

**Summary:**

This project aims to analyze both theoretical issues and applications in Financial Econometrics (Line A), and Banking and Financial Intermediation (Line B).

Line A. Financial Econometrics.

A1. We will obtain closed-form expressions of skewness and kurtosis under the well-known TGARCH model with asymmetric distributions. Given the previous results, we will test the unconditional skewness implied in these models for stock return series, ranking portfolios based on extensions of the Sharpe ratio containing the previous higher-order moments.

A2 Testing the specification of the error distribution in GARCH models under unknown parameters implied in the distribution of the error term.

Line B. Financial intermediation

B1. We analyze the determinants of the loan loss reserve (LLR) in the U.S. banking system. We theoretically show that the LLR is a self-insurance or operational hedge. This allows us to state several hypotheses linking LLR to local risk culture, adverse economic conditions and moral hazard and test their empirical suitability.

B2. Strategic behavior in the U.S. banking system as a consequence of regulatory changes affecting loan loss provisions. We analyze the existence of earnings management in the banking sector resulting from the implementation of the Current Expected Credit Loss Model (ASU 2016-13). We also address the effects of the CARES Act of March 2020, which exceptionally allowed banks to temporarily defer the implementation of the Current Expected Credit Loss Model as a consequence of the COVID-19 situation.

B3. Early indicators of financial distress. We propose a new accounting ratio that captures the mismatch between LLR and the size of the portfolio at risk. We analyze the predictive power of this ratio to anticipate future bank underperformance and other pervasive effects associated with low reserves. We also address the mechanisms of tail contagion between the system as a whole and banks grouped according to different values of this ratio.

B4. Determinants of success in Venture Capital investments in the Spanish market against a backdrop of high volatility, low