

### “公司+农户”模式下公司的最优套期保值和订单价格方式

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The optimal hedging and contract price style of the company under the “Company & Farmer” pattern

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**摘要** 在对“公司+农户”与期货市场之间运行机理分析的基础上, 构建公司的期望效用模型对最优套期保值和订单价格方式进行研究。结果发现: 在期货市场是跨期无偏的条件下, 受流动性约束的公司在期货市场卖出的最优期货头寸小于订单规模; 当对被套期保值的订单采用固定价格的定价方式时无法满足公司期望效用最大化, 但采用点价的定价方式时能够最大化公司的期望效用, 公司同时获得相应的风险溢价。最后通过数值分析进一步阐释了结论的正确性。

**关键词:** 公司+农户 流动性约束 套期保值 订单价格 点价

**Abstract:** Based on the analysis of the operation mechanism between “Company & Farmer” and futures market, this paper studied the optimal hedging and contract price style of the company by constructing an expected utility function. The results show that the optimal short position is smaller than the size of the contract, which held by the liquidity constrained company in inter-temporal unbiased futures market. The fixed price style of the contract can not satisfy the optimality of the expected utility, but the pricing style can do it and make company gain the risk premium. Finally, the validity of the results is discussed and illustrated by numerical analysis.

**Key words:** company & farmer liquidity constraint hedging contract price pricing

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[1] 刘凤芹. 不完全合约与履约障碍——以订单农业为例[J]. 经济研究, 2003(4): 22-30. Liu F Q. Incomplete contract and the barrier to performance: A case research on the farm produce for order[J]. Economic Research Journal, 2003(4): 22-30.

[2] 贾伟强. “公司+农户”组织模式的合作机制研究[M]. 南昌: 江西人民出版社, 2007: 107. Jia W Q. Research on the Cooperation Mechanism of the Organization Mode of “Company & Farmer” [M]. Nanchang: Jiangxi People's Publishing House, 2007: 107. 

[3] 周立群, 曹利群. 商品契约优于要素契约——以农业产业化经营中的契约选择为例[J]. 经济研究, 2002(1): 14-19. Zhou L Q, Cao L Q. Factor contract is superior to commodity contract[J]. Economic Research Journal, 2002(1): 14-19.

[4] 黄祖辉, 王祖锁. 从不完全合约看农业产业化经营组织方式[J]. 农业经济问题, 2002(3): 28-31. Huang Z H, Wang Z S. The operation style of

- [5] 李彬. “公司+农户”契约非完全性与违约风险分析[J]. 华中科技大学学报, 2009, 23(3): 97-101. Li B. Analysis on the incomplete contracts the default risks of "Company + Peasant Household" [J]. Journal of Huazhong University of Science and Technology, 2009, 23(3) 97-101.
- [6] 高青松, 何花, 陈石平. 农业产业链“公司+农户”组织模式再造[J]. 科学决策, 2010(1): 35-43. Gao Q S, He H, Chen S P. Restructuring the agricultural industrial chain of "Company + Farmer Household" pattern[J]. Scientific Decision Making, 2010(1): 35-43.
- [7] 刘洁, 祁春节. “公司+农户”契约选择的影响因素研究: 一个交易成本分析框架[J]. 经济经纬, 2009(4): 106-109. Liu J, Qi C J. The study on the factors affecting contract choice in "Company and Farmer" mode: An analytical framework of transaction cost[J]. Economic Survey, 2009(4): 106-109.
- [8] Kurucu Y, Chiristina N K. Monitoring the impacts of urbanization and industrialization on the agricultural land and environment of the Torbali, Izmir region, Turkey[J]. Environmental Monitoring and Assessment, 2008, 136(1): 289-297.
- [9] 何嗣江, 汤钟尧. 订单农业发展与金融工具创新[J]. 金融研究, 2005(4): 114-121. He S J, Tang Z Y. The development of contract agriculture and innovation of financial instruments[J]. Journal of Financial Research, 2005(4): 114-121.
- [10] Zant W. Hedging price risks of farmers by commodity boards: A simulation applied to the Indian natural rubber market[J]. World Development, 2001, 29(4): 691-710.
- [11] Caldentey R, Haugh M B. Supply contracts with financial hedging[J]. Operations Research, 2009, 57(1): 47-65.
- [12] Zhang Q, Wang X F. Hedge contract characterization and risk-constrained electricity procurement[J]. IEEE Transactions on Power Systems, 2009, 24(3): 1547-1558.
- [13] Hosseini-Yekani S A, Zibaei M, Allen D E. The choice of feasible commodities for futures trading: A study of Iranian agricultural commodities[J]. African Journal of Agricultural Research, 2009, 4(3): 193-199.
- [14] 刘岩. 期货市场服务“三农”中的“公司+农户”模式研究[J]. 经济与管理研究, 2008(4): 54-57. Liu Y. The study on futures markets servicing "Company & Farmer" mode of "Agriculture, Rural and Farmers" [J]. Research on Economics and Management, 2008(4): 54-57.
- [15] 涂国平, 冷碧滨. 基于博弈模型的“公司+农户”模式契约稳定性及模式优化[J]. 中国管理科学, 2010, 18(3): 148-157. Tu G P, Leng B B. Contract stability and optimization of "Company & Farmer" mode based on game model[J]. Chinese Journal of Management Science, 2010(3): 148-157.
- [16] Lien D. The effect of liquidity constraints on futures hedging[J]. The Journal of Futures Markets, 2003, 23(6): 603-613.
- [17] Wong K P. Hedging, liquidity, and the competitive firm under price uncertainty[J]. The Journal of Futures Markets, 2004, 24(7): 6706.
- [18] 王江. 金融经济学[M]. 北京: 中国人民大学出版社, 2006: 113. Wang J. Finance Economics[M]. Beijing: China Renmin University Press, 2006: 113.
- [19] Kimball M S. Standard risk aversion[J]. Econometrica, 1993, 61(3): 589-611.
- [20] Brown G W, Khokher Z. Corporate risk, market imperfections, and speculative motives[R]. University of North Carolina, Chapel Hill 2001.
- 
- [1] 宋军, 赵鹰妍, 凌若冰. 商品期货成交量的“分享蛋糕”效应[J]. 系统工程理论实践, 2012, (3): 561-567.
- [2] 涂国平;;冷碧滨;贾仁安;. 基于基模生成集核的“公司+农户+期货、期货期权”系统基模[J]. 系统工程理论实践, 2011, 31(5): 961-969.
- [3] 李英华, 李兴斯. 不完全市场上收益最大化期权定价法[J]. 系统工程理论实践, 2011, 31(12): 2281-2286.
- [4] 刘宣会;赵宁宁;续秋霞. 基于随机Lagrange方法的最优套期保值策略[J]. 系统工程理论实践, 2010, 30(6): 1034-1039.
- [5] 王玉刚;迟国泰;杨万武. 基于Copula的最小方差套期保值比率[J]. 系统工程理论实践, 2009, 29(8): 1-10.
- [6] 迟国泰;杨中原. 基于最小方差的系列展期套期保值优化模型[J]. 系统工程理论实践, 2009, 29(12): 163-174.
- [7] 林孝贵. 期货市场逐步组合套期保值的理论与方法[J]. 系统工程理论实践, 2002, 22(11): 100-103.