



CICLO DI SEMINARI

nell'ambito delle attività dell'area Matematica

dal 13 Novembre 2019 al 12 Febbraio 2020

dalle ore 12.30 alle ore 13.30

Sede universitaria via dei Caniana 2

Mercoledì 13 Novembre 2019, ore 12.30-13.30, aula 23

Titolo del seminario: ***Parametric and non-parametric stochastic dominance: theory and tests***

Interviene: prof. Sergio Ortobelli

Mercoledì 04 Dicembre 2019, ore 12.30-13.30, aula 23

Titolo del seminario: ***Tail Risks in Vast Portfolio Selection: a Comparison of Penalized Quantile versus Expectile Models***

Interviene: prof. Rosella Giacometti

Mercoledì 18 Dicembre 2019, ore 12.30-13.30, aula 23

Titolo del seminario: ***On the origins of systemic risk. Economic shocks and contagion in the euro area banking sector***

Interviene: dott. Gabriele Torri

Abstract: Systemic risk in the banking sector, measured the probability to have a large number of banks going into distress simultaneously, is usually associated with long periods of economic downturns and very large social costs. On one hand, shocks coming from common exposures towards the real economy may induce correlation in banks' default probabilities thereby increasing the likelihood for systemic events. On the other hand, financial contagion and market failures may also play an important role in generating large-scale market failures. We propose a microstructural model calibrated on a new granular datasets able to disentangle the different sources of systemic risk and identify its main drivers for the euro area banking system. Our results show that common exposures to the real economy represent a source of risk for individual bank distress but less so for systemic events. Systemic events, in turn, are possible due to the interaction between common economic shocks, weakening banks' balance sheets, and financial contagion channels. The results obtained with the simulation engine nicely resemble common market-based systemic risk indicators.

Mercoledì 08 Gennaio 2020, ore 12.30-13.30, aula 13

Titolo del seminario: ***Pension fund ALM with multivariate second order stochastic dominance constraints***

Interviene: dott. Sebastiano Vitali

Abstract: This presentation shows an Asset & Liability Management model for pension fund through a stochastic optimization approach. In this framework, (i) we compare alternative types of multivariate stochastic dominance that, in a multistage setting, appear more suitable than the univariate formulation, (ii) we propose how to measure the economic cost of introducing stochastic dominance constraints, and (iii) we introduce a sort of augmented stochastic dominance through a safety margin. Numerical results show the difference between the alternative ways to interpret and apply the multivariate stochastic dominance. These results are evaluated thanks to the proposed economic cost of the stochastic dominance constraints and either in presence or not of a safety margin.



UNIVERSITÀ
DEGLI STUDI
DI BERGAMO

Dipartimento
di Scienze Aziendali,
Economiche e Metodi Quantitativi

Giovedì 23 Gennaio 2020, ore 13.30-14.30, aula 23

Titolo del seminario: ***Multistage robust convex optimization problems: A sampling based approach***

Interviene: prof. Francesca Maggioni

Abstract: In this talk, we consider multistage robust convex optimization problems of the minimax type. We approximate the given robust problem by a sampled subproblem, where instead of looking for the worst case among the in finite and typically uncountable set of uncertain parameters, we consider only the worst case among a randomly selected subset of parameters. By adopting such a strategy, two main questions arise: (1) Can we quantify the error committed by the random approximation, especially as a function of the sample size? (2) If the sample size tends to infinity, does the optimal value converge to the "true" optimal value? Both questions will be answered in this talk. An explicit bound on the probability of violation is given and chain of lower bounds on the original multistage robust optimization problem provided. Numerical results dealing with a multistage inventory management problem show the efficiency of the proposed approach.

Mercoledì 12 Febbraio 2020, ore 12.30-13.30, aula 13

Titolo del seminario: ***Pension fund asset-liability management: methodological developments and modeling issues***

Interviene: prof. Giorgio Consigli

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