

Seminar in Economic Policy – Winter 2015/16

Topics in Innovation and Growth

1 Introduction

The field of Economic Policy focuses on establishing a general framework for governmental economic activity. Furthermore, it investigates the consequences of government interventions into the market that aim at correcting the market outcome. Embedded in this context the team at the Chair in Economic Policy analyzes government activity. The three core areas are Innovation, Economic Growth and Regional Development. In their research the team develops formal theoretical models and applies these models by means of simulations and empirical analyses to concrete economic problems. The objective is to derive policy recommendations that are based on theory.

2 Topics

Theory, quantitative methods, empirical applications and policy implications in the field of innovation and growth are addressed in the seminar. The adaptation of topics by students may emphasize theoretical, quantitative or empirical aspects. The following topics are being considered:

1. Environmental innovations: The double externality problem
Literature: Rennings (2000), Jaffe et al. (2005)
Supervisor: Dr. Ivan Savin
2. The concept of technology from the viewpoint of complexity theory
Literature: Arthur and Polak (2006), Frenken (2006), Silverberg and Verspagen (2005)
Supervisor: Dr. Ivan Savin
3. The roles of capital accumulation and innovation in endogenous growth models: A Review
Literature: Aghion and Howitt (1992), Zeng (2003)
Supervisor: Dr. Levent Eraydin

4. The impacts of technological change on human capital accumulation in endogenous growth models
Literature: Mattalia (2012), Blackburn et al. (2000)
Supervisor: Dr. Levent Eraydin
5. Economic complexity
Literature: Klimek et al. (2012), Hausmann and Hidalgo (2011)
Supervisor: Vladimir Korzinov
6. Robots at work
Literature: Graetz and Michaels (2015)
Supervisor: Vladimir Korzinov
7. Smart specialization
Literature: Capello and Lenzi (2013), McCann and Ortega-Argilés (2013)
Supervisor: Andrea Hammer
8. Institutions and regional development
Literature: Rodriguez-Pose (2013)
Supervisor: Andrea Hammer
9. Human capital and technological change
Literature: Graetz and Michaels (2015), Bowles (2014), Acemoglu and Autor (2012)
Supervisor: Prof. Dr. Ingrid Ott
10. The diffusion of technology
Literature: Barro and Sala-I-Martin (2004, chap8) and Acemoglu (2009, chap18)
Supervisor: Prof. Dr. Ingrid Ott

The literature sources indicated only serve as a starting point for elaborations. Supplementary literature search is essential for a complete and differentiated examination of the particular seminar topic. If you encounter difficulties during processing or in any way have need for coordination, you can contact us. Questions regarding the topics should be directed to the supervisor indicated above.

3 Organisation

The seminar is intended for Master students at KIT.

3.1 Application

The registration has to be submitted online at the service portal of the Department of Economics and Management (<https://portal.wiwi.kit.edu>). Between Friday, June 26th 2015, and Sunday, July 6th 2015, the online application forms are activated.

The number of seminar participants is limited to 20. If there are more applications than that, previous course participations at the Chair in Economic Policy are taken into consideration for acceptance decisions.

Applicants will be notified about these decisions via email on July 7th 2015. Participation must then be confirmed until July 10th 2015.

3.2 Time schedule

There will be two blocked phases of attendance on which presence is mandatory:

1. Introduction and preliminary discussion on Wednesday, October 21st 2015, 1:15 - 2:45 p.m., room 214, building 11.40.
2. Presentations on Thursday, December 3rd (lecture room 001, building 20.13) and on Friday, December 4th 2015 (room 002, building 20.12).

Rooms and hours will be announced in time.

3.3 Certificates

In order to be officially registered, participants will have to provide a completed seminar form until Monday, July 20th 2015. The mailbox of the Chair in Economic Policy is located in building 20.14, ground floor.

The corresponding form template for Master students is to be found in the download section of the Department of Economics and Management (Section: Study and Education: <https://www.wiwi.kit.edu/english/studium.php>).

Placeholder in the module handbooks is SemIWW3. Students in the Diploma program receive a form from the secretariat at the Chair in Economic Policy.

3.4 Formalities

The assessment is carried out through a term paper within the range of 12 to 15 pages, a presentation of the results of the work in a seminar meeting, and active participation in the discussions of the seminar meeting (§ 4 (2), 3 SPO). The final grade is composed of the weighted graded examinations. (Essay 50%, 40% oral presentation, active participation 10%).

The final version of the written paper has to be provided until Monday, November, 30th 2015, printed three times. Again, please use the mailbox of the Chair in Economic Policy, which is located in building 20.14, ground floor. Additionally, please provide a PDF-version of your work (via email, CD, or USB flash drive) to your supervisor.

The title page must list the respective student's name, identification number, study programme, and the current number of semesters. Moreover, the final paper has to include a signed statement according to the following text:

Ich versichere wahrheitsgemäß, die Arbeit selbstständig angefertigt, keine anderen als die angegebenen Quellen und Hilfsmittel benutzt zu haben, die wörtlich oder inhaltlich übernommenen Stellen als solche kenntlich gemacht zu haben und die Satzung des Karlsruher Instituts für Technologie (KIT) zur Sicherung guter wissenschaftlicher Praxis beachtet zu haben.

We expressly point out that **all papers in which signed statements are missing, will not be accepted** and students will therefore not be graded. Also take into consideration the brief notes on writing an academic paper from the Chair in Economic Policy (<http://wipo.econ.kit.edu/english/68.php>). In particular, list all your references in an appended bibliography at the end of the paper. There is a password protected L^AT_EX template for papers available. In case you are interested in adopting the template for your paper we recommend that you use it in combination with MikTeX and WinEdt.

All further details of preparation are discussed during the first meeting (Introduction and preliminary discussion).

Literaturverzeichnis

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McCann, P. and Ortega-Argilés, R.: 2013, Transforming European regional policy: a results-driven agenda and smart specialization, *Oxford Review of Economic Policy* **29**(2), 405–431.

Rennings, K.: 2000, Redefining innovation - eco-innovation research and the contribution from ecological economics, *Ecological Economics* **32**(2), 319–332.

Rodriguez-Pose, A.: 2013, Do institutions matter for regional development?, *Regional Studies* **47**(7), 1034–1047.

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