# **Davidson Heath**

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#### Education

2010 – Present	Ph.D. Finance, USC Marshall School of Business
2007 – 2009	M.B.A., University of Chicago Booth School of Business
2000 – 2002	M.Sc. Mathematics, Queen's University
1994 – 1999	B.Sc. Biology, University of British Columbia

## **Working Papers**

"Unspanned Macroeconomic Risk in Oil Futures" (2014) Job Market Paper; Under Review

I construct an affine macro-finance model for commodity futures that admits unspanned macroeconomic state variables. There is a negative feedback relationship between oil prices and real economic activity. Real activity drives an unspanned procylical risk premium in oil futures. The model has applications to real options pricing and measuring the convenience yield.

"Technology and Real Options: Evidence from Patent Text" (2014)

I construct new measures of firm-level innovation using the text of all U.S. patents from 1926 to 2010. Technological differentiation predicts product market differentiation and is associated with higher firm ROA, investment, Q, and TFP and predicts lower returns, consistent with a model of firms holding real options on heterogeneous innovations.

"Commodity Futures Forecast Returns and not Prices" (2013)

I construct a canonical affine model for commodity futures that includes many benchmark models as special cases. Model estimates provide strong evidence that the slope of futures prices reflects time varying risk premiums and not forecasts of future prices.

"Convergence Failure in CBOT Wheat Futures" (2009)

Massive convergence failures in CBOT agricultural contracts in 2007-2008 were caused by caps on the fees that storage providers could charge holders of delivery certificates.

# Teaching

BUAD 306: Business Finance (38 students). Average evaluation = 4.7 / 5

TA for Ph.D. Empirical Asset Pricing (Wayne Ferson)

USC Marshall Ph.D. Teaching Award

#### Refereeing

Review of Asset Pricing Studies (RAPS), American Journal of Agricultural Economics (AJAE), Quarterly Journal of Finance (QJF)

#### Conferences

Presenter: World Finance Conference 2013, "Commodity Futures Forecast Returns..."

USC Marshall Finance Ph.D. Conference 2013: Co-organizer, Head of Program Committee

Invited Participant: FRA 2014, FMA Doctoral Consortium 2014, NBER SI: Innovation,

Economics of IT and Digitization 2014, NBER Commodity Markets 2013

Attended: WFA 2014, AFA 2014, AFA 2013

## **Nonacademic Employment**

2005 – 2007	Vice President, Commodity Derivatives, BMO Capital Markets

Associate, Commodity Derivatives, BMO Capital Markets

2002 – 2004 Senior Analyst, Market Risk, BMO Capital Markets

#### Other

2004 - 2005

Coding: Python, Hadoop, R, Matlab, Stata, VBA

Hobbies: Skiing, Running, Golf, Scotch