

Kevin GENNA

CONTACT INFORMATION

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CURRENT POSITION

Temporary lecturer: AMSE, Aix-Marseille University **2020-**
Job Market Paper: The energy transition and fossil energy use

EDUCATION

Ph.D candidate in Economics, AMSE, Aix-Marseille University **2017-2021** (expected)
Under the direction of Alain Venditti and Raouf Boucekkin.
Visiting Scholar, Rice University, Houston **Fall 2019**
Visiting PhD candidate at the economics department, invited by prof. Ted Loch-Temzelides
M.Sc in Economics, AMSE, Aix Marseille University, with highest honours **2015-2017**
Specialization in macroeconomics and development
B.Sc in Economics and accounting , Université Lille 1, with honours **2012-2015**
Classe préparatoire ENS Cachan

RESEARCH TOPICS

Energy economics, Structural change, Endogenous growth, Environmental economics

WORK IN PROGRESS

Non-balanced endogenous growth and structural change: when Lucas meets Kaldor and Kuznets, Genna K., Ghigliano C., Nishimura K., and A. Venditti, (2020 draft available on request)

The energy transition and fossil energy use (Job Market paper)

Energy trade and soil composition, a carbon curse?

How does biased technological change affects energy production in the US ? Evidence from patent data

OTHER PUBLICATIONS

The State's role in optimal schooling, as related to age-structure and longevity, Genna K., in *AMSE DialogEco*, 2019. Available in French and English.

CONFERENCES AND SEMINARS

2020

Winter meeting of the econometric society, December (online)

Jamboree EDGE, September (online)

Journées Louis André Gerard Varet, June, Aix-en-Provence, France *canceled*

Theory and Methods in Macroeconomics. March, Aix-en-Provence, France. *Canceled*

AMSE PhD seminar, January, Marseille, France.

2019

Rice university, brown bag seminar. November, Houston, US.

Real and financial interdependencies: Instability, international openness and regulation policies. June, Marseille, France.

AMSE PhD seminar, January, Marseille, France.

2018

Journées Louis André Gerard Varet: Growth session. June, Aix-en-Provence, France.

Université Catholique de Louvain seminar. May, Louvain la Neuve, Belgium.

AMSE PhD seminar. March, Marseille, France.

Theory and Methods in Macroeconomics: Macroeconomic Dynamics session. March, Paris, France.

2017

Real and financial interdependencies: New approaches with dynamic general equilibrium models. July, Paris, France.

SUMMER SCHOOL & VISITING

Lancaster PhD Summer School(virtual) 29-30 june 2020

Bayesian Methods for Empirical Macroeconomics

Rice University, economics department, Houston

Fall 2019

Visiting scholar, invited by professor Ted Loch-Temzelides.

Barcelona GSE summer school

3-7 July 2017

Bayesian methods for time series analysis

TEACHING

Macroeconomics, t.a, (undergraduate) at Aix Marseille University

2017-2021

Microeconomics, t.a, (undergraduate) at Aix Marseille University

2019-2021

Statistical approach for economic and social questions

2018-2019

t.a, (undergraduate) at Aix Marseille University

SKILLS

Programming: L^AT_EX, R, Matlab, Stata

Language: French (native), English (fluent), Italian (some)

ACADEMIC ACTIVITY

Journées Louis André Gerard Varet: organization team, Aix-en-Provence 2016-2019
FAERE Conference: organization team, Aix-en-Provence 2018

ADMINISTRATIVE ACTIVITY

AMSE PhD student representative 2018-2020
Ecole doctorale PhD students' representative 2018-2020

AWARDS AND FUNDING

Temporary lecturer 1 year grant from Aix Marseille University 2020-2021
Research stay at Rice University AMSE funding for a 3month research stay at Rice University
economics department in Houston, invited by professor Ted Loch-Temzelides fall 2019
3 years PhD grant Doctoral fellowship from the French ministry of research 2017-2020
Best Master dissertation AMSE award of the best master dissertation 2016-2017

REFERENCES

Alain Venditti (Supervisor)
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The energy transition and fossil energy use (JMP)

Achieving the energy transition is among global priorities of the 21st century, one key element to success being the development of affordable renewable technology to compete with fossil energy. While technological progress seems already biased in favor of the renewable sector since the 80's, we had to wait until 2005 to observe a sharp increase of its share in the energy mix. In this paper I develop a theoretical model of energy transition able to explain this delay through a lasting capital effect in favor of fossil energy. The existence of a trade-off between efficient pollutant capital and less efficient carbon-free alternative, in a context of embodied technical change and long living power plants, slows down the capacity to close polluting units. This mechanism postpone the effect of biased technical change as we observe in the data. I also show that the divergence between the EU and the US on the timing of the energy transition can be explained by subjective beliefs about future damages from pollution. Simulation of both an optimistic view for the US and a pessimistic one for the EU matches with trajectories observed in the data.

Non-balanced endogenous growth and structural change: when Lucas meets Kaldor and Kuznets (with Christian Ghiglino, Kazuo Nishimura and Alain Venditti)

We imbed workers human capital accumulation à la Lucas (1988) into an intermediate sectors model à la Acemoglu and Guerrieri(2008). Individual knowledge is labor-augmenting and knowledge accumulation leads to an unbounded increase in TFP in the knowledge-intensive sector. We study structural change both along the asymptotic equilibrium (i.e. the NBGP) and along the transition path. The asymmetry in the growth rates of TFP leads to asymptotic non-balanced growth, which is characterized by a constant growth rate of GDP per capita, constant interest rate and capital share in national income. Labor and capital reallocation across sectors occur and lead to a greater increase in output, capital and labor for the knowledge-intensive sector. The model is able to recover both the increasing shares of high-skilled workers, and the increasing real and nominal shares of the “knowledge-intensive” sector observed in the US. Interestingly, the economy follows a growth path converging to a particular level of wealth that depends on the initial price of capital and knowledge. As a consequence, countries with the same fundamentals but lower initial wealth will be characterized by lower asymptotic wealth. We therefore extend the Lucas (1988) finding and prove the existence of non-convergence across countries in a framework with structural change.