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
- Proficient in programming R (tidyverse, Shiny), Python (Pandas, Jupyter), Matlab and LaTeX. Developed various portfolio risk models & analysis tools, accessible at https://jason2003wxy.github.io, demonstrating expertise in statistical model development, programming and visualization. Adept at leveraging modern technologies to deliver high-quality solutions that meet business needs
- Results-driven business consultant with a keen ability to effectively communicate complex technical concepts to business stakeholders

Work Experience

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

Key Deliveries

- Developed & implemented a stress testing methodology quantifying Additional Termination Event (ATE) based on stressed migration matrices in response to PRA SREP feedback
- Corrected & replaced Lending and CCR portfolio credit loss, credit RWA, and SCVA RWA calculations for stress testing, which were previously performed manually on spreadsheets by multiple Risk and Finance teams. The new methodology based stressed migration matrices with Python implementation, resulting in increased efficiency, accuracy and with automated explanatory analyses (Jupyter Notebook) such as Period-on-Period comparison
- 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
- Oversaw off-shore analytical team, successfully leading their transition from Excel to R and Python

Achievement

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

- Data import layer: sourcing data in various non-standardized structures and formats, ranging from email attachments to APIs, across teams in Risk and Finance
- Back-end: cleaning, standardizing and restructuring the input data into a consistent relationship and structure for storage in SQLite
- Execution: based on stress-testing models from Group proprietary libraries to redevelop / improve methodologies subject to UK and EU specific regulatory requirement
- Front-end: automated methodology documentation and supporting analyses using Python (Jupyter Notebook). Automated PRA111 data template population sourcing Finance COREP and PRA107 data templates
- 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. Implemented drill-down and PoP comparison features to identify drivers

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2015 May – 2017 Dec **EC & Stress Testing**, *Associate Director*, 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 & implemented 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 & implemented methodologies to quantify Pillar 2A operational risk capital add-on for a number of European legal entities
- Developed & implemented statistical models to project business unit balance sheet, net interest income and non-interest income under different stress scenarios
- Developed & implemented management dashboard using 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 & implemented 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
- 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)
- 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 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

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)

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