# SZABOLCS BLAZSEK

Address: Stetson-Hatcher School of Business, Mercer University, 1511-1565 College St, Macon, GA 31207, United States

E-mail: <u>blazsek s@mercer.edu</u>

Mercer University: https://business.mercer.edu/faculty-and-insights/faculty-directory/dr-szabolcs-blazsek/

Google Scholar: <a href="https://scholar.google.com.gt/citations?user=Ouyy8f4AAAAJ&hl=en">https://scholar.google.com.gt/citations?user=Ouyy8f4AAAAJ&hl=en</a>

 $Research Gate: \underline{https://www.researchgate.net/profile/Szabolcs\ Blazsek}$ 

LinkedIn: https://www.linkedin.com/in/szabolcs-blazsek-65727160/

IDEAS/RePEc: <a href="https://ideas.repec.org/e/pbl111.html">https://ideas.repec.org/e/pbl111.html</a>

## **EDUCATION**

- 2001 2007 **Ph.D. in Economics, University Carlos III of Madrid**, Madrid, Spain. Thesis: "Economic Applications of Conditional Intensity Models". Advisors: Alvaro Escribano and Mikel Tapia.
- 1995 2001 M.Sc. in Business Administration (Major in Finance, Minor in Company Valuation), Corvinus University, Budapest, Hungary. Thesis: "Politics, Disasters, and House Prices; 1630-1994". Advisors: Lajos Zelko.

#### ACADEMIC POSITIONS

- 2024 present Chair, Department of Economics, Business Analytics, and Supply Chain Management, Stetson-Hatcher School of Business, Mercer University, United States
- 2023 present Professor of Economics, Stetson-Hatcher School of Business, Mercer University, United States
- 2012 2023 Professor of Economics, School of Business, Francisco Marroquin University, Guatemala and Panama
- 2007 2012 **Associate Professor**, Department of Business Administration, **University of Navarra**, Spain
- 2008 2012 Director, Finance Major, Faculty of Economics and Business, University of Navarra, Spain.
- 2001 2007 Assistant Professor, Department of Business Administration, University Carlos III of Madrid, Spain

## **VISITING POSITIONS**

- 2024 Invited Professor, Universidad de San Carlos de Guatemala, Guatemala City, Guatemala
- 2022 2023 Visiting Associate Professor, Stetson-Hatcher School of Business, Mercer University, United States
- 2022 **Visiting Professor**, Universidad de Occidente, Quetzaltenango, Guatemala
- 2010 Researcher, Research Department, Central Bank of Hungary, Budapest, Hungary
- 2005 Researcher, Laboratory of Microeconometrics, CREST-INSEE, Paris, France. Supervised by Thierry Kamionka.
- 2004 2005 **Researcher**, Laboratory of Finance and Insurance, **CREST-INSEE**, Paris, France. Supervised by Christian Gourieroux.
- 2003 **Researcher**, **GREQAM**, University of Aix-Marseille, Marseille, France. Supervised by Luc Bauwens.
- 1999 Research Assistant, Department of Finance, Maastricht University, Netherlands. Supervised by Piet Eichholtz.

## SELECTED PUBLICATIONS

- Blazsek, S., and Escribano, A. (2010) Knowledge spillovers in U.S. patents: a dynamic patent intensity model with secret common innovation factors. Journal of Econometrics. Research Prizes: Pompeu Fabra University and University of Navarra.
- Blazsek, S., and Escribano, A. (2016) Patent propensity, R&D and market competition: dynamic spillovers of innovation leaders and followers. Journal of Econometrics.

- Blazsek, S., Escribano, A., and Licht, A. (2022) Multivariate Markov-switching score-driven models: an application to the global crude oil market. Studies in Nonlinear Dynamics & Econometrics (SNDE). Best Paper in 2022 for SNDE.
- Blazsek, S., Dos Santos, W. M., and Edwards, A. S. (2024) Score-driven interactions for "Disease X" using COVID and non-COVID mortality. **Econometrics**. *Cover Story of the Issue of Econometrics*.

## **CURRENT RESEARCH WORK**

- Ayala, A., Blazsek, S., and Ruiz-Sanchez, M. (2024) What can Jackson Pollock tell us about the Art Market? Submitted
- Blazsek, S., Lynch, A., and Smith, R. A. (2024) Outlier-robust unit root tests for score-driven models: critical values and applications. Submitted
- Blazsek, S., Goirigolzarri, D., and Kamau, A. S. (2024) Score-driven credit risk clustering in Guatemala: An extension for unbalanced panels. Resubmitted
- Blazsek, S., and Hall, M. (2024) New score-driven scale and shape interactions: An application to international stock indices.
   Submitted
- Blazsek, S., and Drummond, J. (2024) Extrinsic mortality in the United States: Socioeconomic effects of the global pandemic.
   Submitted
- Blazsek, S., Kong, D., and Shadoff, S. R. (2024) Within-regime volatility dynamics for observable- and Markov-switching scoredriven models. Submitted
- Ayala, A., and Blazsek, S. (2024) Exogenous, observable, and endogenous switching models of industrial production in the United Kingdom. Submitted

#### **TEACHING**

## Mercer University:

- Business Quantitative Analysis (BA in Business and Economics) (2022, 2023, 2024, 2025)
- Research in Economics (BA in Business and Economics) (2022, 2023, 2024)
- Introduction to Econometrics (BA in Business and Economics) (2023, 2024, 2025)
- Statistics for Business Analysis (MS in Business Analytics) (2023, 2024, 2025)
- Advanced Business Statistics (MS in Business Analytics) (2023)

## Francisco Marroquin University:

- Financial Econometrics (graduate) (2023, 2022)
- Research Training Course (graduate) (2023, 2022, 2021, 2020, 2019, 2018, 2017)
- Financial Risk Management (MBA, MFIN) (2023, 2021)
- Forecasting Economic and Business Data (MBA) (2022)
- Solar Panels in Guatemala (BA in Business and Economics) (2022)
- Financial Econometrics II (MFIN) (2021, 2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011)
- Financial Derivatives (MFIN) (2021, 2020, 2019, 2018, 2017, 2016, 2015, 2014)
- Forecast Pro Training Course (MBA, MFIN) (2019)

- Quantitative Methods for Business (MBA) (2019, 2018)
- Econometrics II (BA in Business and Economics) (2018, 2015, 2014)
- Forecasting Techniques and Scenario Analysis (MBA) (2018, 2016, 2015, 2014)
- Forecast Pro (MBA) (2018, 2017, 2016, 2015, 2014)
- Forecasting Volatility and Expected Return (MFIN) (2018)
- Fixed Income Securities (MBA, MFIN) (2018)
- Risk Management with Futures and Forwards (MFIN) (2018, 2017)
- Financial Econometrics III (MFIN) (2017)
- Econometrics for Business and Finance (MBA) (2017, 2016, 2015)
- Prediction of Financial or Macroeconomic Data by Monte Carlo Simulation (MBA) (2017)
- Futures and Forwards (MFIN) (2017)
- Futures and Options (MFIN) (2017, 2016, 2013)
- Optimization of Financial Portfolios and Portfolio Management (MFIN) (2017, 2014, 2013, 2012, 2011)
- Value-at-Risk (VaR) (MFIN) (2017, 2013)
- Options (MFIN) (2016, 2015)
- GAUSS Mathematical and Statistical System Training Course (graduate) (2016)
- Econometrics I (BA in Business and Economics) (2015)
- MiKTeX Training Course (graduate) (2015)
- Mathematics, Statistics, and Econometrics Training Course (graduate) (2014, 2013, 2012)
- Statistics Training Course (graduate) (2013)
- Speculation and Risk Management with Financial Derivatives (MFIN) (2013)
- Volatility (MFIN) (2013)
- Cointegration-Based Optimization of Financial Portfolios (MBA, MFIN) (2013, 2012)
- A Practical Course on Option Pricing (MBA) (2012)

# University of Navarra:

- Financial Investments (BA in Business and Economics) (2012, 2011, 2010, 2009)
- Financial Derivatives (BA in Business and Economics) (2012)
- Financial Investments (MEF) (2011, 2010)
- Corporate Finance (BA in Business and Economics) (2010)
- Fundamentals of Finance (BA in Business and Economics) (2010, 2009)
- Accounting (BA in Business and Economics) (2009, 2008, 2007).

# University Carlos III of Madrid:

Financial Management (BA in Business and Economics) (2007, 2005, 2004)

- Financial Derivatives (BA in Business and Economics) (2005, 2004)
- Financial Risk Management (MFIN) (2005, 2004)
- Financial Markets (BA in Business and Economics) (2005, 2004)
- Accounting (BA in Business and Economics) (2003)
- Accounting Analysis (BA in Business and Economics) (2003)
- Management Accounting (BA in Business and Economics) (2002).

# **JOURNAL ARTICLES**

- (P55) Blazsek, S., Kong, D., and Shadoff, S. R. (2024) Observable or latent Markov chains for score-driven regime-switching volatility? **Applied Economics**. <a href="https://doi.org/10.1080/00036846.2024.2402094">https://doi.org/10.1080/00036846.2024.2402094</a>
- (P54) Blazsek, S., Dos Santos, W. M., and Edwards, A. S. (2024) Score-driven interactions for "Disease X" using COVID and non-COVID mortality. Econometrics 12 (3), 25. <a href="https://www.mdpi.com/2225-1146/12/3/25#">https://www.mdpi.com/2225-1146/12/3/25#</a>. Cover Story of the Issue.
- (P53) Blazsek, S., Thomas, Z. A., Marroquin, A., and Lambert, C. A. (2024) Score-driven latent-factor panel data models of economic freedom: An empirical application to the United States. Applied Economics.
   <a href="https://doi.org/10.1080/00036846.2024.2354515">https://doi.org/10.1080/00036846.2024.2354515</a>
- (P52) Blazsek, S., Escribano A., and Kristof, E. (2024) Global, Arctic, and Antarctic sea ice volume predictions using score-driven threshold climate models. **Energy Economics** 134: 107591. <a href="https://doi.org/10.1016/j.eneco.2024.107591">https://doi.org/10.1016/j.eneco.2024.107591</a>
- (P51) Blazsek, S., Jording, A., and Rai, S. (2024) Generalized autoregressive conditional betas: a new multivariate score-driven filter. Studies in Nonlinear Dynamics & Econometrics. <a href="https://doi.org/10.1515/snde-2023-0019">https://doi.org/10.1515/snde-2023-0019</a>
- (P50) Blazsek, S., Licht, A., Ayala, A., and Liu, S.-P. (2024) Core inflation rate for China and the ASEAN-10 countries: Smoothed signal for score-driven local level plus scale models. Studies in Nonlinear Dynamics & Econometrics.
   https://doi.org/10.1515/snde-2023-0042
- (P49) Ayala, A., Blazsek, S., and Licht, A. (2023) Volatility forecasting using quasi-score-driven models with an application to the coronavirus pandemic. **Studies in Nonlinear Dynamics & Econometrics**. <a href="https://doi.org/10.1515/snde-2022-0085">https://doi.org/10.1515/snde-2022-0085</a>
- (P48) Ayala, A., Blazsek, S., and Licht, A. (2023) Comparison of score-driven equity-gold portfolios during the COVID-19 pandemic using model confidence sets. Studies in Nonlinear Dynamics & Econometrics. <a href="https://doi.org/10.1515/snde-2022-0107">https://doi.org/10.1515/snde-2022-0107</a>
- (P47) Ferreira Cardia Haddad, M., Blazsek, S., Arestis, P., Fuerst, F., and Sheng, H. H. (2023) Two-component Beta-t-QVAR model: Volatility forecasting for the G20 stock markets. Financial Markets and Portfolio Management 37: 379–401.
   <a href="https://doi.org/10.1007/s11408-023-00431-4">https://doi.org/10.1007/s11408-023-00431-4</a>
- (P46) Ayala, A., Blazsek, S., and Licht, A. (2024) Score function scaling for QAR plus Beta-t-EGARCH: An empirical application to the S&P 500. Applied Economics 56 (31): 3684–3697. <a href="https://doi.org/10.1080/00036846.2023.2208335">https://doi.org/10.1080/00036846.2023.2208335</a>
- (P45) Blazsek, S., and Bowen, R. (2024) Score-driven cryptocurrency and equity portfolios. **Applied Economics** 56 (18): 2109–2128. https://doi.org/10.1080/00036846.2023.2182406

- (P44) Blazsek, S., and Escribano, A. (2023) Score-driven threshold ice-age models: Benchmark models for long-run climate forecasts. Energy Economics 118: 106522. <a href="https://doi.org/10.1016/j.eneco.2023.106522">https://doi.org/10.1016/j.eneco.2023.106522</a>
- (P43) Contreras Espinoza, S., Novoa-Muñoz, F., Blazsek, S., Vidal, P., and Caamaño-Carrillo, C. (2023) COVID-19 active case forecasts in Latin American countries using score-driven models. Mathematics 11 (1): 136.
   <a href="https://doi.org/10.3390/math11010136">https://doi.org/10.3390/math11010136</a>
- (P42) Blazsek, S., Escribano, A., and Licht, A. (2024) Non-Gaussian score-driven conditionally heteroskedastic models with a
  macroeconomic application. Macroeconomic Dynamics 28 (1): 32–50. https://doi.org/10.1017/S1365100522000712
- (P41) Ayala, A., Blazsek, S., and Escribano, A. (2023) Anticipating extreme losses using score-driven shape filters. Studies in Nonlinear Dynamics & Econometrics 27 (4): 449–484. <a href="https://doi.org/10.1515/snde-2021-0102">https://doi.org/10.1515/snde-2021-0102</a>
- (P40) Blazsek, S., and Ferreira Cardia Haddad, M. (2023) Score-driven multi-regime Markov-switching EGARCH: empirical evidence using the Meixner distribution. **Studies in Nonlinear Dynamics & Econometrics** 27 (4): 589–634. https://doi.org/10.1515/snde-2021-0101
- (P39) Blazsek, S., and Escribano, A. (2022) Robust estimation and forecasting of climate change using score-driven ice-age models.
   Econometrics (Special Issue: Econometric Analysis of Climate Change) 10 (1): 9.
   <a href="https://doi.org/10.3390/econometrics10010009">https://doi.org/10.3390/econometrics10010009</a>
- (P38) Blazsek, S., Escribano, A., and Licht, A. (2024) Score-driven location plus scale models: asymptotic theory and an application to forecasting Dow Jones volatility. Studies in Nonlinear Dynamics & Econometrics 28 (1): 61–82.
   <a href="https://doi.org/10.1515/snde-2021-0083">https://doi.org/10.1515/snde-2021-0083</a>
- (P37) Aycinena, D., Blazsek, S., Rentschler, L., and Sprenger, C. (2022) Intertemporal choice experiments and large-stakes behavior. Journal of Economic Behavior and Organization 196: 484–500. https://doi.org/10.1016/j.jebo.2022.02.011
- (P36) Blazsek, S., Blazsek, V., and Kobor, A. (2023) Conservatorship, quantitative easing, and mortgage spreads: a new multi-equation score-driven model of policy actions. **Studies in Nonlinear Dynamics & Econometrics** 27 (2): 237–264. http://doi.org/10.1515/snde-2021-0066
- (P35) Blazsek, S., Ayala, A., and Licht, A. (2024) Signal smoothing for score-driven models: a linear approach. Communications in Statistics, Part B—Simulation and Computation 53 (2): 829–852. <a href="https://doi.org/10.1080/03610918.2022.2032165">https://doi.org/10.1080/03610918.2022.2032165</a>
- (P34) Ayala, A., Blazsek, S., and Licht, A. (2022) Score-driven stochastic seasonality of the Russian rouble: an application case study for the period of 1999 to 2020. Empirical Economics 62: 2179–2203. https://doi.org/10.1007/s00181-021-02103-6
- (P33) Blazsek, S., Escribano, A., and Licht, A. (2023) Co-integration with score-driven models: an application to US real GDP growth, US inflation rate, and effective federal funds rate. **Macroeconomic Dynamics** 27 (1): 203–223. https://doi.org/10.1017/S1365100521000365
- (P32) Blazsek, S., Escribano, A., and Licht, A. (2022) Multivariate Markov-switching score-driven models: an application to the global crude oil market. **Studies in Nonlinear Dynamics & Econometrics** 26 (3): 313–335. <a href="https://doi.org/10.1515/snde-2020-0099">https://doi.org/10.1515/snde-2020-0099</a>. **Best Paper in 2022 for Studies in Nonlinear Dynamics & Econometrics**.
- (P31) Blazsek, S., and Licht, A. (2021) Prediction accuracy of volatility using the score-driven Meixner distribution: an application to the Dow Jones. **Applied Economics Letters** 29 (2): 111–117. <a href="https://doi.org/10.1080/13504851.2020.1859445">https://doi.org/10.1080/13504851.2020.1859445</a>

- (P30) Ayala, A., and Blazsek, S. (2021) Score-driven panel data models of the capital structure of US firms. **Applied Economics**Letters 28 (19): 1666–1670. <a href="https://doi.org/10.1080/13504851.2020.1845293">https://doi.org/10.1080/13504851.2020.1845293</a>
- (P29) Blazsek, S., Escribano, A., and Licht, A. (2021) Identification of seasonal effects in impulse responses using score-driven multivariate location models. **Journal of Econometric Methods** 10 (1): 53–66. <a href="https://doi.org/10.1515/jem-2020-0003">https://doi.org/10.1515/jem-2020-0003</a>
- (P28) Blazsek, S., and Licht, A. (2020) Dynamic conditional score models: a review of their applications. **Applied Economics** 52 (11): 1181–1199. <a href="https://doi.org/10.1080/00036846.2019.1659498">https://doi.org/10.1080/00036846.2019.1659498</a>
- (P27) Aycinena, D., Blazsek, S., Rentschler, L., and Sandoval, B. (2019) Smoothing, discounting and demand for intra-household control for recipients of conditional cash transfers. Journal of Applied Economics 22 (1): 218–241.
   <a href="https://doi.org/10.1080/15140326.2019.1596641">https://doi.org/10.1080/15140326.2019.1596641</a>.
- (P26) Ayala, A., and Blazsek, S. (2019) Score-driven models of stochastic seasonality in location and scale: An application case study of the Indian rupee to USD exchange rate. Applied Economics 51 (37): 4083–4103.
   <a href="https://doi.org/10.1080/00036846.2019.1588952">https://doi.org/10.1080/00036846.2019.1588952</a>
- (P25) Ayala, A., and Blazsek, S. (2019) Score-driven currency exchange rate seasonality as applied to the Guatemalan Quetzal/US Dollar. **SERIEs: Journal of the Spanish Economic Association** 10 (1): 65–92. <a href="https://doi.org/10.1007/s13209-018-0186-0">https://doi.org/10.1007/s13209-018-0186-0</a>
- (P24) Blazsek, S., and Licht, A. (2018) Robustness of score-driven location and scale models to extreme observations: an application to the Chinese stock market. **Financial Statistical Journal** 1 (2): 507–516. <a href="http://dx.doi.org/10.24294/fsj.v1i2.699">http://dx.doi.org/10.24294/fsj.v1i2.699</a>
- (P23) Blazsek, S., Ho, H.-C., and Liu, S.-P. (2018) Score-driven Markov-switching EGARCH models: an application to systematic risk analysis. **Applied Economics** 50 (56): 6047–6060. <a href="https://doi.org/10.1080/00036846.2018.1488073">https://doi.org/10.1080/00036846.2018.1488073</a>
- (P22) Ayala, A., and Blazsek, S. (2018) Score-driven copula models for portfolios of two risky assets. **The European Journal of Finance** 24 (18): 1861–1884. Paper: <a href="https://doi.org/10.1080/1351847X.2018.1464488">https://doi.org/10.1080/1351847X.2018.1464488</a>
- (P21) Ayala, A., and Blazsek, S. (2018) Equity market neutral hedge funds and the stock market: an application of score-driven copula models. Applied Economics 50 (37): 4005–4023. <a href="https://doi.org/10.1080/00036846.2018.1440062">https://doi.org/10.1080/00036846.2018.1440062</a>
- (P20) Blazsek, S., Carrizo, D., Eskildsen, R., and Gonzalez, H. (2018) Forecasting rate of return after extreme values when using
   AR-t-GARCH and QAR-Beta-t-EGARCH. Finance Research Letters 24: 193–198. <a href="https://doi.org/10.1016/j.frl.2017.09.006">https://doi.org/10.1016/j.frl.2017.09.006</a>
- (P19) Blazsek, S., and Hernandez, H. (2018) Analysis of electricity prices for Central American countries using dynamic conditional score models. **Empirical Economics** 55 (4): 1807–1848. <a href="http://dx.doi.org/10.1007/s00181-017-1341-3">http://dx.doi.org/10.1007/s00181-017-1341-3</a>
- (P18) Blazsek, S., and Monteros, L. A. (2017) Dynamic conditional score models of degrees of freedom: filtering with score-driven heavy tails. **Applied Economics** 49 (53): 5426–5440. <a href="http://dx.doi.org/10.1080/00036846.2017.1307935">http://dx.doi.org/10.1080/00036846.2017.1307935</a>
- (P17) Blazsek, S., and Ho, H.-C. (2017) Markov regime-switching Beta-t-EGARCH. Applied Economics 49 (47): 4793–4805.
   <a href="http://dx.doi.org/10.1080/00036846.2017.1293794">http://dx.doi.org/10.1080/00036846.2017.1293794</a>
- (P16) Blazsek, S., and Monteros, L. A. (2017) Event-study analysis by using dynamic conditional score models. **Applied Economics** 49 (45): 4530–4541. <a href="http://dx.doi.org/10.1080/00036846.2017.1284996">http://dx.doi.org/10.1080/00036846.2017.1284996</a>
- (P15) Blazsek, S., and Escribano, A. (2016) Score-driven dynamic patent count panel data models. **Economics Letters** 149 (C): 116–119. http://dx.doi.org/10.1016/j.econlet.2016.10.026

- (P14) Blazsek, S., Chavez, H., and Mendez, C. (2016) Model stability and forecast performance of Beta-t-EGARCH. **Applied Economics Letters** 23 (17): 1219–1223. <a href="http://dx.doi.org/10.1080/13504851.2016.1145343">http://dx.doi.org/10.1080/13504851.2016.1145343</a>
- (P13) Ayala, A., Blazsek, S., Cuñado, J., and Gil-Alana, L. A. (2016) Regime-switching purchasing power parity in Latin America:
   Monte Carlo unit root tests with dynamic conditional score. Applied Economics 48 (29): 2675–2696.

   <a href="http://dx.doi.org/10.1080/00036846.2015.1128076">http://dx.doi.org/10.1080/00036846.2015.1128076</a>
- (P12) Blazsek, S., and Escribano, A. (2016) Patent propensity, R&D and market competition: dynamic spillovers of innovation leaders and followers. Journal of Econometrics 191 (1): 145–163. <a href="http://dx.doi.org/10.1016/j.jeconom.2015.10.005">http://dx.doi.org/10.1016/j.jeconom.2015.10.005</a>
- (P11) Blazsek, S., and Mendoza, V. (2016) QARMA-Beta-t-EGARCH versus ARMA-GARCH: an application to S&P 500. Applied Economics 48 (12): 1119–1129. <a href="http://dx.doi.org/10.1080/00036846.2015.1093086">http://dx.doi.org/10.1080/00036846.2015.1093086</a>
- (P10) Blazsek, S., and Villatoro, M. (2015) Is Beta-*t*-EGARCH(1,1) superior to GARCH(1,1)? **Applied Economics** 47 (17): 1764–1774. http://dx.doi.org/10.1080/00036846.2014.1000536
- (P9) Ayala, A., and Blazsek, S. (2014) Fiscal sustainability of Eurozone governments: an empirical review of the past decade.

  Review of European Studies 6 (1): 143–150. <a href="http://dx.doi.org/10.5539/res.v6n1p143">http://dx.doi.org/10.5539/res.v6n1p143</a>
- (P8) Ayala, A., and Blazsek, S. (2014) Contagion of sovereign debt in the Eurozone. Theoretical Economics Letters 4 (1): 98–109. <a href="http://dx.doi.org/10.4236/tel.2014.41016">http://dx.doi.org/10.4236/tel.2014.41016</a>
- (P7) Mateo, R., Hernandez, J. R., Jaca, C., and Blazsek, S. (2013) Effects of tidy/messy work environment in human accuracy.

  Management Decision 51 (9): 1861–1877. <a href="http://dx.doi.org/10.1108/MD-02-2013-0084">http://dx.doi.org/10.1108/MD-02-2013-0084</a>
- (P6) Ayala, A., and Blazsek, S. (2013) Structural breaks in public finances in Central and Eastern European countries. Economic Systems 37 (1): 45–60. <a href="http://dx.doi.org/10.1016/j.ecosys.2012.06.004">http://dx.doi.org/10.1016/j.ecosys.2012.06.004</a>
- (P5) Blazsek, S., and Downarowicz, A. (2013) Forecasting hedge funds volatility: a Markov regime-switching approach. **The European Journal of Finance** 19 (3–4): 243–275. <a href="http://dx.doi.org/10.1080/1351847X.2011.653576">http://dx.doi.org/10.1080/1351847X.2011.653576</a>. Separate Appendix available from the corresponding author: sblazsek@ufm.edu (Szabolcs Blazsek).
- (P4) Ayari, N., Blazsek, S., and Mendi, P. (2012) Renewable energy innovations in Europe: a dynamic panel data approach.
   Applied Economics 44 (24): 3135–3147. <a href="http://dx.doi.org/10.1080/00036846.2011.570720">http://dx.doi.org/10.1080/00036846.2011.570720</a>
- (P3) Ayala, A., and Blazsek, S. (2012) How has the financial crisis affected the fiscal convergence of Central and Eastern Europe to the Eurozone? **Applied Economics Letters** 19 (5): 471–476. <a href="http://dx.doi.org/10.1080/13504851.2011.583212">http://dx.doi.org/10.1080/13504851.2011.583212</a>
- (P2) Vandenbussche, J., Blazsek, S., and Watt, S. (2012) The liquidity and liquidity distribution effects in emerging markets: evidence from Jordan. **Applied Financial Economics** 22 (3): 231–242. <a href="http://dx.doi.org/10.1080/09603107.2011.610740">http://dx.doi.org/10.1080/09603107.2011.610740</a>
- (P1) Blazsek, S., and Escribano, A. (2010) Knowledge spillovers in U.S. patents: a dynamic patent intensity model with secret common innovation factors. Journal of Econometrics 159 (1): 14–32. <a href="http://dx.doi.org/10.1016/j.jeconom.2010.04.004">http://dx.doi.org/10.1016/j.jeconom.2010.04.004</a>
   REI/Consolider Research Prize, Pompeu Fabra University, Spain. Research Prize, University of Navarra, Spain.

## **BOOKS, BOOK CHAPTERS**

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## CONFERENCES, WORKSHOPS, SEMINARS

Blazsek, S., and Hall, M. (2024) New score-driven scale and shape interactions: An application to international stock indices.
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- (P39) Robust estimation and forecasting of climate change using score-driven ice-age models (with A. Escribano), **Hungarian Economic Society Annual Conference, Budapest**, December 2021. <a href="https://www.mktudegy.hu/in-english/">https://www.mktudegy.hu/in-english/</a>
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  USD (with A. Ayala), Guatemalan Econometric Research Group Seminar, Francisco Marroquin University,
  Guatemala City, June 2018. <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P24) Robustness of score-driven location and scale models to extreme observations: an application to the Chinese stock market (with A. Licht), Guatemalan Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, June 2018. <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P28) Dynamic conditional score models: a review (with A. Licht), Guatemalan Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, May 2018. https://en.ufm.edu/
- (P29) Seasonal quasi-vector autoregressive models for macroeconomic data (with A. Licht, A. Escribano), Guatemalan
   Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, December 2017.
   <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P33) Score-driven non-linear multivariate dynamic location models (with A. Licht, A. Escribano), Guatemalan Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, November 2017. https://en.ufm.edu/

- (P23) Score-driven Markov-switching EGARCH models (with H.-C. Ho, S.-P. Lui), Guatemalan Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, September 2017. https://en.ufm.edu/
- (P25) New score-driven models for trimming and Winsorizing: an application for Guatemalan Quetzal to US Dollar (with A. Ayala), Guatemalan Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, September 2017. <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P21) Equity market neutral hedge funds and the stock market: an application of score-driven copula models (with A. Ayala),
   Guatemalan Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, August 2017.
   <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P18) Dynamic conditional score models of degrees of freedom: filtering with score-driven heavy tails (with L. A. Monteros),
   Guatemalan Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, July 2016.
   <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P19) Prediction of electricity prices for Central American countries using dynamic conditional score models (with H. Hernandez),
   Department of Statistics Research Seminar, University Carlos III of Madrid, Madrid, June 2016.
   <a href="https://www.uc3m.es/statistics-department/home">https://www.uc3m.es/statistics-department/home</a>
- (P15) Dynamic conditional score patent count panel data models (with A. Escribano), Workshop "New Strategies for Innovation", Department of Business Administration, University Carlos III of Madrid, Madrid, June 2016. <a href="https://business.uc3m.es/en/index">https://business.uc3m.es/en/index</a>
- (P22) Forecast performance of dynamic conditional score copula models (with A. Ayala), Guatemalan Econometric Research
   Group Seminar, Francisco Marroquin University, Guatemala City, June 2016. <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P19) Prediction of electricity prices for Central American countries using dynamic conditional score models (with H. Hernandez),
   Guatemalan Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, May 2016.
   <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P14) Model stability and forecast performance of Beta-t-EGARCH (with H. Chavez, C. Mendez), Guatemalan Econometric
   Research Group Seminar, Francisco Marroquin University, Guatemala City, April 2016. <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P15) Dynamic conditional score patent count panel data models (with A. Escribano), Guatemalan Econometric Research
   Group Seminar, Francisco Marroquin University, Guatemala City, February 2016. <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P13) Regime-switching purchasing power parity in Latin America: Monte Carlo unit root tests with dynamic conditional score (with A. Ayala), Guatemalan Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, January 2016. <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P11) QARMA-Beta-t-EGARCH versus ARMA-GARCH: an application to S&P 500 (with V. Mendoza), Hungarian Economic
   Society Annual Conference, Budapest, December 2015. <a href="https://www.mktudegy.hu/in-english/">https://www.mktudegy.hu/in-english/</a>
- (P17) Outlier-robust identification of switching regimes: an application to the S&P 500 (with H.-C. Ho), Guatemalan
   Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, November 2015.
   <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>

- (P27) Control of household finances, risk and discounting for recipients of conditional cash transfers (with D. Aycinena, L. Rentschler and B. Sandoval), 3rd Antigua Experimental Economics Workshop & Conference; Vernon Smith Center of Experimental Economics, Francisco Marroquin University, Antigua, Guatemala, February 2015.
   <a href="http://fce2.ufm.edu/antiguaworkshop/">http://fce2.ufm.edu/antiguaworkshop/</a>
- (P11) QARMA-Beta-t-EGARCH versus ARMA-GARCH: an application to S&P 500 (with V. Mendoza), **Research Seminar**, **Pannon University, Veszprem, Hungary**, January 2015. <a href="https://www.gtk.uni-pannon.hu/en/department-of-economics/">https://www.gtk.uni-pannon.hu/en/department-of-economics/</a>
- (P11) QARMA-Beta-t-EGARCH versus ARMA-GARCH (with V. Mendoza), Guatemalan Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, April 2015. <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P11) QARMA-Beta-t-EGARCH versus ARMA-GARCH: an application to S&P 500 (with V. Mendoza), **Guatemalan Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City,** November 2015.

  <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P10) Is Beta-t-EGARCH(1,1) superior to GARCH(1,1)? (with M. Villatoro), Hungarian Economic Society Annual Conference, Budapest, December 2014. <a href="https://www.mktudegy.hu/in-english/">https://www.mktudegy.hu/in-english/</a>
- (C2) Default risk of sovereign debt in Central America (with A. Ayala), Guatemalan Econometric Research Group Seminar,
   Francisco Marroquin University, Guatemala City, November 2014. <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P12) Propensity to patent, R&D and market competition: dynamic spillovers of innovation leaders and followers (with A. Escribano), Guatemalan Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, October 2014. <a href="https://en.ufm.edu/">https://en.ufm.edu/</a>
- (P6) Structural breaks in public finances in Central and Eastern European countries (with A. Ayala), Guatemalan Econometric Research Group Seminar, Francisco Marroquin University, Guatemala City, June 2014. https://en.ufm.edu/
- (P27) Time preferences and intra-household control: field experiments in Guatemala (with D. Aycinena and L. Rentschler), 2nd
   Antigua Experimental Economics Workshop & Conference, Vernon Smith Center of Experimental Economics,
   Francisco Marroquin University, Antigua, Guatemala, February 2014. <a href="http://fce2.ufm.edu/antiguaworkshop/">http://fce2.ufm.edu/antiguaworkshop/</a>
- Endogenous switching vector autoregression: stock market and economic growth dynamics in China (with A. Ayala and F. Perez de Gracia), Financial Forecasting, Oxford-Man Institute Society for Financial Econometrics (OMI-SoFiE) Financial Econometrics Summer School, University of Oxford, Oxford, July 2013. <a href="https://www.stern.nyu.edu/sofie-schools">https://www.stern.nyu.edu/sofie-schools</a>
- (P8) A dynamic latent-factor panel data model for public debt in the Eurozone (with A. Ayala), **Hungarian Economic Society Annual Conference, Budapest**, December 2011. <a href="https://www.mktudegy.hu/in-english/">https://www.mktudegy.hu/in-english/</a>
- (P8) A dynamic latent-factor panel data model for public debt in the Eurozone (with A. Ayala), Macro-Finance Workshop, University of Navarra, Pamplona, Spain, November 2011. <a href="https://en.unav.edu/web/school-of-economics-and-business">https://en.unav.edu/web/school-of-economics-and-business</a>
- (P4) Dynamic panel data models of renewable energy innovations (with N. Ayari and P. Mendi), Hungarian Economic Society
   Annual Conference, Budapest, December 2010. <a href="https://www.mktudegy.hu/in-english/">https://www.mktudegy.hu/in-english/</a>
- (P3), (P6), (P8), and (P9) Convergence of CEE countries to the Eurozone in the presence of structural change (with A. Ayala), Research Seminar, Central Bank of Hungary, Budapest, Hungary, August 2010. <a href="https://www.mnb.hu/web/en">https://www.mnb.hu/web/en</a>

- (P12) Innovations and market value of firms: differential effects of leaders and followers (with A. Escribano), Summer Workshop in Economics of the Hungarian Academy of Sciences, Budapest, July 2010.
   <a href="http://www.econ.core.hu/esemeny/nym\_hun.html">http://www.econ.core.hu/esemeny/nym\_hun.html</a>
- (P12) Innovations and market value of firms: differential effects of leaders and followers (with A. Escribano), Econometric Time
   Series European Research Network (ETSERN) Pamplona Meeting, Pamplona, Spain, June 2010.
- (P1) Knowledge spillovers in U.S. patents: a dynamic patent intensity model with secret common innovation factors (with A. Escribano), **Hungarian Economic Society Annual Conference**, **Budapest**, December 2009. <a href="https://www.mktudegy.hu/inenglish/">https://www.mktudegy.hu/inenglish/</a>
- (P4) Dynamic panel data models of renewable energy innovations (with N. Ayari and P. Mendi), XXXIV Symposium of the Spanish Economic Association, Valencia, Spain, December 2009.
   <a href="https://www.socialcapitalgateway.org/content/event/xxxiv-simposio-de-asociacion-espanola-de-economia">https://www.socialcapitalgateway.org/content/event/xxxiv-simposio-de-asociacion-espanola-de-economia</a>
- (P5) Regime switching models of hedge fund returns (with A. Downarowicz), Monetary Economics, Banking and Finance Conference, Orleans, France, June 2009. <a href="https://www.univ-orleans.fr/gdre09/">https://www.univ-orleans.fr/gdre09/</a>
- (P5) Regime switching models of hedge fund returns (with A. Downarowicz), Forecasting Financial Markets Conference,
   University of Luxembourg, Luxembourg, May 2009. <a href="https://www.ffmconference.com/history.php">https://www.ffmconference.com/history.php</a>
- Liquidity and volatility of electricity derivatives (with T. Kamionka), International Conference on Price, Liquidity and
  Credit Risks, Konstanz, Germany, October 2008. <a href="https://www.econbiz.de/events/event/international-conference-on-price-liquidity-and-credit-risks/10005874553">https://www.econbiz.de/events/event/international-conference-on-price-liquidity-and-credit-risks/10005874553</a>
- (P1) Knowledge spillovers in U.S. patents: a latent-factor intensity model (with A. Escribano), European Economic Association
   Econometric Society European Meeting (EEA-ESEM) Annual Congress, Budapest, August 2007.
   <a href="https://www.eeassoc.org/past-congresses">https://www.eeassoc.org/past-congresses</a>
- Liquidity and volatility of the electricity market: a multivariate latent-factor intensity model (with T. Kamionka), The Econometrics
  of Financial and Insurance Risk, EC-squared conference, Istanbul, Turkey, December 2005.
  <a href="https://sites.google.com/site/ecpower2/home-1">https://sites.google.com/site/ecpower2/home-1</a>
- Liquidity and volatility of the electricity market: a multivariate latent-factor intensity model (with T. Kamionka), Microstructure of Financial Markets in Europe (MICFINMA) Workshop, Madrid, University Carlos III of Madrid, March 2005. <a href="https://cordis.europa.eu/project/id/HPRN-CT-2002-00232">https://cordis.europa.eu/project/id/HPRN-CT-2002-00232</a>
- (P1) Dynamic latent-factor intensity models of knowledge spillovers (with A. Escribano), The Econometrics of the Industrial
  Organization, EC-squared conference, Marseille, France, December 2004.
  <a href="https://sites.google.com/site/ecpower2/home-1">https://sites.google.com/site/ecpower2/home-1</a>

## **BUSINESS EXPERIENCE**

2001 OTP Securities Investment Bank, Hungary (Equity Research, Broker License at Budapest Commodity Exchange)

2000 Philips, Lviv, Ukraine (Marketing Research)

1998 – 1999 Debenham Zadelhoff Real Estate, Budapest, Hungary (Customer Database Management)

#### PUBLICATIONS WITH STUDENTS

2024	Dejun Kong and Samantha R. Shadoff (BA, Mercer University) (P55)
2024	William M. Dos Santos and Andreco S. Edwards (BA, Mercer University) (P54)
2024	Zachary Thomas (BA, Mercer University) (P53)
2024	August Jording and Simran Rai (BA, Mercer University) (P51)
2023	Richard Bowen (MBA, Francisco Marroquin University) (P45)
2019	Betzy Sandoval (BA in Economics, Francisco Marroquin University) (P27)
2018 - 2023	Adrian Licht (PhD in Economics, Francisco Marroquin University)
	(P24, P28, P29, P31, P32, P33, P34, P35, P38, P42, P46, P48, P49, P50)
2018	Daniela Carrizo, Ricardo Eskildsen, and Humberto Gonzalez
	(Master of Finance, Francisco Marroquin University) (P20)
2018	Hector Hernandez (MBA, Francisco Marroquin University) (P19)
2017	Luis Antonio Monteros (MBA, Francisco Marroquin University) (P18, P16)
2016	Vicente Mendoza (BA in Economics, Francisco Marroquin University) (P11)
2015	Marco Villatoro (MBA, Francisco Marroquin University) (P10)
2013	Jose Roberto Hernandez (PhD in Government and Culture of Organizations, University of Navarra) (P7)
2012	Nadia Ayari (PhD in Business Administration and Management, University of Navarra) (P4).

## REVIEWING, EDITORIAL ACTIVITY

- Reviewer: Journal of Econometrics; Biometrika; Macroeconomic Dynamics; Empirical Economics; International Journal of Forecasting; Applied Economics; Applied Economics; Applied Economics; Applied Economics Pinance; Journal of Applied Economics; Economic Modelling; Studies in Nonlinear Dynamics & Econometrics; Energy Economics; Finance Research Letters; Quantitative Finance; SERIES: Journal of the Spanish Economic Association; Management Decision; Applied Economics and Finance; European Economic Review; PLOS ONE; Scientometrics; British Journal of Economics, Management & Trade; International Journal of Economics and Finance; International Journal of Financial Research; Journal of Contemporary Management; Review of European Studies; Review of Economics & Finance; Journal of Management Studies; Emerging Markets Finance and Trade; Resources, Conservation & Recycling; Journal of Finance and Economics; Open Journal of Economics and Commerce; Economics; Current Analysis on Economics and Finance; MethodsX; Sustainability; Mathematical Methods in Engineering; International Journal of Mathematics and Mathematical Sciences; Financial Statistical Journal; International Journal of Finance and Economics; Journal of Computational and Applied Mathematics; Economics and Business Letters; Symmetry; Hacettepe Journal of Mathematics and Statistics; Journal of Global Economics, Management and Business Research; Journal of Engineering and Technology Management; Journal of Behavioral and Experimental Finance; Academia Letters; PLOS Global Public Health; Journal of Probability and Statistics; Cogent Economics & Finance; Journal of Money, Credit, and Banking; BMC Psychology; Qeios; Evolutionary Intelligence; Econometrics; Risks; Heliyon.
- Associate Editor: Applied Economics and Finance, <a href="https://redfame.com/journal/index.php/aef">https://redfame.com/journal/index.php/aef</a>
- Associate Editor: Journal of New Finance, <a href="https://jnf.ufm.edu/journal/editorialboard.html">https://jnf.ufm.edu/journal/editorialboard.html</a>

- Editorial Board Member: International Journal of Financial Research, https://www.sciedu.ca/journal/index.php/ijfr/about/editorialTeam
- Editorial Board Member: Journal of Finance Research, <a href="https://ojs.s-p.sg/index.php/jfr/about/editorialTeam">https://ojs.s-p.sg/index.php/jfr/about/editorialTeam</a>
- Reviewer: International Journal of Economics and Finance, <a href="https://www.ccsenet.org/journal/index.php/ijef/editor">https://www.ccsenet.org/journal/index.php/ijef/editor</a>
- Reviewer of research grant applications: Czech Science Foundation
- Reviewer: BA in Business Administration, Major in Finance, thesis papers for Corvinus University, Budapest.
- Member of several master's thesis evaluation committees at the University of Navarra and Francisco Marroquin University.

## **ASSOCIATION MEMBERSHIPS**

- Hungarian Society of Economics (2009-present) (<a href="http://www.mktudegy.hu/">http://www.mktudegy.hu/</a>)
- Past memberships: Guatemalan Econometric Study Group, American Economic Association, Society of Financial Econometrics, and Royal Economic Society.

#### TRAINING COURSES

- "Macroeconomic Density Forecasting and Nowcasting". New York, October-November 2016, by: Andrea Carriero.
- "Time Series Analysis and Modelling". University of Cambridge, July 2015, by: Andrew Harvey.
- "Introduction to STATA". Francisco Marroquin University, Guatemala, June-July 2015, by: Diego Aycinena.
- "Dynamic Models for Volatility & Heavy Tails". Cass Business School, London, December 2014, by: Andrew Harvey.
- "2013 Summer School on Financial Econometrics". OMI-SoFiE Financial Econometrics Summer School, University of Oxford, July-August 2013, by: Allan Timmermann; Andrew Patton.
- "2013 Econometrics Summer School". University of Cambridge, July 2013, by: Andrew Harvey; Sean Holly; Melvyn Weeks.

## RESEARCH PROJECT POSITIONS, RESEARCH FUNDING

- (P53) Researcher. Financing organization: Center for the Study of Economics and Liberty, Stetson-Hatcher School of Business, Mercer University, United States. Investigation with a student at Mercer University: Zachary Thomas. Duration: January to May 2023.
- (P51) Researcher. Financing organization: Center for Engaged Learning (CEL), Mercer University. Investigation with students at the School of Business at Mercer University: Simran Rai and August Jording. Duration: January to May 2023.
- (P35), (P50) Researcher, "Spillover Effects of COVID-19 Pandemic in G20 Countries". Financing organization: **Wenzhou Kean University, China**. Duration: September 2022 to August 2024. Main researcher: Su-Ping Liu.
- (P10), (P11) Researcher, "The Last Financial Crisis: A Financial and Accounting Approach". Financing organization: University of Navarra, Spain. Duration: from September 2011 to September 2012. Main researcher: Silviu Glavan.
- (P7) Researcher, "Workplace Characteristics that Influence Employee Conscientiousness and the Continuous Improvement of Organizations". Financing organization: Volkswagen Navarra, Pamplona, Spain. Duration: from January 2011 to December 2013. Main researcher: Ricardo Mateo.
- (P3), (P6), (P8), (P9) Researcher, "Financial Risk and Investor Behavior". Financing organization: **University of Navarra, Spain**. Duration: from September 2007 to September 2010. Main researcher: German Lopez Espinosa.

• (B1), (P1), (P4), (P12), (P15) Researcher, "Microstructure of Financial Markets in Europe" (MICFINMA, contract: HPRN-CT-2002-00232). Financing organization: **European Commission, European Union**. Duration: from January 2002 to December 2006. Main researcher in Spain: Alvaro Escribano. The main coordinator of the research network was Winfried Polhmeier.

#### **RESEARCH PRIZES**

- Best Paper in 2022 for Studies in Nonlinear Dynamics & Econometrics. (P32) Blazsek, S., Escribano, A., and Licht, A. (2022) Multivariate Markov-switching score-driven models: an application to the global crude oil market. Studies in Nonlinear Dynamics & Econometrics 26 (3): 313–335. <a href="https://doi.org/10.1515/snde-2020-0099">https://doi.org/10.1515/snde-2020-0099</a>. See on the journal's website: <a href="https://www.degruyter.com/journal/key/snde/html">https://www.degruyter.com/journal/key/snde/html</a>
- Research Prize. School of Economics and Business Administration, University of Navarra, 2010. (P1) Blazsek, S., and Escribano, A. (2010) Knowledge spillovers in U.S. patents: a dynamic patent intensity model with secret common innovation factors. Journal of Econometrics 159 (1): 14–32. <a href="http://dx.doi.org/10.1016/j.jeconom.2010.04.004">http://dx.doi.org/10.1016/j.jeconom.2010.04.004</a>
- REI/Consolider Research Prize. CSD2006-00016 Mas-Colell, Pompeu Fabra University, 2011. (P1) Blazsek, S., and Escribano, A. (2010) Knowledge spillovers in U.S. patents: a dynamic patent intensity model with secret common innovation factors. Journal of Econometrics 159 (1): 14–32. <a href="http://dx.doi.org/10.1016/j.jeconom.2010.04.004">http://dx.doi.org/10.1016/j.jeconom.2010.04.004</a>

## **LANGUAGES**

Hungarian (native), English (fluent), Spanish (fluent), Russian (fluent).