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EDUCATION

Michigan State University Ph.D. in Finance GPA: 4.0/4.0	Expected 2018
The University of Tennessee, Knoxville M.Sc. in Agricultural and Resource Economics GPA: 4.0/4.0	2013
Hanqing Advanced Institute, Renmin University of China Master's program in Quantitative Economics GPA: 3.4/4.0	2011
University of International Business and Economics B.Sc. in Economics (Honors) and B.Sc. in Logistics GPA: 3.7/4.0 Rank: No.1	2010

RESEARCH INTEREST

Empirical Corporate Finance | Corporate Tax Avoidance | Inversion | Political Economy
Empirical Asset Pricing | Commodity Markets | Political Risks | Blockchain Technology |
Cryptocurrencies

WORKING PAPERS

“Corporate Inversions and the Cost of Equity: A Tale of Two Strategies” 2017
(Job Market Paper)

Firms invert either through a pure inversion strategy or by merging with a foreign entity. I document that the impact of corporate inversions on the cost of equity is significantly different between the two strategies. I find that pure inversions increase the cost of equity by 10%, whereas inversions through mergers decrease it by 13%. Although both inversion strategies increase the inverting firm's shareholder value, inversions through mergers appear to create more value. However, before the tax reform of 2004, which eliminated the tax savings from pure inversions, most inversions were pure, whereas after the tax reform most were done through mergers. This finding suggests that the tax reform had an unintended consequence of reducing a managerial agency problem by eliminating the less beneficial inversion option.

“The Impermanence of Democracy: Endowed Wealth Versus Wealth Creation,”
(with William Gerken and Naveen Khanna) **2017**

In this paper we argue that countries are constantly struggling between autocratic and democratic forces and which regime form is dominant at which time is determined by whether the country's prosperity is dependent more on endowed assets or on human capital. Since endowed assets can be more easily expropriated by a ruling entity, countries more dependent

on them are likely to be less democratic. However, countries more dependent on human capital have much stronger incentives to establish credible democratic institutions that limit their ability to expropriate future wealth and induce wider participation in wealth creation. Our empirical tests strongly support this hypothesis. We document that democracy levels are correlated with the relative contributions from the two sources which can change over time due to exogenous events. Thus, democracy levels are time varying and not entirely captured by country fixed effects. We also instrument for a country's human capital to establish causation. As further support, we show that countries which are more dependent on endowed wealth are more likely to have stronger militaries even in the absence of outside threats and are more likely to be autocratic. The paper provides a new explanation for why there are democracy waves, why countries move in and out of democracy, and why some rich countries are not democratic while some poor ones are.

“Estimating Jumps, Volatilities, and the Intertemporal Risk-Return Tradeoff in Commodity Futures Markets” **2017**

This paper provides a method to estimate price jumps consistently and efficiently in commodity futures markets without imposing any distribution assumptions on them *ex ante*. Stochastic and jump volatilities of futures returns can be measured accordingly by decomposing commodity futures prices into two parts: the component under normally distributed shocks and that under jumps. Using corn futures data to estimate the parameters in the model, I document that for corn futures contracts of shorter maturities, the jumps in prices are positively skewed, whereas for the contracts of longer maturities, the jumps are negatively skewed. Though the stochastic volatility is positively correlated with the jump volatility, there are more frequent sudden increases in the jump volatility, and it strongly dominates the stochastic volatility for contracts of long maturities. These findings indicate that jumps appear to play a major role in determining the total volatility in the corn futures market. Furthermore, I document a highly significantly positive intertemporal relation between risk premia and stochastic and jump risks, which is robust to the choice of volatility estimation windows and the length of futures contract maturities.

WORK IN PROGRESS

“Price of Cryptocurrencies and Stock Market Liquidation Sales” **2017**

Idea: The exponential increase in cryptocurrency prices in 2017 has attracted an influx of funds into these markets. The market capitalization of Bitcoins has increased from \$15 billion to \$75 billion in 2017. Even higher returns are present in other competitive cryptocurrencies such as Ethereum and Litecoin. Despite the high volatility in these markets, the upward trend appears to be strong. In this paper, I investigate whether investors will rebalance their current portfolios and liquidate some assets to fund their investment in cryptocurrencies. If they do so, this would put a downward pressure on stock markets, and the assets undergoing liquidation sales would tend to be undervalued.

“Is Bitcoin a Bubble? A Real Option View of Bitcoins” **2017**

Idea: With the dramatic increase in Bitcoin price comes the speculation that this is merely another bubble. In this paper, I aim to understand the value of Bitcoin by treating it as a real option, the ultimate value of which comes from the potential success of replacing fiat

money globally. For a long-term investor, purchasing Bitcoins is essentially purchasing a real option by paying a premium. Further, this paper tests the positive feedback effect that is documented by Khanna and Sonti (2004): as more funds flow into the Bitcoin market, the likelihood of its success will be higher, which, in turn, attracts more funds. This research will contribute to understanding both the value of Bitcoins and investors' opinions on their success.

PUBLICATION

“A Moral Hazard Model of Parental Care,” (with Baomin Dong), *Hacienda Publica Espanola / Review of Public Economics*, 207-(4/2013): 101-115. (A junior research study.)

One perplexing observation is that although men and women have different comparative advantages, cooperation is often only seen during child-bearing and rearing periods. One interpretation is that the juvenile offspring serves as an indivisible public goods to facilitate cooperation between opposite sexes of adults. We show that moral hazard in maternal parental care will either force the father to pay the mother a rent in order to induce optimal care (when the child is of intrinsic high quality) or set the care level at second best (when the child is of intrinsic low quality). The implications of the model can be extended to many issues in the family economics such as increasing divorce rate, pros and cons of monogamy versus polygamy, and evolving gender roles in human society etc.

PROFESSIONAL EXPERIENCE

Michigan State University, Department of Finance | Instructor

Advanced Business Finance (Scheduled)	2018
Financial Management	2016 - 2017
· Class Size: 45 Evaluation: 4.4/5.0	
Introduction to Investments	2014
· Class Size: 45 Evaluation: 4.3/5.0	

Michigan State University, Department of Finance | Teaching Assistant

Professor Zoran Ivkovich	2013 - 2014
· Introduction to Investments Theory of Investments	
Professor Hao Jiang	2015 - 2017
· Advanced Business Finance	
Professor Mark Schroder	2016 - 2017
· Financial Derivatives	

Michigan State University, Department of Finance | Research Assistant

Professor Naveen Khanna	2013 - Present
Professor Hao Jiang	2014 - Present

PRESENTATIONS

Ph.D. Poster Session, 2018 AFA Annual Meeting (Scheduled)	2018
2017 FMA Doctoral Student Consortium (Scheduled)	2017
Ph.D. Student Paper Presentation Session, 2017 FMA Annual Meeting (Scheduled)	2017
Wednesday Brown Bag, Department of Finance, Michigan State University	2015, 2017

CONFERENCE AND WORKSHOPS

2018 AFA Annual Meeting, Philadelphia (Scheduled)	2018
2017 FMA Annual Meeting, Boston (Scheduled)	2017
Summer School: Liquidity in Financial Markets and Institutions, Olin Business School, Washington University in St. Louis	2017
27th Mitsui Finance Symposium: Labor and Corporate Finance, Ross School of Business, University of Michigan	2017
2017 AFA Annual Meeting (<i>Travel Grant</i>), Chicago	2017
2016 Northwestern-Duke Main Causal Workshop, Northwestern Pritzker School of Law, Northwestern University	2016
ESTIMATE (Early Summer Tutorial In Modern Applied Tools of Econometrics), Department of Economics, Michigan State University	2014

HONORS AND AWARDS

Dissertation Completion Fellowship. Broad College of Business, MSU	2017
Travel Grant. 2017 AFA Annual Meeting, Chicago	2017
Outstanding M.S. Student Award. The University of Tennessee, Knoxville	2013
Phi Kappa Phi membership. The University of Tennessee, Knoxville	2013
Gamma Sigma Delta membership. The University of Tennessee, Knoxville	2012
First Prize Scholarship. Renmin University of China, Beijing, China	2010
Outstanding Graduates. University of International Business and Economics	2010
China National Scholarship. Chinese Ministry of Education	2007, 2009
Meritorious Winner. 2009 Mathematical/Interdisciplinary Contest Modeling	2009
First Prize Scholarship. University of International Business and Economics	2008
Bronze Medal. 18th Beijing College Students Mathematics Contest	2007
Honors program. University of International Business and Economics	2006
Bronze Medal. 23rd Chinese Physics Olympiad	2006

MEMBERSHIP

American Economic Association
American Finance Association
Financial Management Association
CFA[®] Charterholder

TECHNICAL SKILLS

Computer Languages	C++ Python
Softwares	Stata R SAS MATLAB LaTeX Microsoft Office
Databases	Compustat I/B/E/S CRSP
Certificates	SAS Certified Base Programmer for SAS 9 SAS Certified Advanced Programmer for SAS 9

LANGUAGE

English (Fluent) | Chinese (Native).

REFERENCES

Professor Naveen Khanna (Chair)

Chairperson and A.J. Pasant Endowed Chair
in Finance
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