

## Toulouse School of Economics

### Manh-Hung NGUYEN

PhD in Economics, University of Paris 1, Panthéon-Sorbonne, 2007

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#### POSITIONS

Jun 2007- Sep 2007 : Visiting fellow, Department of Economics, Cornell University

Jan 2009-Jun 2009: Research fellow, Department of Economics, NUS, Singapore

Jan 2011-Mar 2011: Research fellow, NUS Business School, Singapore

Jul 2008- : Researcher, Toulouse School of Economics (TSE-R, INRAE)

#### RESEARCH INTERESTS

- Macroeconomic Dynamics, Environmental and Natural Resources Economics, Climate Change, Economics of Epidemiology

#### TEACHING

Toulouse School of Economics: *Topics in Environmental Economics* (Master2- ERNA), 2015, 2016, 2017, 2018.

Toulouse School of Economics: *Water Economics* (Master2-ERNA): 2013, 2014

Pôles Universitaires Français : PUF-UT1-HCM : *Statistics* : 2011, 2012, 2013, 2014, 2015.

VCREME: *Microeconomics, Optimization, Macroeconomic Dynamics, Econometrics*, 2012, 2013, 2014, 2015, 2016, 2017.

National University of Singapore: *Advanced Mathematical Economics* (PhD, EC6104), 2009.

National University of Singapore: *Macroeconomic Analysis* (EC4102), 2009.

#### PUBLICATIONS

##### *Articles in peer reviewed journals*

1. General existence of competitive equilibrium in the growth model with an endogenous labor-leisure choice (with A Goenka), **Journal of Mathematical Economics**, Vol 91, Pages 90-98, Dec , 2020
2. Sustainable development en environmental policy: the engagement of stakeholders in green products in Vietnam (with Q LeVan, VT Nguyen), **Business Strategy and the Environment**, Vol 28, 675-687, 2019.
3. Towards green growth in Vietnam: the case of marine capture fisheries, (with Q Levan and T Nguyen), **Biophysical Economics and Resource Quality**, Springer, Vol 3, August, 2018
4. Is there a demand for flood insurance in Vietnam? Results from a choice experiment , (with A. Reynaud et C. Aubert), **Environmental Economics and Policy Studies**, Springer, Vol 20, 593-617, 2018.
5. Optimal endogenous growth and natural resources: theory and evidence (with Ph. Nguyen Van), **Macroeconomic Dynamics**, Cambridge University Press, p. 2173-2209, Dec 2016.
6. Arbitrage and asset market equilibrium in infinite dimensional economies with risk-averse expected utilities, (with C. Le Van and T.Ha Huy ), **Mathematical Social Sciences**, Elsevier-ScienceDirect, vol. 79, p. 30-39, 2016.
7. Valuing Flood Risk Reductions, (with A. Reynaud), **Environmental Modeling & Assessment**, Springer, Vol 21, pages 603-617, 2016
8. Medical students need a core English curriculum based on CEFR (common European framework of reference for languages), (with Nhan, N.T, Huy, NV, Hoat L.N, J. Gallup), **Asian Journal of Educational Research**, 4 (5), 14-23, 2016.

9. Infectious diseases and economic growth, (with A. Goenka and L. Liu), **Journal of Mathematical Economics**, Elsevier-ScienceDirect, vol. 50, p. 34-53 , 2014.
10. Living with floods: flood protective behaviours and flood risk perception of Vietnam households, (with A. Reynaud, C. Aubert), **The Geneva papers of Risk and Insurance -Issues and Practice**, Palgrave Macmillan, (38), 547-579, June, 2013.
11. Existence of competitive equilibrium in an optimal growth model with heterogeneous agents and endogenous leisure, (with A. Goenka and C. Le Van), **Macroeconomic Dynamics**, Cambridge University Press, (16), 33-51, April, 2012.
12. No unbounded arbitrage, weak no market arbitrage and no arbitrage price system: the equivalent conditions,(with T.HaHuy), **Journal of Mathematical Economics**, Elsevier ScienceDirect (1), 228-231, 2010.
13. Equilibrium dynamics in an aggregative model of capital accumulation with heterogeneous agents and elastic labor, (with C. Le Van, Y. Vailakis), **Journal of Mathematical Economics**, Elsevier ScienceDirect, (43) 287-317, 2007.
14. Modelling transformation in Vietnam using smooth transition (with KM. Nguyen and VH Nguyen), **Environmental Economics**,(3), 16-32, 2011.
15. New technology, human capital and growth for developing countries, (with C. Le Van ,T.A Nguyen, TB. Luong), **Mathematical Population Studies**, Taylor & Francis (Routledge), (17), 215-241, 2010.
16. On alternative theorem and necessary optimality conditions for efficiency (with D.V. Luu), **Optimization**, Taylor & Francis, (58), 49-62, 2009.
17. On necessary conditions for efficiency in directionally differentiable multiobjective optimization problems (with D.V. Luu), **Nonlinear Functional Analysis and Applications**, Kyungnam University Press (12), 439-453, 2007.
18. Invexity of constraint maps in mathematical programs,(with D.V. Luu), **Nonlinear Functional Analysis and Applications**, Kyungnam University Press (9), 289-304, 2004.
19. New technology, human capital and growth: European transitional economies, (with C. Le Van, TA.Nguyen, TB. Luong), **Economic Studies**, (1), 9-20, 2008.
20. Algorithms for fractional programming and applications , **Journal of Water Resources & Environmental Engineering**, 15-35, 2004.
21.  $\epsilon$ -exact algorithms for combinatorial optimization problems and applications, **Journal of Water Resources and Environmental Engineering**, 9-17, 2004.
22. Branch and bound algorithm for Pareto optimality and integer programming, **Scientific Bulletin**, , 8-21, 2001.

#### **Working papers**

1. SIR Economic Epidemiological Models with Disease Induced Mortality, (with Aditya Goenka and Lin Liu), TSE Working Paper, n° 20-1150, october 2020, forthcoming **Journal of Mathematical Economics**.
2. COVID-19, lockdown and labor uncertainty, (with TA Luong), TSE Working Paper, n. 20-1137, August 2020, under review *Journal of Health Economics*.
3. Modeling optimal quarantines under infectious disease related mortality, (with A. Goenka and L.Liu), TSE Working Paper, n. 20-1136), August 2020, under review *Economic Theory*.
4. Covid-19 and a green recovery, (with A. Goenka and L. Lin), WP, October, 2020, under review *Economic Modelling*.
5. How do tourists and residents value coastal erosion management programs? New evidence from Hoi An (Vietnam), a UNESCO World Heritage Site, (with LA Nguyen, A. Reynaud, M. Simioni), October 2020, under

review *Environmental and Resource Economics*.

6. Vulnerability to natural disaster and welfare effect: a case study of flood risk impact in Vietnam's north central region, (with Dung Le and Vo Thang), October 2020, under review *Journal of Asian and African Studies*.

7. The COVID-19 Pandemic Disproportionately Affect the Poor? Evidence from a Six-Country Survey (with HA Dang, T Huynh), IZA Discussion Paper No. 13352, June, 2020.

8. The Fossil Energy Interlude: Optimal Building, Maintaining and Scraping a Dedicated Capital, and the Hotelling Rule, (with JP. Amigues, M. Moreaux) FAERE Working Paper, 2019.07

9. Tourists' valuation of coastal erosion management: A case study of Hoi An World Heritage Site, Vietnam, (with LA Nguyen and T. Nguyen, A reynaud, M Simionie), October 2020, under review AEL

10. The spatial impact of natural disasters on fishery in Vietnam (with VC Le and LA Nguyen), October 2020, under review.

11. Production Inefficiency of the U.S. Electricity Industry in the Face of Restructuring and Emission Reduction, (with VC Le and S. Atkinson ), October, 2020.

12. The labor productivity impacts of climate change: Evidence from Vietnamese firm-level data (with T. Nguyen), Septembrer 2020.

13. Now or later, the optimal timing of environmental policy, (with Luong TA), September 2020.

14. Macroeconomics with corruption temptation, (with Toan. P), 2017

15. Cognitive and economic development, with John Gallup, presented at ASSA, American Economic Association meeting, Jan 2018.

## **BOOKS**

1. *Optimality conditions and optimal economic growth models*, Lambert Academic Publishing, ISBN: 978-3-8383-6112-3, 2010.

2. *Selected Mathematics Problems : Methods and Comments*, (with D.T Hai), 490 pages, 3rd edition, (in Vietnamese), *Hanoi National University Publisher*, 2004.

## **PROJECTS**

1. *Croissance Économique et Demande d'Énergie en présence du Progrès Technique Endogène (CEDEPTE)*", The ANR project, CNRS, 2007-2009.

2. *Assessment of climate change impacts on NgheAn, Vietnam: mitigation and adaptation*, 2012-2014, VCREME-VIETFLOOD (co-leader).

3. *Risk Analysis and Policy Assessment for Wheat Health (POLIRISK)*, Métaprogramme SMACH, INRA 2016-2019 (co-leader).

4. *Impacts of Coastal Erosion in Vietnam: Theoretical Models and Empirical Approaches (VIET-EROSION)* (leader), 2017-2019.

5. *Macroeconomic Analysis of Public and Private Debt Problems in Vietnam*, (PUBLIC-DEBT), 2017-2019.

6. *Impacts socio-économiques du changement climatique au Viet Nam et stratégies d'adaptation (GEMMES VN)*, (leader WP ECO ), 2020-2023. ( Funded by AFD : 1 Million euros)