## Summary

Ph.D. economist and engineer, fluent in Chinese Mandarin, French and English.

Specialized in advanced econometrics and statistical models applied to financial and monetary issues, with a strong focus on monetary policy and stress-testing.

Wide range of policy experience, covering portfolio management, IMF program negotiations, technical assistance in central banking, and macrofinancial surveillance and analysis. Missions to more than 20 countries, including as mission chief, leading teams of 3 to 7 people on technical assistance missions.

Design open-source forecasting and modeling packages: https://romainlafarguette.github.io/

## **Professional Experience**

#### International Monetary Fund, Quant Economist and Mission Chief

2016-Present

Monetary and Capital Markets Department

Missions to more than 20 countries, covering macrofinancial surveillance and modeling, IMF lending programs and technical assistance

Mission chief, leading teams of 3 to 7 people on technical assistance missions

## European Central Bank, Economist and Portfolio Manager

2013-2016

Foreign reserves portfolio manager, Eurosystem Asian currencies portfolio

Negotiations with the People's Bank of China

Mathematical portfolio optimization, risk modeling, exchange rate forecasting

## Education

Ph.D. in Economics, Peking University and Paris School of Economics

M.Res. Normalien, Ecole Normale Supérieure de Paris-Saclay

M.A. in Philosophy & Epistemology, Paris Sorbonne University

M.Eng. in Statistics and Applied Mathematics, ENSAE Paris

## Macrofinancial Feedback, Bank Stress Testing and Capital Surcharges (2021)

with T. Adrian (IMF) and J. Berrospide (US Federal Reserve Board)

## Foreign Exchange Interventions Rules for Central Banks: A Risk-Based Framework (2020)

IMF Working Paper No. 21/32, with R. Veyrune (IMF)

#### Predictive Density for Global Growth (2020)

IMF Working Paper No. 20/78, with F. Caselli, F. Grigoli and C. Wang (all IMF)

#### Growth at Risk: Concept and Application in IMF Country Surveillance (2019)

IMF Working Paper No. 19/36

#### Can Countries Manage Their Financial Conditions Amid Globalization? (2018)

IMF Working Paper No. 18/15, with N. Arregui, S. Elekdag, G. Gelos and D. Seneviratne (all IMF)

## Trading Without a View: Fast Trading, Entropy and Underreaction in the FX Market (2018)

ECB Working Paper No. 2300 with G. Corsetti (Cambridge) and A. Mehl (ECB)

### Thick vs. Thin-Skinned: Technology, News, and Financial Market Reaction (2016)

IMF working paper No. 17/91, with B. Eichengreen (Uni. Berkeley) and A. Mehl (ECB)

## Cables, Sharks and Servers: Technology and the Geography of the Foreign Exchange Market (2016)

NBER Working Paper No. 21884, with B. Eichengreen (Uni. Berkeley) and A. Mehl (ECB)

# Understanding Household Savings in China: The Role of the Housing Market and Borrowing Constraints (2014)

MPRA Paper No. 44611 with M. Bussiere, Y. Kalantzis (Banque de France) and T. Sicular (Uni. Western Ontario)

## **Policy Publications**

## House Price Synchronization: What Role for Financial Factors? (2018)

IMF Global Financial Stability Report, April 2018

#### Financial Conditions and Growth at Risk (2017)

IMF Global Financial Stability Report, October 2017

## Are Countries Losing Control of Domestic Financial Conditions? (2017)

IMF Global Financial Stability Report, April 2017

# High-Frequency Trading, Information and Market Volatility: the Role of High-Frequency Quoting and Dark Pools (2016)

ECB Macroprudential Bulletin, October 2016

### The Role of Currency Invoicing for the Transmission of Exchange Rate Movements (2015)

ECB, The International Role of the Euro Report, July 2015 (with J. Grab)

More details and links to the programs: https://romainlafarguette.github.io/software/

Distributional GaRCH model to design VaR-based FX Interventions for Central Banks https://github.com/romainlafarguette/varfxi

#### Quantile local projections

https://github.com/romainlafarguette/quantileproj

#### Density Forecasting Using Growth At Risk: Python Codes and Excel Interface

https://github.com/IMFGAR/GaR. With technical appendix and documentation

## **Teaching**

#### Advanced Statistical Methods to Forecast Systemic Liquidity (2021)

IMF Technical Assistance Center in Central America, Guatemala

#### Liquidity Forecasting for Central Banks Operating Fixed Exchange Rate Arrangements (2021)

IMF Middle East Center for Economics and Finance, Kuwait

## Foreign Exchange Interventions Strategies for Central Banks (2021)

IMF Joint Vienna Institute (Caucasus, Central Asia, Belarus, Moldova and Mongolia Practionners), Vienna

#### Forecasting with Quantile Regressions (2020)

South East Asian Central Banks (SEACEN) Research and Training Centre, Kuala Lumpur

#### Density Forecasting (2019)

IMF Institute of Capacity and Development, Washington D.C.

## Introduction to Python for IMF economists (2019)

IMF, European Department, Washington D.C.

#### Linear and Non-Linear Econometrics, Statistics, Macroeconomics (2010-2012)

ENSAE and Sciences Po, Paris

## Skills

Languages Fluent in Chinese Mandarin, fluent in English, French native speaker

**Programming** Python, R, Matlab, STATA, SQL, VBA

Quant Parametric and non-parametric inference, forecasting, machine learning, big data