Jason Wang

HIGHLIGHTS OF QUALIFICATIONS

- 12+ years' professional experience in banking with in-depth knowledge of financial risk model development and quantitative portfolio risk management
- Outstanding programming in R (tidyverse, Shiny), Python (Pandas, Jupyter), Matlab and LaTeX. See https://jason2003wxy.github.io for demo self-developed portfolio risk analysis tool, etc
- Keen business consultant with effective communication and ability to explain technical matters to business

Work Experience

2018 Mar – Present **Stress Testing & Capital Analytics**, *Director*, SRM, Credit Suisse International

Key Achievements

- Developed & implemented a stress testing methodology quantifying Additional Termination Event (ATE) based on stressed migration matrices in response to PRA SREP feedback
- Corrected & replaced CCR and Lending portfolio stress credit loss, RWA, and SCVA RWA calculations, which were previously performed manually on spreadsheets by multiple Risk and Finance teams. The new methodology based stressed migration matrices with R implementation resulting in increased efficiency, accuracy and with automated explanatory analyses (R Markdown) such as Period-on-Period
- Developed & implemented methodology based on BASEL Merton model to translate expert opinions on credit rating under a stress scenario into stressed migration matrices
- Developed & implemented scenario expansion methodology based on empirical distribution to convert quarterly financial shocks into shorter liquidity horizons, overnight, weekly, etc.
- Developed management dashboard (R Shiny) for Capital Management to visualize Capital, RWA, Leverage and Liquidity metrics with capacities of *drill-down* and *PoP* comparison

ST Platform

Designed and implemented an end-to-end stress testing platform (R/Python) from scratch with version control (Atlassian Bitbucket) and issue tracking (JIRA). Currently, collaborating with the IT team to deploy the stress testing platform onto the internal container solution, OpenShift.

- Data import layer: sourcing data in various non-standardized structures/formats ranging from spreadsheets attached in emails to APIs, across teams of Risk and Finance
- Back-end: cleaning, standardizing and restructuring the input data to consistent relationship/structure and storing in DB (SQLite)
- Execution: implemented stress testing models in Group proprietary libraries and redeveloped/improved methodologies subject to UK and EU specific regulatory requirements
- Front-end: automated methodology documentation and ICAAP stress testing documentation by Python (Jupyter Notebook), PRA111 data template auto-population
- Front-end: developed interactive (R Shiny) web-app to visualize capital adequacy implied by stress testing, interactively perform what-if analysis for capital & financial plan assumption sensitivity, and drill-down to identify drivers with period-over-period comparison capacity

+44 7878 788 215 • jason2003@gmail.com • jason2003wxy.github.io
in jason2003

2015 May – 2017 Dec **EC & Stress Testing**, *AD*, ERM, Royal Bank of Canada (Europe Ltd)

Achievements

- Responsible for development of Stress Testing and Economic Capital methodologies for UK and other multiple EU entity ICAAP and BAU stress testing practices
- Developed methodologies to quantify credit concentration risk (single name, sector & region) for a number of European legal entities. This result has been used for estimating and reporting their Pillar 2A capital add-on. Implementation was done in R (Markdown) with input from vendor model (Moody's Risk Frontier)
- Developed and implemented methodologies to quantify Pillar 2A operational risk capital add-on for a number of European legal entities
- Developed and adopted statistical models to project business unit balance sheet, net interest income and non-interest income under different stress scenarios.
- Designed and developed a management dashboard utilizing R Shiny, allowing risk managers to visualize the ultra-wealth prime real estate portfolio. The dashboard incorporated the Savills indices for revaluation and stress credit parameters sourced from the Risk system

Jul 2011 – Apr 2015 **Economic Capital Modeling**, *Model Developer*, Royal Bank of Scotland Group

Achievements

- Developed methodology to quantify credit concentration risk. The approach has been accepted by the UK regulator and successfully reduced 2 billion GBP regulatory capital requirement for RBS Group
- Founding team member developed in-house Economic Capital models from scratch for RBS Group, with outstanding performance led to progressive promotions

Economic Capital

- Developed multi-factor Correlation model of Credit EC simulation engine, the factor model estimates correlations among different sectors/industries and regions based on equity and CDS time series (implemented in MATLAB)
- Developed economic capital methodology for defaulted assets, which captures concentration risk and correlation among different asset classes (implemented in MATLAB)
- Implemented EC tools to quantify portfolio name and industrial/sector concentration risk. The tool has been used across multiple subsidiaries for quantifying credit concentration capital add-ons required by the local regulators. The implementation was done in SAS, MATLAB and Cpp
- Assisted in EC tool development of significant risk transfer metric for Securitization products

Stress Testing

- Developed integrated top-down stress testing framework. The time series models translate economic factor impact to bank's net interest incomes, non-interest incomes, and operational risk losses. The implementation was done in R and LaTeXfor automated analysis & documentation

Nov 2009 – Jun 2011 **Model Validation**, *Quantitative Risk Analyst*, ABN AMRO Group

- Performed independent model validation to regulatory Credit (PD and LGD), Operational risk (AMA) models and internal ALM Behavioral (mortgage prepayment & refinance) and Credit Scoring (mortgage and credit application) models
- Improved model governance and validation standards for Basel 2.5 (Stress VaR and IRC)

Apr 2008 – Oct 2019 **Insurance Risk & Valuation**, *Jr. Actuary*, FORTIS Insurance

- Performed Quantitative Impact Studies (Solvency II) and ad-hoc regulatory stress tests. Developed stress testing models to quantify non-hedgeable insurance risk

Education

2004–2008 **Econometrics**, *University of Groningen*, Netherlands
BSc. (honor distinction)

2017 **Machine Learning**, *Stanford University offered via Cousera*
Certificate: Machine Learning by Andrew Ng

Interests

Triathlon Half Marathon (2:02); Cycling (RideLondon 160KM 5:15); Activities recorded in Strava

Coding Please visit `https://jason2003wxy.github.io` for my work gallery