Curriculum Vitae Chris Papageorgiou March 2022

Personal Information

Date of Birth: June 8, 1968 Nationality: Cypriot Marital Status: Married, two children

Address

Development Macroeconomics Division Research Department International Monetary Fund Washington DC, 20431 Tel: (202) 623-7503 Fax: (202) 589-7503 E-mail: cpapageorgiou@imf.org Web: chrispapageorgiou.com

Education

Ph.D. in Economics, University of Pittsburgh, May 1997
B.A. in Economics, (Summa Cum Laude), Indiana University of Pennsylvania, May 1992
B.S. in Finance, (Summa Cum Laude), Indiana University of Pennsylvania, May 1992

Professional Experience

Division Chief, International Monetary Fund, 2018Deputy Division Chief, International Monetary Fund, 2013-2017
Senior Economist, International Monetary Fund, 2009-2012
Economist, International Monetary Fund, 2006-2008
Visiting Associate Professor, University of Washington - Seattle, 2004-2005
Associate Professor, Louisiana State University, 2003-2005
Assistant Professor, Louisiana State University, 1997-2002

Fields of Specialization

Economic Growth International Macroeconomics

Awards

Who's Who in America, 2010
Coca-Cola Co. Distinguished Professor, Louisiana State University, 2003-2006
Excellence in Teaching Award, Louisiana State University, 2001-2002; 1998-1999
Andrew Mellon Predoctoral Fellowship, University of Pittsburgh, 1996-1997
R. Thorn Award for Excellence in Teaching, University of Pittsburgh, 1994-1995

Editorial Positions

Associate Editor, European Economic Review, 2011-Editorial Board, IMF Economic Review 2009-Co-Editor, Journal of Macroeconomics, 2006-2013 Editorial Board, IMF Staff Papers, 2007-2009

Journal Publications

- 1. "Will the AI Revolution Cause a Great Divergence?," (October 2020) with Cristian Alonso, Andrew Berg, Siddharth Kothari, and Sidra Rehman, *Journal of Monetary Economics*, forthcoming.
- 2. "Populism and Civil Society," with Tito Boeri, Prachi Mishra and Antonio Spilimbergo, *Economica*, forthcoming.
- 3. "Policies in Hard Times: Assessing the Impact of Financial Crises on Structural Reforms," with Gunes Gokmen, Tommaso Nannicini and Massimiliano Onorato, *Economic Journal*, 2529-2552: August 2021.
- "Re-Opening After the Lockdown: Long-run Aggregate and Distributional Consequences of COVID-19," with Manoj Atolia and Stephen Turnovsky, *Journal of Mathematical Economics*, 1-18, March 2021.
- "Taxation and Public Health Investment: Policy Choices and Tradeoffs," with Manoj Atolia and Stephen Turnovsky, *Macroeconomic Dynamics*, 426-461: March 2021.
- "Export and Import Quality in Advanced and Developing Economies: Evidence from a New Dataset," with Christian Henn, Jose Romero and Nikola Spatafora, *IMF Economic Review*, 421-451: June 2020.
- 7. "Rethinking Development Policy," with Manoj Atolia, Prakash Loungani and Milton Marquis, World Development, 1-13: April 2020.
- 8. "What Remains of Cross-Country Convergence?" with Paul Johnson, *Journal of Economic Literature*, 129-175: March 2020.
- 9. "On the Substitution of Private and Public Capital," with Zidong An and Alvarez Kangur, European Economic Review, 296-311: September 2019.
- 10. "Forecasts in Times of Crises," with Charis Christofides, David Kuenzel and Theo Eicher, International Journal of Forecasting, 1143-1159: July 2019.
- 11. "The Public and Private MPK," with Matt Lowe and Fidel Perez-Sebastian, *Economica*, 336-361: April 2019.
- "Building Resilience to Natural Disasters: An Application to Small Developing States," with Ricardo Marto and Vladimir Klyuev, *Journal of Development Economics*, 574-586: November 2018.
- 13. "A Dialogue between a Populist and an Economist," with Tito Boeri, Prachi Mishra and Antonio Spilimbergo, *AEA Papers & Proceeding*, 191-195: May 2018.
- "Bilateral Capital Flows to Developing Countries at Intensive and Extensive Margins," with Juliana Araujo, and Povilas Lastauskas, *Journal of Money Credit and Banking*, 1517-1554: September 2017.

- "Non-FDI Private Capital Inflows in Low-Income Countries: Catching the Wave?" with Juliana Araujo, Antonio David and Carlos van Hombeeck, *IMF Economic Review*, 426-465: June 2017.
- "Elasticity of Substitution between Clean and Dirty Energy Inputs: A Macroeconomic Perspective," with Marianne Saam and Patrick Schulte, *Review of Economics and Statistics*, 281-290: May 2017.
- 17. "Public Sector Investment Efficiency in Developing Economies," with Alvar Kangur, *The New Palgrave Dictionary of Economics*, 1-10: March 2017.
- "Joining the Club? Procyclicality of Private Capital In Lower Income Developing Economies," with Juliana Araujo, Antonio David and Carlos van Hombeeck, *Journal of International* Money and Finance, 157-182: January 2017.
- 19. "Did Established Early Warning Signals Predict the 2008 Crises?" with Theo Eicher and Charis Christofides, *European Economic Review*, 103-114: January 2016.
- "Battling Infection, Fighting Stagnation," with Shankha Chakraborty and Fidel Perez-Sebastian, Macroeconomic Dynamics, 189-213: January 2016.
- "Efficiency-Adjusted Public Capital and Growth," with Sanjeev Gupta, Alvar Kangur and Abdoul Wane, World Development, 164-178: May 2014.
- 22. "Who Benefits from Financial Development? New Methods, New Evidence," with Daniel Henderson and Christopher Parmeter, *European Economic Review*, 47-67: October 2013.
- 23. "Which Reforms Work and under What Institutional Environment: Evidence from a New Dataset on Structural Reforms," with Massimiliano Onorato and Alessandro Prati, *Review of Economics and Statistics*, 946-968: July 2013.
- 24. "Rising Income Inequality: Technology, or Trade and Financial Globalization?" with Florence Jaumotte and Subir Lall, *IMF Economic Review*, 271-309: June 2013.
- "Is Newer Better? Penn World Table Revisions and the Growth Literature," with Simon Johnson, William Larson and Arvind Subramanian, *Journal of Monetary Economics*, 255-274: March 2013.
- 26. "Investing in Public Investment: An Index of Public Investment Efficiency," with Era Dabla-Norris, Jim Brumby, Annette Kyobe and Zac Mills, *Journal of Economic Growth*, 235-266: September 2012.
- 27. "Growth Empirics without Parameters," with Daniel Henderson and Chris Parmeter, *Economic Journal*, 125-154: March 2012.
- 28. "Trade Creation and Diversion Revisited: Model Uncertainty, Natural Trading Partners, and Robust PTA Effects," with Theo Eicher and Christian Henn, *Journal of Applied Econometrics*, 296-321: March 2012.
- 29. "A Unified Theory of Structural Change," with Maria Delores Guillo and Fidel Perez-Sebastian, Journal of Economic Dynamics and Control, 1393-1404: September 2011 [Lead article].

- "Default Priors and Predictive Performance in Bayesian Model Averaging, with Application to Growth Determinants," with Theo Eicher and Adrian Raftery, *Journal of Applied Econometrics*, 30-55: January 2011.
- 31. "Diseases, Infection Dynamics, and Development," with Shankha Chakraborty and Fidel Perez-Sebastian, *Journal of Monetary Economics*, 859-872: October 2010.
- 32. "Rough and Lonely Road to Prosperity: A Reexamination of the Sources of Growth in Africa using Bayesian Model Averaging," with Winford Masanjala, *Journal of Applied Econometrics*, 671-682: August 2008.
 - "How to Use Interaction Terms in BMA: Reply to Crespo's Comment on Masanjala and Papageorgiou (2008)," Journal of Applied Econometrics, 1048-1050: October 2011.
- 33. "Normalized Nested CES Production Function in the Solow and Diamond Growth Models," with Marianne Saam, *Scandinavian Journal of Economics*, 119-143: March 2008.
- 34. "Endogenous Aggregate Elasticity of Substitution," with Kaz Miyagiwa, *Journal of Economic Dynamics and Control* 31, 2899-2919: September 2007.
- 35. "Unraveling the Fortunes of the Fortunate: An Iterative Bayesian Model Averaging (IBMA) Approach," with Theo Eicher and Oliver Roehn, *Journal of Macroeconomics* 29, 494-514: September 2007.
- 36. "International Medical Technology Diffusion," with Andreas Savvides and Marios Zachariadis, Journal of International Economics 72, 409-427: July 2007.
- 37. "Is the Asymptotic Speed of Convergence a Good Proxy for the Transitional Growth Path?" with Fidel Perez-Sebastian, *Journal of Money Credit and Banking* 39, 1-24: February 2007 [Lead article].
- 38. "Dynamics in a Non-Scale R&D Growth Model with Human Capital: Explaining the Japanese and South Korean development experiences," with Fidel Perez-Sebastian, *Journal of Economic Dynamics and Control* 30, 901-930: June 2006 [Lead article].
- "Matching Up the Data on Education with Economic Growth Models," with Fidel Perez-Sebastian, B.E. Journals in Macroeconomics – Topics in Macroeconomics 5, Article 8, 1-20: April 2005.
- 40. "Nonlinearities in Capital-Skill Complementarity," with Viera Chmelarova, Journal of Economic Growth 10, 59-89: March 2005.
- 41. "Can Transition Dynamics Explain the International Output Data?" with Fidel-Perez Sebastian, *Macroeconomic Dynamics* 8, 466-492: September 2004.
- 42. "The Solow Model with CES Technology: Nonlinearities and Parameter Heterogeneity," with Winford Masanjala, *Journal of Applied Econometrics* 19, 171-201: March 2004.
- 43. "Capital-Skill Complementarity? Evidence from a Panel of Countries," with John Duffy and Fidel Perez-Sebastian, *Review of Economics and Statistics* 86, 327-344: February 2004.

- 44. "Distinguishing Between the Effects of Primary and Post-primary Education on Economic Growth," *Review of Development Economics* 7, 622-635: November 2003.
- 45. "Imitation in a Non-Scale R&D Growth Model," *Economics Letters* 80, 287-294: September 2003 [Lead article].
- 46. "Elasticity of Substitution and Growth: Normalized CES in the Diamond Model," with Kaz Miyagiwa, *Economic Theory* 21, 155-165: March 2003.
- 47. "Technology Adoption, Human Capital, and Growth Theory," *Review of Development Economics* 6, 351-368: October 2002.
- 48. "Trade as a Threshold Variable for Multiple Regimes," *Economics Letters* 77, 85-91: September 2002.
- 49. "The Specification of the Aggregate Production Function: A Cross-Country Empirical Investigation," with John Duffy, *Journal of Economic Growth* 5, 83-116: March 2000.

Book Chapters

- The Double Helix of Diversification and Growth," with Sidra Rehman and Ke Wang, Chapter 9 of *Encyclopedia of International Economics and Global Trade*, Columbia University Press, New York, NY: May 2020.
- The U.S. Manufacturing Recovery: Uptick or Renaissance?" with Oya Celasun, Gabriel Di Bella and Tim Mahedy, in *Energy Boom and Manufacturing in North America*, IMF, Washington DC: November 2015.
- 3. "Diversification, Growth, and Volatility," with Nikola Spatafora and Ke Wang, in *Frontier* and *Emerging Asia*, IMF, Washington DC: October 2014.
- "Education Inequality among Women and Infant Mortality: A Cross-Country Empirical Investigation," with Petya Stoytcheva, in *Progress in Economic Research*, Nova Science Publishers, New York, NY: January 2012.
- 5. "Tanzania: Growth Acceleration and Increased Public Spending with Macroeconomic Stability," with David Robinson and Matthew Gaertner, in Yes Africa Can: Success Stories from a Dynamic Continent, World Bank, Washington DC: July 2011.
- 6. Globalization and Inequality," with Florence Jaumotte, Subir Lall and Petia Topalova, *World Economic Outlook*, IMF, Washington DC: October 2007.
- A Variable Elasticity of Substitution (VES) Aggregate Production Function: Theory and Evidence," with Theodore Palivos and Giannis Karagiannis, in *New Trends in Macroeconomics*, C. Diebolt and C. Kyrtsou, eds., Springer Verlag, New York, NY: February 2005.

Working Papers

- "Monetary Policy in Disaster-Prone Developing Countries," (April 2022) with Alessandro Cantelmo, Nikos Fatouros, and Giovanni Melina. IMF WP 2022/67.
- "Preferences for Reforms: Endowments vs. Beliefs," (February 2022) with Romain Duval, Yi Ji, Ippei Shibata, and Antonio Spilimbergo. IMF WP 2022/33.
- 3. "Monetary Policy Frameworks: An Index and New Evidence," (January 2022) with Filiz Unsal, and Hendre Garbers. IMF WP 2022/22.
- 4. "The S-curve: Understanding the Dynamics of Worldwide Financial Liberalization," (July 2021) with Nan Li, Tong Xu, and Tao Zha. NBER WP 28994.
- 5. "Searching for Wage Growth: Policy Responses to the Robot Revolution," (March 2021) with Andrew Berg, Ed Buffie, and Felipe Zanna.
- "Structural Reforms and Elections: Evidence from a World-Wide New Dataset," (November 2020) with Alberto F. Alesina, Davide Furceri, Jonathan D. Ostry and Dennis P. Quinn. NBER WP 26720.
- 7. "Macroeconomic Outcomes in Disaster-Prone Countries," (May 2020) with Alessandro Cantelmo and Giovanni Melina.
- 8. "Armistice of the Sexes: Gender Complementarities in the Production Function," (June 2019) with Raphael Espinoza and Jonathan D. Ostry. CEPR DP 13792.
- 9. "Upgrading and Export Performance in the Asian Growth Miracle," (May 2019) with Fidel Perez-Sebastian and Nikola Spatafora.
- 10. "On the Resilience of Trade in Services: Evidence from a New Cross-country Dataset," (April 2019) with Prakash Loungani, Saurabh Mishra and Ke Wang.

Grants

- 1. "Macroeconomics of Low-Income Countries," 2020-2025, IMF-DFID, \$3,300,000.
- 2. "Macroeconomics of Low-Income Countries," 2017-2020, IMF-DFID, \$3,300,000.
- 3. "Structural Reforms in Developing Economies," 2015-2017, IMF-DFID, \$500,000.
- 4. "Transformation and Capital Flows in LICs," 2015-2017, IMF-DFID, \$425,000.
- 5. "Diversification for Growth and Stability," 2012-2014, IMF-DFID, \$300,000.
- 6. "Clean and Dirty Technologies," with M. Saam, 2011-2012, ZEW, \$125,000.
- 7. "Data Revisions," with S. Johnson and A. Subramanian, 2006-2007, IMF, \$50,000.

Professional Activities

Conference Organizer

- 1. "Climate-Related Natural Disasters: Macroeconomic Effects and Policy Response," IMF, Washington DC, July 16, 2021 (with Giovanni Melina, Antonio Spilimbergo and Filiz Unsal).
- 2. "COVID-19 Pandemic in Developing Countries," IMF, Washington DC, December 9, 2020 (with Antonio Spilimbergo and Filiz Unsal).
- 3. "Conference in Memory of Giang Ho, Lessons and Challenges in International Macroeconomics," IMF, Washington DC, October 8, 2019 (with Mai Dao).
- 4. "Achieving Inclusive Growth: A Policy Debate," Seoul, Korea, November 29, 2018 (with Davide Furceri and Jonathan D. Ostry).
- 5. "Trade Policy, Inclusiveness and the Rise of the Service Economy," Geneva, Switzerland, April 25-26, 2018 (with Prakash Loungani, Aaditya Mattoo and Johannes Schwarzer).
- "Managing Capital Flows: Challenges for Developing Economies," Victoria Falls, Zambia, May 5, 2017 (with Jonathan D. Ostry and Giovanni Melina).
- 7. "Capital Flows in Frontier and Emerging Markets," IMF, Washington DC, February 25, 2015 (with Juliana Araujo and Sarwat Jahan).
- 8. "Diversification and Structural Transformation for Growth and Stability in Low-Income Countries," IMF, Washington DC, February 21, 2013 (with Nikola Spatafora).
- 9. "The Macroeconomic Substitution between Clean and Dirty Production," Mannheim Germany, September 21, 2012 (with Marianne Saam).
- 10. "Health and Macroeconomics," Madrid Spain, December 9-10, 2009 (with Fidel Perez-Sebastian).
- "On the Causes and Consequences of Structural Reforms," Research Department, IMF, Washington DC, February 28-29, 2008.
- 12. "The CES Production Function in the Theory and Empirics of Economic Growth," Eltville, Germany, October 20-22, 2006 (with Rainer Klump).

$\underline{\text{Referee}}$

American Economic Review, American Economic Review: Insights, American Economic Journal: Macroeconomics, American Journal of Agricultural Economics, Canadian Journal of Economics, Economica, Econometrica, Economic Journal, Economics Letters, Economic Theory, European Economic Review, IMF Economic Review, International Economic Review, Journal of Applied Econometrics, Journal of Business and Economic Statistics, Journal of Development Economics, Journal of Economic Growth, Journal of Economics, Journal of Political Economy, Macroeconomic Dynamics, National Science Foundation, Quantitative Economics, Quarterly Journal of Economics, Review of Economics, Statistics, Review of Economic Studies, Stanford University Press, UNESCO.

Selected Presentations

Applied Macroeconomics Forum, December 2021 (keynote speaker) NBER Summer Institute, July 2021 Lund University, May 2021 AEA Meetings, January 2021 Renmin University of China, November 2020 (keynote speaker) IMF-ARC, November 2019 World Bank, September 2019 ATD-OECD Conference, Paris, May 2019 UN WIDER, Helsinki, April 2019 (plenary session) WTO, Geneva, April 2018 University of Tokyo, March 2018 CSAE, Oxford, March 2018 (plenary speaker) IFC, November 2017 NBER Summer Institute, July 2017 Giadar Forum, Moscow, January 2017 Asian Development Bank, Sydney, July 2016 NCID Conference, Madrid, June 2016 (keynote speaker) Conference on Diversification, Mexico City, January 2016 (plenary session) AEA Meetings, San Francisco, January 2016 SEA Meetings, New Orleans, November 2015 University of Cincinnati, October 2015 Growth-Macro Workshop, Nice France, June 2015 International Development Bank, October 2014 Global Development Network, Accra Ghana, June 2014 (plenary speaker) World Bank, February 2014 Clemson University, November 2013 Harvard University, September 2013 AEA Meetings, San Diego, January 2013 Inter-American Development Bank, June 2012 CSAE Conference, University of Oxford, April 2012 IMF Institute, February 2012 University of Cyprus, September 2011 NBER Summer Institute, July 2011 Conference on the Future of Trade, University of Georgia, February 2011 Bank of Tanzania, Dar es Salaam, September 2010 Soc. for Comp. Econ. Workshop in Honor of S. Turnovsky, May 2010 (keynote speaker) IMF-IGC Conference on Managing Volatility in LICs, April 2010 Tilburg University, December 2009 NBER Summer Institute, July 2009 Society of Economic Dynamics Meetings, Istanbul, July 2009 University of North Carolina Chapel Hill, April 2009 AEA & ES Meetings, San Francisco, January 2009 CEPR Growth Conference, Barcelona, December 2008 Princeton University, December 2008 University of Pittsburgh, October 2008 Society of Economic Dynamics Meetings, MIT, July 2008 Chinese University of Hong Kong, June 2008 UPenn, May 2008