Thematic Course
PhD in "Scienze Economiche e Statistiche"
SEAS Department
University of Palermo

Academic Year	2022-2023
Subject	Measuring Firms Resilience. A Survival Analysis Approach
Instructor	Martina Aronica
Course description	Over the last decades the world has experienced several shocks, e.g., economic, pandemic and natural, at both global and local level. This has stressed the resilient capacities of firms, especially micro and small-sized ones, inducing them to quickly adapt to change and, in the meantime, governments to plan extraordinary actions to sustain business liquidity. In this framework, survival analysis models may help in gaining insights on the characteristics of firm resilience to different shocks. The course aims to introduce theoretically the survival Cox proportional hazard model together with an empirical investigation of the survival of Italian businesses during the coronavirus pandemic.
Learning Objectives	Students completing this course should be able to: • Learn the key concepts about firm resilience; • Discuss the relevant literature on the topic; • Build a survival analysis setting; • Apply and interpret Cox proportional hazard model.
Suggested readings	• Cox, D. R., Oakes, D. (1984). *Analysis of Survival Data. New York: Chapman & Hall.* ISBN 978-0412244902. • Therneau, T. M.; Grambsch, P. M. (2000). *Modeling Survival Data: Extending the Cox Model. New York: Springer.* ISBN 978-0387987842. • Aronica, M., Belitski, M., Piacentino, D. (2022) Does Digital Transformation and Government Financial Aid Help Smaller Entrepreneurial Firms during the COVID-19 Pandemic?, Working Paper. • Survival Analysis Reference Manual. Stata Press, 2021, ISBN 9781597183499
Course Activity	6h
Credits	2
Assessment Method	A written report on an empirical application on real dataset as agreed with the instructor.
Teaching Methods	Theoretical lectures and practical classes using STATA.
Calendar	February/April 2023
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