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Université de Montréal Placement Officer

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DOCTORAL STUDIES

Université de Montréal (UdeM)
PhD, Economics, Expexted completion May 2020
Dissertation: “Essays in Innovation, Inequality and Risk”

Dissertation committee and references

Professor Vasia Panousi
Université de Montréal
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Professor Martí Mestieri
Federal Reserve Bank of Chicago
Economic Research Department
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Chicago, IL 60604
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PRIOR EDUCATION

National School of Statistic and Applied Economics 2011-14
(ENSEA), Abidjan, Ivory Coast
MSc in Statistics and Economics (ranked 2nd)

Institut National Polytechnique Felix 2009-11
Houphouet Boigny (INP-HB), Ivory Coast
Mathematics and Physics, Intensive two-year BSc program

CITIZENSHIP

Ivory Coast

GENDER: Female

LANGUAGES

French (native), English (fluent), German (basic)

FIELDS

Primary filed: Innovation, Inequality
Secondary fields: Economic fluctuations, Risk diversification

TEACHING EXPERIENCE	<i>Lecturer</i>	
	1050A Introduction to macroeconomics, BSc , UdeM, Winter 2018, Fall 2016	
	<i>Teaching Assistant</i>	
	Advanced Macroeconomics II, PhD, UdeM, Winter 2017,2018,2019	
	Mathematics for Economics Analysis, BSc, UdeM, Winter 2018	
	International Finance, BSc, UdeM, Fall 2016,2017	
	Econometrics, BSc, UdeM, Fall 2016	
	Macroeconomic theory, BSc, UdeM, Winter 2016	
INTERNSHIP	Fund Internship Program, International Monetary Fund Supervisors: Ali Abbas, Daniela Marchettini, Nadeem Sanaa.	June-Sept. 2018
	Economist (Intern.), Ministry of Budget, Ivory Coast	Aug.-Oct. 2013
RELEVANT POSITIONS	Codirector, Lab for Macroeconomic Policy	2018-
	Research Assistant to Professor Vasia Panousi	2017
	Research Assistant to Professor Sebastian Stumpner	2016
	Research Assistant to Professor Baris K	2015
FELLOWSHIPS, HONORS, AND AWARDS	FRQSC, Artificial Intelligence and Innovation	2019
	Artificial Intelligence and Innovation, Collaboration Quebec-Ivory Coast	2019
	Macro-Finance Society, Travel Grant	May-19
	CIREQ, Travel Grant	2019
	FESP Excellence Scholarship, UdeM	2018-19
	Nissan Excellence Scholarship, UdeM	2016-17
	PhD Fellowship, Department of Economics, UdeM	2014-16
	PhD Fellowship, CIREQ, Montreal	2014-16
	Excellence Scholarship, Cooperation France-Ivory Coast	2011-2014
	Excellence Scholarship, Government Ivory Coast	2009-11
PROFESSIONAL ACTIVITIES	<i>Invited Academic Presentations</i>	
	RCEA Growth, Innovation and Entrepreneurship conference, Waterloo	2019
	International Conference on Statistics and Applied Economics, Abidjan	
	53rd Annual Conference of the Canadian Economics Association, Calgary	
	Congress of the Canadian Society of Economic Sciences, Quebec	
	Artificial Intelligence Applications in Economics, Montreal; UdeM Seminar Series	
	CIRANO Annual Brown Bag Conference, Montreal	
	UdeM Macroeconomic Brown Bag	
	International Monetary Fund Brown Bag Lunch Series	2018
	52nd Annual Conference of the Canadian Economics Association, Montreal	
14th CIREQ Conference, Montreal		

RESEARCH PAPERS

“Innovative Ideas and Gender Inequality” (Job Market Paper)

This paper analyses the recognition of women’s innovative ideas. In doing so, bibliometric data from research in economics are used to investigate gender biases in citation patterns. Based on deep learning and machine learning techniques, one can (1) establish the similarities between papers (2) build a link between articles by identifying the citing, the cited and the one that should be cited. This paper finds that, on average, a paper omits almost half of related prior papers. But there are substantial heterogeneities among the authors. In fact, omitted papers are 15% to 30% more likely to be female-authored than male-authored. First, the most likely to be omitted are papers written by women (solo, mostly female team) working at mid to low tier institutions, publishing in non-top journals. In a group of related papers, these papers are likely to be omitted 80% of the time. By contrast, men with mid to low affiliation publishing in non-top journals are omitted 70% of the time. Second, the omission bias is twice bigger in theoretical fields that involve mathematical economics, compared to applied fields such as education and health economics. Third, men benefit two times more from publishing in a top journal compared to women, in terms of likelihood to be omitted. Fourth, for similar papers having at least one female author reduces by up to 10% the probability to omit other women’ papers, whereas having only men authors increases the probability to be omitted by almost 4%. Lastly, being omitted with respect to past publications affects future productivity and reduces the probability of getting published in a top journal. Finally, peer effects and more diversity in the editorial board tend to counteract and reduce the omission bias.

“Patents, Innovation and Growth in Canadian Pharmaceuticals” (with Vasia Panousi)

This paper uses a new panel dataset constructed from information provided by the Canadian Intellectual Property Office to study the relationship between patents, innovation and growth in the Canadian pharmaceutical industry. First, using advanced machine learning method, we perform textual analysis on patent documents to create an indicator of patent quality. Our indicator assigns higher quality to patents or innovations that are novel. Second, matching the firms in our patent dataset to their balance-sheet information, we are then able to validate our patent-quality measure by relating it to various measures of firm value and performance. The results indicate that the anticipation of the granting of a breakthrough patent increases firm profitability, on average, for up to five years before the grant. This increase in profitability is reflected in increased markups, as opposed to increased employment or investment. Third, we construct firm- and aggregate-level TFP measures and find that significant innovations increase firm productivity as captured by measured TFP. Finally, our quality index is used for policy purposes in the pharmaceutical sector. In fact, the quality index shows a positive and significant relationship with the prices of the patented medicines at the federal level. Surprisingly the positive relationship disappears at the provincial level and becomes even negative for some cases. Pharmaceutical innovation in Canada is therefore captured differently at the provincial level. The economic policy implication is a standardization of pharmaceutical industries in Canada by the adoption of a “Pharmacare”.

“Financial integration, idiosyncratic risk and business cycles”

This paper studies the possibility of diversification of entrepreneurial risk for financially integrated economies. In doing so, it uses a continuous time, general-equilibrium model with heterogeneous agents facing a time-varying idiosyncratic investment risk (uncertainty shock). First, by contrast to model with no time-varying risk, this novel framework gives the implications of idiosyncratic risk for business cycle fluctuations and talks about stabilization policy. Second, in a similar model with only an aggregate risk, the cost of capital flows outweighs the gain from risk-sharing. Countries do not gain a lot from financial integration even considering extreme values of risk aversion. At the opposite, in the presence of a time-varying idiosyncratic risk, the results get reversed and sizeable welfare gains emerged. Three key mechanisms help in getting those results: a price effect, a reallocation effect, and a wealth effect. Agents in a country hit by a bad shock are less willing to invest and reallocate their portfolio in favour of the less risky asset. This avoids a substantial drop in the aggregate price of capital compared to the autarchy situation. Therefore, their balance sheets are less proportionally hit by the shock and they can recover using their savings in the least risky asset. The overall economy becomes less volatile. Finally, the welfare gains from financial globalization are higher and could go above 10%, depending on the systematic risk of the country. The results also call for more cautiousness from policy makers in attempting to limit capital movement without taking into account heterogeneity at the individual production side.

“Assessing Debt Sustainability: An Enhanced Signal Extraction Approach” (with Nadeem Sanaa)

For early and effective policy responses that minimize economic costs, it is vital to have a reliable framework for predicting the likelihood of a sovereign debt crisis. In doing so, this paper investigates several ways of enhancing the current debt sustainability framework. We estimate a non-parametric model based on signal extraction and find three elements, key in leading the predictive power of a given estimation: the choice of the objective function, the choice of the variables and their aggregation into a composite index, the heterogeneity among countries. In addition, we explore a multivariate signalling approach which appears to be a parsimonious and promising avenue in predicting debt distress event. Finally, we apply our methodology on the new crisis database and find substantial improvements both in-sample and out-of-sample compared to the existing framework.