

Brain Waste, Educational Investments and Growth in Transitional Countries

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Migration from transitional countries

Cold war period – limited migration possibilities

First decade after the fall of iron curtain – outflow of relatively less-skilled workers

Late 1990s – now: new trend emerging; growing importance of skilled migration

Migration from transitional countries

Transitional countries – threat of brain drain?

What are the possible implications of skilled migration for the transitional countries' economies?

The new economics of brain drain

Traditional brain drain view – skilled migration always detrimental for the sending economies

The new economics of brain drain – skilled migration, although partly detrimental, may be beneficial for the sending countries

The new economics of brain drain

Positive effects of brain drain:

- remittances
- return migration
- induced education

The new economics of brain drain

Induced education:

Migration perspectives rise the returns on education, therefore increasing the accumulation of human capital → higher rate of economic growth.

The new economics of brain drain

Beneficial Brain Drain model:

Ex ante „brain effect” – thanks to migration possibility, more individuals invest in education (ie. induced education effect)

Ex post „drain effect” – some individuals decide to leave the country

The new economics of brain drain

Beneficial Brain Drain:

Brain effect stronger than drain effect –
source country's economy gains from
migration, rising the stock of human capital
and improving its growing performance

Brain Waste

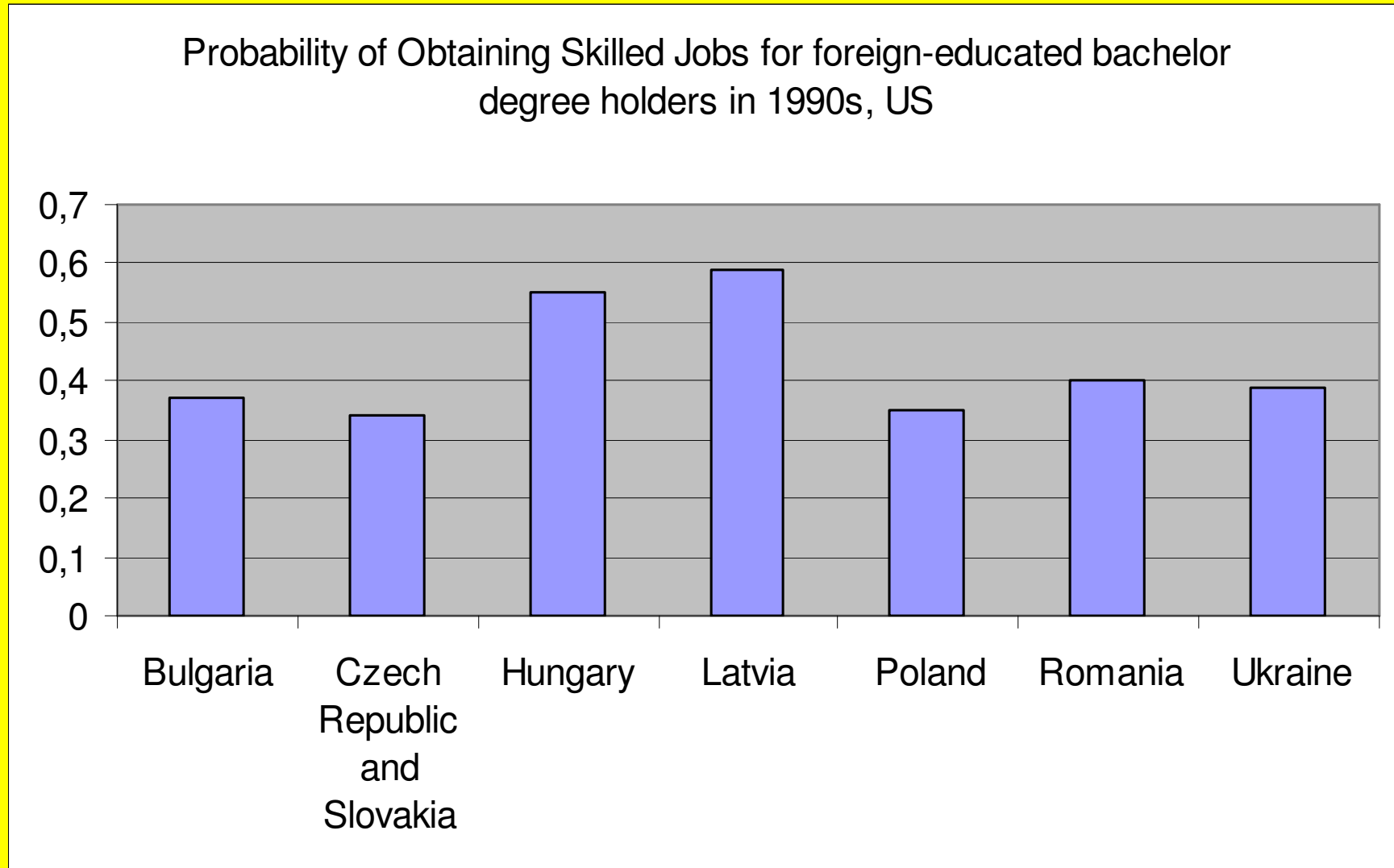
Brain waste – situation, when migrant's qualifications are not recognized in the destination country

He/she performs lower-paid, less attractive activities

Brain Waste

**Migration from transitional countries:
rather brain waste than brain drain**

Brain Waste



The implications of Brain Waste on the sending country's economy

The existence of brain waste:

rate of return on local qualifications is low

possibility of emigration offers little additional
incentive to acquire human capital

The implications of Brain Waste on the sending country's economy

Thus, in the situation of brain waste the effect of induced education seems very unlikely to occur

Instead, appears a threat of additional detrimental effect

The implications of Brain Waste on the sending country's economy

Brain waste – possibility of ex ante „negative brain effect“:

Some agents, aware of brain waste threat, may quit the school earlier in order to migrate

Empirical analysis

To evaluate the impact of emigration on the formation of human capital, and the importance of human capital for economic growth in transitional countries, two equations have been estimated:

- human capital equation;
- growth equation.

Empirical analysis

human capital equation - investments in education were used as explained (dependent) variable, and skilled migration rate was one of the explanatory (independent) variables

growth equation - growth per capita was used as explained (dependent) variable, and investments in education were used as one of the explanatory (independent) variables

Empirical analysis

$$\text{hum}_i = -0,05 - 1,76 \text{mig22}_i + 11,42 \text{eduex}_i + 0,78 \text{unemp}_i \quad (12)$$

$$(-0,64) \quad (-5,24) \quad (9,35) \quad (3,39) \quad R^2=0,943$$

$$\text{grw}_i = 7,39 + 0,51 \text{hum}_i - 0,2 \text{initi}_i - 0,153 \text{internet}_i \quad (13)$$

$$(6,95) \quad (3,22) \quad (-4,57) \quad (-3,31) \quad R^2=0,86$$

Sample includes: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Ukraine

Conclusion

Relation between migration probability and investments in human capital negative in transitional countries

Additional negative effect – depreciation of human capital due to brain waste

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Paper available at SSRN:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=991785