

Schreiben Sie den Nachnamen, den Vornamen und den Studiengang in DRUCKSCHRIFT!

Nachname:\_\_\_\_\_

Vorname:\_\_\_\_\_

Matrikel-Nr.:\_\_\_\_\_

Studiengang:\_\_\_\_\_

Unterschrift:\_\_\_\_\_

☐ Regulärer Versuch   ☐ Erste Wiederholung   ☐ Zweite Wiederholung   ☐ Verbesserungsversuch

Universität Rostock  
Wirtschafts- und Sozialwissenschaftliche Fakultät  
Lehrstuhl für Angewandte Wirtschaftsforschung  
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Modulprüfung  
Außenhandelstheorie und -politik  
MSc VWL

Wintersemester 2024-25, 3. Februar 2025

- Beantworten Sie zwei der drei gestellten Aufgaben! Unterschreiben Sie die Klausur auf der letzten Seite. Alle Aufgaben sind gleich gewichtet.
- *Please answer two out of three questions! Sign the exam on the last page. All questions are equally weighted.*
- Erlaubte Hilfsmittel: keine / *Additional materials allowed: none.*
- Insgesamt sind in der Klausur **90 Punkte** zu erreichen / *Overall 90 points are achievable.*
- Um die Klausur zu bestehen, müssen Sie **mindestens 46 Punkte** erreichen.
- *To pass the exam, you will need to achieve **at least 46 points**.*
- Bearbeitungszeit: 90 Minuten
- *Time limit: 90 minutes*
- *Viel Erfolg / Good luck!*

**Two (and only two) out of three questions! If you attempt more than two questions, cross out the one you do NOT want counted. Otherwise, we will count the first two.**

**1. Heckscher-Ohlin model (45 points)**

Consider a model of two countries (home and foreign), two goods (cars and coffee) and two factors (labor and capital). Suppose that the standard assumptions of the  $2 \times 2 \times 2$  Heckscher-Ohlin model are satisfied. Assume also that home is relatively abundant in labor, while foreign is relatively abundant in capital. Assume further that the production of cars is capital-intensive, while the production of coffee is labor-intensive.

- In general, what does the Stolper-Samuelson theorem predict regarding the effect of a change in the relative goods price on real returns to factors? (9 points)
- Suppose that the relative price of coffee increases. How do the real return to labor and the real return to capital change in country home? Are the changes in returns to factors larger or smaller than the change in the price of coffee? Show graphically and explain. (18 points)
- Now suppose that the labor endowment in country home increases, while its capital endowment is unchanged. Suppose that relative prices are unchanged. Do the goods outputs of country home change? If so, in what way? Show graphically and explain. (18 points)

**2. Monopolistic competition (45 points)**

Consider the Krugman model of monopolistic competition with homogeneous firms. Assume the existence of two countries, country home and country foreign. Suppose firms in country home are producing  $N$  varieties of a certain product by monopolistic competition, where each firm produces one variety. Consumers in country home derive utility from product variety. Country home considers entering into a free trade agreement with country foreign, which is completely identical to country home.

- In a Heckscher-Ohlin type model, what would be the effect of moving from autarky to free trade on goods prices and returns to factors when two countries are identical? Explain briefly. (9 points)
- What are the drivers of gains from trade in the setting of monopolistic competition with homogeneous firms? Explain briefly. (12 points)
- What is the selection effect? What is the scale effect? Explain briefly. (12 points)
- Consider now a Melitz type model of monopolistic competition with heterogeneous firms. Why do some firms exit completely, some firms only produce for the domestic market and some firms export? (12 points)

**3. Trade policy (45 points)**

Suppose a small country considers introducing a tariff to protect its steel industry. The government considers a specific tariff of  $t$  euro per ton of steel. Thus, the world market price without the tariff would be  $P^w$ , while the domestic price including the tariff would be  $P^T = P^w + t$ . Assume that the market for steel is perfectly competitive.

- Determine the welfare effects of the proposed tariff graphically. Can the small country gain from introducing a tariff? (18 points)
- How would your conclusions change if the country were a large country? Show graphically and explain briefly. (18 points)
- The government is also considering protecting its cement industry, which – in contrast to its steel industry – is a monopoly. A government economist argues in favor of introducing a quota instead of a tariff. He argues that a quota would limit the monopolist's market power, whereas a tariff would not. Do you agree? Explain briefly. (9 points)