

Mathilde Esposito

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RESEARCH INTERESTS

Demographic Aging; Productivity; Economic Growth; Labor Supply and Retirement Decisions

EDUCATION

- **Ph.D candidate in Macroeconomics** 2023—Present
Aix-Marseille School of Economics Marseille, France
 - Thesis: "Essays around the Aging-Growth Nexus"
 - Supervisors: Pr. Gilles Dufrénot, Pr. Eva Moreno Galbis
- **MSc. in Theoretical and Empirical Economics** 2021—2023
Aix-Marseille School of Economics Marseille, France
 - Master dissertation: "Another brick in the Secular Stagnation wall? Demographic aging and Skills Mismatch"
 - Valedictorian (1/12), *summa cum laude*
- **MSc. in Sociology** 2020—2021
Aix-Marseille University Aix-en-Provence, France
 - Master dissertation: "Public policies and solidarity in the face of Japanese ageing"
- **Programme Grande École** 2020—2021
École Spéciale Militaire de Saint-Cyr Coëtquidan, France
 - Promotion "Général Caillaud", 3ème Bataillon de France
 - Military strategy, war theory; international relations, human and organizational management
- **BSc. in Economics** 2017—2021
Aix-Marseille University Aix-en-Provence, France
- **BSc. in Sociology** 2017—2020
Aix-Marseille University Aix-en-Provence, France
- **Preparatory Classes for the French Grandes Écoles (ECE)** 2017—2020
Lycée Militaire d'Aix Aix-en-Provence, France
 - Intensive program preparing for the national competitive exam for entry to top business schools
 - Valedictorian (1/32), *summa cum laude*

PROFESSIONAL EXPERIENCE

- **Fund intern (FIP)** June 2026—September 2026
IMF Washington DC, US
 - Fiscal Affairs Department (FADAI)
 - Co-authored two IMF Working Papers and two book chapters
- **Economist (intern)** February 2026—April 2026
OECD Trento, Italy
 - Centre for Entrepreneurship — Spatial Productivity Lab
 - Contributed to research, data construction, and drafting of Regional Productivity reviews, Employment Outlook, Japan brochure, and Transforming Places papers
- **Visiting scholar** November 2025—January 2026
Yokohama National University Yokohama, Japan
 - Invited by Prof. Kiyotaka Sato
- **Teaching assistant** 2024—2026
Aix-Marseille University Aix-en-Provence, France
 - Undergraduate: "Globalized Economies", "Mathematics", "Industrial Organization", "Analysis", "Principles of Economics"
- **Oral—"khôlles"—examiner in economics** 2023—2024
CPGE Lycée Thiers Marseille, France
 - Conducted and coordinated open-ended 1:1 oral evaluations according to French Grandes Écoles standards
- **Officer cadet (2nd Lieutenant), platoon leader** 2020—2021
ESM Saint-Cyr — French Ministry of Defense Coëtquidan, France
 - Managed and supervised a platoon (30 soldiers) using operational command skills and a sound understanding of higher-echelon maneuvers (e.g. military headquarters), under stressful conditions

JOB MARKET PAPER

Gender Gaps in Life Expectancy: A Blessing for Growth?

Abstract: Women can expect to live longer than men worldwide. In a context of demographic aging, they are poised to play a prominent role in the workforce and, by extension, GDP growth. This paper is the first to explore the economic consequences of women's survival advantage and focuses on its effect on female labor supply, at the extensive margin. Cross-country evidence documents that gender gaps in life expectancy are systematically associated with higher female participation at old age. Individual-level data from the U.S. show that women indeed anticipate outliving their husband, which in turn increases their participation beyond conventional retirement age. Some determinants are a higher financial planning horizon and lower health-related work limitations, although other factors such as spousal care burden and predicted social security benefits may mitigate this effect. This can have implications for designing optimal retirement policies.

PUBLICATIONS

"Workforce Aging, Growth and Productivity", *The B.E. Journal of Macroeconomics (Advances)*, vol. 25, no. 2, 2025, pp. 553-593.

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), In: *Emerging Markets and Industrialized Countries in the New Wave of Globalization*, Springer, 2025.
[Working Paper version]

Abstract: Low fertility rates, mortality outstripping the birth rate, aging and population contraction characterize a new demographic transition (the so-called "fifth stage"). This chapter seeks to evaluate how this phenomenon has impacted the Japanese economic structure and overall productivity. We extend Autor and Dorn's (2013) theoretical framework to introduce two key mechanisms that have been at play since the 2000s: (i) a growing complementarity between goods and services consumption, and (ii) the substitution of older workers engaged in routine tasks with technological capital. The model predicts an increasing concentration of low-skilled workers in the service sector, which should aggravate productivity gaps between industry and services. Using 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.

WORK IN PROGRESS

1. **The Social and Fiscal Tradeoffs of Mexico's Pension Reform (joint with Boele Bonthuis, Mitali Das, Saraf Nawar and Misa Takebe)**
2. **Improving Customs Performance through Performance Contracts in Cameroon (joint with Mitali Das and Bahrom Shukurov)**
3. **Productivity Expectations and the Fertility Rebound (joint with Masashige Hamano)**

PRESENTATIONS

IMF FAD Check-in meeting (x2), Yokohama National University Seminar, [PSE-CEPR Policy Forum 2025 \[poster available here\]](#), [AFSE 2025](#), [AFÉPOP 2025](#), [French-Japanese Conference of Sciences Po 2024](#), [LAGV 2024](#), [AMSE Ph.D Seminar \(x3\)](#), [French-Japanese Seminar of Sciences Po 2023](#), [French Data SHS Week 2023](#)

SKILLS

- **Programming:** R, Stata, SAS
- **Literate Programming:** Jupyter Notebook, R Markdown, GitHub
- **Software and Tools:** MS Office, L^AT_EX, Magrit/QGIS, Modalisa, Oxmetrics
- **Languages:** French (native), English (fluent), Spanish (intermediate), Japanese (beginner)

REFEREEING

International Economics

HONORS AND GRANTS

- Aix-Marseille Univ Teaching Fellowship 2024—2025
- CPGE Lycée Thiers Teaching Fellowship 2023—2024
- AMSE Full Doctoral Scholarship 2023—2026
- Award for the AMSE "*Best Research Master Dissertation Promotion 2023*" 2023
- French Government Full Scholarship as "*élève Saint-Cyrien*" 2020—2021
- Admitted to *ESM Saint-Cyr* and *emlyon business school* after nationwide competitive exams (top 5%) 2020
- Valedictorian, Honorary Position (Standard Bearer) at CPGE Lycée Militaire d'Aix 2017—2020
- French Ministry of Defense Merit-Based Full Scholarship 2017—2020

TEACHING

- Teaching assistant** for the undergraduate course *Principles of Economics* - Aix-Marseille Univ Autumn 2026
- Teaching assistant** for the Cycle Pluridisciplinaire d'Études Supérieures course *Globalized Economies* - Aix-Marseille Univ Spring 2025
- Teaching assistant** for the undergraduate course *Industrial Organization* - Aix-Marseille Univ Spring 2025
- Teaching assistant** for the undergraduate course *Mathematics* - Aix-Marseille Univ Fall 2024
- Teaching assistant** for the undergraduate course *Analysis* - Aix-Marseille Univ Fall 2024
- Oral—"khôlles"—examiner in economics** - CPGE Lycée Thiers 2023—2024

REFERENCES

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| 1. Gilles Dufrénot (advisor)
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Email: gilles.dufrenot@sciencespo-aix.fr | 3. Mitali Das
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IMF
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| 2. Eva Moreno Galbis (co-advisor)
Professor of Economics
Aix-Marseille School of Economics
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Professor of Economics
Waseda University
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