KENSLEY BLAISE

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RESEARCH INTERESTS

Applied econometrics, Macro-Finance (Theory & Empirical), and Applied Machine Learning.

CURRENT AND PAST POSITIONS

Bank of England
2025 – Economist, Forecast Team
Central Bank of Haiti
2014–2017 – Economist, Macroeconomic Forecast Unit

EDUCATION

University of East Anglia (UEA)   Norwich, UK
Ph.D. in Economics   *2020 – 2025*

Dissertation title: Digital Currency Innoation and the Macroeconomy

University of East Anglia (UEA)   Norwich, UK
MSc. Economics with Distinction   *2017 – 2019*

State University of Haiti   Port-au-Prince, Haiti
Bsc. Economics (ranked first out of 400 students)   *2010 – 2014*

RESEARCH

1- Currency Competition and Monetary Non-neutrality. Submitted to the Journal of Economic Theory

We build a theoretical model where both fiat money and crypto-currencies are used as media of exchange for differentiated goods. Crypto-currencies offer pecuniary benefits, such as avoiding consumption taxes, and non-pecuniary benefits like transaction privacy, while non-users face utility losses that grow with available goods. We identify an endogenous threshold good where consumers are indifferent between government-backed money and privately-issued currency, leading to three equilibrium scenarios: all goods purchased with fiat money, all with crypto-currency, or a mix of both. Our model predicts that, while fiat money is neutral, crypto-currencies are non-neutral due to mining costs, which affect labor allocation.

2- A Continuous-time Theory of Currency Substitution. Submitted to the Journal of Economic Theory

We analyze the coexistence of cash (fiat money) and privately-issued currencies (crypto-currencies) in a dynamic model where all factors of production are paid in fiat money. This introduces a cash-in-advance constraint that affects both consumption and investment, leading to non-neutrality of money. Crypto-currencies add distortions through labor reallocation and transaction fees. Using flexible utility specifications, we explore the impact of substitutability between money and crypto-purchased goods. Our main result is that an increase in the money supply raises inflation and shifts labor allocation, affecting growth dynamics. While broader economic variables remain stable, real wages are highly sensitive to changes in consumer preferences and crypto-fees, underscoring the impact of private digital currencies on the economy's long-term trajectory.

3- A Direct Test of the Fundamental Assumption of Option Pricing Models

The most fundamental assumption underlying option pricing models is that the price of an option is equal to the discounted present value of the final payoff. In this paper, we test this assumption directly with data on market

prices of options combined with data on realized final payoffs. The data set contains around 1.5 million European options written on the S&P500 index, between January 2022 and December 2023, with expiry dates ranging from January 2022 to July 2025. Only "near-the-money" options are included in the sample. The framework for testing the hypothesis of interest is a heteroscedastic regression model with discounted actual payoff at expiry as the dependent variable, and market price of the option as the independent variable. The joint hypothesis under test is essentially that the intercept is zero and the slope is one. This hypothesis is tested both parametrically and non-parametrically. As well as being tested for the entire sample, it is tested separately for call options and put options. It is also tested separately for bull-market phases and bear-market phases. The fundamental assumption is always strongly rejected, usually with the intercept being different from zero but the slope not being different from one. We conclude that a useful way of judging the performance of an option pricing model is to compare computed option valuations to discounted final payoffs, rather than to market prices.

4- Volatility on the Crypto-currency Market: A Copula-GARCH Approach, *forthcoming in Springer Proceedings - World Finance Conference*

This study analyzes the relationship between crypto-currencies, proxied by a Bitcoin (BTC) and Ether (ETH) index, and key macroeconomic variables from April 2013 to May 2024. We focus on US term spread, Volatility Index (VIX), and 5-year breakeven inflation as predictors. Our findings reveal no significant dependence between returns and the term spread, suggesting investors do not consider policy paths or economic cycles when trading crypto-currencies. In contrast, extreme low VIX values are linked to high Crypto-currency Market (CM) volatility, with upper tail dependence estimated at 3.7% and 7.6% using Gumbel-Hougaard and Joe copulas, respectively. Our copula modeling exercise also shows a weak correlation of crypto-currency returns with breakeven inflation. Robustness checks, including a sub-sample analysis and variable transformation, confirm these results. We find that while crypto-currencies exhibit weak links to certain financial fundamentals, they respond differently to economic indicators compared to traditional assets, showing increased returns during restrictive monetary policies. The study highlights a need for further research integrating extreme events with dynamic time series analysis to better understand these relationships.

5- Eliciting Tax Evasion Through Customs Office Selection using Generative AI (Draft available upon request)
6- Innovation and Political Instability: Evidence from 20 Million Transactions from Haiti (Draft available upon request)

TEACHING

Central Bank of Haiti
2025: Artificial Intelligence for Central Bankers
School of Mathematics, Physics and Engineering (UEA)
2021 –2022: Advanced Forecasting Technique
2022– 2025: Advanced Macroeconomic Theory

GRANTS AND AWARDS

2025– USD 36000 to use generative AI and advanced analytics to study fraud detection using filing for over 20 million transactions and spanning 20 years for the Government of Haiti.

SEMINARS AND PRESENTATIONS

2022: University of Warwick, 2023: Barcelona Graduate School of Economics, 2024: University of Piraeus, and 2025: University of East Anglia (UEA).

PROGRAMMING & LANGUAGES

programming: Python, R, Matlab, Stata Github and LaTex.
Languages: French (native), Creole (native), English (fluent), and Spanish (good working knowledge).