AMEDEO ANDRIOLLO

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EDUCATION

University of Warwick
P.h.D. in Economics   *Exp. 2025*
Advisors: Eric Renault (1st), Cesare Robotti (2nd), Giovanni Ricco
M.Res. in Economics (Distinction)   *Sep. 2021*

University of Bologna   *Dec. 2018*
M.S. in Economics (110/110 *Cum Laude*)
University of Padua   *Oct. 2016*
B.S. in Economics and Management

FIELDS

Primary: Econometric Theory, Time Series.
Secondary: Empirical Asset Pricing, Macroeconomics.

RESEARCH PAPERS

Causality versus Serial Correlation: an Asymmetric Portmanteau Test. 2024. (**Job Market Paper**)

I study the problem of testing for noncausality in mean (one-sided conditional mean independence) between two multivariate time series within the class of testing procedures based on serial cross-correlation. Existing tests in this class either require parametrization of the joint process or are characterized under the null hypothesis of mutual independence. As a result, these tests may suffer from size distortions when misspecifying inverse causality, i.e., dependencies in the causal direction opposite to the one being tested. I propose a modified Portmanteau test statistic that incorporates a correction term to offset the influence of inverse causality, thereby eliminating the need to fully model the joint dynamics. I demonstrate that the proposed test statistic converges asymptotically to a standard normal distribution under the null hypothesis of noncausality in mean, resulting in correct asymptotic size. As an empirical application, I explore the statistical properties of my proposed test by studying three widely used measures of macroeconomic structural shocks, showing that the proposed test provides more reliable inference than the benchmark test.

Spurious and Unpriced Non-traded Factors in Financial Economics. 2024.
(with Cesare Robotti and Xinyi Zhang)

To explain the cross-section of asset returns, a zoo of economic factors that are not portfolio excess returns has been proposed. In contrast to traded factors, the non-traded factors tend to exhibit lower correlations with the asset returns. Standard inference on risk premium therefore tends to be more fragile, and the issue of weak identification might be exacerbated by the degree of model misspecification. Yet, robust inference has often been overlooked by many empirical studies, while limited efforts have been devoted to domesticating such factors. After re-evaluating the non-traded factor zoo, we find that the vast majority of the original model specifications published in top academic journals suffer from the aforementioned fragilities. Robust inference indicates that most of the proposed non-traded factors are unpriced in the commonly used portfolios. The findings are more drastic when considering multiple hypothesis testing adjustments, or when incorporating the market factor as an additional control. However, when summarizing the non-traded factors via PCA, we find that the zoo does carry some non-zero pricing information.

On the Statistical Properties of Tests of Parameter Restrictions in Beta-pricing Models with a Large Number of Assets. 2023.
(with Cesare Robotti and Giulio Rossetti)

We study the size and power properties of t-tests of parameter restrictions for newly- designed methods that aim at reliably estimating risk premia in linear asset pricing models when the cross-sectional dimension is large. By simulating a variety of empirically calibrated data generating processes for sample sizes that are typically encountered in empirical work, we evaluate the finite-sample performance of the test statistics for scenarios where the factor structure is (i) strong and pervasive; (ii) spurious; (iii) weak/semi-strong and pervasive; (iv) weak/semi-strong and not pervasive; and (v) sparse. PCA-based methods such as those of Lettau and Pelger (2020), Giglio and Xiu (2021), and Giglio et al. (2022) work best when the factors are strong and pervasive, and they continue to exhibit good finite-sample properties when the factors are spurious. However, when the factor structure is semi-strong and pervasive, the split-sample estimator of Anatolyev and Mikusheva (2021) performs substantially better than the PCA-based estimators listed above. In the case of sparse loadings or when the factors are semi-strong and not pervasive, none of the candidate methods displays satisfactory finite-sample properties.

RESEARCH IN PROGRESS

Social Interactions under Cluster Dependence
(with Luis E. Candelaria)

The Impulse Responses Zoo Tamed by Local Projections
(with Eric Renault)

TEACHING EXPERIENCE

University of Warwick, Dep. of Economics *Sep. 2019 - Present*

· Graduate level (MRes in Economics):

– EC9A3: Advanced Econometric Theory,
taught by Eric Renault and Luis Candelaria: *Oct.-Nov. 2021, Feb.-Mar. 2022, Jan.-Feb. 2023, Jan.-Feb. 2024.*

· Undergraduate level:

– EC226: Econometrics 1,
taught by Jeremy Smith and Kenichi Nagasawa: *Oct. 2021-Apr. 2022.*

– EC204/EC239: Economics 2,
taught by Jennifer Smith: *Jan. 2021-Apr. 2021.*

– EC201: Macroeconomics 2,
taught by Roberto Pancrazi: *Oct. 2020-Jan. 2021.*

Queen Mary University of London, Dep. of Economics *Mar.-Jul. 2022*

· Graduate level: Economics of Inequality
(Professional Masters-EMAP), taught by Sang Yoon Lee.

University of Bologna, Dep. of Economics *Sep.-Oct. 2018*

· Graduate level: Macroeconomics 3 (now: Advanced Macroeconomics)
(M.S. in Economics-LMEC), taught by Laura Bottazzi.

PROFESSIONAL ACTIVITIES

Referee service:

Management Science, Econometric Theory.

Presentations:

· 2024: SoFiE Annual Conference (Rio de Janeiro)
· 2023: SoFiE Annual Conference (Seoul), Lancaster-Manchester PhD Workshop on Financial Econometrics* (Lancaster), Warwick-Turing Economics Data Science Workshop (Coventry);
· 2021: Barcelona GSE Summer Forum: Advances in Structural Shocks* (Online).
  *: presented by co-author(s)

Research Assistant:

University of Zurich (Dep. of Economics)   *Jan.-Aug. 2019*

· Research Assistant to David Hémous
  Project: Induced Automation Innovation: Evidence from firm-level Patent Data.

University of Bologna (Dep. of Economics)   *May-Sep. 2018*

· Research Assistant to Maria Bigoni
  Topics: Eliciting Beliefs on Parental Investment.

SCHOLARSHIPS AND AWARDS

University of Warwick (Dep. of Economics)   *Sep. 2021-present*
Teaching excellence award   *Mar. 2024*
Skeoch Scholarship

Society for Financial Econometrics (SoFiE)   *Jun. 2023*
Travel Scholarship

University of Warwick (Dep. of Economics)   *Sep. 2019-2021*
Departmental scholarship for MRes (maintenance & tuition fees)

REFERENCES

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