

# Kim P. Huynh

February 20, 2017

## Contact Information

Bank of Canada  
234 Laurier Avenue  
Ottawa, ON K1A 0G9  
CANADA

**Citizenship:** Canada

Currency Department  
Phone: +1 (613) 782-8698  
Fax: +1 (613) 782-7764  
E-mail: kim@huynh.tv

## Current Employment/Appointments

03/2016 - present	Senior Research Advisor	Bank of Canada
07/2013 - present	Adjunct Research Professor	Carleton University
01/2013 - present	Advisory Board	Federal Reserve Bank of Boston Consumer Payments Research Center
06/2010 - present	Research Scientist	Indiana University
07/2004 - present	Deemed Employee	Statistics Canada

## Previous Appointments

04/2013 - 02/2016	Principal Researcher	Bank of Canada
06/2010 - 04/2013	Senior Analyst/Economist	Bank of Canada
08/2004 - 05/2010	Assistant Professor	Indiana University
05/2008 - 12/2008	Research Fellow	Statistics Canada
01/2002 - 04/2004	Teaching Fellow	Queen's University at Kingston
2002, 2003	Research Assistant	Queen's University at Kingston
05/2001-07/2001	Visiting Scientist	Sonderforschungsbereich (SFB) 373 Humboldt-Universität zu Berlin Host: Wolfgang Härdle

## Education

09/1999 - 08/2004	Ph.D.	Queen's University at Kingston
	Thesis title:	<i>"Dynamic Diversification and Transactions"</i>
09/1998 - 08/1999	M.A.	The University of British Columbia
09/1993 - 12/1997	H.B.A COOP	The University of Calgary

## Articles

1. Income and Democracy: A Smooth Varying Coefficient Redux, with Alex Lundberg and David Jacho-Chávez, *Journal of Applied Econometrics*, forthcoming.
2. Retail Payment Innovations and Cash Usage: Accounting for Attrition Using Refreshment Samples with Heng Chen and Marie-Hélène Felt. *Journal of Royal Statistical Society Series A*, vol. 180(2), Pages 503-530, February 2017.
3. Mixed Proportional Hazard Models with Continuous Finite Mixture Unobserved Heterogeneity with Marcel Voia. *Applied Stochastic Models in Business and Industry*, Volume 33(1), Pages 81–94, January/February 2017.
4. Consumer Cash Usage: A Cross-Country Comparison with Payment Diary Survey Data with John Bagnall, David Bounie, Anneke Kosse, Tobias Schmidt, Scott Schuh and Helmut Stix. *International Journal of Central Banking*, vol. 12(4), pages 1-61, December 2016.
5. Measuring Consumer Cash Holdings: Lessons from the 2013 Bank of Canada Methods-of-Payment Survey with Heng Chen, Christopher S. Henry, Rallye Shen and Kyle Vincent. *Survey Practice*, Volume 9 (3), 2016.
6. Flexible Estimation of Copulas: An Application to the US Housing Crisis, with Anson Ho and David Jacho-Chávez, *Journal of Applied Econometrics*, Volume 31(1), April/May 2016, pages 603–610.
7. The Evolution of Firm-Level Distributions for Ukrainian Manufacturing Firms with David Jacho-Chávez, Oleksiy Kryvtsov, Oleksandr Shepotylo, and Volodymyr Vakhitov. *Journal of Comparative Economics*, Volume 44(1), pages 148–162, 2016.
8. Post-Entry Struggle for Life and Pre-Exit Shadow of Death from a Financial Perspective, with Robert Petrunia. *International Journal of the Economics of Business*, Volume 23(1), February 2016, pages 1–18.
9. The Distributional Efficacy of Collaborative Learning on Student Outcomes with David Jacho-Chavéz and James K. Self. *The American Economist*, Volume 60(2), September 2016, pages 98–119.
10. Subjective Health Expectations with Juergen Jung. *Journal of Policy Modeling*, Volume 37, Issue 4, July/August 2015, Pages 693-711.
11. Consumer Payment Choice: Merchant Card Acceptance versus Pricing Incentives with Carlos Arango and Leonard Sabetti. *Journal of Banking and Finance*, Volume 55, June 2015, Pages 130–141.

12. A Nonparametric Analysis of Firm Size, Leverage and Labour Productivity Distribution Dynamics, with David Jacho-Chávez, Robert Petrunia and Marcel Voia, *Empirical Economics*, Volume 48, Issue 1, pages 337–360. February 2015.
13. Retail Payments Innovation and the Demand for Cash in Canada with Ben S.C. Fung and Leonard Sabetti. *Journal of Financial Market Infrastructures*. Volume 3, Issue 1, pages 1-29, September 2014.
14. crs: A Package for Nonparametric Splines Estimation in R, with Anson Ho and David Jacho-Chávez, *Journal of Applied Econometrics*, Volume 29, Issue 2, pages 348–352, August 2014.
15. Adaptive Permutation Tests for Serial Independence, with Ba Chu, Chunfeng Huang and Lanh Tran, *Statistica Neerlandica*, Volume 68, Issue 3, pages 183–208, August 2014.
16. Functionals of Order Statistics and their Multivariate Concomitants with Application to Semiparametric Estimation by Nearest Neighbors, with Ba Chu and David Jacho-Chávez, *Sankhya: B*, pages 1–55, March 2013.
17. Fitness versus Fatness: Productivity, Financial Conditions, and the Survival of New Canadian Manufacturing Firms, with Robert Petrunia and Marcel Voia. *Structural Change and Economic Dynamics*, Volume 23 (4), pages 354–362, December 2012.
18. Initial Financial Conditions, Unobserved Heterogeneity, and the Duration of New Firms, (with Robert Petrunia and Marcel Voia), *Managerial Decision Economics*, Volume 33 (2), pages 109–25, March 2012.
19. Functional Principal Component Analysis of Density Families with Categorical and Continuous Data on Canadian Entrant Manufacturing Firms, with David Jacho-Chávez, Robert Petrunia and Marcel Voia, *Journal of the American Statistical Association*, Volume 106 (495), pages 858–878, September 2011.
20. npRmpi: A package for Parallel Distributed Kernel Estimation in R (with Anson T.Y. Ho and David Jacho-Chávez), *Journal of Applied Econometrics*, Volume 26 (2), pages 344–349, March 2011.
21. Firm Size Distributions Through the Lens of Functional Principal Components Analysis (with David Jacho-Chávez), *Journal of Applied Econometrics*, Volume 25 (7), pages 1211–1214, November/December 2010.
22. The Impact of Initial Financial State on Firm Duration Across Entry Cohorts (with Robert Petrunia and Marcel Voia), *Journal of Industrial Economics*, Volume 58 (3), pages 661–689, September 2010.

23. The Efficacy of Collaborative Learning Recitation Sessions on Student Outcomes (with David Jacho-Chávez and James K. Self), *American Economic Review P&P*, Volume 100 (2), pages 287–91, May 2010.
24. Age Effects, Financial Frictions and Firm Growth (with Robert Petrunia), *Journal of Economic Dynamics and Control*, Volume 34 (5), pages 1003–1013, May 2010.
25. Internally-Corrected Conditional Density Estimation: With An Application to Implied-Volatility (with David T. Jacho-Chávez), *Journal of Quantitative Economics*, Volume 7 (2), pages 20–40, 2009.
26. Growth and Governance: A Nonparametric Approach (with David T. Jacho-Chávez), *Journal of Comparative Economics*, Volume 37 (1) 121–143, March 2009.
27. Entry penetration in Canadian Manufacturing (with Robert Petrunia), *Economics Letters*, Volume 100 (1), pages 87–90, July 2008.
28. Conditional density estimation: an application to the Ecuadorian manufacturing sector (with David T. Jacho-Chávez), *Economics Bulletin*, Volume 3 (62), pages 1–6, 2007.

## Chapters in Books

1. Analysing Labour Productivity in Ecuador, with German Cubas, Anson T. Y. Ho and David T. Jacho-Chávez, in Chapter 7, pages 109–117, *Productivity and Efficiency Analysis*, edited by William H. Greene, Robin Sickles, Lynda Khalaf, Michael Veall and Marcel Voia. Springer Proceedings in Business and Economics (2016).
2. Worker Separations and Industry Instability with Yuri Ostrovsky, Marcel C. Voia, and Robert J. Petrunia, in Chapter 10, pages 161–174, *Productivity and Efficiency Analysis*, edited by William H. Greene, Robin Sickles, Lynda Khalaf, Michael Veall and Marcel Voia. Springer Proceedings in Business and Economics (2016).
3. Average derivative estimation with missing responses with Francesco Bravo and David T. Jacho-Chávez in Chapter 5, pages 131–156, *Advances in Econometrics, Volume 27A: Missing data* edited by David Drukker. Emerald Group Publishing (2011).
4. Nonlinear Difference-in-Difference Treatment Effect Estimation: A Distributional Analysis (with David T. Jacho-Chávez and Marcel C. Voia) in Chapter 9, pages 251–272, *Advances in Econometrics, Volume 27A. Missing data* edited by David Drukker. Emerald Group Publishing (2011).

5. A Nonparametric Quantile Analysis of Growth and Governance (with David T. Jacho-Chávez) in Chapter 6, pages 193–221, *Advances in Econometrics, Volume 24: Nonparametric Econometrics Methods* edited by Qi Li and Jeffrey S. Racine. Emerald Group Publishing (2009).
6. Estimating State-Price Densities with Nonparametric Regression (with Pierre Kervella and Jun Zheng) in Chapter 8, pages 171–196 *Applied Quantitative Finance* edited by Wolfgang Härdle, Torsten Kleinow, and Gerhard Stahl, Springer-Verlag (2002).

## Policy Publications

1. The Use of Cash in Canada, with Ben Fung and Gerald Stuber, *Bank of Canada Review*, Bank of Canada, vol. 2015 (Spring), pages 45-56.
2. 2013 Methods-of-Payment Survey Results, with Christopher S. Henry and Q. Rallye Shen, *Discussion Papers* 15-4, Bank of Canada.
3. Reports of the death of cash have been exaggerated, with Helmut Stix. *The usage, costs and benefits of cash: Conference Volume on International Cash Conference 2014*, Deutsche Bundesbank, pages 366-389.
4. The Changing Landscape for Retail Payments in Canada and the Implications for the Demand for Cash, with Carlos Arango, Ben Fung and Gerald Stuber, *Bank of Canada Review*, Bank of Canada, vol. 2012 (Autumn), pages 31-40.
5. Contactless-Credit Cards and the Cash Ratio, with Ben Fung and Leonard Sabetti, *The usage, costs and benefits of cash: Conference Volume on International Cash Conference 2012*, Deutsche Bundesbank, pages 239-248.

## Working Papers

1. Adoption Costs of Financial Innovation: The Case of ATM Cards in Italy with Philipp Schmidt-Dengler, Gregor W. Smith, and Angelika Welte.
2. Debt Financing in Private and Public Firms with Teodora Paligorova and Robert Petrunia. *Under submission*.
3. Industry Shutdown Rates and Permanent Layoffs: Evidence from Firm-Worker Matched Data with Yuri Ostrovsky, Robert Petrunia and Marcel Voia. *Revisions requested*.
4. Financial Innovation and the Persistence of the Extensive Margin.

5. On the Evolution of UK Price Distributions with Ba M. Chu, David T. Jacho-Chavez, and Oleksiy Kryvtsov. *Undergoing revisions*
6. Productivity, Reallocation, and Distortions: Evidence from Ecuadorian Firm-Level Data with Anson Ho and David Jacho-Chavéz. *Under submission.*
7. The Role of Card Acceptance in the Transaction Demand for Money with Philipp Schmidt-Dengler and Helmut Stix. *Under submission.*

## **Research In-Progress**

1. “Explaining the interplay between acceptance and usage of payment methods in two-sided markets” with Oleksandr Shcherbakov.
2. “Going Cashless at the Point-of-Sale?” with Christopher S. Henry.

## **Conferences/Seminars/Workshops**

Presenter

- 2017: Scheduled: International Industrial Organization Conference (IIOC), BundesBank Cash Conference, Statistical Society of Canada.
- 2016: Lakehead, Winnipeg, Asian Meetings of the Econometric Society (AMES), European Association for Research in Industrial Economics (EARIE), Data for Policy 2016 (Cambridge, UK), Alberta.
- 2015: Federal Reserve of Atlanta Payments Improvement Workshop, IIOC, Joint EZB-Suomen Pankki conference on retail payments, International Association for Applied Econometrics (IAAE), 21st Panel Data Conference, Hungarian National Bank, EARIE, Saskatchewan, Winnipeg, Western Ontario, Canadian Econometric Study Group (CESG), Bank of Canada Annual Economic Conference, Kansas State University, Vanderbilt.
- 2014: De Nederlandsche Bank (DNB), Canadian Economics Association (CEA), IAAE, Office of National Statistics (ONS), Econometric Society European Meetings (ESEM), EARIE, BundesBank Cash Conference, MidWest Econometrics Group (MEG), CESG, Alberta, Queen’s.
- 2013: Emory, Kansas State, CEA, North American Summer Meetings (NASM), Oesterreichische Nationalbank (OeNB), ESEM, EARIE, ECB-Banque de France conference on retail payments.

- 2012: BundesBank Cash Conference, ESADE-Barcelona, IIOC, Kansas City Fed, Comparative Analysis of Enterprise Data (CAED) Nuremburg, CEA (Calgary), MEG, Reserve Bank of Peru, LAMES, Joint ECB-MNB retail payments conference.
- 2011: George Mason, Indiana (Kelley School of Business), IIOC, Joint ECB-OeNB retail payments conference, Midwest Macro, AMES, European Society of the Econometric Society (Oslo), European Association for Research in Industrial Economics (Stockholm), Northern Finance Association, Southern Economics Association.
- 2010: Bank of Canada, Industry Canada, CEA (Québec City), North American Productivity Workshop (Rice), Joint Statistical Meetings (Vancouver), Econometric Society World Congress (Shanghai), European Association for Research in Industrial Economics (Istanbul), CAED (London).
- 2004-2009: Canadian Economics Association\*, Far Eastern Society of the Econometric Society\*, Comparative Analysis of Enterprise Data, Federal Reserve Bank of Atlanta and New York Economics of Payments III, Statistics-Canada Workshop of Firm Dynamics, IIOC, NASM, European Society of the Econometric Society, European Association for Research in Industrial Economics, The dynamics of firm evolution: productivity, profitability and growth (Scuola Superiore Sant'Anna), The Economics of Payment Systems (Telecom Paris), MEG\*, Midwest Macroeconomics Meetings\*, International Panel Data Conference\*, CESG, Latin American Meetings of the Econometric Society\*, Alberta, SFU, Bank of Canada\*, IUPUI, Winnipeg, Statistics Canada\*, OeNB, Ancona, EIEF, Indiana (Kelley School of Business), Carleton, Wilfred Laurier University, Purdue, Lakehead, Laval, U. de Montréal, McGill, Dalhousie, York, Waterloo, Indiana\*.

#### Discussant

- 2016: DNB Payments Conference 2016: Retail payments: mapping out the road ahead.
- 2015: Centre for Security and Defense: Defense & Security Workshop (Spring & Fall).
- 2014: CEA, EARIE\*, CESG.
- 2004-2013: CEA\*, Centre for Security and Defense: Defense & Security Workshop, IIOC\*, Royal Military College Defense & Security Workshop, Oesterreichische Nationalbank Research Conference on Consumer Payment Choice and the Demand for Money, The Economics of Payment Systems (Telecom Paris), Latin American Meetings of the Econometric Society, Midwest Finance Association, Northeast Universities Development Consortium Conference (2010), Perspectives on Monetary, Financial, and Economic Integration (Kelley School of Business).

## Workshop (Co)-Organizer

- June 2017: Canadian Stata Users Group Meeting (Chair).
- June 2016: Joint Bank of Canada-Payments Canada-Federal Reserve Bank of Atlanta and New York Research Conference (Banff, AB).
- November 2015: Day Ahead workshop on Payments Research.
- October 2015: Symposium on Microeconometrics: Theory and Empirics.
- October 2014: Symposium on Microeconometrics: Theory and Empirics.
- October 2012: Symposium on Microeconometrics: Theory and Empirics (Joint with Carleton University Economics).
- October 2012: Consumer Finances and Payment Diaries Workshop.
- May 2012: The Economics of Payments VI Workshop.
- November 2011: New Developments in Payments and Settlement.
- May 2010: John Deutsch Institute at Queen's University on "How Access to Firm-Level Data Informs Public Policy".
- December 2008: Statistics Canada Workshop on Firm Dynamics II.
- March 2008: Statistics Canada Workshop on Firm Dynamics I.

\*: Multiple times.

## Teaching Experience

G = Graduate, U = Undergraduate

### *Carleton University*

- Econ 5906: Co-advisor on Directed Research in Microeconometrics (G), F2015.
- Econ 6904: Co-advisor on Directed Readings in Microeconomic Methods for Policy Analysis (G), S2013.
- Econ 6005: Guest Lecturer on Semi/Nonparametric Methods (G), F2008, S2009, F2010.
- Econ 4706: Guest Lecturer on Econometrics I (U), F2013.



### *Indiana University*

- Econ 724: Advanced Macroeconomics Seminar (G) F2007, S2009, F2009.
- Econ 724: Macroeconometrics (Empirical Macroeconomics) (G), F2004, F2005, F2006, F2007.
- Econ 391: Reading Course on Dynamic Economics (U), Summer 2005.
- Econ 390: Foundations of Dynamic Economics (U), S2005, F2005.
- Econ 322: Intermediate Macroeconomics (U), S2005, S2006 (2 sections), S2007 (2 sections), S2008 (2 sections)\*, S2009\*, F2009 (2 sections)\*, S2010 (3 sections)\*.
- Econ 202: Introduction to Macroeconomics for honors students (U), S2010\*.

\*: Denotes team taught class.

### *Queen's University*

- Econ 255: Mathematical Economics (U), S2002, S2003, S2004.

## **Student Supervision**

### **Graduate Student Supervision** (*first placement, year of completion*)

Committee member unless otherwise noted: Co-advisor (†).

#### **Carleton**

**Ph.D.:** Marie-Hélène Felt†(Senior Economist, Bank of Canada, 2016).

**M.A.:** Casey Jones†(Economist, Department of Finance, 2016).

Rallye Shen†(Ph.D. Economics at the University of Toronto, 2016).

Angelika Welte†(Economist, Bank of Canada, 2014).

#### **Emory**

**Ph.D.:** Alexander L. Lundberg (West Virginia University, 2017).

#### **Indiana**

**Ph.D.:** Pedro F. de Araujo†(Colorado College, 2008), Lamont Black (Federal Reserve Board of Governors, 2007), Hess Chung (Federal Reserve Board of Governors, 2008), Zhaohui (David) Han (Investment Technology Group Inc. Boston, 2007), Judex Hyppolite†(Georgia State, 2010), Juergen Jung (Towson University, 2008), Ioana Moldovan (University of Glasgow, 2006), James

Murray (Viterbo College, 2008), Dong-Eun Rhee†(Korea Institute of Economic Policy, 2009), Ioana Schipou (Post-doc Universitat Autònoma de Barcelona, 2008), Liliana Stern (Auburn University, 2006), Chung Tran (Post-doc University of New South Wales, 2008).

**Undergraduate Student Supervision** (*first placement, year of completion*)

**Honours Thesis** (*first placement, year of completion*)

Emily Andruska†(Federal Reserve Board of Governors, 2010), Savannah Franklin†(US Department of State, 2010).

## **Awards & Grants**

- 2016 Bank of Canada Award for Excellence: Collaboration.
- Szenberg Prize for the best paper published by The American Economist in 2015.
- SSHRC 4A Funding (Lakehead University 2012-2013): \$3,000 (CDN).  
Principal Investigator: Robert J. Petrunia, Collaborator: Kim P. Huynh.
- SSHRC Standard Research Grant (2011-2012): \$33,600 (CDN).  
Principal Investigator: Ba M. Chu, Collaborator: Kim P. Huynh.
- SSHRC 4A Funding (Carleton University 2010-2011): \$5,500 (CDN).  
Principal Investigator: Marcel C. Voia, Collaborator: Kim P. Huynh.
- SSHRC Research Grants - Management, Business, and Finance (2009): \$23,400 (CDN).  
Principal Investigator: Eugene Beaulieu, Collaborator: Kim P. Huynh.
- Statistics Canada Research Fellowship (2008-2009): \$20,000 (CDN).
- SSHRC Research Grants - Management, Business, and Finance (2008-2011): \$79,200 (CDN).  
Principal Investigator: Robert J. Petrunia, Collaborator: Kim P. Huynh.
- SSHRC Research Grants - Management, Business, and Finance (2008): \$ 40,000 (CDN).  
Principal Investigator: Eugene Beaulieu, Collaborator: Kim P. Huynh.
- SSHRC Standard Research Grant (2007-2010): \$25,000 (CDN).  
Principal Investigator: Marcel C. Voia, Collaborator: Kim P. Huynh.
- SSHRC 4A Funding (Carleton University) 2006-2009): \$10,000 (CDN).  
Principal Investigator: Marcel C. Voia, Collaborator: Kim P. Huynh.

## **Service**

### Bank of Canada

- 2016 High Performance Cluster Request For Proposal Evaluation Committee.
- 2014-present Governor's Challenge Steering Committee (Chair 2014-2015).
- 2013-present High Performance Computing Committee.
- 2014-2016 Graduate Student Paper Prize Committee (Chair and co-founder).
- 2015 Senior Statistician/Data Scientist Recruitment Committee.
- 2016-present University Recruitment Committee.  
2010-2015
- 2012/2014/2015 High Performance Computing, Senior Business Analyst Recruitment Committee.
- 2013-2014 Ph.D. Internship Steering Committee.
- 2012 Statistician/Survey Methodology Recruitment Committee.
- 2010-2012 Research Zone Computing Committee.
- 2010-2012 Analytical Environment Working Committee.
- 2010-2011 Happy Hour Commissioner.

### Indiana University

- 2009 Program Committee for Midwest Macroeconomics Meetings.
- 2007-2009 Indiana University Graduate Admissions.
- 2005-2009 Indiana University Bloomington Macroeconomics Workshop Organizer.
- 2005-2006 Junior Faculty Recruiting Committee (Econometrics and Macroeconomics).

## **Professional Affiliations**

American Economic Association, American Statistical Association, Canadian Economic Association, Econometric Society, Industrial Organization Society.

## **Referee/Reviewer**

Addison-Wesley, Advances In Econometrics, Bank of Canada\*, B.E. Journals in Macroeconomics, Canadian Journal of Economics, Communications In Statistics: Theory and Methods, Computational Statistics and Data Analysis\*, Communication Games (Elsevier Handbook of Applied Microeconomics), Economics Bulletin\*, Economics of Governance, Econometric Reviews, Empirical Economics\*, European Economic Review, International Journal of Industrial Organization\*, Journal of Applied Econometrics\*, Journal of Business Venturing\*, Journal of Economic Dynamics and Control\*, Journal of Money, Credit and Banking, Journal of Productivity Analysis, Journal of Sports Economics\*, Macroeconomic Dynamics, National Science Foundation (NSF), Open Economies Review, Pearson, Research Foundation - Flanders (FWO)\*, Review of Industrial Organization\*, SERIs, Statistics Canada CDER\*, Structural Change and Economic Dynamics\*, Worth.

\*: Multiple times.

## **Other Employment Experience**

06/2012 - 06/2012 Financial Services Volunteer Corps  
Technical assistance to the Central Bank of Iraq.  
07/1997 - 08/1998 Research Assistant at the Bank of Canada Research Department.  
05/1996 - 09/1996 Student Economist at the City of Calgary Finance Department.  
09/1995 - 01/1996  
05/1995 - 08/1995 Summer Intern at the Petro-Canada Crude Oil Supply and Trading Department.

## **Academic Network Centrality**

Numbers: Erdős 4, Zoolander 3.

## **References**

*Available upon request.*