**Xingliang Ma**

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Status: U.S. Permanent Resident

SUMMARY OF QUALIFICATION

* Strong analytical skills with PhD in economics and a distinct publication record;
* Hands-on experiences in credit risk modeling, fixed income, and model validation.

PROFESSIONAL EXPERIENCES

***Model Validation Senior, Freddie Mac, April 2015 – present***

* **Private Labeling Securities (PLS)**

- Play an instrumental role in PLS baseline review and following change reviews (1.1 and 1.2);

- Gain extensive experience in Generalized Additive Models, logistical regression, transition models, and their applications in prepayment and default risk modeling as well as in severity and cash flow estimations;

- Build challenger models that achieved better performances than the submitted model;

- Complete the whole baseline review including data cleaning, model estimation, simulation, and back test;

- Construct separate databases and write SQL queries to facilitate the model review;

- Rewrite some of the R packages in C to speed up PLS model review;

- Program extensively in R and Python; Parallel computing; familiar with a variety of programming paradigms such as objective-oriented programming, functional programming, and procedural programming;

- Above & Beyond Reward after three months onboard for excellent performance in PLS model review.

* **T-Deal model**

- Guide other team members to complete the model review collectively;

- Gain exposure in the capital model and the securitization process.

* **Prepayment model**

- Participate in prepayment 2.0 and 2.1 model review. Solid understanding of the piece-wise linear regression;

***Associate Research Fellow, International Food Policy Research Institute, January 2012 – March 2015***

* **Econometric modeling & economic research**

Publish research papers by proposing innovative research ideas and sophisticated econometric methods;

* **Project lead**

Lead in project design, survey planning, enumerator training, and final implementation in developing countries.

***Research Assistant, University of Wisconsin - Madison, August 2006 – December 2011***

* **Dynamic Adoption of Genetically Modified Crops in the US**

Dynamic Programming; Bayesian Learning; Structural estimation; Fortran 90 and Python;

* **Structural Demand Estimation** **of Differential Products**

Generalized Method of Moments (GMM) estimation; MATLAB;

* **Survival Analysis on Product Lifecycles in the Market**

Extended Cox Proportional Hazards model; STATA;

* **Statistical Regression in R**

Proficient in regression analysis and statistic modeling in R; Classes taken from the Statistics Department.

EDUCATION

##### UNIVERSITY OF WISCONSIN - MADISON Madison, WI

***Ph.D. Agricultural & Applied Economics*** 2011

Dissertation: Essays on Structural Demand Estimation and Dynamic Adoption with Bayesian Learning: Application to the U.S. Seed Industry

##### FUDAN UNIVERSITY Shanghai, China

M.A. Economics 2006

##### JILIN UNIVERSITY Changchun, China

B.S. Economics 2003

VOLUNTEER EXPERIENCES

* Designate Security Administrator (DSA), UNIX system maintaining, Freddie Mac, 2015-present
* Representative of Associate Research Fellows, International Food Policy Research Institute, 2013-2014

ADDITIONAL INFORMATION

* Computing: R, Python, MATLAB, SAS, SQL, C/C++, Fortran, VBA, bash script, STATA
* Language: English (fluent), Chinese (native)
* Passed CFA level 1 & 2 in December 2015 and June 2016

PUBLICATIONS

1. **Ma, X.**, and G. Shi. 2015. “A Dynamic Adoption Model with Bayesian Learning: An Application to U.S. Soybean Farmers.” Agricultural Economics, 46 (1): 25–38.

*(Code: https://github.com/equusprobus/Dynamic\_Adoption)*

2. **Ma, X**., M. Smale, D. J. Spielman, P. Zambrano, H. Nazli, and F. Zaidi. 2016. “A question of integrity: Variants of Bt cotton, pesticides, and productivity in Pakistan.” *Journal of Agricultural Economics* (accepted, forthcoming).

3. **Ma, X.**, and G. Shi. 2013. “GM vs. Non-GM: A Survival Analysis of U.S. Corn Hybrids.” *Agricultural and Resource Economics Review*, 42(3):542-560.

4. Spielman, D.J., and **X. Ma**. 2016. “Private Sector Incentives and the Diffusion of Agricultural Technology: Evidence from Developing Countries.” *Journal of Development Studies*, 52 (5): 696-717.

5. Spielman, D.J., H. Nazli, **X. Ma**, P. Zambrano, and F. Zaidi. 2015. Technological opportunity, regulatory uncertainty, and Bt cotton in Pakistan. *AgBioForum*, 18(1), 98-112.

6. Spielman, D.J., D.Z. Zeng, and **X. Ma**. 2014. “Clusters, Innovation Systems and Biotechnology in Developing-Country Agriculture.” In *Handbook on Agriculture, Biotechnology and Development,* edited by S. Smyth, D. Castle, and P. Phillips. Surrey, UK: Edward Elgar Publishing.

CONFERENCE PRESENTATIONS

1. “Effect of Prices, Traits and Market Structure on Corn Seeding Density”, Selected Paper, *American Agricultural Economics Association (AAEA) Annual Meeting*, Milwaukee, WI, July 2009

2. “GM vs. Non-GM: A Survival Analysis of Hybrid Seed Corn in the US”, Selected Poster, *AAEA Annual Meeting*, Denver, CO, July 2010

3. “A Structural Estimation of the Demand for Corn Seed in the US”, Selected Poster, *AAEA Annual Meeting*, Denver, CO, July 2010

4. “A Dynamic Adoption Model with Bayesian Learning: Application to the U.S. Soybean Market”, Selected Paper, *AAEA Annual Meeting*, Pittsburgh, July 2011

5. “A Dynamic Adoption Model with Bayesian Learning: Application to the U.S. Soybean Market” (revised), Selected Paper, *American Economic Association (AEA) Annual Meeting*, San Diego, January 2013

6.“Private Sector Incentives and the Diffusion of Agricultural Technology: Evidence from Developing Countries”,Selected Paper, *NC-1034 conference on Biotechnology Trade and Transfer,* Arizona, March 2013

7. “Private Sector Incentives and the Diffusion of Agricultural Technology: Evidence from Developing Countries”,Selected Poster, *AAEA Annual Meeting*, Washington DC, August 2013

8. “Information efficiency in a lemons market: Evidence from Bt cotton seed market in Pakistan”, Selected Paper, *AAEA Annual Meeting*, Minneapolis, MN, July 2014

9. “The role of social network in an imperfect market for agricultural technology products: Evidence on Bt cotton adoption in Pakistan”, Selected Paper, *AAEA Annual Meeting*, Minneapolis, MN, July 2014

10. “A question of integrity: Variants of Bt cotton, pesticides, and productivity in Pakistan”, Selected Paper, *AAEA Annual Meeting*, Boston, MA, July 2016