

MATHILDE ESPOSITO

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CITIZENSHIP: French

RESEARCH FIELDS

Demographic Aging, Applied Macroeconomics, Potential Growth, Secular Stagnation

EDUCATION

- Since 2023 **Ph.D candidate in Economics, AMSE**
Thesis: *Essays around the Aging-Potential Growth Nexus*
Supervisors: Prof. Gilles Dufrénot, Prof. Eva Moreno-Galbis
Academic responsibilities: Co-manager of the Ph.D office (Aix)
- 2021-2023 **MSc. in Theoretical and Empirical Economics, AMSE**
Major: Macroeconomics
Master thesis: *Another brick in the Secular Stagnation wall? Demographic aging and Skills Mismatch*
- 2020-2021 **MSc. in Sociology, Aix-Marseille Univ**
Major: Demography
Master thesis: *Public policies and solidarity in the face of Japanese ageing: specificities, challenges and lessons from Demographic Surveys*
- 2020-2021 **Grande École Programme, École Spéciale Militaire de Saint-Cyr**
Major: Social and political sciences
Promotion *Général Caillaud (Cyr 207)*, 3ème Bataillon de France
- 2017-2021 **BSc. in Economics, Aix-Marseille Univ**
- 2017-2020 **BSc. in Sociology, Aix-Marseille Univ**
- 2017-2020 **Preparatory classes for the Grandes Écoles (ECE), Lycée Militaire d'Aix**
High-level economics and mathematics classes; philosophy, literature, English and Spanish classes; Rank: 1/32

PROFESSIONAL EXPERIENCE

- 2023-2024* **Oral—"khôlles"—examiner in economics, CPGE Lycée Thiers**
Conducting weekly 1:1 oral evaluations with 42 undergraduates preparing for the Grandes Écoles nationwide competitive exams
- 2020-2021* **Officer cadet (2nd Lieutenant), ESM Saint-Cyr - French Army**
Platoon (30 subordinates/soldiers) leader as *officier Saint-Cyrien*; military strategy, war theory, international relations, human and organisational management training
- Feb.-Aug. 2017 **Intern, French Army - 54ème Régiment de Transmissions & 1er Régiment de Chasseurs d'Afrique**
Introduction to the profession of arms by immersion within an intelligence regiment and then a cavalry regiment; initiation to teamwork

(* marks academic year)

HONORS & GRANTS

2023-2024	CPGE Lycée Thiers Teaching Fellowship
2023-2026	AMSE Full Doctoral Scholarship
2023	Award for the AMSE "Best Research Master Dissertation Promotion 2023"
2020-2021	ESM Saint-Cyr Student Fellowship
2020	Admitted to ESM Saint-Cyr & to EM Lyon Business School after nationwide competitive exams (top 5%)
2017-2020	Valedictorian, Standard Bearer of CPGE Lycée Militaire d'Aix
2017-2020	French Ministry of Defense Full Scholarship

WORKING PAPERS

Workforce aging, growth and productivity, single-authored

Abstract: In the literature on secular stagnation, demographic aging is widely blamed for lowering the IS curve of aggregate demand and therefore the natural interest rate. However, very little is said about the impact of workforce aging on long-term aggregate supply, or so-called potential GDP. To fill this gap, this study delves into the effects of workforce aging on two key components of the remarkably sluggish potential GDP growth of developed countries: hours worked and labour productivity. First, using a novel macro-accounting decomposition of EU-KLEMS data, we find that old-labour input has the highest contribution to growth, through both increased hours worked and shifts in labour composition in the EU, US and Japan. Second, we use panel stochastic frontier models highlighting that, however, old workers have an adverse effect on labour productivity growth frontier—though increasing technical efficiency, i.e., reducing the distance to this frontier.

Demographic winter, economic structure and productivity in Japan, joint with G. Dufrénot and E. Moreno-Galbis

Abstract: Demographic winter is increasingly prevalent across industrialized economies. Indeed, low fertility rates, mortality outstripping the birth rate and population contraction are becoming the new normal of demographic transition—the so-called "fifth stage" not anticipated by the original model. This paper seeks to evaluate how the mid-2000s demographic winter of Japan has impacted its economic structure and overall productivity. Specifically, we suggest that two key mechanisms have been at play since the 1990s: i) a growing complementarity between goods and services consumption, and ii) the substitution of older workers engaged in routine tasks with technological capital. According to Autor and Dorn's (2013) model, this should promote the concentration of low-skilled workers in the service sector, and aggravate productivity gaps between industry and services. Using panel stochastic frontier models and EU-KLEMS data, we compute industry-by-industry TFP growth frontiers in order to check if theoretical predictions match with Japanese reality.

NON-REFEREED WORK

M. Esposito. *Public policies and solidarity in the face of Japanese ageing: specificities, challenges and lessons from demographic surveys* (in French). Dumas, Sociologie. 2022. Collections DE-MOMED. Metrics: 500+ readings, 2 citations. [[Click here to access](#)]

PRESENTATIONS

2024	AMSE Ph.D Seminar 23rd Journées Louis-André Gérard-Varet French/Japanese Conference on Asian and International Economies* (Sciences Po Aix)
2023	French/Japanese Seminar on Macroeconomics and International Finance (Sciences Po Aix) French Data SHS Week [presentation available on HAL]

(* marks scheduled)

SKILLS

Programming	R, Stata, SAS, VBA
Literate Programming	Jupyter Notebook, R Markdown
Software & Tools	MS Office, \LaTeX , Magrit/QGIS, Modalisa, Oxmetrics
Languages	French (native), English (fluent), Spanish (CPGE level)

REFERENCES

Prof. Gilles Dufrénot (advisor) - Professor of Economics, Sciences Po Aix and AMSE

✉ gilles.dufrenot@sciencespo-aix.fr

Prof. Eva Moreno Galbis (advisor) - Professor of Economics, AMSE

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Prof. Isabelle Blöss-Widmer - Professor of Demography, CNRS and Aix-Marseille Univ

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Sandrine Parayre - Associate professor of Economics, CPGE Lycée Thiers

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Christophe Rodrigues - Associate professor of Economics, ENS Lyon and CPGE Lycée du Parc

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MEMBERSHIPS

Professional: [French Association of Economic Science \(AFSE\)](#)
[French Association of Population Economists \(AFÉPOP\)](#)

Alumni: [La Saint-Cyrienne](#)
[Association des Anciens Enfants de Troupe \(AET\), Corniche Lyautey](#)
[Gymnase Jean-Sturm](#)

PERSONAL INTERESTS

French/comparative literature, Graeco-Roman/medieval history, music (piano, electric and acoustic guitar), travels (Thailand, Brazil, Cuba, USA, Martinique, Mauritius, Dominican Republic, Canada, UK, Morocco, Balkans...)

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