FARES TRIKI

French & Tunisian nationalities
Address: 424 Marston road
OX3 0JE Oxford UK

DOB: July 09th 1979
Mobile: +447833386789
Email: Fares@Triki.org

WORK EXPERIENCE

Banque de France - Paris

2009
5 months
Full Time

Macro Finance Expert

G20 London Summit of April 2009 preparation. Policy briefing on Macro Finance.
Review of macro-prudential regulation suggestions from financial regulators: Basel Committee, FSF, IMF, and Central Banks (as reducing the procyclicality of the economic capital and Value at Risk).

Fitch Rating - London

2007-2008
18 months
Full Time

Quantitative Research Analyst

This role was about the valuation and risk assessment of complex financial products, as well as the review of banks risk models and the suggestion of new models. This role involved cutting edge quantitative research and innovations in credit and market risk. It also led to the internal and external publication of research works and the participation in conferences.

"Fares has worked on projects I have been monitoring and occasionally managing directly. Fares has shown to be eclectic in being capable of excellent modelling work from several points of view, including statistical analysis, economics based reasoning, econometrics, pricing, mathematical derivation of formulas, numerical implementation of prototypes, data analysis, coding. Fares is self-confident and capable of setting and meeting his own deadlines compatibly with the projects at hand and with a minimum of management."

Prof. Damiano Brigo, Managing Director, Global Head of CDO Modeling at Fitch Ratings, Professor at Imperial College London's Department of Math, and author of *Interest Rate Models - Theory and Practice: With Smile, Inflation and Credit* (Springer Finance)

Bellow some of the projects:

- *Fixed Incomes fund portfolios rating criteria & methodology. Assessing the risk in managed bond portfolios. Multifactor bonds credit spread modelling, portfolio modelling, Defaults modelling. Implementation of the model.*
- *Participating to the CPDO modelling and to the analysis on first generation CPDOs "Case study on performance and ratings".*
- *Portfolio of Sovereign CDSs with digital triggers options. Proxy data to sovereign CDSs. Multivariate CDS spreads modelling. Countries default modeling.*
- *Reviewing client bank product models (Credit portfolio modelling, IR modelling, Equity modelling, FI portfolio modelling, FX modelling). Proposing a new credit modelling and defaults model and an equity model.*
- *Construction of the statistical model of "Fitch CDS Liquidity Scores".*
- *Markov switching model for equity price. The outcome of this project has been presented in an external conference.*
- *Participating to the setting of an Inflation risk consulting service.*

Development languages: *Matlab, C++, VBA, R, SAS, Excel*
Trainings: *Weekly internal seminars, WBS Credit, WBS FI, Bloomberg, Quic*

Capgemini - Paris

2004 -2005
8 months

Full Time

Application Development Leader - Software Designer
Leader of front software design & development (Team of 3 developers) on the implementation of data management software for Orange products.

+ Participating to the software pricing & selling process. + In charge of the technical & functional specifications. Main Languages: Java, UML, XML, LINUX, Oracle.

2003 - 2004
10 months

Full Time

Software Designer - Software Developer
Various projects. Optimization of the performance of Orange client data management software (Data cache building and Algorithm enhancement). Designing and developing mathematical algorithms and models for R&D team. Developing the software that supports the Orange WiFi offer in France. Main Languages: Java, C++, UML, XML, LINUX, Oracle.

IBM - Paris

2002
9 months

Full Time

Internship: Software Developer in R&D team
…of HR Access Solutions (52 countries more than 900 customers). Designing HR Access formulas language. Designing and implementing a new compiler for this new programming language (optimized for speed and flexibility). Designing and developing an advanced GUI for the HR agents.
Main Techno: Multithreading Java, Real time optimized coding, Swing GUI, ANT-LR, XML, UML, JDBC

DIPLOMAS

University of Paris I Sorbonne - Paris

2007-(2010)

outside the working hours

PhD – International Finance

- This PhD is done on my free time, outside my working hours.
- Supervised by M. Philippe Martin, *PhD topic: Financial integration and stability of the international financial system. Modelling and analysis of the current financial crisis.*

University of Paris I Sorbonne - Paris

2006

Full Time

DEA - Macroeconomic Analysis & Policies (Highest honours - Summa cum laude)
Quantitative Economics Program

- *The French DEA is equivalent to a Master of Philosophy (MPhil)*
- *Master Thesis: “Financial crises in Emerging Markets & Inflation Targeting Policies”*
Dynamic general stochastic model of financial crises - Econometric Analysis
- *Main courses topic:*
Time Series - Advanced macroeconomics - Quantitative forecasting - Exchange Rate Dynamics - Monetary Policies and Short interest rate dynamics - Financial macroeconomics - Optimization.

CNAM University Paris - Paris

2005 - 2006

Evening & Weekend Courses

MSc - Capital Markets & Asset Management
Specialization in Financial Econometrics

- *Master Thesis: “Credit Risk Analysis” Supervised by Alain Montfort*
- *Main courses topic: Capital Markets Products - Assets management Techniques - Stochastic calculus - Fixed Income, Swaps and Credit Derivatives instruments -Pricing Options & Futures - Advanced Statistics - Financial Econometrics (Specialization course)*

TELECOM PARIS - French « Grande Ecole » - Paris

2001 to 2003

Full Time

Engineering Diploma

Specialization in Signal Processing & Software Engineering

- *TELECOM PARIS is one of the top four French graduate-level Engineering institutions "Grandes Ecoles". Specialization courses are mainly in Signal processing & Software Engineering.*
- *Courses and grade earned: Architecture & Systems (A) – Middleware & Distributed Systems (A) – Object engineering (B) – Real Time Algorithms (A) – Practical Project (A) – Cooperative Development (B) – Image Analysis (A)*

RESEARCH WORK

Publications and working papers:

- *"A Stochastic Processes Toolkit for Risk Management: Mean reverting processes and jumps"*

  "This paper introduces a selection of mean reverting stochastic processes used in risk management to capture risk factors of assets classes. It complements a previously published paper in JRMFI addressing jumps, GARCH and variance gamma models in risk management. With Damiano Brigo, Antonio Dalessandro, and Matthias Neugebauer.

  (*Forthcoming in Journal of Risk Management in Financial Institutions* 2010, *Vol. 3, No.1*)
- *"A stochastic processes toolkit for risk management: Geometric Brownian motion, jumps, GARCH and variance gamma models"*

  "In risk management it is desirable to grasp the essential statistical features of a time series representing a risk factor. This paper aims to introduce a number of different stochastic processes that can help in grasping the essential features of risk factors describing different asset classes or behaviors." With Damiano Brigo, Antonio Dalessandro, and Matthias Neugebauer.

  (*Journal of Risk Management in Financial Institutions* 2009, *Vol. 2, No.4*)
- *"Term structure of defaultable bonds credit spread"*

  This paper introduces two approaches to model the term structure of defaultable bonds credit spread for Monte Carlo simulation. *(working paper submitted for publication)*
- *"Leverage Bubble"*

  This paper investigates the relation between liquidity and asset prices. It shows that, when banks balance sheets are marked to market and banks are targeting a financial leverage level - a situation similar to current environment - formation of Leverage Bubble phenomenon and suggests a new regulation rule based on a Dynamic Leverage Ratio (DLR) rule. (*Sorbonne Post-Print and Working Papers - submitted for publication)*
- *"Model of International Housing"*

  This paper investigates the recent credit crunch from an international housing market equilibrium perspective using a new model of international housing. It studies the impact of regulation heterogeneity on the international housing market based on a dynamic general stochastic equilibrium model. (Working Paper)
- *"Prompt Corrective Action, bilans des dispositifs en place, leçons pour la surveillance macro-prudentielle"*

  This paper investigates the efficiency of the Prompt Corrective Action mechanism to deal with recent financial crisis on the US banking system. It discusses the lessons that can be learned from recent experience and the opportunity of using the PCA as a macro prudential rule for other countries. It also investigates what measures of the riskiness of banking organizations a PCA framework should use. (*Forthcoming BdF Financial Stability Review)*
- *"Le marché des CDS : limites et évolutions*"

  This paper describes the main practices on CDS market and discusses the limitation and evolution of current regulatory framework. Part of it is based on a collective investigations and interviews of big French banks traders and back office managers. (*Forthcoming as BdF special report)*

- *“Sudden stops crises and inflation targeting policy in EM economies”*

  “In this work I first present the different crisis factor theories and I introduce an original DSGE model of financial crisis accounting for crisis propagation. In a second part I introduce the Inflation targeting framework in the context of emerging countries. Then I present econometric evidences of the relation between the Inflation Targeting policy and the Sudden Stop crises prevention.” (*Printed by Pantheon-Sorbonne University Paris 2006) Available at PARIS-CUJAS*

Conferences

- *Conference in the International Summer School in Risk Measurement and Control, Rome 2008 “Analysis of the FTSE index with normal, recession and bubble regimes”. www.triki.org/fares/ISS2008.pdf (Presentation slides: http://w3.uniroma1.it/summerschool/Download/Triki.pdf)*
- *Training seminars in Fitch Ratings on “Introduction to the stochastic modelling toolbox”. In 2007*
- *Training seminars in Fitch Ratings on “Inflation modelling. Basics, Market and Models review.” In 2008.*

Open Source Software: I have developed (with a friend of mine) an Open Source Proxy server in C++ for prohibited contents detection and modification (*http://*shweby.sourceforge.net)

ADVANCED SKILLS

QUANT

- *Advanced Mathematics Algebra and Analysis (2 years of Mathematics Preparatory courses)*
- *Signal processing - Fourier transforms(FFT, Inverse Fourier transforms, …) - Kalman Filtering*
- *Econometrics – Time Series analysis – Unit-root tests – Hidden Markov model – Bootstrapping*
- *Optimization techniques: Lagrangian Hamiltonian Bellman – Portfolio Optimization*
- *Calibration/Simulation in finance (Monte Carlo methods, Characteristic function, …)*
- *Numerical methods - Stochastic calculus - IR models - Correlation modelling*

IT

- *Proficient in : C# - Java - Matlab*
- *Highly qualified in : C/C++ - VB/VBA – SAS – SQL – XML - UML*
- *Qualified in : STATA – R - E-Views – Maple – Mathematica – Quic*
- *IT Area: Algorithmics, OO Design, Three Tier & Web Services architecture, Distributed Computing*
- *Development Tools : WSAD-Eclipse, Visual Basic, Visual C++, Jbuilder*
- *Other skills : Svn Subversion, Clearcase, ORACLE, DB2, Windows, UNIX (Shell, scripts), Linux*

MISCELLANEOUS

- ***Main qualities:** Excellent problem solving skills – Project leading skills - Quickly assimilate and apply new knowledge.*
- ***Fluent in** English, French, and Arabic*