mmilone@ucsd.edu milonemario@gmail.com +1 (858) 333 2510 www.mariomilone.org Male – French

## Professional Experience

Assistant Professor of Accounting, UCSD – Rady School of Management, 2019–Present Visiting Researcher, Imperial College Business School, 2018–2019
Temporary Lecturer (ATER), Université Paris Dauphine, 2016–2018
Research Assistant, Imperial College Business School 2015–2018
Research Intern, Laboratoire de Recherche en Informatique (LRI), 2011, 5 months
Software Designer Summer Intern, Tokyo 2010

#### Education

Ph.D. in Finance, Université Paris Dauphine, 2018

Dissertation Title: "On the Costs and Externalities of Intermediation"

Committee: Gilles Chemla (Advisor), Denis Gromb, Kathy Yuan, Christopher Hennessy, Jérôme Dugast

Visiting Student, Harvard University, 2013–2014

Sponsor: Oliver Hart

M.Res. in Finance, Université Paris Dauphine, Ranked  $1^{st}$ , 2012

M.Res. in Artificial Intelligence, Université Paul Sabatier, Toulouse, Ranked 2<sup>nd</sup>, 2011

M.Eng. in Computer Science, Institut National des Sciences Appliquées (INSA), Toulouse 2011

Exchange Student, Hong Kong University, 2009–2010

# Research Interests (Theory and Empirical)

Accounting, Managerial Accounting Financial Intermediation, FinTech, Corporate Finance, Finance Theory Big Data, Machine Learning, Structural Estimations, Empirical Finance

#### Working Papers

Smart Lending

This paper shows that a data-based screening technology can increase the cost of financial intermediation. The use of data in the screening process reduces the acquisition of soft information by traditional lenders, which harms constrained borrowers further. Additionally, groups in which fewer borrowers were financed in the past are under-represented in the data, leading to a cross-sectional difference in screening efficiency. Screening is more efficient for borrowers with greater historical lending data. When traditional and technological lenders coexist, the borrowers about whom data can provide precise information raise funds from technological lenders while those with less informative historical data choose traditional lenders who can make up for the lack of hard data-based information by acquiring soft information. The intermediation cost is increased by the existence of technological lenders. I identify conditions under which traditional lenders benefit from restricting their own access to data-processing technology when competing against the technological lender.

Assessing Transit Rents (with Katrin Tinn)

Trading frictions due to inevitable transportation costs are fundamentally different from those due to rent extraction by transit countries. We propose a theoretical and empirical methodology to disentangle these two types of costs and assess the presence and global magnitude of a hold-up problem. We construct a new measure of distance based on a global network of the most likely trade routes. While transportation costs make all countries worse off, rent extraction benefits transit countries. Further, we show that in general equilibrium, countries that are neither landlocked nor transit countries bear a large share of the cost of distortions due to rent extraction. While free trade agreements with transit countries do not appear to mitigate the problem, customs unions do.

Bank asset structure and the risk-taking implications of capital and liquidity requirements

In addition to risky loans, banks hold risky securities that provide uncertain future liquidity. This leads them to choose an asset structure with their desired correlation between liquidity and long term asset returns. We show that liquidity management and risk management concerns lead to a trade-off that creates an inverse relationship between security holdings and aggregate asset risk. Capital requirements mitigate liquidity risk in all future states of the world, thereby reducing the cost of liquidity risk and leading banks to increase aggregate asset risk. Liquidity requirements such as the Liquidity Coverage Ratio (LCR) affect high liquidity shock states and mitigate aggregate asset risk-taking. These results highlight the tension between capital and liquidity regulations in addressing the risk taking incentives of financial intermediaries.

#### Publications

Oliver Hart, La finance vue à travers la théorie des contrats incomplets (with Gilles Chemla) publié dans Michel ALBOUY, Les Grands Auteurs en Finance, Editions EMS, 2017, p. 529 à 554

Continuous Rapid Action Value Estimates (with M.Sebag, O.Teytaud, A.Couetoux, H.Doghmen and M.Brendel) 3rd Asian Conference in Machine Learning (ACML), 2011

Consistent Belief State Estimation, with Application to Mines (with O.Teytaud and A.Couetoux)

International Conference on Technologies and Applications of Artificial Intelligence, 2011

Q-Learning with Double Progressive Widening : Application to Robotics (with O.Teytaud and N.Sokolovska) 18th International Conference, ICONIP 2011

## Seminars and Conferences

- (‡ Presented, † Discussed, \* Attended)
- ‡ TILEC-GovReg Workshop on Governance of Big Data and AI, *June 2019* Tilburg University, Tilburg
- † Future of Financial Information, May 2019 Stockholm School of Economics, Stocholm
- † Oxford NuCamp-Saïd Macro-finance Conference, April 2019 University of Oxford, Oxford
- $\ddagger$  Second Toronto FinTech Conference, March~2019 Ivey Business School, Toronto
- \* Finance Theory Group (FTG) summer conference, *June 2018* London Business School, London
- $\ast$  CEPR Third Annual Spring Symposium in Financial Economics, April~2018 Imperial College Business School, London
- $\dagger$  Second Workshop on Corporate Governance, June~2017 ESCP Europe, Paris

\* Adam Smith Conference in Finance, March 2017 HEC Paris

† EFA Annual Meeting (43rd), August 2016 BI Norwegian Business School, Oslo

† 1st Microstructure Conference, *June 2016* Université Paris Dauphine, Paris

† 9th Financial Risks International Forum, *March 2016* Institut Louis Bachelier, Institut Europlace de Finance, Paris

† 8th Annual Hedge Fund Research Conference, *January 2016* Université Paris Dauphine, Paris

‡ Seminar Presentation - DSF/TI PhD seminar serie, June 2014 Timbergen Institute - Amsterdam

### Teaching Experience

Teaching Assistant for Professor Gilles Chemla, 2015–2019 Imperial College Business School Advanced Corporate Finance (GMBA, FTMBA, WEMBA) Mergers & Acquisitions (FTMBA, WEMBA)

Lecturer in Corporate Finance (Master level), 2013, 2016–2018 Université Paris-Dauphine

Lecturer in Programming for Finance (Master level), 2013 Université Paris-Dauphine Topics: VBA

Lecturer in Computer Science (Undergraduate), 2012 Université Paris-Dauphine Topics: Programming

 $Teaching\ Interests$ 

Corporate Finance; Financial Intermediation; Investment FinTech; Big Data; Machine Learning for Finance

#### Languages

Fluent in French, (mother tongue)
High proficiency in English, (TOEIC (925/990), TOEFL IBT (114/120), GMAT (710/800))
Spanish to be refreshed

### Extra-curriculum activities

Graduated in Recorder and Music Theory, Conservatoire de Musique et de Danse du Tarn. Advanced level in Ballet, Contemporary and Jazz Dance.