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<https://romainlafarguette.github.io/>

Summary

- Lead quant researcher with 13+ years experience, focus on rates, FX, commodities and credit
- Mid-frequency fundamental macro, flows and sentiment signals; signal aggregation and portfolio construction
- Research: time series, ML, gen AI, optimization, factors and risk models
- Production: signal productionalization, CI/CD, cloud computing, DAG orchestration, portfolio reporting

Professional Experience

GIC Lead Quant Researcher, Global Macro Singapore, since 2023

- Senior Vice President, focus on DM/EM rates, credit, FX, commodities and multi-asset books
- Mid-frequency fundamental macro, flows and sentiment signals; signal aggregation and portfolio construction
- Research: FX and curve models, flows & valuations, high-freq alternative data, AI synthetic data
- Production: GitHub CI/CD, cloud platform (Databricks & AWS), DAG orchestration, SQL & Polars

ADIA Senior Quant Researcher, Global Macro Abu Dhabi, 2022-2023

- Systematic macro signals and strategies (rates, FX, commodities) for ADIA quant team ("Q")
- Portfolio construction and asset allocation models for discretionary PMs and ADIA CIO

International Monetary Fund Quant Macroeconomist Washington DC, 2016-2022

- Large EM coverage (China, India, Korea, Malaysia, Israel, Peru, etc.), 30+ country missions

European Central Bank Quant Researcher and Portfolio Manager Frankfurt, 2013-2016

- Managed Eurosystem RMB and JPY FX reserves, portfolio construction and risk models

Education

Ph.D. Quantitative Macro & Finance, Peking University & EHESS Beijing 2013

Entire curriculum completed in Chinese Mandarin in Beijing

M.Sc. Quantitative Macro & Finance, Ecole Normale Supérieure de Paris-Saclay Paris 2009

First-ranked at France's national entrance exam (Normalien, top 1% of national applicants)

M.Sc. Mathematics and Statistics, ENSAE Paris Paris 2007

Undergrad (CPGE) Henri IV Paris 2005

Skills

- **Analytics:** Statistics & machine learning, AI & LLM, convex optimization, bootstrapping, density models
- **Tech stack:** Python, GitHub CI/CD, cloud computing (AWS & Databricks), DAG orchestration, Polars
- **Data:** Bloomberg, Macrobond, Haver, CEIC, Wind, Factset, alternative datasets
- **Risk models:** VaR/CVaR, stress-test, early-warning signals, rates & FX risk, sovereign risk, FSI
- **Risk factors systems:** Blackrock BRS, MSCI Barra, Axioma, PCA-custom risk factors
- **Languages:** English (fluent), Chinese (conversational), French (native)

Open Source Python Packages

- Distributional GARCH model to design VaR-based FX Interventions for Central Banks, [varfxi repo](#)
- Density Forecasting for Macro Variables, [gar repo](#)
- Conditional Density Projection via Quantile Regressions, Resampling and Multifit Models, [quantproj repo](#)
- Robust Density Estimation via Over-Parametrized Gaussian Skewed Models, [robustdensity repo](#)
- Partial Least Squares Wrapper for Data Reduction based on scikit-learn, [plswrapper repo](#)
- Quantile Spacing: solving for quantile crossing, from Schmidt and Zhu (2016), [quantilespacing repo](#)
- Quantile Local Projections, [quantileproj repo](#)
- Granular Instrumental Variables - from Gabaix and Koijen (2020), [granulariv repo](#)
- Cluster Analysis Wrapper with Performance Metrics and Visualization Tools, [clusterwrapper repo](#)

Academic Research

- *Financial Conditions in Europe: Dynamics, Drivers, and Macroeconomic Implications*, [IMF WP \(2024\)](#)
- *Technology and the Geography of FX Markets*, [Journal of International Money and Finance \(2023\)](#)
- *FX Interventions: A Risk-Based Framework*, [IMF WP \(2020\)](#)
- *Predictive Density for Global Growth*, [IMF WP \(2020\)](#)
- *Growth at Risk: Applications in IMF Surveillance*, [IMF WP \(2019\)](#)
- *Can Countries Manage Their Financial Conditions Amid Globalization?*, [IMF WP \(2018\)](#)
- *Trading Without a View: Fast Trading, Entropy and Underreaction in the FX Market*, [ECB WP \(2018\)](#)
- *Thick vs. Thin-Skinned: Technology, News, and Financial Market Reaction*, [IMF WP \(2016\)](#)
- *Household Savings in China : The Role of the Housing Market and Borrowing Constraints*, [BdF WP \(2014\)](#)