#### **David Longworth: Resume**

#### **Current Positions**

A frequent Term Adjunct Professor, Queen's University, since January 2011 Adjunct Research Professor, Carleton University, Ottawa, Ontario, 2010 - present Fellow, C.D. Howe Institute, 1 Apr 2010 – present

#### **Recent Previous Positions**

Associate Director, Graduate Diploma Program in Risk Policy and Regulation, Department of Economics, Queen's University, Kingston, Ontario 2013-2018 John Weatherall Distinguished Fellow, Queen's University, Jan-May 2011, Sep 2011-May 2012, Sep 2012-May 2013, Sep 2013-May 2014

#### Education

Ph.D. (Economics), Massachusetts Institute of Technology (1979) Thesis: Floating exchange rates: the Canadian experience (Supervisor: Rudiger Dornbusch)
M.A. (Economics), University of Alberta (1974)
B.Sc. (Honours Mathematical Statistics), University of Alberta (1973)

### Employment History at the Bank of Canada (start dates where only one date shown)

1 Nov 2008 – 31 Mar 2010	Deputy Governor (Financial System)
Mid 2005	Deputy Governor (Financial Markets)
26 Apr 2003	Deputy Governor (Financial Institutions)
3 Jan 2001	Adviser to the Governor
1 Jan 1996	Chief, Research Department
1 Jun 1991	Chief, Department of Monetary and Financial Analysis
16 Nov 1987	Research Adviser, Department of Monetary and Financial Analysis
21 Oct 1985	Deputy Chief, International Department
3 Apr 1984	Assistant Chief, International Department (Special Studies)
3 Nov 1980	Research Officer, International (Balance of Payments, Special Studies)
23 Jun 1980 – 19 Sep 1980	On leave at Japanese Economic Planning Agency
15 Nov 1978	Economist, International Department (Balance of Payments)
1 Sept 1976 – 1 Sept 1978	On leave at MIT (Ph.D. program)
3 June 1974	Economist, Research Department (Special Studies)

#### **International Committees**

2012-2015	IMF Macroprudential Policy Advisory Group
2010-2015	IMF Advisory Group on Monetary Policy
2006-2009	Americas meeting of central bank financial market executives
2006-2007	EMEAP Forex Forum

2005-2010	Markets Committee (MC) (BIS)
2005-2010	Committee on the Global Financial System (CGFS) (BIS)
2003-2005	Financial Stability Forum
2000-2003	OECD Working Party 1 of the Economic Policy Committee
1988-1995, 2001-2003	OECD Ad Hoc Group of High Level Monetary Experts

### **International Study Groups**

2009-2010	Member, CGFS Coordinating Group on "Macroprudential instruments and frameworks," CGFS Paper No. 38, May 2010
2009-2010	Chair, CGFS Study Group on "The role of margin requirements and haircuts in procyclicality," CGFS Paper No. 36, March 2010
2008-2009	Member, G20 Working Group 1, "Enhancing Sound Regulation and Strengthening Transparency," Final Report, 25 March 2009
2008-2009	Member, CGFS-MC Study Group on "Central bank unconventional policies"
2007-2008	Member, CGFS-MC Study Group on "Central bank operations in response to the financial turmoil," CGFS Paper No. 31, July 2008

### **Domestic Committees**

2011-present	C.D. Howe Financial Services Research Initiative Meetings
2005-2010	Heads of Agencies (Bank of Canada's second representative)
2005-2009	Funds Management Committee (Dept. of Finance and Bank of Canada)
2003-2005	Alternate Representative, Financial Institutions Supervisory Committee
2003-2005	Alternate Director, Canada Deposit Insurance Corporation
2001-2003	Statistics Canada National Accounts Advisory Committee
1991-1994	Editorial Board, Canadian Journal of Economics

### International Experience in Technical assistance, Advice, and Analysis

Bank Indonesia (2012): member of a two-person team giving advice on inflation targeting Norges Bank (2003): member of a two-person committee to evaluate the monetary policy decisionmaking process and strategy document

Bank of Ghana (2002): conference paper on Canadian experience with inflation targeting Banco Central do Brasil (1999): IMF technical assistance on inflation targeting Japanese Economic Planning Agency (Jun-Sep, 1980): econometric modelling of Canadian economy

# **Courses Taught**

(At Queen's University) RPRD 803, Financial Regulation, for Graduate Diploma Students in Risk Policy and Regulation, Department of Economics, fall semesters 2014-2018.

(At Queen's University, jointly with Prof. Frank Milne) RPRD 804, Advanced Topics in Risk Management and Regulation, Department of Economics, fall semesters 2014-2018.

(At Queen's University) ECON 492, Seminar in Macroeconomics, "Comparative Financial Crises: Prediction, (Central Bank) Policy Response, and Prevention", seminar for fourth-year undergraduates, taught Winter 2011, Fall 2011, Fall 2012, and Fall 2013.

(At Carleton University) ECON 5/4880 R/B – Special Topics in Economics: Central Banking: Theory, Practice, and Recent Challenges, early summer sessions, 2013-2019, jointly with Paul Jenkins and Charles Freedman, John Murray or Mark Zelmer.

### **Association Memberships**

Canadian Economics Association American Economic Association

# **Publications:**

## **Articles in Refereed Journals**

"Strengths and weaknesses of Canadian financial regulation before and after the global financial crisis." *Journal of Banking Regulation* advance online publication, 4 June 2014; doi:10.1057/jbr.2014.8.

"Macroeconomic Models and Policy-Making at the Bank of Canada" (with Pierre Duguay). *Economic Modelling*, 1998, 15(3): 357-375. Also in *Empirical Models and Policy-Making: Interaction and Institutions*, edited by Frank A. G. den Butter and Mary S. Morgan, 2000, 57-75. London: Routledge.

"Debt and Credit: Recent Canadian Developments" (with Charles Freedman). North American Review of Economics & Finance, 1990, 1(1): 33-51.

"The Profitability of Forward Currency Speculation by Central Banks: A Comment." *European Economic Review*, 1989, 33(4): 839-843.

"Foreign Exchange Market Efficiency Tests: Implications of Recent Empirical Findings" (with Paul Boothe). *Journal of International Money and Finance*, 1986, 5(2): 135-152.

"A Comment on 'A Model of the Canadian Global Exchange Rate: A Test of the 1970s'." *Journal of Policy Modeling*, 1985, 7(4): 673-679.

"A Comment on 'The Small Country Assumption: A Note on Canadian Exports'." *Applied Economics*, 1984, 16(6): 933-934.

"Exchange Rates and 'News': A Comment," *Journal of International Money and Finance*. 1984, 3(1): 119-121.

"Testing the Efficiency of the Canadian-U.S. Exchange Market Under the Assumption of No Risk Premium." *Journal of Finance*, 1981, 36(1): 43-49.

"Canadian Intervention in the Foreign Exchange Market: A Note." *Review of Economics and Statistics*, 1980, 62(2): 284-287.

### **Bank of Canada Publications**

"Discussion of 'Whither Financial Regulation?' by Nicholas LePan," in *A Festschrift in Honour of David Dodge's Contributions to Canadian Public Policy*, Bank of Canada, November 2008: 79-84. Available at: <u>http://www.bankofcanada.ca/wp-content/uploads/2010/09/discussion\_longworth2.pdf</u>.

"Discussion of 'What I Learned at the Fed' by Laurence H. Meyer," in *Macroeconomics, Monetary Policy, and Financial Stability: A festschrift in honour of Charles Freedman,* Bank of Canada, June 2003: 71-77. Available at: <u>http://www.bankofcanada.ca/wp-content/uploads/2010/09/discussion\_longworth.pdf</u>.

"Inflation Targeting and Medium-Term Planning: Some Simple Rules of Thumb."

*Bank of Canada Review*, 2003 (Spring): 15-23. Available at: <u>http://www.bankofcanada.ca/wp-content/uploads/2010/06/longworthe1.pdf</u>

*Money in the Bank (of Canada)*. Bank of Canada Technical Report No. 93, February 2003.

"<u>Monetary Policy and Uncertainty</u>" (with Paul Jenkins). *Bank of Canada Review*, 2002 (Summer): 3-10. Available at: <u>http://www.bankofcanada.ca/wp-content/uploads/2010/06/longworth\_e.pdf</u>.

"<u>Inflation and the Macroeconomy: Changes from the 1980s to the 1990s</u>." *Bank of Canada Review*, 2002 (Spring): 3-18. Available at: <u>http://www.bankofcanada.ca/wp-</u>

content/uploads/2010/06/longworthe.pdf.

"Comment on '<u>Is There a Case for Exchange-Rate-Induced Productivity Changes?</u>' by R. Harris." In *Revisiting the Case for Flexible Exchange Rates*, 2000, 310-313. Available at the end of: <u>http://www.bankofcanada.ca/wp-content/uploads/2010/08/harris.pdf</u>.

"<u>The Canadian Experience with Weighted Monetary Aggregates</u>" (with Joseph Atta-Mensah). Bank of Canada Working Paper No. 95-10, October 1995.

"Comment on 'Unit Roots, Cointegration and Purchasing Power Parity: Canada and the United States, 1870-1991' by David Johnson." In *The Exchange Rate and the Economy*, 1993, 199-205.

"Introduction" in Monetary Seminar 90, 1992, i-vi.

"Implementation of Monetary Policy in Canada with Same-Day Settlement: Issues and Alternatives" (with Patrice Muller). Bank of Canada Working Paper No. 91-3, August 1991.

*International Capital Mobility and Asset Substitutability: Some Theory and Evidence on Recent Structural Changes* (with Francesco Caramazza, Kevin Clinton, and Agathe Côté). Bank of Canada Technical Report No. 44, October 1986.

A Comparison of Alternative Monetary Policy Regimes in a Small Dynamic Open-Economy Simulation Model (with Stephen Poloz). Bank of Canada Technical Report No. 42, April 1986.

International Asset Substitutability: Theory and Evidence for Canada (with Paul Boothe, Agathe Côté, and Kevin Clinton). 1985.

A Study of the Efficiency of Foreign Exchange Markets (with Paul Boothe and Kevin Clinton). 1983.

"Increased Natural Resources Prices and the Supply of Canadian Natural Resource Output and Exports." In *Proceedings of the Fifth Pacific Basin Central Bank Economists' Conference*, edited by K. Clinton, 1982, 383-419.

*The Economic Significance of Aspects of Canada's International Payments* (with Kevin Clinton). Bank of Canada Technical Report No. 31, 1982.

"The Terms of Trade: The Canadian Experience in the 1970s." *Bank of Canada Review*, 1980 (January): 13-25.

Some Aspects of the Canadian Experience with Flexible Exchange Rates in the 1970s (with Charles Freedman). Bank of Canada Technical Report No. 20 (and National Bureau of Economic Research Working Paper No. 535), August 1980.

*The Role of U.S. Interest Rates in Canadian Interest-Rate Equations: An Exploratory Analysis* (with Charles Freedman and Paul Masson). Bank of Canada Technical Report No. 9, December 1977.

Chapters 11 and 12 of *Sectoral Analysis of RDX2 Estimated to 4Q2*. Bank of Canada Technical Report No. 6, 1977, 191-256.

# **Articles in Books**

"The Global Financial Crisis and Financial Regulation: Canada and the World," Chapter 5 of *Crisis and Reform: Canada and the International Financial System, Canada Among Nations 2014*, Rohinton Medhora and Dane Rowlands (eds.), 2014, 87-102. Waterloo: Centre for International Governance Innovation.

"Submission to the Task Force to Modernize Securities Legislation in Canada." (with D. Howard) In *Canada Steps Up*, volume 7: *Written Submissions and Presentations*, 2006, 39-45. Toronto: The Task Force to Modernize Securities Legislation in Canada. Available at <u>http://www.tfmsl.ca/index.htm</u>.

"Commentary: Implications of a Changing Economic Structure for the Strategy of Monetary Policy". In *Monetary Policy and Uncertainty: Adapting to a Changing Economy*, a symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, 28-30 August, 2003, 349-360. Kansas City: Federal Reserve Bank of Kansas City. Available at:

http://www.kc.frb.org/publicat/sympos/2003/pdf/Longworth2003.pdf .

"The Monetary Policy Transmission Mechanism and Policy Rules in Canada"

(with Brian O'Reilly). In *Monetary Policy: Rules and Transmission Mechanisms*, Volume 4 of Series on Central Banking, Analysis, and Economic Policies, edited by Norman Loayza and Klaus Schmidt-Hebbel, 2002, 357-392. Santiago, Chile: Central Bank of Chile. Available at:

http://www.bcentral.cl/estudios/banca-central/pdf/v4/357\_392Longworth.pdf .

"Models, Projections, and the Conduct of Policy at the Bank of Canada"

(with Charles Freedman). In *Stabilization and Monetary Policy: The International Experience*, 2002, 505-532. Papers presented at Banco de México's 75th Anniversary Seminar, 14-15 November 2000. México City: Banco de México.

"The Canadian Experience with Weighted Monetary Aggregates" (with Joseph Atta-Mensah). In *Divisia Monetary Aggregates: Theory and Practice*, edited by M.T. Belongia and J.M. Binner, 2000, 265-291. Basingstoke, U.K.: Palgrave.

"The Canadian Monetary Transmission Mechanism and Inflation Projections."

In Inflation Targeting in Practice: Strategic and Operational Issues and Application to Emerging Market Economies, edited by Mario I. Blejer, Alain Ize, Alfredo M. Leone, and Sérgio Werlang, 2000, 37-43. Washington: International Monetary Fund. Available at:

http://www.imf.org/external/pubs/ft/seminar/2000/targets/strach5.pdf .

"Comment on 'The Rise and Fall of Money Growth Targets as Guidelines for US Monetary Policy' by Benjamin Freedman." In *Towards More Effective Monetary Policy*, edited by Iwao Kuroda, 1997, 165–170. Basingstoke, U.K.: MacMillan Press and Bank of Japan.

"The Role of the Staff Economic Projection in Conducting Canadian Monetary Policy" (with Charles Freedman). In *Targeting Inflation*, edited by Andrew G. Haldane, 1995, 101-112. London: Bank of England. "Comments on 'Keynesian Policy Analysis, Rational Expectations, and the Bank of Canada' by Peter Howitt." In *Welfare, Property Rights and Economic Policy: Essays and Tributes in Honour of H. Scott Gordon*, edited by Thomas K. Rymes, 1991, 119-125. Ottawa: Carleton University Press.

"Some Exchange Rate Policy Considerations when Trade is Liberalized." In *Domestic Policies and the International Economic Environment*, edited by John Whalley, Volume 12 of the research studies prepared for the Royal Commission on the Economic Union and Development Prospects for Canada, 1985, 281-287. Toronto: University of Toronto Press.

"Exchange Rates, Short-Term Capital and Resource Allocation." In *The Canadian Balance of Payments: Perspectives and Policy Issues*, edited by D.D. Purvis, 1983, 63-92. Montréal: Institute for Research on Public Policy.

# **Other Publications, Not Refereed**

"Securing Monetary and Financial Stability: Why Canada Needs a Macroprudential Framework" (with Paul Jenkins), C.D. Howe Institute Commentary No. 429, June 2015. https://www.cdhowe.org/sites/default/files/attachments/research\_papers/mixed/commentary\_429.pd

<u>f</u>

"Combatting the Dangers Lurking in the Shadows: Macroprudential Regulation of Shadow Banking," C.D. Howe Institute Commentary No. 361, September 2012.

https://www.cdhowe.org/sites/default/files/attachments/research\_papers/mixed/Commentary\_361.pd f

"Remarks on Macroprudential Policy Frameworks," in *Macroprudential regulation and policy*, BIS Papers No. 60, Proceedings of a joint conference organized by the BIS and the Bank of Korea in Seoul on 17-18 January 2011, Monetary and Economic Department, BIS, December 2011. Available at: <u>http://www.bis.org/publ/bppdf/bispap60.pdf</u>.

"Warding Off Financial Market Failure: How to Avoid Squeezed Margins and Bad Haircuts," C.D. Howe Institute Backgrounder No. 135, December 2010.

https://www.cdhowe.org/sites/default/files/attachments/research\_papers/mixed/backgrounder\_135.p df

"Comment on 'Financial Market Functioning and Monetary Policy: Japan's Experience." In *Monetary and Economic Studies* 24(S-1), December 2006. Proceedings of the Bank of Japan's 13th annual conference. Available at <u>http://www.imes.boj.or.jp/english/publication/mes/mes06.html</u>.

"Report to the Executive Board of the Norges Bank on the Decision-Making Process and the Strategy Document" (with Asbjorn Rodseth), 3 June 2003. Available at: <u>http://www.norges-bank.no/Upload/Pengepolitikk/evaluering.pdf</u>.

"Economics at the Central Bank." In *Policy Options*, 1997, 18(7): 31-33.

"Movilidad internacional del capital y sustituibilidad de activos: teoria y testimonios de los recientes cambios estructurales," (with Francesco Caramazza, Kevin Clinton, and Agathe Côté), *Monetaria*, 1987, 10(3): 273-330.

"Exchange Market Efficiency: An Examination of Speculation Across Forward Markets." In *Economics Letters*, 1985, 18(2-3): 247-249.

"Some Irregular Regularities in the Canadian/U.S. Dollar Exchange Market"

(with Paul Boothe), CSIER Working Paper No. 8317C, 1983, Centre for the Study of International Economic Relations, University of Western Ontario.

"Canada: Econometric Model for Short-Term Prediction" (with Akihiro Amaro, Akira Sadahiro, et al.). EPA World Econometric Model Discussion Paper No. 5, December 1980. Tokyo: Economic Planning Agency.

"Canada: Financial and Capital Account Sectors." EPA World Econometric Model Discussion Paper No. 4, November 1980. Tokyo: Economic Planning Agency.

## **Conference Papers and Presentations**

"Frameworks, Buffers and Expectations: Coherence, Clarity, Communication and Credibility," presentation at the "Are We Ready for the Next Financial Crisis?" CDIC Conference, Ottawa, 20 April, 2017.

"Comments on: 'Complexity, Concentration and Contagion'" at the CEPR – Banca d'Italia conference on macroprudential policy, Rome, December 2011. (PowerPoint)

"Comments on: 'Settlement Liquidity and Monetary Policy Implementation—Lessons from the Financial Crisis'", at the Bank of Canada Annual Conference, 17-18 November, 2011. (PowerPoint)

"Margins and Haircuts as Macroprudential Tools: Panel Discussion" at Bank of Canada Workshop, 3 November, 2011. (PowerPoint)

"Macroprudential Policy and Financial Markets," paper presented at the conference on "The Economics and Econometrics of Recurring Financial Markets Crises," Waterloo, 3-4 October, 2011. <u>http://viessmanncentre.ca/wp-content/uploads/2012/06/Longworth.pdf</u>

"Macroprudential Policy: The 'Theory,'" panel presentation at the Canadian Economics Association Annual Meetings, Ottawa, 4 June 2011. (PowerPoint)

"A Survey of Macroprudential Policy Issues," mimeo, March 2011.

http://www2.carleton.ca/economics/ccms/wp-content/ccms-files/brownbag-paper-110329.pdf

"Comments on: 'The Federal Reserve's Policy Actions during the Financial Crisis and Lessons for the Future' by Don Kohn," Slides at CMFE Conference on "Economic and Financial Crisis: Lessons from the Past and Reforms for the Future," Carleton University, 13-14 May, 2010.

http://www.carleton.ca/economics/wp-content/uploads/1d-Longworth.pdf

"Towards Less Procyclicality in Financial Markets," Vancouver Seminar (sponsored by Department of Finance and Bank of Canada), Vancouver, BC, 30 November 2009. (PowerPoint)

"Implications for Canada," PowerPoint presentation at Northwind Capital Markets Roundtable, Alton, ON, 27 May 2009. (PowerPoint)

"Inflation Targeting in Canada: Outcomes, Evaluations and Challenges," PowerPoint presentation at XI Annual Inflation Targeting Seminar, Central Bank of Brazil, 14-15 May 2009, Rio de Janeiro.

"Financial System Regulation: Unfinished Business," remarks at a Seminar on Securing Comparative Advantage: The Hidden Role of Effective and Efficient Regulation, Ottawa, 22 June 2007.

"Avoiding Collateral Damage: Collateral and the Bank of Canada's ELA Framework" (with the assistance of Walter Engert), PowerPoint presentation at Norges Bank Conference on Banking Crisis Resolution, 16 June 2005.

"The Canadian Experience with Inflation Targeting: Building Credibility and Reducing Uncertainty," Inauguration of the Monetary Policy Committee, Bank of Ghana Conference, 9-10 September 2002. "Optimal Behaviour of Direct Clearers in a World with Zero Reserve Requirements," paper presented at the Annual Meetings of the Canadian Economics Association, Quebec City, 2-4 June, 1989.

"Real Commodity Prices and the Canadian Real Exchange Rate 1971-87," (with Robert Lafrance), paper presented at the Canadian Macro Study Group Conference, Banff, Alberta, 30 October – 1 November, 1987.

"Exchange Risk Premiums, Real Interest Rate Differentials and Ex Ante Purchasing power Parity," paper presented at Canadian Economics Association meetings in Winnipeg, May 1986.

"International Indebtedness in a Long-Run Context: Implications for Canada," paper presented at Canadian Economics Association meetings in Montréal, June, 1980.

# Bank of Canada Speeches (2003-2010)

Bank of Canada Liquidity Facilities: Past, Present, and Future, remarks to the C.D. Howe Institute, 17 February 2010.

<u>Promoting Canada's Economic and Financial Well-being</u>, remarks to the Greater Summerside Chamber of Commerce, 23 September 2009.

Financial System Policy Responses to the Crisis, remarks to the Financial Markets Association of Canada, 12 March 2009.

Work in Progress: The Bank of Canada's Response to the Financial Turbulence, remarks to the Canadian Association for Business Economics, Kingston, Ontario, 26 August 2008.

Credit Markets, Financial Stability, and Monetary Policy, remarks to the Global Investment Conference, Lake Louise, Alberta, 10 April 2008.

Liquidity, Liquidity, Liquidity, remarks to the Investment Industry Association of Canada, Toronto, Ontario, 3 October 2007.

<u>Promoting Stability, Confidence and Well-being,</u> remarks to the Greater Kitchener Waterloo Chamber of Commerce, Waterloo, Ontario, 6 February 2007.

<u>The Canadian Economy and Financial Markets in Perspective</u>, remarks to the World Hedge Funds Summit, Vaughan, Ontario, 8 November 2006.

<u>The Crucial Contribution of the Financial System and Monetary Policy to Economic Development</u>, remarks to the Conference of the Association des économistes québécois, Montréal, Quebec, 5 May 2006.

Monetary Policy: One Instrument, One Target, remarks to the Edmonton CFA Society and the Treasury Management Association of Canada (Edmonton chapter), Edmonton, Alberta, 29 September 2005.

Monetary Policy and the Economic Outlook, remarks to the Canadian Netherlands Business and Professional Association, Toronto, Ontario, 17 March 2005.

The Bank of Canada: Striving for Stability, Predictability, and Confidence, remarks to the East Kings Chamber of Commerce, Greenwich, Nova Scotia, 8 November 2004.

Monetary Policy and Uncertainty, remarks to the Canadian Association for Business Economics, Kingston, Ontario, 23 August 2004. Available at: <u>http://www.bankofcanada.ca/wp-content/uploads/2010/07/longworth.pdf</u>.

The Interaction between Monetary and Financial Stability Policies, remarks to the Economic Club of Toronto, Toronto, Ontario, 9 January 2004.

Economic Literacy, Inflation Targeting, and Medium-Term Planning, remarks to the Guelph Chamber of Commerce, Guelph, Ontario, 13 November 2003.