

**Université Paris-Dauphine**

Place du Maréchal de Lattre de Tassigny  
75775 Paris

m.milone@imperial.ac.uk  
milonemario@gmail.com  
+33 (0) 6 64 52 69 41  
www.mariomilone.org  
Male – French

**Placement Director**

Tarun Ramadorai	t.ramadorai@imperial.ac.uk	+44 (0)20 7594 9910
-----------------	----------------------------	---------------------

**Placement Coordinator**

Katherine Campbell	katherine.campbell@imperial.ac.uk	+44 (0)20 7594 9203
--------------------	-----------------------------------	---------------------

**Professional Experience**

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, *2012–2018*  
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<sup>st</sup>, *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)**

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.

## **Work in progress**

### *Information flow and analyst information production* (with Tamara Nefedova)

This paper analyzes information flow between financial analysts and their clients. Using high-frequency trading data and a new measure of relationship, we provide evidence that analysts elite clients buy on average more than other investors in the 5-day period before positive analyst coverage initiations. We also analyze the effect of Regulation Fair Disclosure (RFD) and Global Research Analyst Settlement (GRAS) on the incentives for brokers to disseminate information. Information production by analysts is also studied.

## **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**

Finance Theory Group (FTG) summer conference, *June 2018*  
London Business School, London

CEPR Third Annual Spring Symposium in Financial Economics, *April 2018*  
Imperial College Business School, London

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, *2015–2018*  
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.

## References

**Gilles Chemla (Advisor)**

Professor of Finance  
Imperial College London  
+44 (0)20 7594 9161  
g.chemla@imperial.ac.uk

**Christopher Hennessy**

Professor of Finance  
London Business School  
+44 (0)20 7000 8285  
chennessy@london.edu

**Denis Gromb**

Professor of Finance  
HEC Paris  
gromb@hec.fr

**Franklin Allen**

Professor of Finance and Economics  
+44 (0)20 7594 9195  
f.allen@imperial.ac.uk

Reference letters can be obtained from **Katherine Campbell** (placement coordinator).