

SELIM ELBADRI

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PLACEMENT INFORMATION

Primary Field	Macroeconomics, Growth & Development, Structural Change
Secondary Fields	Human Capital, Innovation
Expected Completion	March 2027
Placement Officers	Gianni de Fraja, Professor of Economics, gianni.defraja@nottingham.ac.uk Marit Hinnosaar, Associate Professor, marit.hinnosaar@nottingham.ac.uk
Placement Support	Natalia Bas, Senior Operations Officer, natalia.bas@nottingham.ac.uk

EDUCATION

PhD Economics [Candidate] <i>University of Nottingham, UK</i> Thesis title: Essays on Growth & Development Advisors: Markus Eberhardt & Juan I. Vizcaino	2022–2027 (expected)
MRes Economics [Distinction] <i>University of Nottingham, UK</i>	2021–2022
MSc Economics for Development [Merit] <i>University of Oxford, UK</i>	2017–2018
BA (Hons) International Development [First Class] <i>King's College London, UK</i>	2014–2017

JOB MARKET PAPER

Early Childhood Development and Structural Change [\[Paper\]](#) [\[Poster\]](#)

This paper presents a theory of how early childhood development shapes structural change. I document two novel cross-country facts: parental time devoted to young children (ages 0–4) and early childhood cognitive outcomes both rise with economic development, together with the High-Skill Services employment share. I construct a heterogeneous agent general equilibrium model that embeds a multi-stage human capital technology with dynamic complementarity into a structural change model with non-homothetic preferences and unbalanced sectoral TFP growth. Through dynamic complementarity, higher early childhood human capital generates a more skilled workforce, which raises both the supply of and demand for High-Skill Services. The model matches patterns of time use, structural change, and the skill distribution in the postwar US. I show that dynamic complementarity accounts for 33.1% of US structural change toward High-Skill Services in general equilibrium. The result suggests that skill formation in early childhood matters for the sectoral composition of modern economies.

WORKING PAPERS

An Anatomy of the Baumol Cost Disease [\[Paper\]](#) *Joint with Juan I. Vizcaino*

We study how structural change shapes aggregate productivity through the allocation of production and innovation. Using U.S. data, we document that production employment moves from Goods toward non-research-intensive Services, while research employment moves predominantly toward research-intensive Services. We develop a general equilibrium model in which sectoral composition, capital deepening, and directed innovation are jointly determined, with heterogeneous markups and cross-sector knowledge spillovers. Holding initial value added shares fixed while retaining baseline sectoral productivity paths raises average annual aggregate productivity growth by 0.13 percentage points over 1950–2023. Removing the forces driving changes in value added shares and re-solving the equilibrium raises growth by 0.37 percentage points, leaving productivity approximately 31 percent higher

in 2023. An exact decomposition attributes 62 percent of this growth difference to the endogenous response of sectoral productivity. Innovation provides the largest positive contribution: sustaining the Goods sector’s market share supports research and idea accumulation, reinforced by its reliance on its own knowledge stock. These findings show that the productivity consequences of structural change depend on both the reallocation of production and the innovation incentives generated by that reallocation.

A Services-Led Growth Escalator? [\[Paper\]](#)

This paper documents three new facts on productivity growth in services. First, the variance of services productivity growth is higher in developing countries than advanced ones. Second, services productivity growth (or lack thereof) is driven by broad-based improvements (deteriorations) across the different services sub-sectors (‘within’ channel) as opposed to sub-sector reallocations of employment to more productive services industries (‘between’ channel). Third, the ‘within’ channel’s effect is partly driven by conditional convergence in services productivity between countries. Combined, these facts motivate a theoretical framework where, like the one-sector neoclassical growth model, the social planner faces a standard consumption-investment trade-off. Differently from the benchmark model however, the planner faces an additional static problem which involves allocating investment between two competing technologies. The first is a catch-up technology while the second is a CRS technology. The gains of the former depend on the level of development that is, the further away from the frontier the higher the returns. Crucially, a country-specific growth efficiency parameter interacts solely with the catch-up technology, scaling the marginal gains from this allocation. Productivity growth in the transitional dynamics therefore depends on three factors: the distance to the frontier, the investment rate and the growth efficiency level. Using the World Input-Output Database (WIOD), I calibrate the growth efficiency level to match the 2000-2005 compound annual growth rate of services value added per worker. The calibration outcomes are used for several quantitative exercises, including a variance decomposition of productivity growth in services as well as two counterfactual exercises. A key result of the paper is that assigning sample maximum growth efficiency levels and investment rates raises average growth among developing countries from an observed 3.6% to a counterfactual rate of 18.7%, closing 86.7% of the gap between observed average growth and the maximum potential growth rate.

DATASETS

Measuring US Industry Level Productivity: 1947–2023 [\[Github Repo\]](#) [\[Dataset\]](#)

Joint with Juan I. Vizcaino

POLICY WRITINGS

Fiscal Discipline and Private Finance Mobilization: Can MDBs Help? [\[AIIB Working Paper\]](#)

Joint with Soumya Bhadury (AIIB Working Paper No. 18)

Water Stress and Sovereign Credit Ratings

Joint with Arrad Tabandeh (forthcoming, AIIB Working Paper)

RESEARCH EXPERIENCE

Research Assistant for Project: “Occupational Dynasties & Economic Development” 2023–2025

Authors: David Lagakos, Siddharth George, and Martin Shu

Remote

Visiting Researcher (Fall Semester) 2024

Host: Rodolfo Manuelli

Washington University in St. Louis, USA

WORK EXPERIENCE

Summer Intern, Economics Department 2025

Asian Infrastructure Investment Bank (AIIB), China

Summer Intern, Economics Department 2024

Asian Infrastructure Investment Bank (AIIB), China

MENA Country Risk Analyst <i>Fitch Group, UK</i>	2018–2021
Short-Term Consultant <i>World Bank Group (WBG), USA</i>	2018
Short-Term Consultant <i>World Bank Group (WBG), Remote</i>	2018

TEACHING EXPERIENCE

Graduate Teaching Assistant <i>University of Nottingham, UK</i> ECON2012: Financial Economics	2023–2024
Graduate Teaching Assistant <i>University of Nottingham, UK</i> ECON1050: Introduction to Economics [Macro] ECON1051: The Politics of Economics and the Economics of Politicians	2022–2023

CONFERENCE & SEMINAR PRESENTATIONS

2026	Washington University in St. Louis Economics Graduate School Conference (scheduled); Tools for Macroeconomists Research Workshop; International Economic Association (IEA) 21st World Congress; 2nd International Conference of the Georgian Economic Association; 16th Annual Meeting of the Armenian Economic Association
2024	Washington University in St. Louis Macro Brown Bag; Ruhr Graduate School (RGS) Doctoral Conference in Economics; Centre for the Study of African Economies (CSAE) Conference; University of Macedonia 8th International Meeting in Economics
2023	Nottingham PhD Economics Conference; Centre for the Study of African Economies (CSAE) Conference
2022	Nottingham MRes Dissertation Conference; Nottingham Macro Working Group

FELLOWSHIPS & AWARDS

Best Poster Award, Doctoral training in Structural Change, Growth, and Economic Development	2026
ESRC +3.5 Doctoral Scholarship, University of Nottingham	2022
Top of Class, MRes Economics, University of Nottingham	2022
School of Economics Scholarship, University of Nottingham	2021

CODING & LANGUAGES

Languages	English, Arabic (Fluent)	French, Mandarin (Intermediate)
Software	Stata, MATLAB, LaTeX, Julia (Advanced)	

REFERENCES

Markus Eberhardt Associate Professor of Economics University of Nottingham markus.eberhardt@nottingham.ac.uk	Juan Ignacio Vizcaino Assistant Professor of Economics University of Nottingham juan.vizcaino@nottingham.ac.uk	Douglas Gollin Professor of Economics Tufts University douglas.gollin@tufts.edu
Martin Shu Assistant Professor of Economics CUHK-Shenzhen martinshu@cuhk.edu.cn	Jang Ping Thia Acting Chief Economist Asian Infrastructure Investment Bank jangping.thia@aiib.org	