

# Thomas Chuffart

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🌐 www.thomaschuffart.fr

*Assistant Professor, Université de Franche-Comté, CRESE*

## Research Area

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### Econometrics *Theory and applications*

- o Time series analysis
- o Natural resources, risks, finance, Carry-trades
- o Regime Switching models

## Professional

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### Université de Franche-Comté

*Assistant Professor*

**Besançon**

2017– Now

### Université Lille 2 Droit et Santé

*Temporary Lecturer*

**Lille**

2016–2017

### Université Lille 3 Sciences humaines et sociales

*Temporary Lecturer*

**Lille**

2015–2016

## Education

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### Aix-Marseille Université

*PhD in Economics With highest honors.*

Supervised by Anne Péguin-Feissolle and Emmanuel Flachaire

Title: Specification issues in conditional volatility models

Members of the Jury: Prof M. Billio, Prof C. Hurlin, Prof S. Laurent, Prof J.M Zakoïan

**Marseille**

2012–2016

### Aix-Marseille Université

*Master, Major*

Econometrics and finance - Option: Econometrics

**Marseille**

2010–2012

### Université Lille 3 Sciences humaines et sociales

*Bachelor*

Mathematics and computer sciences applied in social sciences (Economics)

**Villeneuve d'Ascq**

2007–2010

### Université Lille 1

*DUT*

1st year in a technology institute (french diploma) - computer science / 1st semester validate

**Villeneuve d'Ascq**

2006–2007

## Publications, Work in progress and Projects

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### Publications.....

Chuffart, T. (2015). "Selection Criteria in Regime Switching Conditional Volatility Models". *Econometrics* 3.2, p. 289. ISSN: 2225-1146s.

Chuffart, T., Flachaire, E., and Peguin-Feissolle, A. (forthcoming). "Testing for misspecification in the short-run component of GARCH-type models". *Studies in Nonlinear Dynamics & Econometrics*.

### Toolbox.....

Chuffart, T. (2017). "An Implementation of Markov Switching GARCH Models in Matlab". *Available at SSRN*.

## Work in Progress and Projects.....

- Chuffart, T. and Hooper, E. (2017). "Could oil price collapse be one determinant of the next credit crisis?"
- Chuffart, T. and Sanhaji, B. (2017). "Misspecification tests in conditional covariances for large dimensions".
- Chuffart, T. and Dell'Eva, C. (2017). "Did carry trades hamper quantitative easing effectiveness in Japan?"

## Summary of unpublished works

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### **An investigation of oil prices impact on sovereign credit default swaps in Russia and Venezuela** *with Emma Hooper*

In this paper, we study the impact of oil price returns on sovereign Credit Default Swaps (CDS) spreads for two major oil producers, Russia and Venezuela. Using daily spreads from 2008 to 2015 through a Time Varying Transition Probabilities Markov Switching model, our results show that crude oil price is a critical determinant of CDS spreads. We highlight some differences between the two countries explained by their level of development. Moreover, global and local factors play a major role in the determination of the sovereign CDS spreads with some differences across both countries.

### **Misspecification test in conditional covariances for large dimensions** *with Bilel Sanhaji*

We propose Lagrange multiplier tests for nonlinearity in conditional covariances in multivariate GARCH models. The null hypothesis is the full BEKK model with variance targeting in which covolatilities of time series are driven by a linear function of their own lags and lagged squared innovations. The alternative hypothesis is an extension of the model in which covolatilities are modeled by a nonlinear function of the lagged squared innovations, represented by an exponential or a logistic transition function. Partial tests are also introduced in order to determine whether the relationship of time series or group of time series is linear or nonlinear. We investigate the size and power of these tests through Monte Carlo experiments, and we provide empirical illustrations in many of which cases these tests encourage the use of nonlinearity in conditional covariances.

### **Did carry trades hamper quantitative easing effectiveness in Japan?** *with Cyril Dell'Eva*

In this article, we study the impact of carry trades on the monetary policy effectiveness in Japan between March 1995 and September 2010 where the Japanese economy is stuck in a liquidity trap (Zero Lower Bound). To identify monetary policy shocks, we use an SVAR approach. Thus, our results rely only on the statistical properties of the data through a non-Gaussian identification. We show that carry trades have significantly mitigated the impact of the QE policy on the Japanese industrial production. The analysis of the IRF reveals that capital outflows enhanced by carry trades reduce the impact of the QE policy with some lags.

## Teaching Experience

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### **Université de Franche-Comté**

*Assiant professor in economics*

- o Introduction to Macroeconomics (1st and 2nd years)
- o Econometrics: times series, panel data (Master degree)

**Besançon**  
2017– now

### **Université Lille 2 Droit et Santé**

*Teaching assistant in economics*

- o Introduction to Macroeconomics (Bachelor 1st year)
- o Statistical methods (Bachelor, 3rd year)

**Lille**  
2016–2017

### **Université Lille 3 Sciences Humaines et Sociales**

*Teaching assistant in economics:*

- o Microeconomics: consumer and producer (Bachelor, all years)

**Lille**  
2015–2016

### **Aix-Marseille Université**

*Teaching assistant in econometrics and quantitative methods:*

- o Statistical methods (Bachelor 2nd year)
- o Econometrics: times series, panel data (Bachelor, 3rd year)

**Marseille**  
2012–2015

## Communications

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### International visiting




Centre Inter-univ. de Recherche en Économie Quantitative, Montréal Invited by the CIREQ	April – August 2015
Dipartimento di Economia Università Ca' Foscari di Venezia Invited by Monica Billio	January – March 2015

### Local seminars






CRESE internal seminar (January 2018)	Besançon 
INRA internal seminar (May 2017)	Rennes 
Ca'Foscari internal seminar (February 2015)	Venezia 
AMSE PhD seminar (January 2014)	Marseille 
AMSE PhD seminar (October 2012)	Marseille 

### International conferences



#### 2016

2016 Annual Meeting of the Association of Southern European Economic Theorists	Thessaloniki 
2016 Commodity Markets Conference	Hanover 
4th International Symposium in Computational Economics and Finance	Paris 

#### 2015

11th World Congress of the Econometric Society, <i>Organization helping</i>	Montréal 
2nd Conference of the International Association for Applied Econometrics	Thessaloniki 
55ème congrès annuel de la Société Canadienne de Sciences Économique	Montréal 
8th International Conference on Computational and Financial Econometrics	Pisa 
14ème Journées d'économétrie appliquées à la finance	Nanterre 

#### 2014

1st International Association for Applied Econometrics	London 
22nd Symposium of the Society for Nonlinear Dynamics and Econometrics	New-York 

#### 2013

13th OxMetrics User Conference	Aarhus 
18th International Conference on Computing in Economics and Finance	Vancouver 

### Summer school

Oxmetrics summer school, Aix-en-Provence	July 2014
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## Computational skills

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<b>Matlab:</b> Development of an unofficial toolbox	<b>Python:</b> Intermediate
<b>Econometric software:</b> R, GRET, STATA, SAS	<b>C,Java:</b> Beginner
<b>Website:</b> HTML, PHP, SQL, Wordpress, SPIP	

## Referee activity

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International Journal of Forecasting, International Economics, Pacific Economic Review