

Last Name: _____

First Name: _____

Immatriculation No.: _____

Place No.: _____

BERGISCHE UNIVERSITÄT WUPPERTAL
Fachbereich Wirtschaftswissenschaft

Klausuraufgaben

International Environmental Economics
and International Policy Issues

Alle Studienrichtungen

Prüfer / Examiner:
Prof. Dr. P.J.J. Welfens

Prüfungstag / Date:
22.09.2014

Erlaubte Hilfsmittel / Allowed tools:
Keine / None

Alle Aussagen sind zu begründen und Rechenschritte, so fern notwendig vollständig wiederzugeben.

Abweichungen führen zu Abzügen bei der Punktzahl.

Bei Unklarheiten im Verständnis der Aufgaben ist anzugeben unter welche Annahmen die Aufgaben bearbeitet wurden.

Die Klausur gilt als bestanden, wenn die erreichte Punktzahl mindestens 45 Punkte beträgt.

All arguments are to be justified and all steps of any calculation should be stated.

Deviations might lead to a deduction of points.

If unclear on how to answer a question, name the assumptions under which the question has been answered.

The exam is passed if the overall amount of points is at least 45.

Unterschrift / Signature

Die Klausur besteht aus insgesamt 2 (zwei) Seiten. / The exam consists of 2 (two) pages.

Part I

Question 1 (20 Points)

- a) (10 Points) Explain the concept of an external effect. Give some examples for negative and positive externality.
Show graphically how to internalize a negative external effect using a Pigovian tax.
- b) (10 Points) Name 3 standard-orientated environmental instruments and evaluate them using at least 3 criteria for the assessment of standard-oriented instruments. What is the most suitable instrument?

Question 2 (10 Points)

Two firms are ordered by the federal government to reduce their pollution level. The abatement aim is 60 units ($A = 60$). The first firm's abatement cost function corresponds to

$$AC_1 = 100 + \frac{5}{2} A_1^2.$$

The second firm's abatement cost function is

$$AC_2 = 100 + \frac{7}{2} A_2^2$$

Calculate the cost efficient abatement of the respective firms and show the result graphically.

Part II

Question 1 (10 Points)

Explain the concept of resource efficiency and a double decoupling and main differences to classic environmental policy approaches.

Question 2 (10 Points)

Describe two different market-based instruments and how they could support resource efficiency.

Question 3 (10 Points)

What are key analytical dimensions how these instruments sum up to an efficient policy mix?

Part III

Question 1 (18 Points)

- a) (9 Points) Please explain the 3 main objectives of energy policy.
- b) (3 Points) Please describe the trade-offs between those and support your answer with examples.
- c) (3 Points) To which three additional objectives should serve EU-Member countries?
- d) (3 Points) Please list the determinants of energy policy.

Question 2 (12 Points)

Please explain 3 out of 4 of the following concepts: (4 points each)

- (1) Carbon lock-in effect
- (2) Ecological Kuznet's curve
- (3) Dutch disease
- (4) Development of demand elasticity for oil since 70s