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REPRINT • 2024 / 01

How Do Investor's Expectations and Emotions Drive Financial Asset Prices in Times of Crises and Uncertainty: The Analysis of Experts' Opinions

Jean-François Boulier, Catherine D'Hondt, Fredj Jawadi, Georges Prat, Philippe Rozin, Richard Taffler

This paper analyses the main views of several experts (academics and professionals) who met at the 2nd IEAP (Investor's Emotions and Asset Price) meeting that was organized at the IAE Lille University School of Management on the 1st Februrary 2023. In particular, we analyze, first, the dynamics of financial asset prices as well as commodities prices during the last decade and we provide some projections about the future. Second, we discuss the role played by investors' emotions as well as sentiment in driving financial asset prices and the contribution of fundamental factors while distinguishing financial markets from commodities and cryptocurrencies. Third, we document the dynamics of financial asset prices in the context of uncertainty, geopolitical tensions, post-COVID-19 period and high inflation. Finally, we provide some suggestions about the further extension of usual financial asset price models to include behavioral factors (emotions, sentiment) as well as uncertainty.

REPRINT • 2024 / 02

Is There a Gender Gap in the Birthday-Number Effect? The Case of Lotto Players and the Role of Sequential Choice

Catherine D'Hondt, Patrick Roger, Arvid Hoffmann, Daria Plotkina

The literature on lottery gambling shows that players do not select numbers randomly, a phenomenon which is called conscious selection. Mainly, players prefer "small" numbers (less than thirty), either because of the existence of small lucky numbers or because they are victims of the so-called birthday-number effect. Because lotto games are parimutuel, such preferences result in poor ticket choices in terms of achieving below average returns. Using data from Belgium, where approximately 10% of the population plays lotto games every week, this paper extends prior literature by documenting the existence of a gender gap in the birthday-number effect, with women displaying a stronger birthday-number effect than men, as well as the non-persistence of the birthday-number effect (and consecutively of the gender gap) when participants are asked to fill in a second lotto ticket immediately after their first one. The disappearance of the birthday-number effect in sequential choices appears to be driven by response speed, with participants being twice as fast to fill in the second ticket compared to the first one. Moreover, we find that participants who bet on their birthday numbers take significantly more time to complete their ticket. Contrary to prior research, we find that the strength of the birthday-number effect is positively related to deliberative number choices, not intuitive and automatic number choices. Our results are robust to controlling for potential confounding effects including those related to

REPRINT • 2024 / 03

A Multicountry Model of the Term Structures of Interest Rates with a GVAR

Bertrand Candelon, Rubens Moura

Extant multicountry affine term structure models (ATSMs) handle global financial interdependence at the cost of increasing model dimensionality. To address this challenge, we propose a novel no-arbitrage ATSM with risk factor dynamics following a global vector-autoregressive (GVAR). Compared to referenced benchmarks, the GVAR-ATSM offers a more parsimonious representation, enables a faster estimation process, produces more precise model estimates, yields more plausible term premia dynamics, and improves bond yield out-of-sample forecasting. Furthermore, our empirical findings reveal the significant impact of China's economic stances on Latin American yield curve dynamics, underscoring its importance as a global economic player.

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REPRINT • 2024 / 04

What makes econometric ideas popular: The role of connectivity

Bertrand Candelon, Marc Joëts, Valérie Mignon

This paper aims to identify the factors contributing to the diffusion of ideas in econometrics by paying particular attention to connectivity in content and social networks. Considering a sample of 17,260 research papers in econometrics over the 1980-2020 period, we rely on Structural Topic Models to extract and categorize topics relevant to key domains in the discipline. Using a hurdle count model, we show that both content and social connectivity among the authors enhance the likelihood of non-zero citation counts and play a key role in shaping the diffusion of econometric ideas. We also find that high topic connectivity augmented by robust social connectivity among authors or authoring teams further enhances econometric ideas' diffusion success. Finally, our findings unveil an inverted U-shaped relationship between connectivity and the success of idea diffusion; the latter initially escalates but starts to wane upon reaching a certain threshold.

REPRINT • 2024 / 05

Asymmetric short-rate model without lower bound

Frédéric Vrins, Linqi Wang

We propose a new short-rate process which appropriately captures the salient features of the negative interest rate environment. The model combines the advantages of the Vasicek and Cox–Ingersoll–Ross (CIR) dynamics: it is flexible, tractable and displays positive skewness without imposing a strict lower bound. In addition, a novel calibration procedure is introduced which focuses on minimizing the Jensen–Shannon (JS) divergence between the model- and market-implied forward rate densities rather than focusing on the minimization of price or volatility discrepancies. A thorough empirical analysis based on cap market quotes shows that our model displays superior performance compared to the Vasicek and CIR models regardless of the calibration method. Our proposed calibration procedure based on the JS divergence better captures the entire forward rate distribution compared to competing approaches while maintaining a good fit in terms of pricing and implied volatility errors.

REPRINT • 2024 / 06

Message in a bottle: Forecasting wine prices

Bernardina Algieri, Leonardo Iania, Arturo Leccadito, Giulia Meloni

Can we predict fine wine and alcohol prices? Yes, but it depends on the forecasting horizon. We make this point by considering the Liv-ex Fine Wine 100 and 50 Indices, the retail and wholesale alcohol prices in the United States for the period going from January 1992 to March 2022. We use rich and diverse datasets of economic, survey, and financial variables as potential price drivers and adopt several combination/dimension reduction techniques to extract the most relevant determinants. We build a comprehensive set of models and compare forecast performances across different selling levels and alcohol categories. We show that it is possible to predict fine wine prices for the 2-year horizon and retail/wholesale alcohol prices at horizons ranging from 1 month to 2 years. Our findings stress the importance of including consumer survey data and macroeconomic factors, such as international economic factors and developed markets equity risk factors, to enhance the precision of predictions of retail/wholesale (fine wine) prices.

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REPRINT • 2024 / 07

Looking ahead: Forecasting total energy carbon dioxide emissions

Bernardina Algieri, Leonardo Iania, Arturo Leccadito

In recent years, the international community has been increasing its efforts to reduce the human footprint on air pollution and global warming. Total carbon dioxide (CO_2) releases are a crucial component of global greenhouse gas emissions, and as such, they are closely monitored at the national and supranational levels. This study presents different models to forecast energy CO_2 emissions for the US in the period 1972–2021, using quarterly observations. In an in-sample and out-of-sample analysis, the study assesses the accuracy of thirteen forecasting models (and their combinations), considering an extensive set of potential predictors (more than 260) that include macroeconomic, nature-related factors and different survey data and compares them to traditional benchmarks. To reduce the high-dimensionality of the potential predictors, the study uses a new class of factor models in addition to the classical principal component analysis. The results show that economic variables, market sentiment and nature-related indicators, especially drought and Antarctic wind indicators, help forecast short/medium-term CO_2 emissions. In addition, some combinations of models tend to improve out-of-sample predictions.

REPRINT • 2024 / 08

The Impact of Uncertainty in Macroeconomic Variables on Stock Returns in the USA

Leonardo Iania, Robbe Collage, Michiel Vereycken

In this research paper, the impact of macroeconomic uncertainty on stock returns in the United States of America is examined. To measure this macroeconomic uncertainty, a survey of Consensus Economics with data ranging from 1989 until 2019 was employed. The survey consists of monthly forecasts for several macroeconomic variables for multiple countries. Four uncertainty measures were developed, based on the standard deviation, interquartile range, high-minus-low and an AR- and GARCH model. By performing linear regressions, a positive relationship between macroeconomic uncertainty and stock returns was identified for, on average, 13 out of 49 sectors, which is consistent with economic theory. Furthermore, the standard deviation of stock returns was regressed on macroeconomic uncertainty. A positive relationship was found for, on average, 41.7 out of 49 sectors. The results are discussed at a general level, at the level of the macroeconomic variables and at the sector level.

REPRINT • 2024 / 09

Measuring speculation beyond day trading and bets on lottery-like stocks

Werner De Bondt, Rudy De Winne, Catherine D'Hondt

We offer a new metric of stock market speculative intensity: the proportion of share purchases that are swiftly reversed, i.e., sold within a short time window. An example of this metric is a 14-day trading horizon. We use it to identify retail traders who aim for quick profits. Based on a vast set of trading accounts in Belgium (2003-2012), we observe that the scale of quick round-trip trading is far above what would be seen with a single focus on day trading. Simply put, amateur speculation is not limited to day traders. Measuring speculative trading through quick round-trip transactions delivers a variety of insights. Amateur speculators are more likely to be male, younger, with lower sophistication and lower levels of wealth. They hold concentrated portfolios and focus their efforts on only a few stocks at a time. They earn low returns, and they are prone to the disposition effect. They are liable to bet on lottery-like stocks, and their passion for trading is persistent.

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REPRINT • 2024 / 10

Gender vs. personality: The role of masculinity in explaining cognitive style

Daria Plotkina, Arvid O.I. Hoffmann, Patrick Roger, Catherine D'Hondt

Cognitive style (reflective vs. intuitive) as measured with cognitive reflection tests (CRTs) is an important driver of financial decision-making and the rationality of individual behavior. Prior studies explain CRT score differences by gender, stipulating that women are more intuitive and less reflective than men. Recent work, however, raises doubts about such gender differences, suggesting that CRT score differences stem from gender-related role and personality instead. Accordingly, using survey data from 504 Belgian respondents, we examine which of these two individual difference factors better explains CRT scores. The results indicate that, on average, women indeed have a lower reflective cognitive style and a higher intuitive cognitive style. However, this effect is not only explained by gender per se, but also by self-perceived gender role and personality, that is, perceived masculinity. Indeed, perceived masculinity moderates the effect of gender, so that masculine females have higher reflective and lower intuitive CRT scores.

REPRINT • 2024 / 11

Optimal Portfolio Choice with Fat Tails and Parameter Uncertainty

Raymond Kan, Nathan Lassance

Existing portfolio combination rules that optimize the out-of-sample performance under parameter uncertainty assume multivariate normally distributed returns. However, we show that this assumption is not innocuous because fat tails in returns lead to poorer out-of-sample performance of the sample mean-variance and sample global minimum-variance portfolios relative to normality. Consequently, when returns are fat-tailed, portfolio combination rules should allocate less to the sample mean-variance and sample global minimum-variance portfolios, and more to the risk-free asset, than the normality assumption prescribes. Empirical evidence shows that accounting for fat tails in the construction of optimal portfolio combination rules significantly improves their out-of-sample performance.

REPRINT • 2024 / 12

Evaluating Inflation Forecasts in the Euro Area and the Role of the ECB

Bertrand Candelon, Francesco Roccazzella

This paper evaluates the informative value of the ECB inflation forecasts vis-à-vis other institutional and model-based forecasts in the euro area using ex post optimal combinations of forecasts and nonnegative weights. From a methodological perspective, we adapt the corresponding forecast encompassing test to the constrained parameter space, showcasing its superior performance over traditional encompassing tests in both size and power properties. Empirically, the combining weights and the forecast encompassing test reveal that the ECB was the most informative forecaster of euro area inflation over the 2009–2021 period. This changed in 2022: The ECB lost its position as the most informative forecaster, and when using rolling windows to estimate the combining weights using a rolling window, we find an important decline in the ECB's weight over time. This time dependency can be associated with the economic environment and, in particular, the level of uncertainty, the monetary policy, and the macro-financial conditions in which the ECB operates.

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Financial knowledge acquisition and trading behavior: empirical evidence from an online information tool

Anthony Bellofatto, Marie-Hélène Broihanne, Catherine D'Hondt

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Using the advent of the MiFID regulation in Europe, we conduct a robust quasi-natural experiment in a large sample of retail investors to analyze how some of them changed their trading behavior after being granted access to an online information tool. Focusing on investors who asked for the information tool, we find that subjective financial literacy and education are both positively related to financial knowledge acquisition, as suggested in Lusardi et al. (2017)'s model. Using propensity score matched difference-in-differences regressions, we show that financial knowledge acquisition has mixed effects on trading behavior: better portfolio diversification but higher trading intensity and lower net returns. Our empirical evidence indicates financial knowledge acquisition being complementary to financial literacy (instead of a substitute). It also reveals that the investment profile does matter to explain heterogeneity in behavior across investors.

Business cycle and realized losses in the consumer credit industry

Walter Distaso, Francesco Roccazzella, Frédéric Vrins

We investigate the determinants of losses given default (LGD) in consumer credit. Utilizing a unique dataset encompassing over 6 million observations of Italian consumer credit over a long time span, we find that macroeconomic and social (MS) variables significantly enhance the forecasting performance at both individual and portfolio levels, improving R2 by up to 10 percentage points. Our findings are robust across various model specifications. Non-linear forecast combination schemes employing neural networks consistently rank among the top performers in terms of mean absolute error, RMSE, R2, and model confidence sets in every tested scenario. Notably, every model that belongs to the superior set systematically includes MS variables. The relationship between expected LGD and macro predictors, as revealed by accumulated local effects plots and Shapley values, supports the intuition that lower real activity, a rising cost-of-debt to GDP ratio, and heightened economic uncertainty are associated with higher LGD for consumer credit. Our results on the influence of MS variables complement and slightly differ from those of related papers. These discrepancies can be attributed to the comprehensive nature of our database – spanning broader dimensions in space, time, sectors, and types of consumer credit — the variety of models utilized, and the analyses conducted.

The Power of a Name: Exploring the Relationship Between ICO Name Fluency and Investor Decision Making

Feilian Xia, James Thewissen, Prabal Shrestha, Shuo Yan

This study examines the impact of the fluency of Initial Coin Offering (ICO) project names on fundraising and post-ICO performance. Analyzing 8,878 ICOs from July 2012 to July 2021, we find a robust and positive correlation between name fluency (e.g., projects with succinct and English-like names) and fundraising success. Moreover, we find that this relationship is heightened for ICOs with popular names and that it influences an ICO's performance over time by increasing listing likelihood, shortening the listing time, and prolonging survival. Overall, the results of this paper align with psychological insights suggesting that fluency in stimuli enhances familiarity and memorability, which therefore, enables investors to make heuristic-based decision amidst the informationally constrained ICO landscape.

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A sense of risk: Responses to crowdfunding risk disclosures

Prabal Shrestha, James Thewissen, Özgür Arslan-Ayaydin, Annaleena Parhankangas

This paper examines how reward-based crowdfunding backers respond to risk disclosures. Combining theoretical frameworks from financial accounting with the risk perception literature, we adopt an abductive research approach to explore various nuances that influence backers' tolerance for risk information. In addition to identifying the general dynamics in backers' risk interpretation, we highlight the complexities introduced by differences in the disclosure's semantic content, expressed feelings, and the discloser's background attributes. Relying on a hierarchical Bayesian mixture model, we first identify a positive curvilinear relationship between risk information quantity and crowdfunding success. We then demonstrate the influences of what is disclosed, how it is disclosed, and who discloses it, while emphasizing the context-bound specificities of individual project types.