Applied Welfare Economics and Agricultural Policy
MSc Course, Humboldt-Universität zu Berlin

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Introduction

1 Principles of applied welfare economics
2 Price policy I
3 Price policy II
4 EU agricultural policy and international framework
Applied Welfare Economics and Agricultural Policy

5 Agricultural policy in transition countries (Wilkin)
6 EU enlargement and accession (Wilkin)
7 Rural finance in development (Heidhues)
8 Structural adjustment policies (Heidhues)

9 Structural policy
10 Multiobjective policy analysis
Chapter 1

Principles of Applied Welfare Economics
What is Benefit in Applied Welfare Economics?

**Benefit:**

The benefit from consumption of a good is equal to the willingness to pay for this good.

**Assumptions:**

people count, consumer sovereignty, irrelevance of distribution
What is Welfare Cost?

Cost:

The cost to produce a certain amount of a good is equal to the foregone consumption of other goods measured as foregone willingness to pay.
Welfare Measurement under Autarky:
1. Approach: economic activities
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Welfare Measurement under Autarky: 1. Approach: economic activities

Welfare:
Welfare describes the level of satisfaction that people obtain from the consumption of a good.

Note:
Welfare (W) = Benefit (B) - Cost (C)
What is Consumer Surplus?
What is Consumer Surplus?

Consumer surplus:

The consumer surplus describes the satisfaction for a group of consumers to consume a certain amount of a good. It is equal to the willingness to pay for this amount of the good (benefit), minus foregone willingness to pay on other markets.

**Note:** Consumer surplus = Benefit - Expenditure
What is Producer Surplus?
What is Producer Surplus?

Producer surplus:

The producer surplus describes the satisfaction for a group of producers to produce a certain amount of a good. It is equal to the potential willingness to pay for the production of a certain amount of this good (revenue), minus foregone willingness to pay (cost). The producer surplus has the gross margin as its equivalent on firm level.

Note: Producer surplus = Revenue - Cost
Welfare Measurement under Autarky:
2. Approach: economic groups
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2. Approach: economic groups

Welfare:
Welfare describes the level of satisfaction that people obtain from the consumption of a good.

Note:
Welfare (W) = Consumer surplus (CS) + Producer surplus (PS)
Welfare Measurement under Autarky: Summary

1. Approach: economic activities
Welfare \( (W) = \text{Benefit (B) - Cost (C)} \)

2. Approach: economic groups
Welfare \( (W) = \text{Consumer surplus (CS) + Producer surplus (PS)} \)

Note:
Welfare Measurement with Trade
Welfare Measurement with Trade

\[ \text{Price} \quad p \quad q_d \quad q_s \quad \text{Quantity} \]

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Foreign exchange: Foreign exchange describes the potential satisfaction that an economy can achieve from the consumption of goods produced in other countries. Foreign exchange results from the potential willingness to pay from export goods (foreign exchange earning), minus foregone willingness to pay for import goods.
Welfare Measurement with Trade

Note:

\[ \text{Welfare (W)} = \text{Benefit (B)} - \text{Cost (C)} + \text{Foreign exchange (FE)} \]
Welfare Measurement with Government Intervention

- Consumer surplus
- Price: \( p_c \), \( p_p \)
- Quantity: \( q \)
- Demand (D)
- Supply (S)
Welfare Measurement with Government Intervention

Price

Producer surplus

\[ p_c \]

\[ p_p \]

q

S

D

Quantity
Government budget:

Government budget describes the potential satisfaction that an economy can achieve from this source. It is equal to the potential willingness to pay (government revenue), minus the foregone willingness to pay (government expense).
Welfare Measurement with Government Intervention

Note:

Welfare (W) = Consumer surplus (CS) + Producer surplus (PS) + Government budget (B)
Welfare Effects of Import Substitution

\[ S \quad D \]

\[ q_s \quad q_s' \quad q_d' \quad q_d \]

\[ p_i \quad p_w \]

\text{i denotes a situation under current price policy to increase foreign exchange earning}

\text{w denotes a free trade situation}
Welfare Effects of Import Substitution

Diagram showing the relationship between price and quantity, with a decrease in benefit indicated.
Welfare Effects of Import Substitution

Increase in cost
Welfare Effects of Import Substitution

Increase in foreign exchange

Price

$p_i$

$q_s$

$q_s'$

$q_d'$

$q_d$

Quantity

$p_w$
Welfare Effects of Import Substitution

Note:
\[ dWelfare = dBenefit - dCost + dForeign\ exchange \]

Diagram:
- Decrease in welfare
- Price \( p_i \) to \( p_w \)
- Quantity \( q_s \) to \( q_d \)
- Triangle areas indicate changes in benefit, cost, and foreign exchange.
Does Government Revenue Increase Welfare?

i denotes a situation under current price policy to increase government revenue
w denotes a free trade situation
Does Government Revenue Increase Welfare?

Increase in consumer surplus

Export country

Price

$p_w$

$p_i$

$q_d$

$q_d'$

$q_s'$

$q_s$

Quantity

Increase in consumer surplus
Does Government Revenue Increase Welfare?

Export country

Price

$p_w$

$p_i$

$q_d$

$q_d'$

$q_s'$

$q_s$

Decrease in producer surplus

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Does Government Revenue Increase Welfare?

Export country

Price

$p_w$

$p_i$

$q_d$, $q_d'$, $q_s'$, $q_s$

Quantity

Increase in government budget
Does Government Revenue Increase Welfare?

Note:

\[ dW = dPS + dCS + G \]

Export country

Price

Export country

Quantity

Decrease in welfare

\( q_d \quad q_d' \quad q_s' \quad q_s \)

\( p_w \quad p_i \)

\( (+) \quad (-) \quad (-) \quad (+) \quad (+) \)

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Welfare Effects of Producer Incentive Prices and Cheap Food Prices for Consumers

Import subsidy

- Decrease in producer surplus (PS)
- Increase in consumer surplus (CS)
- Increase in government expense (G)
- Loss of welfare (W)
Welfare Effects of Producer Incentive Prices and Cheap Food Prices for Consumers

Consumption subsidy

Producer surplus (PS) is constant!

Increase in consumer surplus (CS)

Increase in government expense (G)

Loss of welfare (W)
Welfare Effects of Producer Incentive Prices and Cheap Food Prices for Consumers

- **Loss of welfare (W)**
- **Increase in consumer surplus (CS)**
- **Increase in government expense (G)**
- **Increase in producer surplus (PS)**

Consumption and production subsidy

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Welfare Effects of Producer Incentive Prices and Cheap Food Prices for Consumers

“Social food policy”

Increase in government expense (G)

Increase in producer surplus (PS)

Increase in consumer surplus (CS)

Loss of welfare (W)
Discussion

• Should everything be counted in money?

• Do Markets impose a „dollar democracy“?
**Literature**

Questions

1. How can welfare be measured with supply and demand curves?

2. Explain the two different approaches to welfare measurement based on economic activities and economic groups!

3. What are the economic consequences of policies to increase foreign exchange earning? Give an example!

4. What are the economic consequences of policies to increase government revenue? Give an example!

5. Explain the budgetary consequences of various policies to provide producers with incentive prices and consumers with cheap food prices!