

# Pricing of Contingent Convertible Bonds: A Semi-structural Approach



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**Meeting online**

**Date: 20 October 2022 (Thursday)**

**Time: 11:00 - 12:30**

**Link:** <https://cityu.zoom.us/j/95553263239?pwd=YXlBNWNvL3Y2My9LbE5tYUxaUEdFUT09>  
**(Zoom Meeting ID: 926 5326 3239 Password: 763131)**

## **Abstract:**

Contingent Convertible Bonds (CoCo) is a hybrid debt that automatically converts to equity when the issuing bank reaches a pre-specified level of distress risk. It is regarded as an important instrument to fulfill regulatory capitals in the banking sector. We propose a new valuation approach for CoCo, starting from modeling the dynamics of the issuing bank's bad-debt ratio, an indicator of the issuer's solvency. We then establish a linkage between the bank's stock price and bank fundamentals in a jump-diffusion correlated framework, and derive the pricing formula that is analytically tractable for a wide variation of CoCos with different conversion schemes. The performance of the model is illustrated with a case study.

## **Biography:**

Li Chen is an assistant professor of finance at Lingnan College, Sun Yat-sen University. He conducts research in derivative pricing, energy economics and stochastic process. He obtained his Ph.D. in mathematical finance from Questrom School of Business, Boston University, and bachelor degree in finance from Hong Kong University of Science and Technology. His research work is forthcoming in Resources Policy and Energy Economics, among others.

**Your attendance is most welcome!**

