

N'GOLO KONE

PERSONAL INFORMATION

Address
Université de Montréal
Department of Economics
Montréal, QC H3T 1N8, Canada

Contacts
Phone: +1 (514) 652-1005
Email: ngolo.kone@umontreal.ca
Web site: www.ngolokone.com

Citizenship Ivory Coast
Language French and English

FIELDS OF INTEREST

Primary Econometrics, Financial Econometrics, Big Data techniques
Secondary Financial Market, Portfolio Selection, Risk management

PHD THESIS

Title: Optimal Portfolio Selection with Transaction Costs
Advisor: Marine Carrasco (Université de Montréal, Canada)
Date of completion: June 2020 (Expected)

EDUCATION

2014-present Ph. D. Economics, Université de Montréal, Canada
2011-2014 M.Sc. in Statistics and Economics (1st ranked), National School of Statistic and Applied Economics (ENSEA), Abidjan, Ivory Coast

PROFESSIONAL EXPERIENCE

February-June 2014 Supervisor of an evaluation survey about the European Union project to develop agriculture in the North of Ivory Coast.
July-October 2013 Economist (Intern.) Ministry of Industry and Mines of Ivory Coast.

WORKING PAPERS

- A Multi-Period Portfolio Selection in a Large Financial Market, *Job Market Paper*
- Test for Trading Costs Effect in a Portfolio Selection Problem with Recursive Utility, joint with Marine Carrasco, *submitted*
- Optimal Portfolio Selection using Regularization, joint with Marine Carrasco and Nérée Noumon

WORKS IN PROGRESS

- Reinsurance demand and liquidity creation: Reciprocal causality, joint with Denise Desjardins et Georges Dionne, HEC Montréal
- Return Predictability using Liquidity Variables and Volatility

RESEARCH EXPERIENCE

September 2018-August 2019: Research Assistant for Professor Georges Dionne, Canada Research Chair in Risk Management HEC Montréal. Project: Reinsurance demand and liquidity creation: A bi-causality analysis.

September 2017-Present: Research Assistant for Professor Marine Carrasco Project: Optimal Portfolio Selection using Regularization.

CONFERENCES AND SEMINARS

- **2019:** 59th Congres - Société Canadienne de Science Économique, ÉNAP, Québec, Canada; Conférence internationale sur la statistique et l'économie appliquée, Abidjan, Côte d'Ivoire.
- **2018:** 52nd Annual Conference of Canadian Economics Association, Montreal, Canada; 58th Congres - Société Canadienne de Science Économique, UQAM, Montréal, Canada; 14th CIREQ Conference, University of Montreal, Montréal, Canada; CIREQ Econometrics Conference on "Recent Advances in the Method of Moments" Montréal, Canada.
- **2017:** 13th CIREQ Conference, Concordia University, Montréal, Canada. CIREQ Econometrics Conference on Inference in large-dimensional models, Montréal.

FELLOWSHIPS AND AWARDS

- 2018-2019: Canada Research Chair in Risk Management Fellowship, HEC Montréal.
- 2018-2019: CIREQ Association Graduate Travel Scholarship.
- 2017-2019: PhD Fellowship, CIREQ & Department of Economics, University of Montreal.
- 2014-2016: Tuition-fee Waiver Scholarship, School of Graduate Studies, University of Montreal.
- 2014: Lareq Medal Prize, First Edition.
- 2011-2014: M. Sc. Fellowship, Government of Ivory Coast.
- 2009-2011: Excellence Scholarship, Government of Ivory Coast.

TEACHING EXPERIENCE

- Instructor University of Montreal, Canada:

ECN 1260, Introduction to Econometrics, Undergraduate, 2016-2017, 2020.

ECN 1160, Economic data Analysis, Undergraduate, 2019.

- Teaching Assistant University of Montreal, Canada:

ECN 1260, Introduction to Econometrics (B.A. level), 2015-present.

ECN 7065, Advanced Econometrics (Ph.D. level), 2018.

ECN 6350, Advanced Econometrics (M.Sc. level), 2016.

ECN 2160, Econometrics (B.A. level), 2015-2019.

ECN 1050, Introduction to Macroeconomics (B.A. level), 2016-2019.

ECN 1040, Introduction to Microeconomics (B.A. level), 2018.

OTHER

Memberships: Center for Interuniversity Research and Quantitative Economics (CIREQ), Canadian Economic Association, American Economic Association.

Computer skills: MATLAB, Python, R, STATA, E-Views, and others.

ACADEMIC REFERENCES

Marine Carrasco

Full Professor, Economics Department,
University of Montreal, Canada
+1 (514) 343-2394
marine.carrasco@umontreal.ca

Benoit Perron

Full Professor, Economics Department,
University of Montreal, Canada
+1 (514) 343-2449
benoit.perron@umontreal.ca

Georges Dionne

Full Professor, Department of Finance,
HEC Montréal, Canada
Canada Research Chair in Risk Management
(+1) 514 340-6596
georges.dionne@hec.ca

SUMMARY OF THE THESIS

Here are summarized two papers of my thesis and a joint paper with Denis Desjardins and Georges Dionne, HEC Montréal.

1. A Multi-Period Portfolio Selection in a Large Financial Market (Job Market Paper)

This paper addresses a multi-period portfolio selection problem when the number of assets in the financial market is large. Using an exponential utility function, the optimal solution is shown to be a function of the inverse of the covariance matrix of assets returns. Nonetheless, when the number of assets grows, this inverse becomes unreliable yielding a selected portfolio which is far away from the optimal one. We propose two solutions to this problem. Firstly, we penalize the norm of the portfolio weights in the dynamic problem and show that the selected strategy by this procedure is asymptotically efficient. Secondly, we penalize the norm of the difference of successive portfolio weights in the dynamic problem to guarantee that the optimal portfolio composition does not fluctuate wildly between periods. This second method helps investors to avoid high trading costs in the financial market by selecting stable strategies over time. Extensive simulations and empirical results confirm that our procedures considerably improve the performance of the dynamic portfolio.

2. Test for Trading Costs Effect in a Portfolio Selection Problem with Recursive Utility (with Marine Carrasco)

This paper addresses a portfolio selection problem with trading costs on stock market. More precisely, we develop a simple GMM-based test procedure to test the significance of trading costs effect in the economy regardless of the form of the transaction cost. Our test procedure relies on the assumption that the model is correctly specified. We test this assumption by proposing a two-step procedure to test overidentifying restrictions in our GMM estimation. In an empirical analysis, we apply our test procedures to the class of anomalies used in Novy-Marx and Velikov (2016). We show that transaction costs have a significant effect on investors behavior for most of anomalies. In that case, investors significantly improve the out-of-sample performance by accounting for trading costs.

3. Reinsurance demand and liquidity creation: A bi-causality analysis (with Denis Desjardins and Georges Dionne, HEC Montréal)

This paper analyzes the relation between insurers' liquidity creation and reinsurance demand. Early theoretical contributions on liquidity creation propose that financial institutions enhance economic growth by creating liquidity on their balance sheet. Liquidity creation means, financing relatively illiquid assets with relatively liquid liabilities. However, liquidity creation exposes insurers to risk. There is a trade-off between getting higher returns on risky investments and being able to compensate clients at a low cost when unexpected claims happen. Unexpected claims can be protected by reinsurance, which introduces a second trade-off between reinsurance demand and liquidity creation. This trade-off can be more important for smaller insurers who have fewer diversification opportunities. Our main empirical results show positive bi-causal effects between liquidity creation and reinsurance demand.