

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 aggregate growth. Aggregate economic activity drives an unspanned procyclical risk premium in oil futures. The model estimates have implications for real options pricing and the properties of 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 ROA, capex, Q, and TFP. Technological differentiation is associated with lower returns but product market differentiation is not, consistent with a model of firms holding growth options on heterogeneous innovations.

"Commodity Futures Forecast Returns and not Prices" (2014)

I construct a canonical affine model for commodity futures that include many benchmark models as special cases. Model estimates provide strong evidence that the slope of futures prices reflects changing 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

2004 – 2005 Associate, Commodity Derivatives, BMO Capital Markets

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

Other

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

Hobbies: Skiing, Running, Golf, Scotch