3. Lozano, G. H. (2018), "Testing for Changes in Persistence and Common Breaks: Empirical Application for Latin American Inflations Series," Department of Economics, Pontificia Universidad Católica del Perú.
- 4. Daga Acevedo, M. (2018), "Testing for Changes in Persistence: Empirical Evidence for Latin American Inflation Series," Department of Economics, Pontificia Universidad Católica del Perú.
- 5. Choqueneira Torres, C. (2018), "Multiple Structural Changes in the Real GDP Growth Rates: Empirical Evidence for Latin American Countries using a QAR Model," Department of Economics, Pontificia Universidad Católica del Perú.
- 6. Andrade Toma, A. (2018), "Understanding the Effects of Inflation Uncentainty on Inflation in Latin America: An Empirical Application using a TVP-SVM Model," Department of Economics, Pontificia Universidad Católica del Perú.
- 7. Fernández Prada Saucedo, J. P. (2017), "Modeling Dynamics of Volatility of Commodities Returns: An Empirical Application and Comparison of GARCH and SV Models," Department of Economics, Pontificia Universidad Católica del Perú.
- 8. Condeña Llontoy, J. (2017), "Fiscal Policy in Peru: An Empirical Application using a TVP-VAR Model," Department of Economics, Pontificia Universidad Católica del Perú.
- Portilla Goicochea, J. (2017), "Evolution of Monetary Policy Transmission in Peru: An Empirical Application using a TVP-VAR with Stochastic Volatility," Department of Economics, Pontificia Universidad Católica del Perú.
- Gavidia Pantoja, L. (2017), "Contagion in Latin-American Stock Markets: An Empirical Application based on Time Varying Copulas," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 11. Osores, J. (2017), "Effects of Fical Policy in Peru: An Empirical Application using a Sign Restrictions Approach," Department of Economics, Pontificia Universidad Católica del Perú.
- Zelada Sánchez, E. (2017), "Measuring Output Responses to Fiscal Policy in Peruvian Business Cycle: An Empirical Application using a STVAR," Department of Economics, Pontificia Universidad Católica del Perú.
- Torres, R. (2017), "Modelling Trend Inflation in Latin American Countries: An Empirical Application using a Bounded Approach," Department of Economics, Pontificia Universidad Católica del Perú.
- 14. Cornejo Flores, G. (2017), "Empirical Applications of Stochastic Volatility Models with Heavy Tails and Serial Dependence to Returns of Commodities," Department of Economics, Pontificia Universidad Católica del Perú.
- 15. Guevara, C. (2017), "Loan Supply Shocks and Business Cycle in Peru: Empirical Evidence Using a TVP-VAR Model with Stochastic Volatility," Department of Economics, Pontificia Universidad Católica del Perú.

- Rivas, G. (2017), "Modeling Returns and Volatility in Latin American Stock Markets: Empirical Application using STAR-STGARCH Models," Department of Economics, Pontificia Universidad Católica del Perú.
- 17. Hasegawa, H. (2017), "Does Central Reserve Bank of Peru Respond to Exchange Rate Movements?: Empirical Evidence using a DSGE-VAR Approach," Department of Economics, Pontificia Universidad Católica del Perú.
- Zegarra, I. (2015), "Financial Cycles and Heterogeneous Speculators in Latin America: Using a STAR-GARCH Model," Department of Economics, Pontificia Universidad Católica del Perú.
- 19. Palomino, J. (2015), "Convergence and Spatial Regional Concentration in Peru," Department of Economics, Pontificia Universidad Católica del Perú.
- 20. Collantes Goicochea, E. (2015), "Empirical Modeling of Returns and Volatility in Latin-American Forex Rate Markets using Markov-Switching GARCH Models," Department of Economics, Universidad Nacional de Trujillo.
- 21. Gonzalez Tanaka, J. C. (2014), "An Empirical Application of a Random Level Shifts Model with Time-Varying Probabilities and Mean Reversion to the Volatility of Latin American Forex Returns," Department of Economics, Pontificia Universidad Católica del Perú.
- 22. Oliva, B. (2014), "Searching for Exhuberance in Latin-American Stock Markets," Department of Economics, Pontificia Universidad Católica del Perú.
- 23. Ojeda Cunya, J. (2014), "An Application of a Random Level Shifts Model to the Volatility of Peruvian Stock and Exchange Rate Returns," Department of Economics, Pontificia Universidad Católica del Perú. Ojeda is Research assistant at the PUCP.
- 24. Tramontana Tocto, R. (2014), "An Application of a Short Memory Model with Random Level Shifts to the Volatility of Latin American Stock Market Returns," Department of Economics, Pontificia Universidad Católica del Perú.
- 25. Guillén, A. (2013), "A Trend-Cycle Decomposition for Peruvian GDP: Application of an Alternative Method," Department of Economics, Pontificia Universidad Católica del Perú. Guillén is working at Apoyo Consultoria.
- 26. Armas Montalvo, C. (2013), "Estimation of Models with Multiple Structural Changes: A Comparison between Time and Spectral Domains," Department of Economics, Pontificia Universidad Católica del Perú. Armas is assistant of research at the PUCP.
- 27. Belapatiño, V. (2012), "Regimes Changes in the Relationship between Public Investment and Private Investment," manuscript, Department of Economics, Pontificia Universidad Católica del Perú. Belapatiño is assistant of research at the PUCP.
- 28. Bedón, P. (2012), "Univariate Autoregressive Conditional Heteroskedasticity Models: An Application to the Peruvian Stock Market Returns," manuscript, Department of Economics, Pontificia Universidad Católica del Perú. Bedón is currently working at the Banco de Crédito.

- 29. Alvaro Polack, D. (2012), "Multivariate GARCH Models applied to the Peruvian Exchange and Stock Returns,". Alvaro Polack is currently working at the Central Bank of Peru.
- 30. Villanueva, P. (2011), "Driving Economic Fluctuations in Peru: The Role of the Terms of Trade," manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 31. Alanya, W. (2011), "Stochastic Volatility in Peruvian Stock Market and Exchange Rate Returns: A Bayesian Approximation," Department of Economics, Pontificia Universidad Católica del Perú. Alanya is working at the Central Bank of Peru.
- 32. Herrera, A. (2011), "Volatility of Stock Market and Exchange Rate Returns in Peru: Long Memory or Short Memory with Level Shifts?," Department of Economics, Pontificia Universidad Católica del Perú. Based on the Bachelor Thesis of A. Herrera. Herrera works at the Banco de Crédito.
- 33. Ventura Neyra, E. (2010), Explaining the Determinants of the Frequency of Exchange Rate Interventions in Peru using Count Models," Department of Economics, Pontificia Universidad Católica del Perú.
- 34. Quintana, G. (2010), "Concentration of Primary Exportation, Consumption, Investment and Output. The Peruvian Case 1994-2008" manuscript, Department of Economics, Pontificia Universidad Católica del Perú.
- 35. Lavanda, G. (2010), "Descomposición Histórica de la Inflación en Perú. Distinguiendo entre Choques de Demanda y Choques de Oferta," Department of Economics, Pontificia Universidad Católica of Peru. Lavanda is currenly working ar Banco de Crédito.
- 36. Montero, C. (2010), "Estimation of a Model with Rigid Information: The Case of Peru," Department of Economics, Pontificia Universidad Católica del Perú.
- 37. Morales Vásquez, D. (2009), "Exchange Rate Pressures in Peru: A NonLinear Approach," Department of Economics, Pontificia Universidad Católica del Perú. Daniel Morales is currently working at Rímac Insurances and he won the Prix of Young Economist Paper organized by the Central Bank of Peru. Morales is currently working at Rimac.
- 38. Vargas, A. (2009), "Impacto de Expectativas Políticas en la Volatilidad de la Bolsa de Valores de Lima (BVL)," Department of Economics, Pontificia Universidad Católica del Perú. Alfredo Vargas is currently working at the Banco de Crédito and he won the second best Undergraduate Thesis in 2009-II. Vargas is currently working at Banco de Crédito.
- 39. Vicente Valcárcel, R. (2009), "Estabilidad Financiera y Política Monetaria," Department of Economics, Pontificia Universidad Católica del Perú.
- 40. Manuel Paz y Miño L., J. (2009), "Evaluating Core Closed and Open New Keynessian Models using Cointegrated Vector Autoregressions with Peruvian Data," Escuela de PostGrado, Universidad del Pacífico. José Paz y Miño is currently working at the Universidad del Pacífico. Paz y Miño is currently working as a Researcher at CIUP.

#### Other Professional Activities

### Editor

- 1. Associate Editor of *Latin American Economic Review* (Springer). Since 2014. Renewed in 2016. Finished December 2017.
- 2. Associate Editor of Economía (Pontificia Universidad Católica del Perú). Since 2012.
- 3. Associate Editor of *Revista de Estudios Económicos* (Central Reserve Bank of Peru). Since 2008.
- 4. Associate Editor of Canadian Economic Review. Since 2016.

### Referees Activities

Actualité Économique, Applied Economics, Asia Pacific Management Review, Brazilian Review of Econometrics, British Journal of Economics, management and Trade, Business and Economics Journal, Canadian Journal of Economics, Canadian Journal of Development Studies, Communications and Statistics: Simulation and Computation, Communications and Statistics: Theory and Methods, Cuadernos de Economía, Economía, Economics Modelling, Econometric Reviews, Econometric Theory, Emerging Markets, Emerging Markets Finance and Trade, Empirical Economics, Energy Economics, Energy Studies Review, Empirical Economics, International Review of Economics and Finance, International Journal of Social Science Studies, Journal Catedra Centrum, Journal of Applied Econometrics, Journal of Banking and Finance, Journal of Behavioral and Experimental Economics, Journal of Business and Economic Statistics, Journal of Business Cycles Measurement Analysis, Journal of Centrum Catedra, Journal of Economics and International Finance, Journal of Economic Studies, Journal of Econometrics, Journal of Macroeconomics, Journal of Money, Credit and Banking, Journal of Monetary Economics and Finance, Journal of International Money and Finance, Journal of Statistical Computation and Simulation, Journal of Time Series Analysis, First Canadian Edition of "Introduction to Econometrics," by Stock, J. H. and M. W. Watson, Addison Wesley, Journal of Banking and Finance, International Journal of Social Sciences, Latin American Economic Review, Metroeconomica, North-American Journal of Economics and Finance, Portuguese Economic Journal, Review of Development Studies, Review of Development Economics, Review of Urban and Regional Development Studies, Revista de Estudios Económicos, Social Science Research, Scientometrics, Studies in Nonlinear Dynamics & Econometrics.

### Administrative Duties

Director of the Program of Doctorate in Economics (since August 2014), Pontificia Universidad Católica of Peru.

- 2. Member of the Conseil of the Department of Economics (August 2014-July 2017), Pontificia Universidad Católica of Peru.
- 3. Member of the Conseil of the Program of Master in Economics, Pontificia Universidad Católica of Peru.
- 4. Member of the Conseil of CISEPA, Pontificia Universidad Católica del Perú.

## Grants and Fellowships

- 1. Scholarship from the Office of the International Cooperation of the PUCP to Research for three months at the Department of Economics of Boston University, 2013 (US\$ 9,500)
- 2. Grant from the DGI (PUCP) of the Project of Research (2012): "Explaining Transitions in the Peruvian Labor Market." (Co-Researcher), (US\$. 15,000)
- 3. Grant from the DGI (PUCP) of the Project of Research (2011): "Inflation Expectations Formation in the Presence of Policy Shifts and Structural Breaks: An Experimental Analysis." (Principal Researcher), (S/. 50,000).
- 4. Grant from SUNAT (US\$ 3,500), 2010.
- 5. Grant from CIES (US\$ 2,000), 2009.
- 6. Grant from North-South Institute (CAN \$ 20,000), 2007.
- 7. Research Funds from Health Canada (CAN \$ 2,000), 2006.
- 8. Research Funds from the Social Sciences Faculty, University of Ottawa (CAN \$ 5,000), 2004-2005.
- 9. Research Funds from the Social Sciences Faculty, University of Ottawa (CAN \$ 5,000), 2003-2004.
- 10. Research Funds from the Social Sciences Faculty, University of Ottawa (CAN \$ 5,000), 2002-2003.
- 11. Research Funds from the Research School, University of Ottawa (CAN \$ 9500), 2,000-2001.
- 12. Research Funds from the Social Sciences Faculty, University of Ottawa (CAN \$ 3,100), 1999.
- 13. Grant from Agriculture Canada (CAN \$ 3,850), 1999-2000.

## Membership

- 1. Canadian Economic Association (CEA).
- 2. Econometric Society (ES).

- 3. Latin American and Caribbean Economic Association (LACEA).
- 4. Peruvian Economic Association.

#### Software

- 1. Econometric Software: Eviews, Gauss, JMulti, MatLab, Ox-Metrics, PcGive, Rats (Cats), Stamp, R (R-Studio), Stata.
- 2. Others: Scientific Work Place, Microsoft Word, Word Perfect, Excel.

### References

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### Languages

English, French, Spanish.