

TALES PADILHA

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EDUCATION

University of Oxford, UK

Since 2017

PhD in Economics

-Supervisor: Prof Kevin Sheppard

-Fields: Financial Econometrics and Empirical International Finance

-Research Groups: Econometrics and Macroeconomics

-MPhil Field Modules: Advanced Econometrics and Advanced Macroeconomics

University of Warwick, UK

2014 - 2016

MSc in Economics, Distinction

-Overall Mark: 82

-Dissertation: Price Discovery or Noise? A study of the effects of high-frequency trading on equity market volatility.

Fundacao Getulio Vargas (FGV), Brazil

2011 - 2014

BBA

-Overall Mark: 88

-Dissertation: The Bovespa Frontier. An analysis of the Markowitz portfolio selection model applied to the Brazilian stock market.

AWARDS AND SCHOLARSHIPS

Graduate Teaching Assistantship

Since 2018

Department of Economics, University of Oxford

Chellgren Scholarship

Since 2017

University College, University of Oxford

Research Training Fund

2017 - 2018

University College, University of Oxford

Roll of Honour Award

2011 - 2014

Fundacao Getulio Vargas (FGV)

ACADEMIC EXPERIENCE

IE Business School

Since 2019

Researcher

-Researcher in the project "Crypto Currencies and the Future of Money".

Saïd Business School, University of Oxford

Since 2018

Class Teacher

-Teaching theory and MATLAB classes in Financial Econometrics to the MSc in Financial Economics.

Keble College, University of Oxford

Since 2018

Interviewer

-Co-interviewer in Economics for admissions to the undergraduate programme in Economics and Management.

INDUSTRY EXPERIENCE

Autonomy Capital

Jun 2019 - Sep 2019

Researcher

-Researcher developing studies in the global macro strategy team.

INDUSTRY EXPERIENCE (CONT.)

BTG Pactual

Dec 2016 - Jul 2017

Group Controlling Analyst

-Control BTG's foreign assets (investments, overseas subsidiaries, joint ventures, and branches) and hedge respective positions.

Opportunity Asset Management

Jan 2014 - Jul 2014

Risk Management Intern

-Liquidity risk analysis and pricing of stock funds, macro funds, and funds of funds.

RESEARCH IN PROGRESS

Mussa Strikes Back: What conditional second moments tell us about the PPP Puzzle.

Most of the discussion about the Purchasing Power Parity (PPP) Puzzle of [Rogoff \(1996\)](#) has pertained to the reversion speed of deviations from PPP. Much less attention, however, has been given to the other component of the puzzle: the high short-term volatilities of real exchange rates. This paper plans to improve the understanding of the PPP Puzzle in three ways. First, we explicitly model the short-term volatilities of real exchange rates in a univariate Generalized Autoregressive Conditional Heteroskedasticity (GARCH) framework. This allows one to better understand their dynamics. Particularly, one can see how stable these variances are over different periods and analyse the persistence of changes in them over time. Second, we are currently studying the conditional covariance matrix of the system with nominal exchange rates and price differentials in a multivariate GARCH model. This will allow to decompose the terms of short-run real exchange rate volatilities in a dynamic manner and hence to explicitly analyse spillovers from shocks in price differentials and nominal exchange rates to the adjustment (covariance) term. The final objective is to study the economic sources of these high short-term volatilities by using a number of macroeconomic and financial variables in a new class of volatility models that combines components from the Spline-GARCH of [Engle and Rangel \(2008\)](#) and the mixed data sampling filters of [Ghysels et al. \(2005\)](#).

Pairs Trading: An analysis of market volatility, idiosyncratic volatility and pairs trading returns.

Pairs Trading is commonly referred to as the most straightforward example of a market neutral trading strategy. In this study, we analyse how market news and idiosyncratic news affect the profitability of this statistical arbitrage trading technique. We propose a conditional covariance framework based on [Kroner and Ng \(1998\)](#) extension of the BEKK Generalized Autoregressive Conditional Heteroskedasticity (GARCH) model to analyse the dependence of second moments between different portfolios of pairs and the returns of the market. In contradiction to what is generally assumed about the market neutrality of this strategy, our preliminary results indicate the existence of significant spillovers from market news to different portfolios of pairs. In fact, market shocks seem to play a significant role in explaining conditional second moments of the returns of these portfolios, particularly in more turbulent periods. Not only do market shocks have a significant impact on the volatility of different portfolios, but they also appear to influence the correlation of this strategy with the market.

RESEARCH PAPERS

Price Discovery or Noise? A study of the effects of high-frequency trading on equity market volatility.

The objective of this paper is to study the relationship between high-frequency trading and volatility. Specifically, how high-frequency traders differ from other types of traders when both total and efficient components of volatility are considered. By using a vector autoregression (VAR) framework to model information in equity markets and a dataset that includes all trades for stocks traded on NASDAQ between the 22nd of February 2010 and the 26th of February 2010, this study concludes that high-frequency traders are, from a volatility perspective, more efficient than non-high-frequency traders. Although trades where high-frequency traders are the liquidity seeking side represent more than half the number of trades and the total volume, these trades are responsible for less than one third of the total volatility. More importantly, not only do high-frequency traders generate less than half the total volatility of the other types of traders, but they contribute ten times more than non-high-frequency traders to price discovery, that is, to efficient price volatility.

ADDITIONAL INFORMATION

Computer Skills: Python, MATLAB, Stata, L^AT_EX, and Microsoft Office
Languages: Portuguese (native), English (proficient), and Spanish (intermediate)
Citizenship: Brazilian and Italian