Chew Soo Hong

Director and Chief Professor China Center for Behavioral Economics and Finance Southwestern University of Finance and Economics

Emeritus Professor Department of Economics National University of Singapore

Education

Ph.D. (1981), Interdisciplinary studies (Mathematics, Economics, and Management Science), University of British Columbia
M.A. (1977), Mathematics, Claremont Graduate University
Physics major (1975-1976), Harvey Mudd College
Mathematics major (1973-1975), University of London (External)
Full Technological Certificate (1975), City & Guilds of London, Institute

Research Interests

Decision theory, behavioral, biological and experimental economics, decision genomics

Publications

Economics

- Chew SH, Miao B, Shen Q, Zhong SF (2023), Ellsberg meets Keynes at An Urn, *Quantitative Economics* 14, 1133-1162
- Chew SH, Miao B, Shen Q, Zhong SF (2022), Multiple-switching behavior in choice-list elicitation of risk preference, *Journal of Economic Theory* 204
- Chew SH and JS Sagi (2022) A critical look at the Aumann-Serrano and Foster-Hart measures of riskiness. *Economic Theory* 74, 397–422 (2022)
- Chark, R, SF Zhong, SY Tsang, CC Khor, RP Ebstein, Chew SH (2022) A gene-brainbehavior basis for familiarity bias in source preference, *Theory and Decision* 92, 531-567
- Chew SH, Huang W, and Zhao X (2020), "Motivated False Memory", *Journal of Political Economy* 128: 3913-3939
- Chark, R, Chew SH, Zhong SF (2020), "Individual Preference for Longshots", *Journal of European Economic Association* 18, 1009-1039
- Chew SH and Wang W (2020), "On the robustness of indeterminacy in subjective probability", *Economics Letters*
- Zhong SF, Shalev I, Koh D, Ebstein RP (2018), Chew SH. "Competitiveness and Stress" *International Economic Review* 59, 1263-1281.
- Chew SH, Yi J, Zhang J, Zhong SF (2018). "Risk Aversion and Son Preference: Experimental Evidence from Chinese Twin Parents" *Management Science* 64, 3896–3910.
- Chew SH, Ratchford M, Sagi J (2018), "You Need to Recognise Ambiguity to Avoid It, *Economic Journal* 128: 2480-506
- Chew SH, Miao B, Zhong S (2017), "Partial Ambiguity" *Econometrica* 85: 1239-1260
- Chew SH, Yi JJ, Zhang JS, Zhong S (2017), "Risk Aversion and Son preference: Experimental Evidence from Chinese Twin Parents", *Management Science*
- Chew SH, Yi JJ, Zhang JS, Zhong S (2016), "Education and Anomalies in Decision Making: Experimental Evidence from Chinese Adult Twins" *Journal of Risk and Uncertainty*, 53, pp 163–200.
- Chark R, Chew SH (2015) "A Neuroimaging Study of Strategic Uncertainty" *Journal of Risk* and Uncertainty Vol. 105, no. 7, 2272 2286.
- Chark R, Chew SH, and Zhong S "Extended Present Bias: A Direct Experimental Test" *Theory and Decision* Vol. 79, Issue 1 (2015)
- Chew SH, Ebstein RP, Zhong S (2013), Sex Hormone Genes and Gender Difference in Ultimatum Game: Experimental Evidence from China and Israel, *Journal of Economic Behavior & Organization*, 28 – 42

- Chew SH and J. S. Sagi (2012), "An Inequality Measure for Stochastic Allocations", *Journal* of Economic Theory 147, 1517 1544
- Chew SH, Ebstein RP, Zhong S (2012), Ambiguity aversion and familiarity bias: Evidence from behavioral and gene association studies, *Journal of Risk and Uncertainty* 44, 1-18
- Chew SH and JS Sagi (2008), "Small Worlds: Modeling Attitudes Toward Sources of Uncertainty", *Journal of Economic Theory* 139: 1-24
- Chew SH, Li KK, R. Chark, and Zhong S (2008), "Source preference and ambiguity aversion: Models and Evidence from Behavioral and Neuroimaging Experiments", *Neuroeconomics*, Houser and McCabe (eds), Elsevier
- Chew SH and Serizawa S (2007), "Characterizing the Vickrey Combinatorial Auction by Induction", Economic Theory 33: 393 406
- Chew SH and JS Sagi (2006), "Event Exchangeability: Probabilistic Sophistication without Monotonicity or Continuity", *Econometrica* 74: 771-786
- Chew SH and G Tan (2005), "The Market for Sweepstakes", REStud 72: 1009 1029
- Chew SH and N. Nishimura (2003), "Revenue Non-Equivalence between the English Auction and the Second-Price Auction: Experimental Evidence" *Journal of Economic Behavior and Organization* 51: 443 – 458
- Chew SH and K. Konrad (1998), "Bandwagon Effects in Two-Party Majority Voting" *Journal of Risk and Uncertainty* 16: 165 172
- Chew SH and P. Wakker (1996), "The Comonotonic Sure-Thing Principle" *Journal of Risk* and Uncertainty 12: 5 – 27
- Chew SH and L. Herk (1996), "Incremental Risk Aversion and Diversification Preference" Journal of Economic Theory 70: 180 – 200
- Chew SH and Mao MH (1995), "A Schur-Concave Characterization of Risk Aversion for Non-Expected Utility Preferences" *Journal of Economic Theory* 67: 402 – 435
- Chew SH and E. Karni (1994), "Choquet Expected Utility with a Finite State Space Commutativity and Act-Independence", *Journal of Economic Theory* 62: 469 – 479
- Chew SH, L.G. Epstein and U. Segal (1994), "The Projective Independence Axiom" *Economic Theory* 4: 189 – 215
- Chew SH and J.L. Ho (1994), "Hope: An Empirical Study of Attitude toward the Timing of Uncertainty Resolution" Journal of Risk and Uncertainty 8 (1994): 267 288
- Chew SH, L.G. Epstein and P. Wakker (1993), "A Unifying Approach to Axiomatic Non-Expected Utility Theory: Correction and Comment", *Journal of Economic Theory* 59: 183 – 188
- Chew SH and N. Nishimura (1992), "Differentiability, Comparative Statics and Non-Expected Utility Preferences" *Journal of Economic Theory* 56: 294 – 312
- Chew SH, LG Epstein and U Segal (1991), "Mixture Symmetry and Quadratic Utility" *Econometrica* 59: 139-163
- Chew SH and L.G. Epstein (1991), "Recursive Utility under Uncertainty" in *Equilibrium Theory* with an Infinite Number of Commodities, Khan and Yanellis (eds), Springer-Verlag,
- Chew SH and L.G. Epstein (1990), "Non-Expected Utility Preferences in a Temporal Framework with an Application to Consumption-Savings Behavior", *Journal of Economic Theory* 50: 54 81
- Chew SH and I Zilcha (1990), "Invariance of the Efficient Sets when the Expected Utility Hypothesis is Relaxed", *Journal of Economic Behavior and Organization* 13: 125-31
- Chew S. H. and Larry G. Epstein (1989) "The Structure of Preferences and Attitude towards the Timing of the Resolution of Uncertainty", *International Economic Review* 30, 103-117
- Chew SH (1989), "Axiomatic Utility Theories with the Betweenness Property", Annals of Operations Research 19: 273-298
- Chew SH and L.G. Epstein (1989), "A Unifying Approach to Axiomatic Non-Expected Utility Theory" *Journal of Economic Theory* 49: 207 – 240
- Chew SH and L.G. Epstein (1989), "Axiomatic Rank-Dependent Means", Annals of Operations Research 19: 299 – 309
- Chew SH and L.G. Epstein (1988), "The Law of Large Numbers and the Attractiveness of Compound Lotteries" *Journal of Risk and Uncertainty* 1: 125 132

Chew SH, L.G. Epstein and I. Zilcha (1988), "A Correspondence Theorem between Expected Utility and Smooth Utility" *Journal of Economic Theory* 46: 186 – 193 Chew SH, Karni E, and Safra Z (1987), "Risk Aversion in the Theory of Expected Utility

- Theory with Rank-Dependent Probabilities" Journal of Economic Theory 42: 370-81
- Chew SH and W.S. Waller (1986), "Empirical Tests of Weighted Utility Theory" Journal of Mathematical Psychology 30: 55 – 72
- Chew SH, Mao M.H. and S.S. Reynolds (1984), "Rotating Credit Collusion in Repeated Auctions with a Single Buyer and Several Sellers" Economics Letters 16: 1 – 6
- Chew SH (1983), "A Generalization of the Quasilinear Mean with Application to the Measurement of Income Inequality and Decision Theory Resolving the Allais Paradox" *Econometrica* 51: 1065-1092

Biology

- Xue T, ..., Chew SH*, ... , (2022) "The Heart-Brain Axis: A Proteomics Study of Meditation on the Cardiovascular System of Tibetan Monks", E-BioMEdicine, 80:104026
- Tolomeo, S., Chiao B., Lei Z, Chew, SH, & Ebstein RP (2020). A Novel Role of CD38 and Oxytocin as Tandem Molecular Moderators of Human Social Behavior. Neuroscience and Biobehavioral Reviews, 115, 251-272
- Yim OS, ..., Chew SH*, ... (2016), "Delay Discounting, Genetic Sensitivity, and Leukocyte Telomere Length", PNAS, 113, 2780-2785
- Zhong S, R Chark, Hsu M, Chew SH* (2016), "Computational Substrates of Social Norm Enforcement by Unaffected Third Parties", Neuroimage, Vol 129, 95-104
- Yi H, ... Chew SH, ... JP Gouin (2019) "Successful aging, cognitive function, socio-economic status, and leukocyte telomere length," Psychoneuroendocrinology 103
- Shen, Q., Teo M., Winter E., Hart E., Chew S. H.*, Ebstein R. P. (2016), "To Cheat or Not To Cheat: Tryptophan Hydroxylase 2 SNP Variants Contribute to Dishonest Behavior" Frontiers in Behavioral Neuroscience 10 (82)
- Ebstein RP, ..., Chew SH* (2015), "Association between the Dopamine D4 Receptor Gene Exon III Variable Number of Tandem Repeats and Political Attitudes in Female Han Chinese" PRSB: Biological Sciences 282.
- Weisman O, Pelphrey KA, Leckman JF, Feldman R, Lu Y, Chong A, Chen Y, Monakhov M, Chew SH, Ebstein RP (2015), "The association between 2D:4D ratio and cognitive empathy is contingent on a common polymorphism in the oxytocin receptor gene (OXTR rs53576)" Psychoneuroendocrinology 58, 23 – 32
- Jiang YS, · R Bachner-Melman · Chew SH*· RP Ebstein (2015), "Dopamine D4 Receptor Gene and Religious Affiliation Correlate with Dictator Game Altruism in Males and not Females: Evidence for Gender-sensitive Gene x Culture Interaction" Frontiers in Neuroscience, Vol 9
- Set, E, ..., Chew SH,* ..., (2014) Dissociable Contribution of Prefrontal and Striatal Dopaminergic Genes to Learning in Economic Games, PNAS 111: 9615-620
- Ebstein, RP.; Monakhov, M; Lai, PS; Chew, SH* (2014), "CD38 Gene Expression and Human Personality Traits: Inverse Association with Novelty Seeking" Messenger 3: 72 – 77(6)
- De Dreu CKW, ..., Chew SH, ..., Shamay-Tsoory SG (2013), Oxytonergic circuitry sustains and enables creative cognition in humans. Social Cognitive and Affective Neuroscience
- Jiang Y, Chew SH*, Ebstein RP (2013), The role of D4 receptor gene exon III polymorphisms in shaping human altruism and prosocial behavior. Frontiers in Human Neuroscience
- Zhong S, ..., Chew SH^{*}, ... (2012), U-Shaped Relation between Plasma Oxytocin Levels and Behavior in the Trust Game. PLoS ONE 7(12): e51095.
- Zhong, S, R Chark, RP Ebstein, SH Chew (2012) "Imaging genetics for utility of risks over gains and losses" Neuroimage 59, 540-54
- Chew SH, Ebstein RP, Zhong S (2012) "Ambiguity aversion and familiarity bias: Evidence from behavioral and gene association studies" Journal of Risk and Uncertainty 44, 1-18
- Zhong S, S Israel, I Shalev, H Xue, Ebstein R, and Chew SH* (2010), "Dopamine D4 Receptor Gene Associated with Fairness Preference in Ultimatum Game", PLoS ONE 5(11): e13765
- Zhong, S, Israel S, Xue H, Ebstein RP, Chew SH (2009) "Monoamine oxidase A gene (MAOA) associated with attitude towards longshot risks" PLoS One 4, e8516

Zhong S, ..., Chew SH* (2009), "A Neurochemical Approach to Valuation Sensitivity over Gains and Losses" *PRSB: Biological Sciences* 276: 4181-4188

Zhong S, Chew SH, Set E, Zhang J, Xue H, Sham PC, Ebstein RP, Israel S (2009) "The Heritability of Attitude Toward Economic Risk." *Twin Research and Human Genetics* 12: 103-107

Honors

Fellow, Society for Advancement of Economic Theory, 2020 – present Fellow, Econometric Society, 2012 – present The Leonard J. Savage Award, 1982

Selected Keynote Presentations

Asia-Pacific Meeting of the Economic Science Association, Beijing, May 2020 PKU-NUS Annual International Conference on Quantitative Finance and Economics, June 2019 Asia-Pacific Meeting of the Economic Science Association, Brisbane, February 2018 Nanjing International Conference on Game Theory and the Fourth Microeconomics Workshop, Nanjing, November 2017 China Meeting of the Econometric Society, Wuhan, June 2017 Fifth International Conference on Neuromanagement and Neuroeconomics, Zhejiang, November 2016 China Meeting of the Econometric Society, Chengdu, June 2016 Annual Conference on experimental economics, Dalian, September 2015 Conference on Decision Making and the Unconscious, Geneva, October 2014 Tsinghua Conference on Theoretical and Behavioral Economics, Beijing, June 2014 Second Kyoto University Experimental Economics Conference, February, 2014 International Workshop on Experimental Economics, Xiamen, December, 2013 Tsinghua Conference on Theoretical and Behavioral Economics, Beijing, June 2013 Guanghua Seminar in Behavioral Sciences, Beijing, June 2012 Asia-Pacific Meeting of the Economic Science Association, Tokyo, February 2012 Nottingham workshop on experimental economics, Ningbo, September 2009 International Meeting of the Economic Science Association, Washington DC, June 2008 Asia Pacific Meeting of the Economic Science Association, Osaka, February 2007

Selected Invited Presentations

HKUST, Shenzhen, Apr 2024 CUHK, Apr 2024 Baptist U, Apr 2023 HKU. Feb 2023 Caltech, Feb 2024 USC, Feb 2024 UCSD, Feb 2024 UC Riverside, Feb 2024 National Taiwan U, Nov 2023 Exeter U, UK, Jul 2023 Judge Business School, Cambridge U, Jul 2023 Risk Management Institute, NUS, Singapore, Mar 2023 Monash U, Melbourne, Feb 2023 UNSW, Sydney, Feb 2023 U Queensland, Brisbane, Feb 2023 Osaka U, ISER, Osaka, Jan 2023 HKUST, Hong Kong, Nov 2022 CUHK, Hong Kong, Nov 2022 HKU, Hong Kong, Nov 2022 UC Berkeley, Oct 2022 Chapman U, Orange, Oct 2022 USC, Los Angeles, Oct 2022

UC Santa Barbara, Oct 2022 UC Davis, Oct 2022 McGill, Montreal, Oct 2022 U Toronto, Toronto, Oct 2022 U Michigan, Oct 2022 Carnegie-Mellon, Pittsburgh, Oct 2022 Duke U, Chapel Hill, Oct 2022 Yale, Cowles Foundation, New Haven, Oct 2022 Rochester U, Sep 2022 Boston University, Sep 2022 Caltech, Humanity and Social Sciences, Jan 2020 UC Irvine, IMBS, Sciences, January 2020 UC Riverside, Business School, January 2020 UC Irvine, IMBS, Sciences, January 2019 Johns Hopkins University, Baltimore, December 2019 BRIQ Belief Workshop, Bonn, June 2019 UC Irvine, IMBS, Sciences, January 2019 University of Southern California, INET, Los Angeles, January 2019 Fudan University, School of Finance, Shanghai, December 2018 CAS Institute of Zoology, Kunming, March 2018 Kunming Medical University, Kunming, March 2018 Yunnan University of Finance and Economics, March 2018 Lingnan University, Hong Kong, February 2018 Hong Kong University of Science and Technology, February 2018 Hong Kong Baptist University, February 2018 Duke Univeristy at Kunshan, November 2017 University of British Columbia, October 2017 Simon Fraser University, October 2017 University of Alberta, October 2017 University of Oregon, September 2017 University of California, Davis, September 2017 University of California, Santa Cruz, September 2017 University of California, Santa Barbara, September 2017 Arizona State University, Phoenix, September 2017 University of Arizona, Tucson, September 2017 University of California, San Diego, September 2017 University of Chicago, May 2017 Columbia University, May 2017 George Mason University, April 2017 Yale University, April 2017 Peking University, Beijing, December 2016 Tsinghua University, Beijing, December 2016 Fudan University, Beijing, December 2016 Xi'an Jiatong University, Xi'an, November 2016 Decision Theory, Experiment, and Application Conference, Paris, June 2016 Southwest University of Finance and Economics, May 2016 Decision Theory, Experiment, and Application Conference, Paris, June 2016 Jiatong Liverpool University, Suzhou, January 2016; Peking University, December 2015 Tsinghua University, December 2015 Wuhan University, September 2015 Inaugural China Meeting of the Econometric Society, Beijing, June 2013 Spencer Conference, Chicago, December 2010 Decision Theory, Experiment, and Application Conference, Paris, June 2010 Workshop Conference in Honor of Daniel Ellsberg, Vienna, March 2010 Far Eastern Meeting of the Econometric Society, Singapore, 2009

Professional Experience

Professor, Southwestern University of Finance and Economics Dec 2009 – present, Emeritus Professor, National University of Singapore Jul 1994 – Dec 2009, Professor, Hong Kong University of Science & Technology Jul 1995 – Mar 1999, Professor, University of California, Irvine Jul 1991 – Jun 1995, Associate Professor, University of California, Irvine Jan – Dec 1990, Visiting Associate Professor, Tulane University Sep 1986 – Jun 1987, Visiting Associate Professor, University of Toronto Jul 1984 – Jun 1991, Assistant Professor, Johns Hopkins University Jun 1980 – Jul 1984, Assistant Professor, University of Arizona

Selected Service

Associate Editor, Journal of Neuroscience, Psychology and Economics, 2014 – Associate Editor, Journal of Socio-Economics, 2013 – Co-chair, China Meetings of the Econometric Society, 2012 – 2016 Co-director, Laboratory for Behavioral x Biological Economics and the Social Sciences, NUS 2010 – 2018 Director, center for Experimental Business Research, Hong Kong University of Science and Technology, Fall 1998 – June 2013 Asia Pacific Vice-President, Economic Science Association, 2008 – 2010

Advisory Editor, Journal of Risk and Uncertainty, 1998 – 2008