INTERNATIONAL MIGRATION

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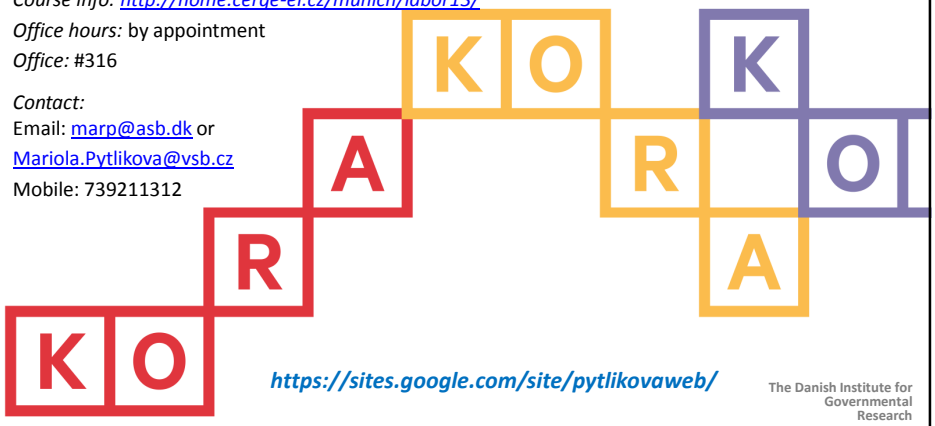

https://sites.google.com/site/pytlikovaweb/

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Reading list

*George J. BORJAS: "THE ECONOMIC ANALYSIS OF IMMIGRATION", In: Handbook of Labor Economics, Volume 3, Edited by O. Ashenfelter and D. Card (1999); Chapter 28, Elsevier Science B. V.

Ronald G. Ehrenberg and Robert S. Smith: Modern Labour Economics: Theory and Policy, Chapter 10: Worker Mobility: Migration, Immigration, and Turnover.

Pedersen,J. P., Pytlikova, M. and N. Smith (2006): "Migration into OECD countries 1990-2000". In Parson and Smeeding (eds.): *Immigration and the Transformation of Europe.* Cambridge University Press.

http://www.hha.dk/~MARP/OECD_MIGRATION_PARSONS_SMEEDING.PDF

Pedersen, Peder J. & Pytlikova, Mariola & Smith, Nina, 2008. "Selection and network effects—Migration flows into OECD countries 1990-2000," European Economic Review, Elsevier, vol. 52(7), pages 1160-1186.

F. Docquier, H. Rapoport (2012): Globalization, brain drain and development, *Journal of Economic Literature*, 50 (3), 681-730.

Slides of the lectures (provided one day in advance or on the day of the class)

- All materials provided on: *http://home.cerge-ei.cz/munich/labor13/*

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OUTLINE

1. **Trends in international migration**
2. **Why do people migrate? Determinants of migration**
3. **Who migrates? Selectivity in migration**
4. **Adjustment and integration**
5. **Example: migration from CEECs:**
    - Determinants

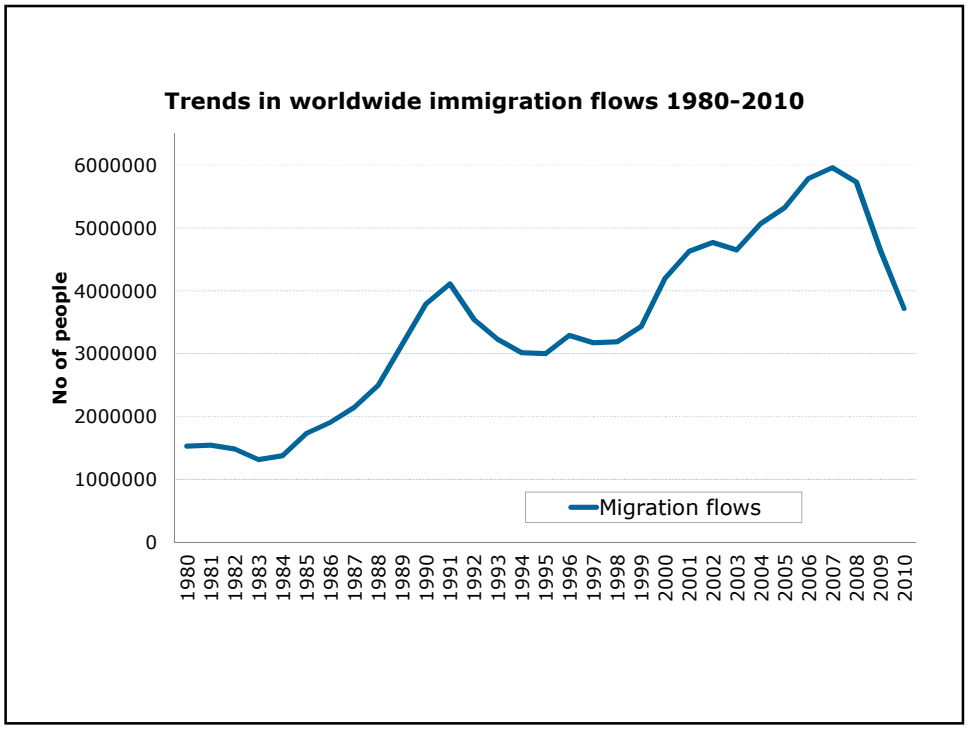
The next lectures on Friday 7.2.2014:

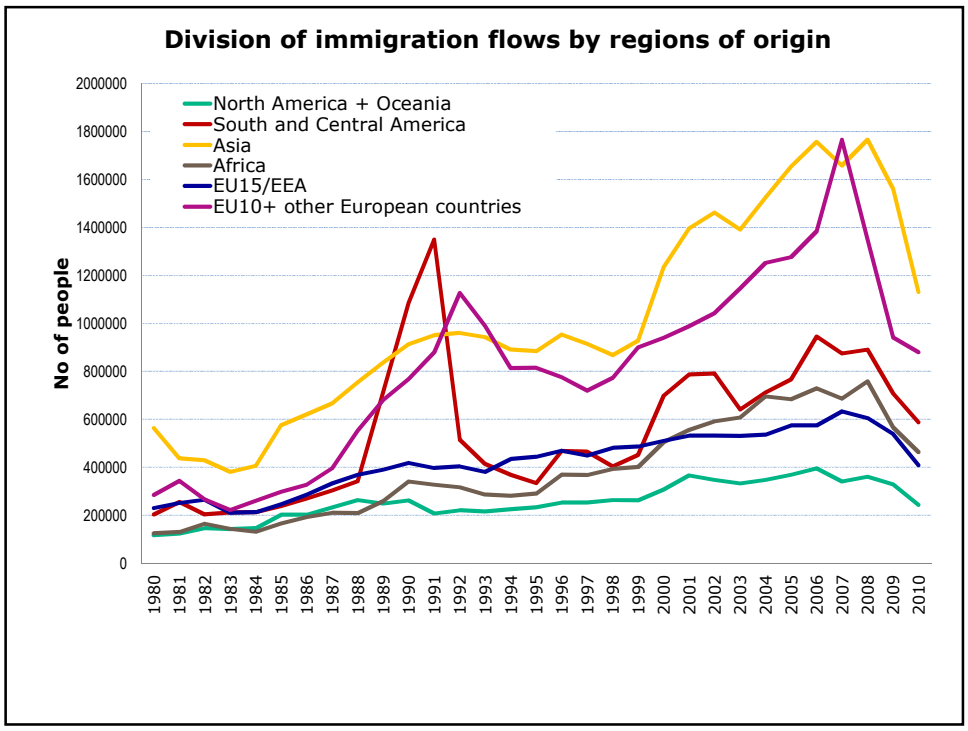
Impact of immigration , role of immigration policies

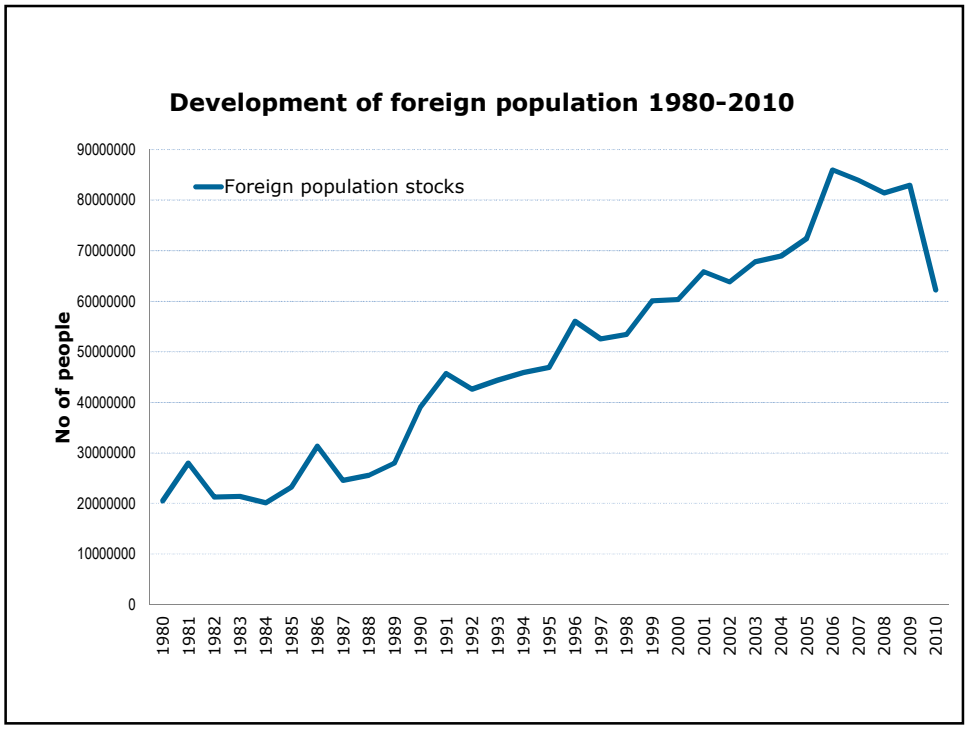
Diversity - Impacts of workforce diversity on firms and economies (effects on productivity, innovation, exporting and FDI behaviour, and enteprenuership)

TRENDS IN INTERNATIONAL MIGRATION

- **2 phenomena driving migration flows over the last decades:**
    - Growing migration from *less developed countries*
    - Fall of Iron Curtain, EU enlargements:
        - Fall of Iron Curtain
        - EU enlargements


Trends in worldwide immigration flows 1980-2010
No of people
6000000
5000000
4000000
3000000
2000000
1000000
0
Migration flows
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010


Division of immigration flows by regions of origin
No of people
2000000
1800000
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
North America + Oceania
South and Central America
Asia
Africa
EU15/EEA
EU10+ other European countries
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010


Development of foreign population 1980-2010
No of people
Foreign population stocks
90000000
80000000
70000000
60000000
50000000
40000000
30000000
20000000
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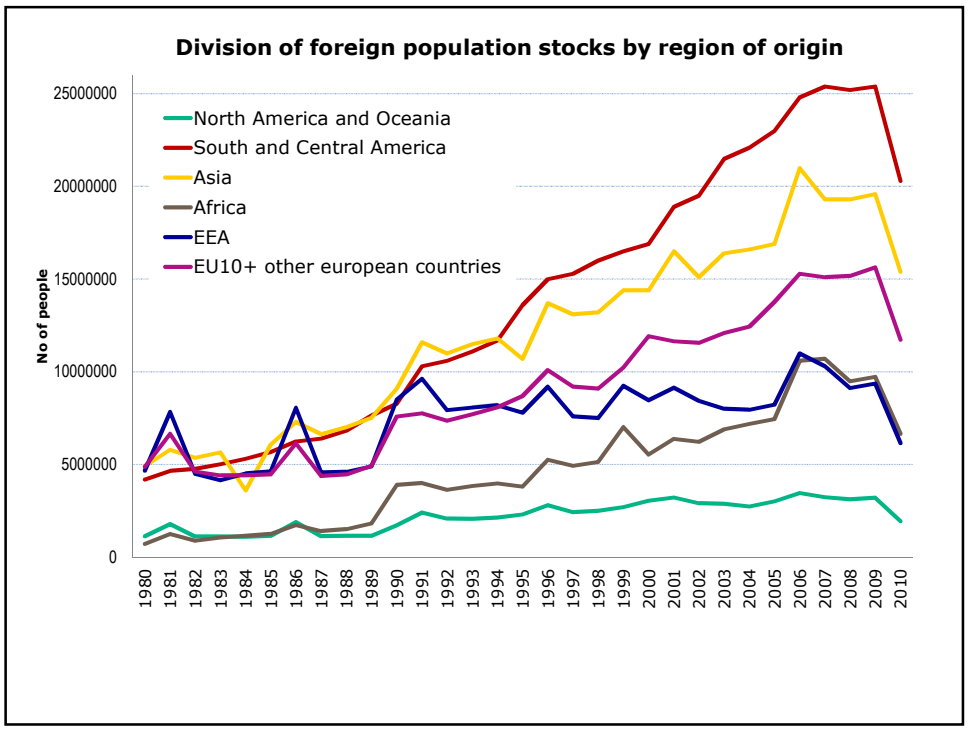
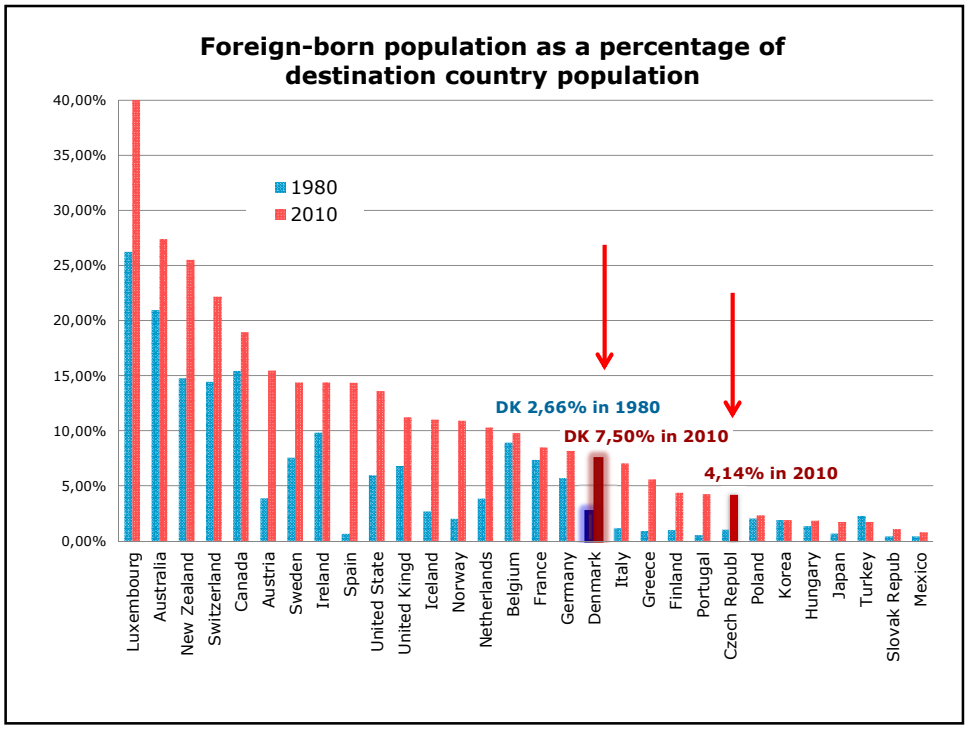
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010


Division of foreign population stocks by region of origin
No of people
North America and Oceania
South and Central America
Asia
Africa
EEA
EU10+ other european countries
25000000
20000000
15000000
10000000
5000000
0
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010



Growing migration from *less developed countries*

lower social mobility, skill transferability and skill acquisition

immigrants have difficulties to enter the destinations' labor markets and to integrate

Emigration from *Central and Eastern Europe*

- After the fall of Iron Curtain, 1989, CEECs became a new source of emigration
- EU enlargements towards Central and Eastern European countries, 2004 and 2007

Given a geographical and cultural proximity and large economic differences - huge income gaps, high unemployment in CEECs, emigration restrictions before 1989 = feelings of freedom

=> **Western Europe fears a mass migration**

Emigration from *Central and Eastern Europe*

EU enlargement towards the East – 2004 enlargement:

- 10 new countries joined EU15 in May 2004;
- One of the Acquis: Free movement of people; Fear of mass migration; possibility of restrictions on mobility
- => ”transition periods”; Rule 3+2+2 years
- All in all, the “old” EU/EEA countries could keep their labor markets restricted to the new members up to 7 years from the enlargement.

Emigration from *Central and Eastern Europe*

EU enlargement towards the East – 2004 enlargement:

- UK, Ireland and Sweden have opened from day one of EU enlargement in May 2004, the rest of "old" EU members imposes restrictions to free movement of workers.
- 2006 - Spain, Portugal, Greece, Italy, Finland and Iceland
- 2007 – the Netherlands and Luxembourg
- July 2008 - France
- May 2009 – Belgium, Denmark and Norway
- May 2011: Austria, Germany and Switzerland hold a maximum period of restrictions.

Emigration from *Central and Eastern Europe*

EU enlargement towards the East – 2007 enlargement:

- Bulgaria and Romania joined the EU on January 1, 2007.
- Restrictions on labour markets possible until 2014;
- **Open doors for 2007 entrants**:
  - 2007 - Finland, Sweden, Cyprus, Czech Republic, Estonia, Latvia, Lithuania, Poland, Slovakia, Slovenia
  - 2009 - Denmark, Greece, Portugal, Spain
  - 2012 – Iceland, Italy
  - 2014 - the rest of EU holds a maximum period of restrictions and opens in January 2014

Where did CEE go? Main destinations, flows annual average 1989–2000

	CZECH REP.			HUNGARY			POLAND	
Germany	12.163	0,118	Germany	18.290	0,180	Germany	110.279	0,287
Austria	1.388	0,014	Austria	2.219	0,022	U.S.	17.104	0,045
Slovakia	942	0,009	U.S.	1.102	0,011	Canada	6.720	0,018
U.S.	570	0,006	Canada	644	0,006	Austria	4.416	0,012
Total	**17.197**	**0,167**	***Total***	**24.359**	**0,239**	***Total***	**152.179**	**0,396**
	SLOVAKIA			**BULGARIA**			**ROMANIA**	
Germany	7.827	0,146	Germany	11.606	0,139	Germany	42.593	0,189
Czech Rep.	3.835	0,072	Spain	2.168	0,026	Italy	10.185	0,045
Austria	1.756	0,033	U.S.	1.987	0,024	Hungary	9.958	0,044
U.S.	555	0,010	Greece	1.588	0,019	Spain	8.618	0,038
Total	**15.626**	**0,291**	***Total***	**20.686**	**0,248**	***Total***	**86979**	**0,385**
	ESTONIA			**LATVIA**			**LITHUANIA**	
Finland	1.307	0,094	Germany	2.182	0,090	Germany	2.652	0,075
Germany	1.230	0,089	U.S.	406	0,017	Spain	2.283	0,064
Sweden	176	0,013	Denmark	197	0,008	U.S.	574	0,016
Denmark	175	0,013	Sweden	80	0,003	Denmark	252	0,007
Total	**3.331**	**0,240**	***Total***	**3.347**	**0,138**	***Total***	**6.587**	**0,185**

Source: National statistical offices, Own calculations.

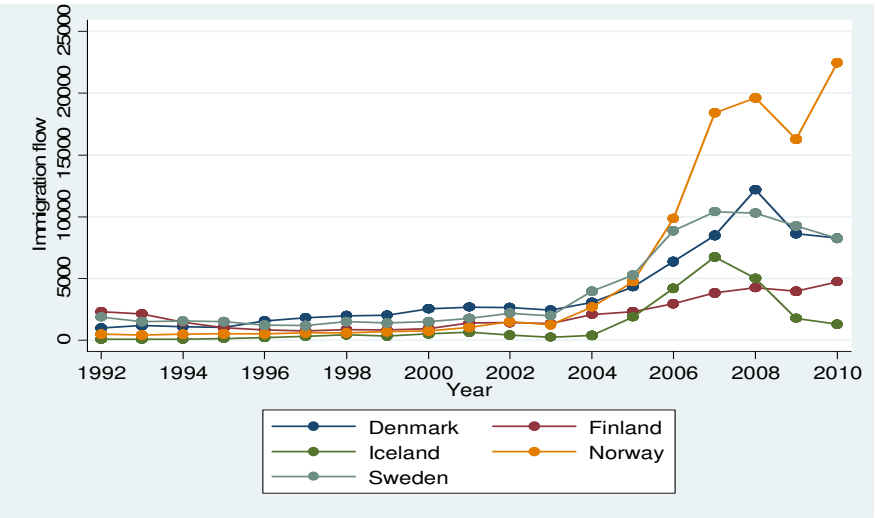
Where did CEE go? Stocks – networks

Stock of CEE immigrants by group of host countries, 1990 and 2000.

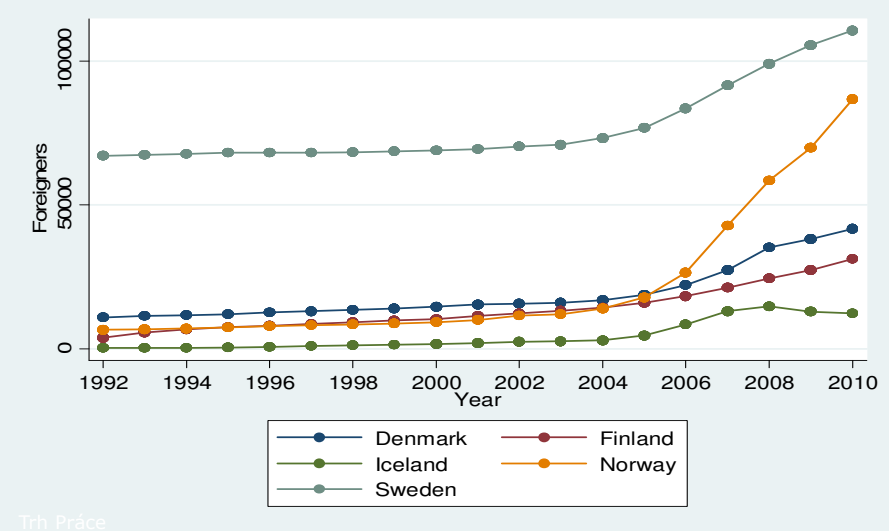
	1990		2000		
	Absolute	*% of CEE*	Absolute	*% of CEE*	**Change**
Western Europe	758.193	*0,781*	965.724	*0,954*	**27,37 %**
Southern Europe	104.636	*0,106*	209.974	*0,214*	**100,67 %**
Scandinavia	105.689	*0,104*	133.623	*0,131*	**26,43 %**
United States, Canada	1.096.715	*1,060*	1.198.210	*1,174*	**9,26 %**
Australia, New Zealand	146.339	*0,207*	131.103	*0,186*	**-10,41 %**
Other CEECs	243.989	*0,266*	265.406	*0,291*	**8,78 %**
Total	**2.455.561**	***2,524***	**2.904.040**	***2,950***	**18,26 %**

Source: National statistical offices, Own calculations.

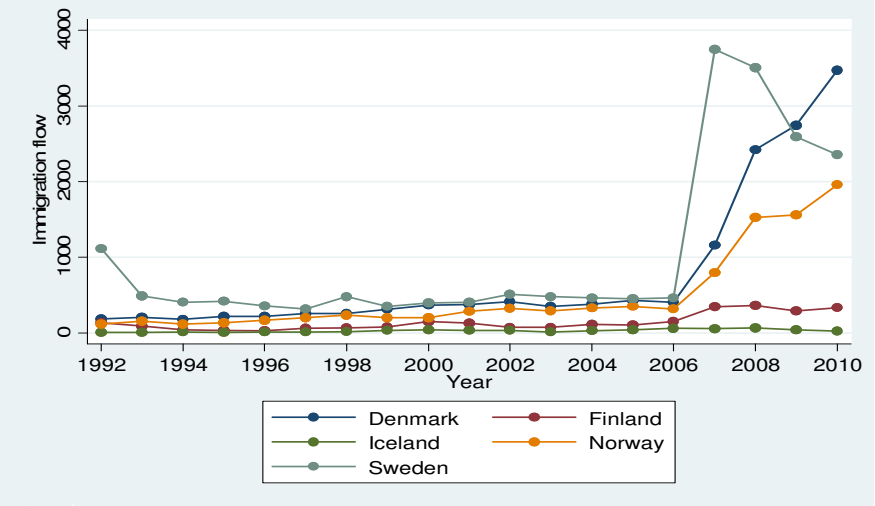
Immigration flows from Hungary, Poland, Slovenia, Czechia, Slovakia, Estonia, Latvia and Lithuania to 5 Nordic countries. 1992-2010



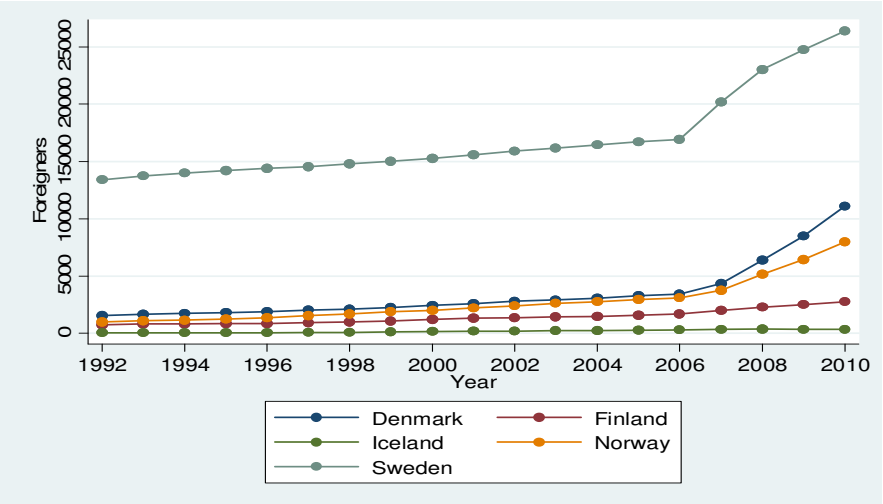
Foreign population from Hungary, Poland, Slovenia, Czechia, Slovakia, Estonia, Latvia and Lithuania living in 5 Nordic countries. 1992-2010



Immigration flows from new 2007 EU entrants Bulgaria and Romania to 5 Nordic countries. 1992-2010



Foreign population from new 2007 EU entrants Bulgaria and Romania living in 5 Nordic countries. 1992-2010



CEE stock of foreigners in Nordic countries as a % of destination population. 1990 and 2010.

DESTINATIONS:	DENMARK		FINLAND		ICELAND		NORWAY		SWEDEN	
ORIGINS:	**1990**	**2010**	**1990**	**2010**	**1990**	**2010**	**1990**	**2010**	**1990**	**2010**
CR and SR, CZECHO-SLOVAKIA	0,019	0,043	0,005	0,013	0,020	0,094	0,021	0,080	0,099	0,091
HUNGARY	0,026	0,047	0,010	0,029	0,015	0,050	0,032	0,051	0,176	0,165
POLAND	0,172	0,481	0,019	0,052	0,109	2,976	0,107	1,183	0,416	0,755
ESTONIA*	0,002	0,020	0,042	0,468	0,001	0,045	0,002	0,057	0,134	0,108
LATVIA*	0,002	0,058	0,001	0,020	0,003	0,207	0,002	0,100	0,023	0,050
LITHUANIA*	0,002	0,113	0,001	0,012	0,002	0,466	0,001	0,322	0,003	0,072
SLOVENIA*	0,00002	0,005	0,00002	0,000	-	0,010	0,00007	0,005	0,001	0,011
Total 2004 EU Entrants	***0,223***	***0,766***	***0,078***	***0,594***	***0,15***	***3,848***	***0,165***	***1,797***	***0,852***	***1,252***
BULGARIA	0,005	0,061	0,005	0,021	0,007	0,042	0,011	0,053	0,023	0,072
ROMANIA	0,019	0,140	0,003	0,031	0,0004	0,066	0,010	0,112	0,103	0,212
Total 2007 EU Entrants	***0,024***	***0,201***	***0,008***	***0,052***	***0,007***	***0,108***	***0,021***	***0,165***	***0,126***	***0,284***
TOTAL % of destination population	**0,247**	**0,9672**	**0,086**	**0,6460**	**0,157**	**3,9550**	**0,186**	**1,9625**	**0,978**	**1,5354**
TOTAL % of ALL IMMIGRANTS	**3,690**	**7,7570**	**1,302**	**4,6481**	**3,794**	**10,8784**	**4,665**	**11,7898**	**9,235**	**14,8883**

Source: National statistical offices; Own calculations.

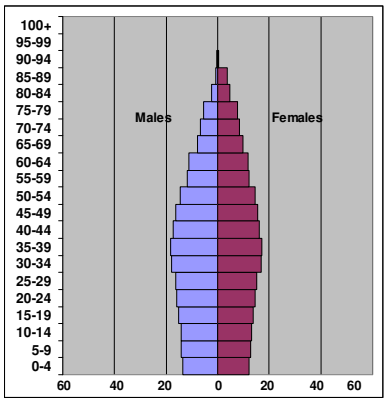
TRENDS IN INTERNATIONAL MIGRATION

Migration pressures will continue in the future

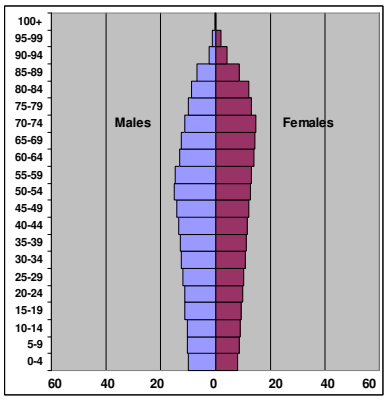
- Growing globalization – improvements in communication, Internet, transportations
- Demographic projections:
  - Aging of the populations in highly developed countries (fiscal burdens).
  - Young populations in LDCs.

Demographic projections – European Union

2000
(Population: 451.4 million)



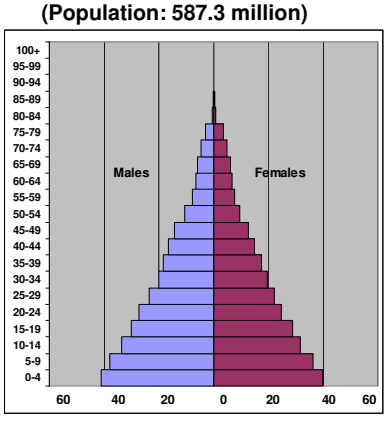
2050
(Population: 401 million)



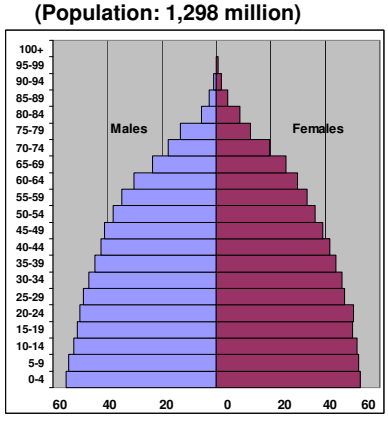
Source: Cohen (2003): Human Population: The Next Half Century

Demographic projections – North Africa and West Asia

2000
(Population: 587.3 million)



2050
(Population: 1,298 million)



Source: Cohen (2003): Human Population: The Next Half Century

TRENDS IN INTERNATIONAL MIGRATION

Migration pressures will continue in the future

Immigration policy must adjust to the migration pressures and to the aging populations.

ANALYSES OF MIGRATION DETERMINANTS, SELECTIVITY, ADJUSTMENT OF IMMIGRANTS and THEIR IMPACT ON ECONOMY and SOCIETY - IMPORTANT FOR POLICY MAKERS

WHY DO PEOPLE MIGRATE? Theory I

- ***ECONOMIC FACTORS:***
  - Wage differences (Hicks, 1932),
  - Human capital model (Sjaastad,1962; Becker,1964): Move if net discounted future expected benefits>costs of migration
  - Income expectations conditioned on probability of being employed (Harris & Todaro, 1970; Hatton, 1995),
  - Family or households decision (Mincer,1978),
  - Relative deprivation approach (Stark, 1984),
  - "Welfare magnet" (Borjas, 1999), or "social tourism", "social raids" (Kvist, 2004).

WHY DO PEOPLE MIGRATE? Theory II

- ***MIGRATION NETWORKS:***
  - **migration networks:** "…sets of interpersonal ties that connect migrants, former migrants, and non-migrants in origin and destination areas through ties of kinship, friendship, and shared community origin" (Massey, 1993)
  - **help to explain persistence in migration**
  - **"herd behavior" effect** (Bauer et al. 2002),
- ***NON-ECONOMIC FACTORS*:**
  - **war, love/marriage, taste for adventure**
  - **Language proximity**
- ***OTHER (UN)OBSERVABLE COUNTRY SPECIFIC FACTORS***

WHY DO PEOPLE NOT MIGRATE? Theory

- **Less than 2 percent of the world's population is living in a country other than they were born.**

?? WHY THERE IS NOT THAT MUCH MIGRATION ??

- ***BARRIERS TO MIGRATION:***
  - Immigration policies
  - Costs of migration (out-of-pocket exp., psychological costs)
  - Cultural distance
  - Language barriers
  - Skill transferability

WHAT DOES THE EMPIRICAL EVIDENCE SAY?

- **Importance of economic factors –** pull stronger than push, no direct welfare magnet effect.
- **Importance of migration networks –** networks more important for immigrants coming from poor countries
- **Importance of distance variables:** cost of migration, cultural and linguistic distance between the countries.

- *Literature:* e.g. Pedersen, Pytlikova and Smith (2004), Pytlikova (2005, 2006), Pedersen and Pytlikova (2008), Belot and Ederveen (2011), Adsera and Pytlikova (2012). Others: G. Peri, F. Docquier, H. Rapoport, G. Hanson

WHO MIGRATES??

SELECTION PROCESSES IN MIGRATION

In line with the **"Human capital investment"** there are higher "returns to migration" for young, healthy with greater abilities/education (Chiswick, 2000).

Different selectivity for different types of migrants:

- Economic migrants
- Tied movers – family re-union
- Refugees
- Illegal migration
- Short-term migrants

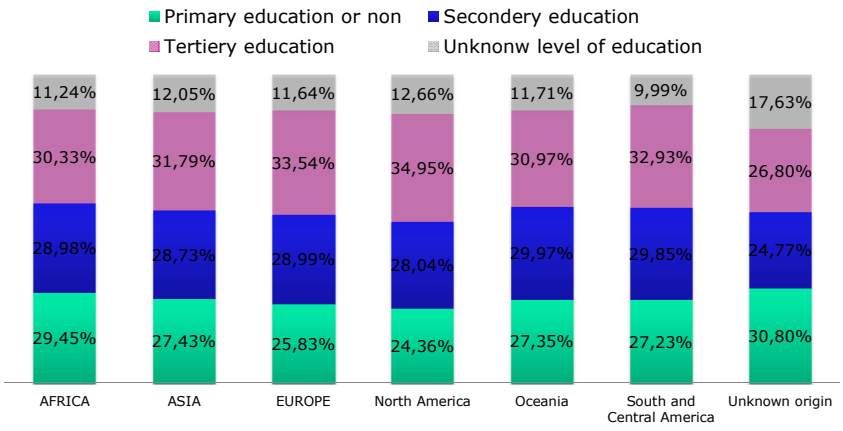
WHO MIGRATES??

•**"self-selection model"** (Borjas, 1987) based on Roy's model - immigrants skill differentials in relation to the variance in the wage distribution.

Positive selection → **countries with big wage dispersion**

Negative selection → **countries with low wage dispersion**

Educational attainment of foreigners, by region of birth around year 2000

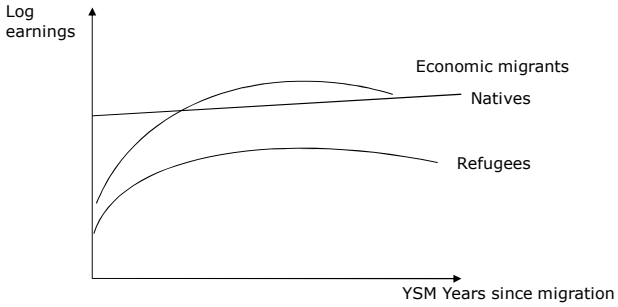


Source: own calculations, using DIOC-E 2.0 dataset

ADJUSTMENT OF IMMIGRANTS

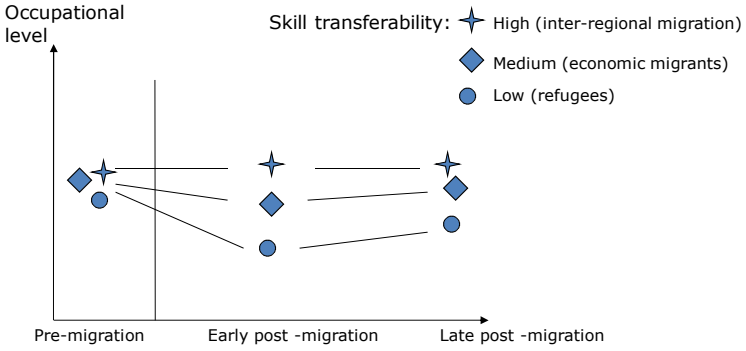
- Earnings (used by economists)
- Occupation (used by sociologists)

Different types of immigration – impact on adjustment



ADJUSTMENT OF IMMIGRANTS

- u-shape pattern of occupational mobility



ADJUSTMENT OF IMMIGRANTS

? Which occupations have high/low skill transferability ?

Example

Important:

Selectivity,

Skills transferability & transferability of occupation,

Investment into post-migration training.

IMPACT OF MIGRATION

- Impact on employment and wages of natives and on general welfare
- Ethnic diversity and firm outcomes: innovation, productivity, entreprenuership, FDI, trade..
- The role of immigration policy

The next lectures on Friday 7.2.2014

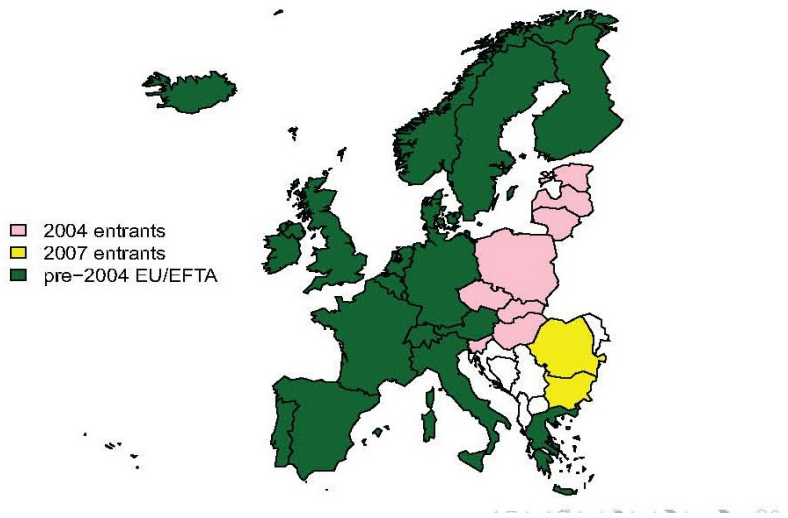
Example – migration from CEECs

- Determinants of migration
- How do CEE fare? Post-enlargement experience
- *Impact of CEE migration – Friday's lecture*

The effect of EU enlargements and labour market openings on migration

Mariola Pytliková
VSB-Technical University Ostrava, KORA and CReAM

EU/EFTA Enlargement



Emigration from *Central and Eastern Europe*

1st EU enlargement towards the East – 2004 enlargement:

- UK, Ireland and Sweden have opened from day one of EU enlargement in May 2004, the rest of "old" EU members imposes restrictions to free movement of workers.
- 2006 - Spain, Portugal, Greece, Italy, Finland and Iceland
- 2007 – the Netherlands and Luxembourg (November2007)
- July 2008 - France
- May 2009 – Belgium, Denmark and **Norway**
- May 2011: Austria, Germany and Switzerland hold a maximum period of restrictions.

Emigration from *Central and Eastern Europe*

2nd EU enlargement towards the East – 2007 enlargement:

- Bulgaria and Romania joined the EU on January 1, 2007.
- Restrictions on labour markets possible until 2014;
- **Open doors for 2007 entrants**:
  - 2007 - Finland, Sweden, Cyprus, Czech Republic, Estonia, Latvia, Lithuania, Poland, Slovakia, Slovenia
  - 2009 - Denmark, Greece, Portugal, Spain
  - 2011 - Spain reimposes restrictions for workers from Romania
  - 2012 – Iceland, Italy
  - 2014 - the rest of EU holds a maximum period of restrictions

Motivation –previous evidence

- many studies trying to forecast migration potential from CEECs prior EU enlargements:

2 different approaches:

A) surveys: 6 - 30% of the CEE populations, see e.g. Wallace (1998), Fassmann and Hintermann (1997).

B) econometric analysis: a long-run migration potential is usually estimated at around 2-5%, net migration potential around 2% of source countries population, see Pytlikova (2006), Dustmann et al. (2003) or Alvarez-Plata et al. (2003).

- Example of a forecast for UK: 5.000–13.000 immigrants per year to UK (Dustmann et al. 2003)

Reality: around 500.000 CEE immigrants between 2004 and 2006!!!

Why so bad forecasts?

Motivation –previous evidence

- out-of-sample historical data on migration;
- and/or past enlargement experience;
- -> extrapolation to predict East-West migration;
- in the EU context: analyses of migration flows into one destination country, specifically Germany;
- On the basis of obtained coefficients forecasts: => problems related to (double) out-of-sample forecasts and the assumption of invariance of migration behavior across a space.

Motivation

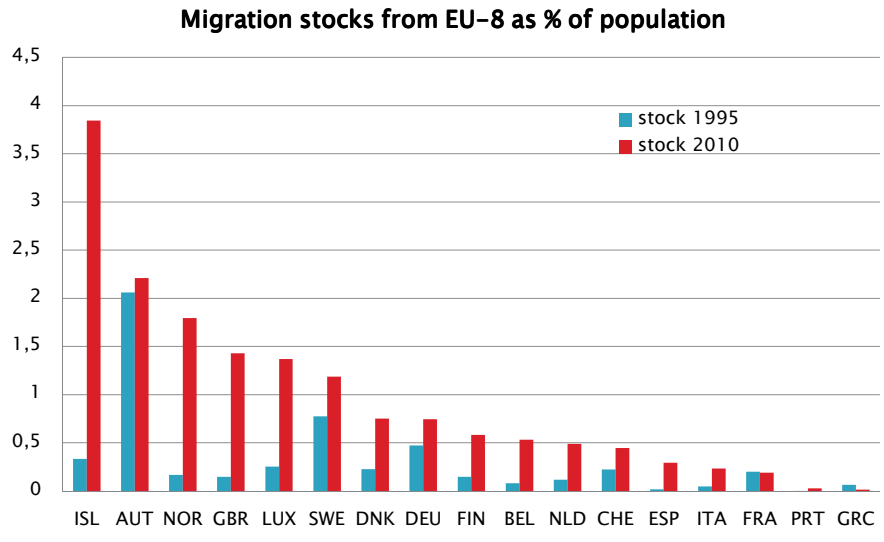
- In this paper:
  - I use actual numbers of CEE emigrants = true behavior of CEE emigrants,
  - Extended time series 1995 – 2010
  - I exploit a "natural experiment": different timing of lifting of restrictions to the free movement of workers on migration

    $\Rightarrow$ I estimate a difference-in-differences and triple DDD estimator on the flow of migrants from 8 CEECs and Bulgaria and Romania into 18 EEA+CH countries .

Data description

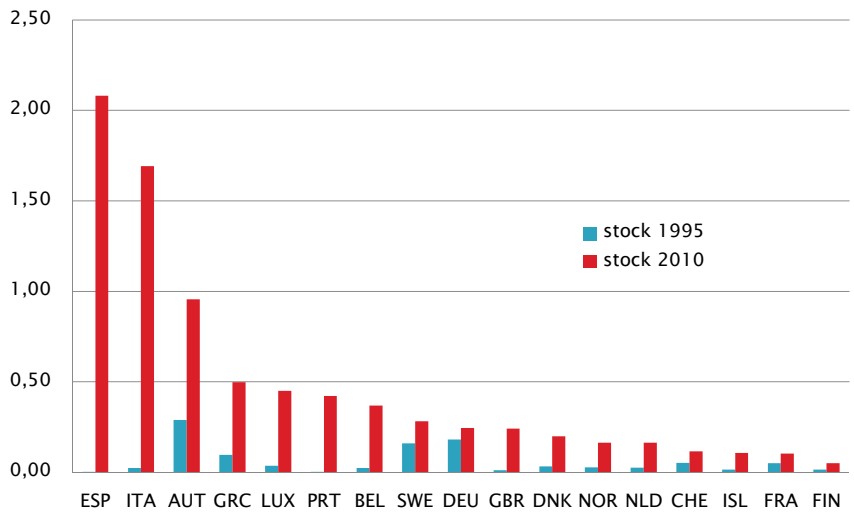
- Immigration flows and foreign population stock into 42 destinations from all world source countries.
- For 27 destinations data collected from national statistical offices
- for 6 OECD countries from OECD International Migration Database (Chl, Isr, Kor, Mex, Rus and Tur)
- For 9 others from Eurostat (Bul, Cro, Cyp, Est, Lv, Ltv, Mal, Rom and Slo)
- Period: 1980 to 2010.
- **In this paper – focus on EEA+CH destinations and migration from CEE new EU members over time 1995-2010**
- Additional control variables
  - *Economic variables*
  - *Demographic variables,*
  - *Distance variables:*
    - *Physical – distance in km*
    - *Linguistic constructed by Adsera&Pytlikova, 2012 based on Ethnologue*
    - *Neighboring dummy*
- Sources: WB-WDI, ILO, OECD
- Unbalanced panel.

EU8 foreigners in EEA countries as a % of destination population. 1995 &2010.



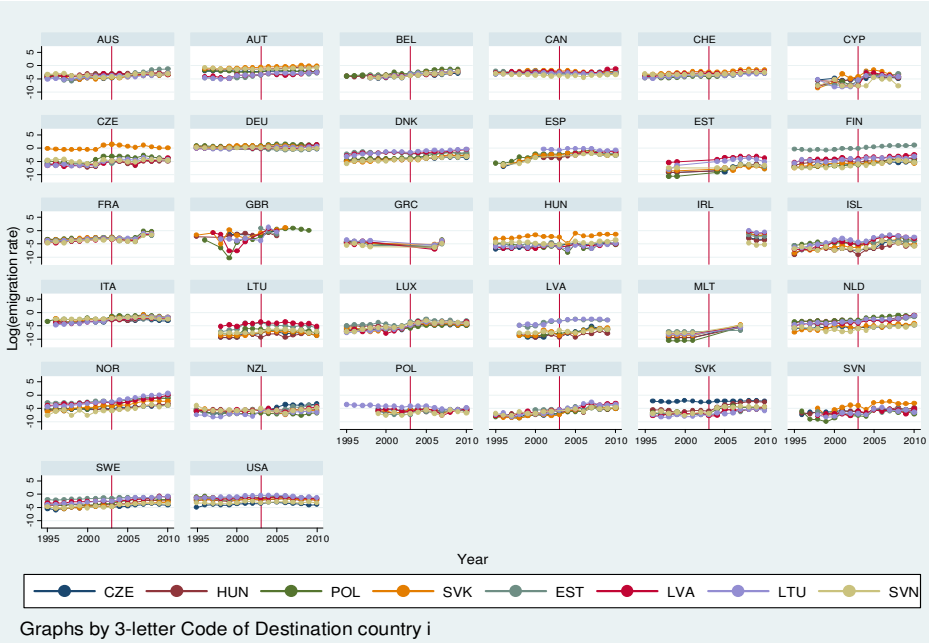
Source: National statistical offices; Own calculations.

EU8 foreigners in EEA countries as a % of destination population. 1995 &2010.



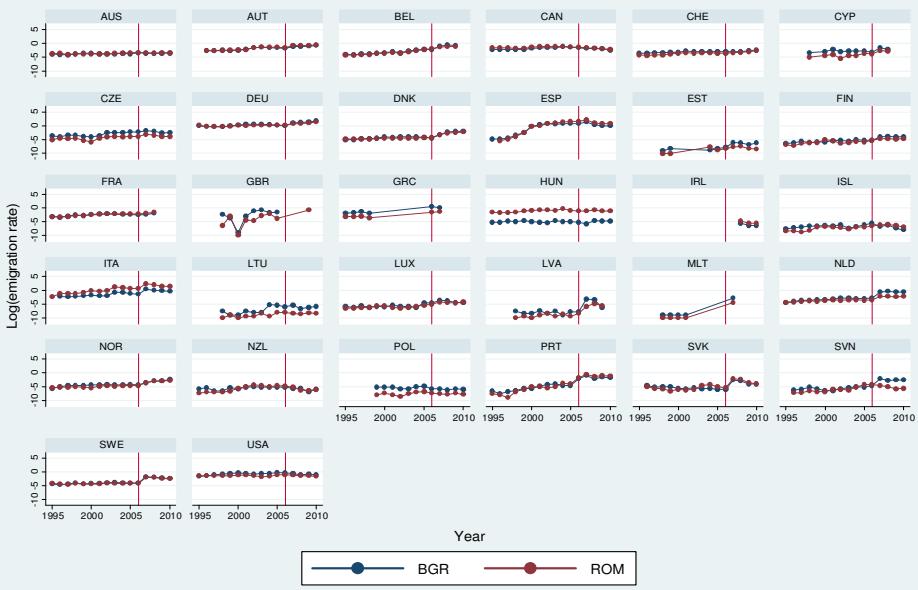
Source: National statistical offices; Own calculations.

Trends in log(emigration rate) from EU8 countries to EEA/EFTA destinations, 95-2010



Graphs by 3-letter Code of Destination country i

Trends in log(emigration rate) from EU2 countries to EEA/EFTA destinations, 95-2010



Graphs by 3-letter Code of Destination country i

Model

The basic DD econometric model has the following form:

$$\ln m_{ijt} = \gamma_0 + \delta_j + \delta_i + \theta_t + \gamma_2 OPEN_{ij} + \gamma_3 \ln(GDP_j)_{t-1} + \gamma_4 \ln(GDP_i)_{t-1} + \gamma_5 \ln(GDP_i)^2_{t-1} +$$
$$+\gamma_6 \ln u_{jt-1} + \gamma_7 \ln u_{it-1} + \gamma_8 \ln s_{ijt-1} + \gamma_9 lingprox_{ij} + \gamma_{10} \ln dist_{ij} + \gamma_{11} neighbour + \varepsilon_{ijt}$$

- **mijt -** emigration rate = gross migration flow per source country population,
- **full set of year dummies, and destination and country of origin effects**
- **OPENij -** a Labour Market Opening policy variable, to be equal to 1 if there is a free movement of workers between a particular destination and source country, and 0 otherwise.
- **GDPj, GDPi, GDPi2 -** GDP per capita, PPP, constant 2005 US$
- **Uj, Ui -** unemployment rates
- **Sijt-1** is stock of immigrants per source country population
- **Lingprox**– linguistic proximity index
- **distij** is distance in km
- **Neighbour**
- **Robust st errors clustered** on the level of pair of countries
- All vars in logs except dummies and ling proximity index.

Overview of policy changes with respect to lifting restrictions on the access to labor market for workers from the new EU 2004 member states

EEA/EFTA countries	Lifting restrictions on free movement of workers	Treatments and Controls	Pre-treatment period	Post-treatment period
Austria	May 2011	Control	1995-2010	-
Belgium	May 2009	Treatment	1995-2008	2009-2010
Denmark	May 2009	Treatment	1995-2008	2009-2010
Finland	May 2006	Treatment	1995-2005	2006-2010
France	July 2008	Treatment	1995-2007	2008-2010
Germany	May 2011	Control	1995-2010	-
Greece	May 2006	Treatment	1995-2005	2006-2010
Iceland	May 2006	Treatment	1995-2005	2006-2010
Ireland	May 2004	Treatment	1995-2003	2004-2010
Italy	July 2006	Treatment	1995-2005	2006-2010
Luxembourg	November 2007	Treatment	1995-2007	2008-2010
Netherlands	May 2007	Treatment	1995-2006	2007-2010
Norway	May 2009	Treatment	1995-2008	2009-2010
Portugal	May 2006	Treatment	1995-2005	2006-2010
Spain	May 2006	Treatment	1995-2005	2006-2010
Sweden	May 2004	Treatment	1995-2003	2004-2010
Switzerland	May 2011	Control	1995-2010	-
UK	May 2004	Treatment	1995-2003	2004-2010

Overview of policy changes with respect to lifting restrictions on the access to labor market for workers from Bulgaria and Romania

EEA/EFTA countries	Lifting restrictions on free movement of workers	Treatments and Controls	Pre-treatment period	Post-treatment period
Austria	January 2014	Control	1995-2010	-
Belgium	January 2014	Control	1995-2010	-
Denmark	May 2009	Treatment	1995-2008	2009-2010
Finland	January 2007	Treatment	1995-2006	2007-2010
France	January 2014	Control	1995-2010	-
Germany	January 2014	Control	1995-2010	-
Greece	January 2009	Treatment	1995-2008	2009-2010
Iceland	January 2012	Control	1995-2010	-
Ireland	January 2014	Control	1995-2010	-
Italy	January 2012	Control	1995-2010	-
Luxembourg	January 2014	Control	1995-2010	-
Netherlands	January 2014	Control	1995-2010	-
Norway	January 2014	Control	1995-2010	-
Portugal	January 2009	Treatment	1995-2008	2009-2010
Spain	January 2009 (Aug 2011)	Treatment	1995-2008	2009-2010
Sweden	January 2007	Treatment	1995-2006	2007-2010
Switzerland	January 2014	Control	1995-2010	-
UK	January 2014	Control	1995-2010	-
Robustness:				
Hungary	January 2009	Treatment	1995-2006	2007-2010
Other EU8 dest	January 2007	Treatments	1995-2006	2007-2010

EU enlargement effect on migration

Model with both, the labour market openings and the EU enlargement effects:

$$\ln m_{ijt} = \gamma_0 + \delta_j + \delta_i + \theta_t + \gamma_1 EUenl_{ij} + \gamma_2 OPEN_{ij} + \gamma_3 \ln(GDP_j)_{t-1} + \gamma_4 \ln(GDP_i)_{t-1} + \gamma_5 \ln(GDP_i)^2_{t-1}$$
$$+\gamma_6 \ln u_{jt-1} + \gamma_7 \ln u_{it-1} + \gamma_8 \ln s_{ijt-1} + \gamma_9 lingprox_{ij} + \gamma_{10} \ln dist_{ij} + \gamma_{11} neighbour + \varepsilon_{ijt}$$

- **EUenlij -** the EU enlargement policy dummy,
  - equal to 1 for pairs of 17 EEA destination countries and the EU8 and EU2 source countries for the period after year 2004 and 2007, respectively.
  - equal to 0 for the pre-treatment period for those pair of countries, and for pairs of the non-EU destinations - Australia, Canada, New Zealand, Switzerland and USA - and the EU8- and EU2-source countries.

- In addition, I run the econometric models above with pairs of country fixed effects in order to capture (unobserved) traditions, historical and cultural ties between a particular pair of destination and origin countries:

$$\ln m_{ijt} = \gamma_0 + \delta_{ij} + \theta_t + \gamma_1 EUenl_{ij} + \gamma_2 OPEN_{ij} + \gamma_3 \ln(GDP_j)_{t-1} + \gamma_4 \ln(GDP_i)_{t-1} + \gamma_5 \ln(GDP_i)^2_{t-1}$$
$$+\gamma_6 \ln u_{jt-1} + \gamma_7 \ln u_{it-1} + \gamma_8 \ln s_{ijt-1} + \gamma_9 lingprox_{ij} + \gamma_{10} \ln dist_{ij} + \gamma_{11} neighbour + \varepsilon_{ijt}$$

Difference-in-Differences analyses of labour market openings of EU countries on migration flows from new EU10 member states, 22 destinations, years 1995-2010.

VARIABLES	EU8+EU2		EU8		EU2	
LMO	**0.378*** **	**0.353*** **	**0.298*** **	**0.348*** **	**0.536*** **	**0.524*** *
Dest & Origin FE	YES		YES		YES	
Pair of country FE		YES		YES		YES
Constant	-89.043***	-93.528***	-116.716***	-131.480***	456.667	496.926
Observations	2,424	2,424	1,910	1,910	514	514
Adjusted R-sq	0.861	0.905	0.868	0.9111	0.896	0.8976

Dependent Variable: Ln(Emigration Rate). Controls included: networks, economic and distance variables, time dummies. Robust standard errors clustered on country pairs level, *** p<0.01, ** p<0.05, * p<0.1; The sample of destinations consists of the "old" 17 EEA countries and 5 non-EU countries: Australia, Canada, New Zealand, Switzerland and the United States.

Difference-in-Differences analyses, Controls for the EU enlargement in order to separate the labour market openings effects from the EU enlargement effects, 22 destinations, years 1995-2010.

	EU8+EU2		EU8		EU2	
VARIABLES						
LMO	0.290***	0.268***	0.248**	0.282***	0.363**	0.353
EUenl	0.308***	0.334***	0.169	0.246**	0.798***	0.818***
Dest & Origin FE	YES		YES		YES	
Pair of country FE		YES		YES		YES
Constant	-90.909***	-96.769***	-117.518***	-133.533***	425.877	475.934
Observations	2,424	2,424	1,910	1,910	514	514
Adjusted R-sq	0.862	0.9065	0.868	0.9116	0.899	0.9012

Dependent Variable: Ln(Emigration Rate). Controls included: networks, economic and distance variables, time dummies. Robust standard errors clustered on country pairs level, *** p<0.01, ** p<0.05, * p<0.1; The sample of destinations consists of the "old" 17 EEA countries and 5 non-EU countries: Australia, Canada, New Zealand, Switzerland and the United States.

Triple difference (DDD) estimator –2004 EU-8

- similarly as in DD, but add:
  - Non-experimental group of source countries:
    - Russia, Croatia, Albania and Ukraine sources
  - post-treatment period varies according to the different time of lifting restrictions

DDD analyses of labour market openings and EU enlargements; Period: 1995-2010. Experimental groups of source countries: Albania, Croatia, Russia and Ukraine.

VARIABLES	EU8+EU2+4CEECs		EU8+4CEECs		EU2+4CEECs	
LMO	0.237***	0.338***	0.233**	0.385***	-0.051	0.401*
EUenl	0.594***	0.637***	0.548***	0.596***	1.142***	1.238***
Dest & Origin FE	YES		YES		YES	
Pair of country FE		YES		YES		YES
Constant	-22.903	-35.511**	-4.795	-25.343	-17.699	-27.292
Observations	3,110	3,110	2,596	2,596	1,200	1,200
Adjusted R-sq	0.861	0.9081	0.864	0.9130	0.886	0.9133

Dependent Variable: Ln(Emigration Rate). Controls included: networks, economic and distance variables, time dummies. Robust standard errors clustered on country pairs level, *** p<0.01, ** p<0.05, * p<0.1; The sample of destinations consists of the "old" 17 EEA countries and 5 non-EU countries: Australia, Canada, New Zealand, Switzerland and the United States.

TESTING VALIDITY: Placebo tests: period 1995-2003;
placebo enlargement year for EU8=1997; placebo for EU2=2000

VARIABLES	EU8+EU2		EU8+EU2	
LMO	0.140	0.093	0.123	0.091
EUenl			0.121	0.018
Dest & Origin FE	YES		YES	
Pair of country FE		YES		YES
Constant	-131.288***	-162.262***	-121.079***	-160.794***
Observations	1,239	1,239	1,239	1,239
Adjusted R-sq	0.856	0.9175	0.856	0.9175

Dependent Variable: Ln(Emigration Rate). Controls included: networks, economic and distance variables, time dummies. Robust standard errors clustered on country pairs level, *** p<0.01, ** p<0.05, * p<0.1

SUMMARY:

- A positive effect of labour market openings on migration:
  - migrants move to countries with greater formal labor market access over those in which their access is restricted.
  - The relationships hold even in the most restrictive models with economic and distance indicators, existing immigrant stocks and country or country pair FE.
    - in models without networks, the coefficients on DD and DDD are always significant positive;
    - It holds also for 32 destinations
    - It holds even if I control for the overall effect of the "EU entry" on migration.
  - the estimated "EU entry" effect is positive and significant in all DD and DDD model specifications, and it is larger than the "labour market opening" effect.

Labor Market Laws and intra-European Migration: The Role of the State in Shaping Destination Choices

By **John Palmer,** *Princeton University* and **Mariola Pytlikova** *VSB-TU, KORA and CReAM*

⇒ Use an employment rights index collected by John Palmer to evaluate how *granting employment rights law* influence migration.

⇒ We study immigrants *multiple choices*

⇒ We study potential *mechanisms* behind

⇒ WE FIND:

⇒ migrants are attracted to destinations that give them *greater formal labor market access*.

⇒ Descreasing *restrictions in one destination diverted migrants from other potential destinations*.

⇒The effect of destination labor market access is:

⇒ weaker for destinations with *larger existing co-national networks*, and for migrants from *linguistically closer* countries and from countries with *higher average education*.

How do CEE fare? Post-enlargement evidence

- Main sending countries:
  - **UK**: Poland, Slovakia, Lithuania,
  - **Ireland**: Poland, Lithuania, Latvia
  - **Sweden**: Poland, Lithuania, Estonia
- Sectoral distribution of immigrants:
  - **UK**: hotels and restaurants, manufacturing, agriculture/construction
  - **Ireland**: construction, manufacturing, hotels and restaurants
  - **Sweden**: health care, trade, manufacturing

How do CEE fare? Post-enlargement evidence

- Characteristics of post-enlargement immigrants:
  - **UK**:
    - young,
    - males,
    - single,
    - rel. highly educated (with qualifications),
    - higher empl. rate than of natives and non-EU migrants.
    - Earn less than natives, later arrivals earn less than earlier arrivals.

How do CEE fare? Post-enlargement evidence

- Characteristics of post-enlargement immigrants:
  - **Ireland**:
    - high Labour Force Participation rate (90%),
    - higher empl. rate than of natives and non-EU migrants.
    - No earnings data for Irish vs. foreign workers

How do CEE fare? Post-enlargement evidence

Characteristics of post-enlargement immigrants:

- **Sweden**:
  - Immigration of males increased more than females (previously more females),
  - secondary and higher education,
  - lower empl. rate and hours worked than of natives, but higher than of non-EU migrants (partly explained by lags in registration of returning migrants)
  - Monthly earnings are 10% less than of natives. Later arrivals earn less than earlier arrivals
  - CEE are not overrepresented in the welfare state schemes (which was the focus of the pre-enlargement debate in Sweden)

THE NEXT LECTURE: 8.2.2014

- **Impact of immigration**
- **role of immigration policies**
- **Ethnic Diversity: Impacts of workforce diversity on firms and economies - effects on productivity, innovation, exporting and FDI behaviour, and enteprenuership**