OESTERREICHISCHE NATIONALBANK
EUROSYSTEM

The role of the quality of public services in shaping migration intentions in CESEE

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Introduction

- CESEE countries have been characterized by considerable out-migration in past decades
- Together with unfavorable demographic developments this adds up to a large decline of the working age population (Atoyan et al., 2016; IMF, 2016; IMF, 2017)

- In this study we intend to
  - describe the socio-demographic profiles of the prospective emigrants from CESEE,
  - learn about their motives to leave, and
  - highlight in particular the **role played by the contentment with public services.**

- We use data from the **OeNB Euro Survey** collected in fall 2018
  - Descriptive analysis
  - OLS and IV estimations with inputs from (Polychoric) Principal Component Analysis

Literature

- Previous research (Raggl, 2019) shows that migration intentions in CESEE are
  - more common among young individuals and men
  - less prevalent among individuals that are part of large families
  - closely related to individual unemployment and regional development
  - significantly higher among individuals with direct and indirect networks

- What role does the contentment with **public services** play in shaping migration intentions?
  - Which public services play key roles – social security, education, etc.?
  - Are there heterogeneities?

- Dustmann and Okatenko (2014) and Manchin and Orazbayev (2018) work on the link between migration intentions and local amenities; the topic is also covered in the EBRD Transition report (2018)

OeNB-EuroSurvey
The Euro in Central, Eastern and Southeastern Europe

OeNB

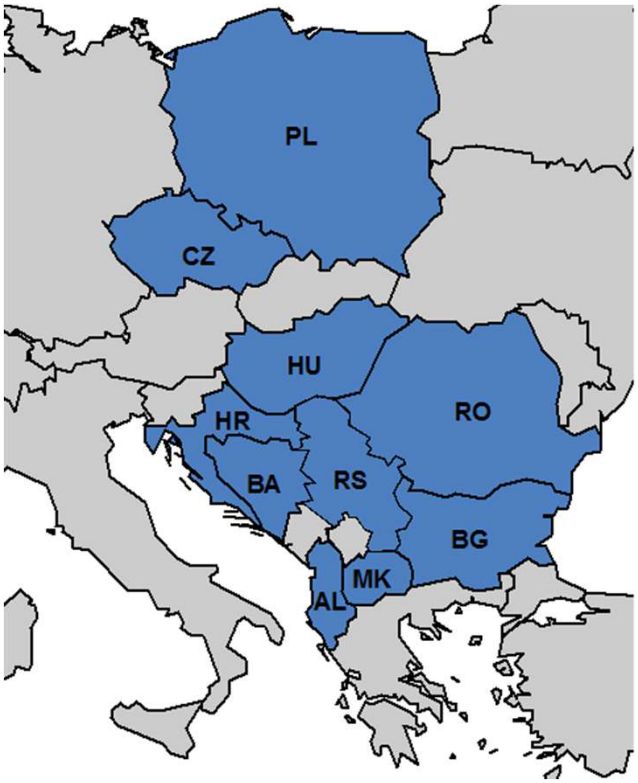
Data – The OeNB Euro Survey

Individual-level survey commissioned by OeNB
https://www.oenb.at/en/Monetary-Policy/Surveys/OeNB-Euro-Survey.html

- 6 EU countries: BG, HR, CZ, HU, PL, RO
- 4 non-EU countries: AL, BA, MK, RS

- Since 2007 (semi)annually
- 1,000 randomly selected individuals/country/wave

- unique information about (euro) cash holdings, saving behavior and debt; respondents' economic opinions, expectations and experiences



Data – The OeNB Euro Survey

Fall-wave 2018:

- "*Do you intend to move abroad within the next 12 months?"*
  - *"yes", "no", "don't know", "no answer"*

- + information on socio-demographics, economic situation, region of residence,...
- + special module on public spending: **satisfaction with public services**
  - Social security, public infrastructure, education, health, public safety, econ. development
- + data on night light (VIIR), urban fabric (CORINE) and road density (GRIP)

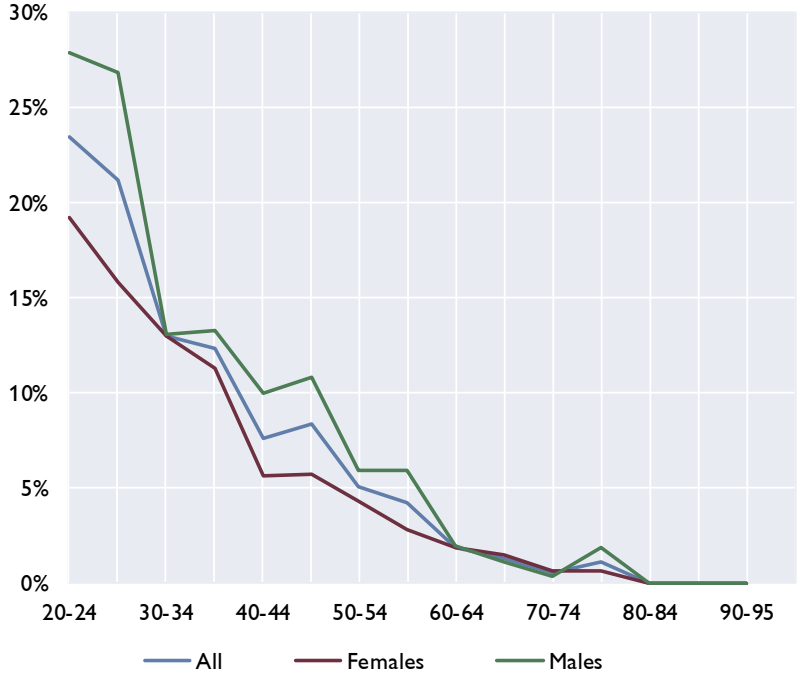
Limitations:

- No distinction between temporary and permanent migration
- Intentions vs. actual behavior

Migration intentions in CESEE

Migration intentions by age and gender

Share of individuals with migration intentions (%)



Source: OeNB Euro Survey (2018).

- 9.0% of individuals aged 25 to 64 intend to move abroad within the next year

Migration intentions…

- … decline with age
  - 23.4% among 25-29 year-olds
  - 13.0% among 30-34 year-olds
  - < 10% among those aged 40+
- … are higher among men
- … do not differ greatly with education

Population pyramid for CESEE

Population pyramid for CESEE (2018)

Source: OeNB Euro Survey (2018).

The **population pyramid** shows the

- gender,
- age,
- education, and the
- migration intentions

of individuals.

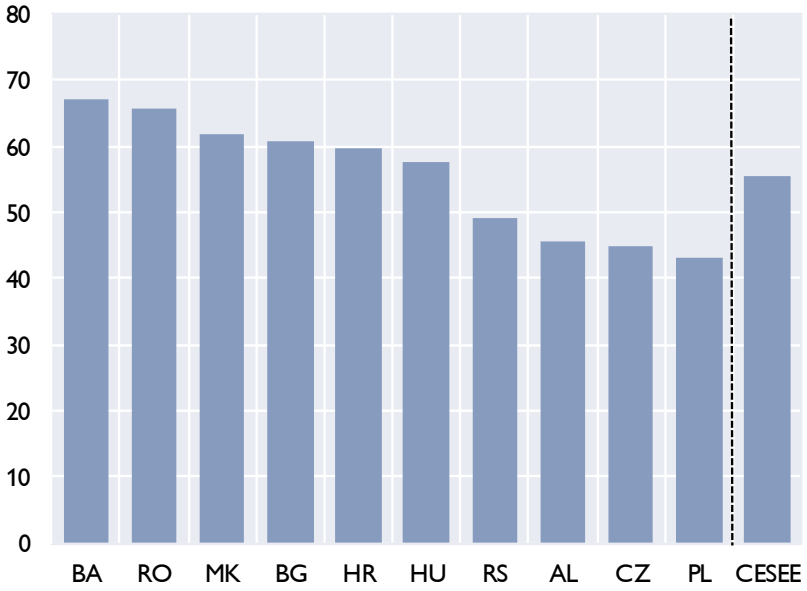
Hypothetical population pyramid:

If all migration intentions were realized, immediately and contemporaneously, the pyramid would be more constrictive, and there would be less men, *ceteris paribus*.

Contentment with public services in CESEE

Dissatisfaction with public services by country

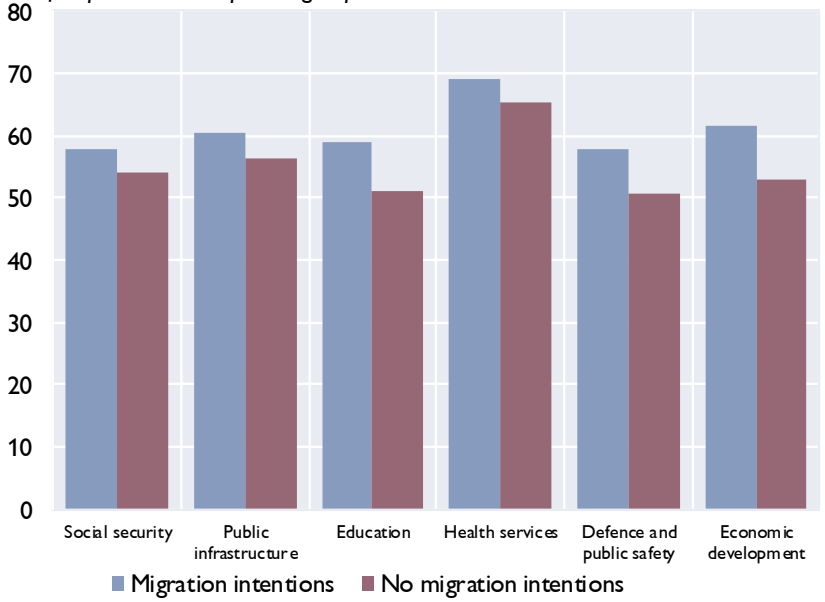
% of respondents



Source: OeNB Euro Survey (2018).

Dissatisfaction with public services by service

% of respondents in respective group



Source: OeNB Euro Survey 2018.

- Level of dissatisfaction considerable in CESEE, variation across countries
- Dissatisfaction higher among those with migration intentions (differences stat. sig. except for social security)

Empirical specification

$$m_i = \alpha_r + \beta^D D_i + \sum_{j=1}^{J} X_j^S \beta_j^S + \sum_{k=1}^{K} X_k^E \beta_k^E + \sum_{l=1}^{L} X_l^R \beta_l^R + \sum_{m=1}^{M} X_m^N \beta_m^N + \sum_{p=1}^{P} X_p^T \beta_p^T + \epsilon_i$$

- m_i is a binary variable indicating migration intentions,
- D_i is a variable capturing an individual's **dissatisfaction with public services**,
- X_j^S is a vector of J **socio-demographic** variables,
- X_k^E is a vector of K **economic** factors,
- X_l^R is a vector of L variables related to **regional economic development**,
- X_m^N is a vector of M **network** variables,
- X_p^T is a vector of P factors approximating **trust in institutions**, and
- a_r is a country- or PSU-specific constant and ϵ_i the remaining error term

Results: OLS estimation (1)

	(1) Socio-dem	(2) Economic	(3) Wealth	(4) Regional	(5) Networks	(6) Trust	(7) PSU-FE
PPCA: Dissatisfaction w/ pub. ser.	0.00768**	0.00970***	0.00997***	0.00947***	0.00722***	0.00722***	0.00729***
	(2.14)	(2.83)	(2.84)	(2.92)	(3.09)	(2.98)	(3.26)
Female	-0.0298***	-0.0304***	-0.0304***	-0.0294***	-0.0296***	-0.0262***	-0.0248***
	(-4.71)	(-4.69)	(-4.60)	(-4.50)	(-4.42)	(-4.11)	(-3.80)
Age	-0.00445***	-0.00418***	-0.00411***	-0.00407***	-0.00396***	-0.00390***	-0.00348***
	(-10.12)	(-8.93)	(-8.84)	(-9.03)	(-9.52)	(-9.57)	(-8.92)
Medium education	-0.00439	0.00212	0.00231	0.00607	0.0196**	0.0220**	0.0308**
	(-0.48)	(0.24)	(0.26)	(0.67)	(2.00)	(2.18)	(2.41)
High education	-0.0211	-0.0119	-0.0109	-0.00723	0.0156	0.0171	0.0203
	(-1.35)	(-0.81)	(-0.78)	(-0.55)	(1.38)	(1.50)	(1.42)
PPCA: Large family	-0.0207***	-0.0244***	-0.0236***	-0.0238***	-0.0223***	-0.0226***	-0.0162***
	(-7.42)	(-7.66)	(-6.88)	(-6.84)	(-6.77)	(-6.31)	(-3.98)
Log(size of town)	0.00131	0.00400*	0.00384*	0.00461*	0.00190	0.00184	
	(0.65)	(1.91)	(1.83)	(1.78)	(0.77)	(0.74)	
…	…	…	…	…	…	…	…

Results: OLS estimation (2)

…	…	…	…	…	…	…	…
Log(equiv. income)		-0.0251	-0.0246	-0.0174	-0.0291	-0.0357	-0.0483
		(-0.62)	(-0.60)	(-0.42)	(-0.78)	(-0.97)	(-1.20)
Log(equiv. income) sq.		0.000692	0.000668	0.000715	0.00104	0.00130	0.00230
		(0.31)	(0.30)	(0.32)	(0.51)	(0.65)	(0.96)
Unemployed		0.114***	0.111***	0.0995***	0.103***	0.0991***	0.0893***
		(5.83)	(5.79)	(5.00)	(5.55)	(5.24)	(4.80)
PPCA: Wealth			-0.000967	-0.00205	-0.0128**	-0.00984*	-0.0101*
			(-0.15)	(-0.34)	(-2.19)	(-1.73)	(-1.82)
PPCA: Direct networks					0.0524***	0.0512***	0.0489***
					(7.03)	(6.58)	(5.79)
PCA: Indirect networks					0.0222***	0.0224***	
					(3.97)	(3.90)	
PCA: Trust in local inst.						0.000610	
						(0.24)	
PCA: Trust in EU						0.00883***	0.00409
						(3.01)	(1.10)
R^2	0.0897	0.107	0.105	0.108	0.150	0.152	0.0795
N	9418	7114	7046	7017	6957	6557	6585

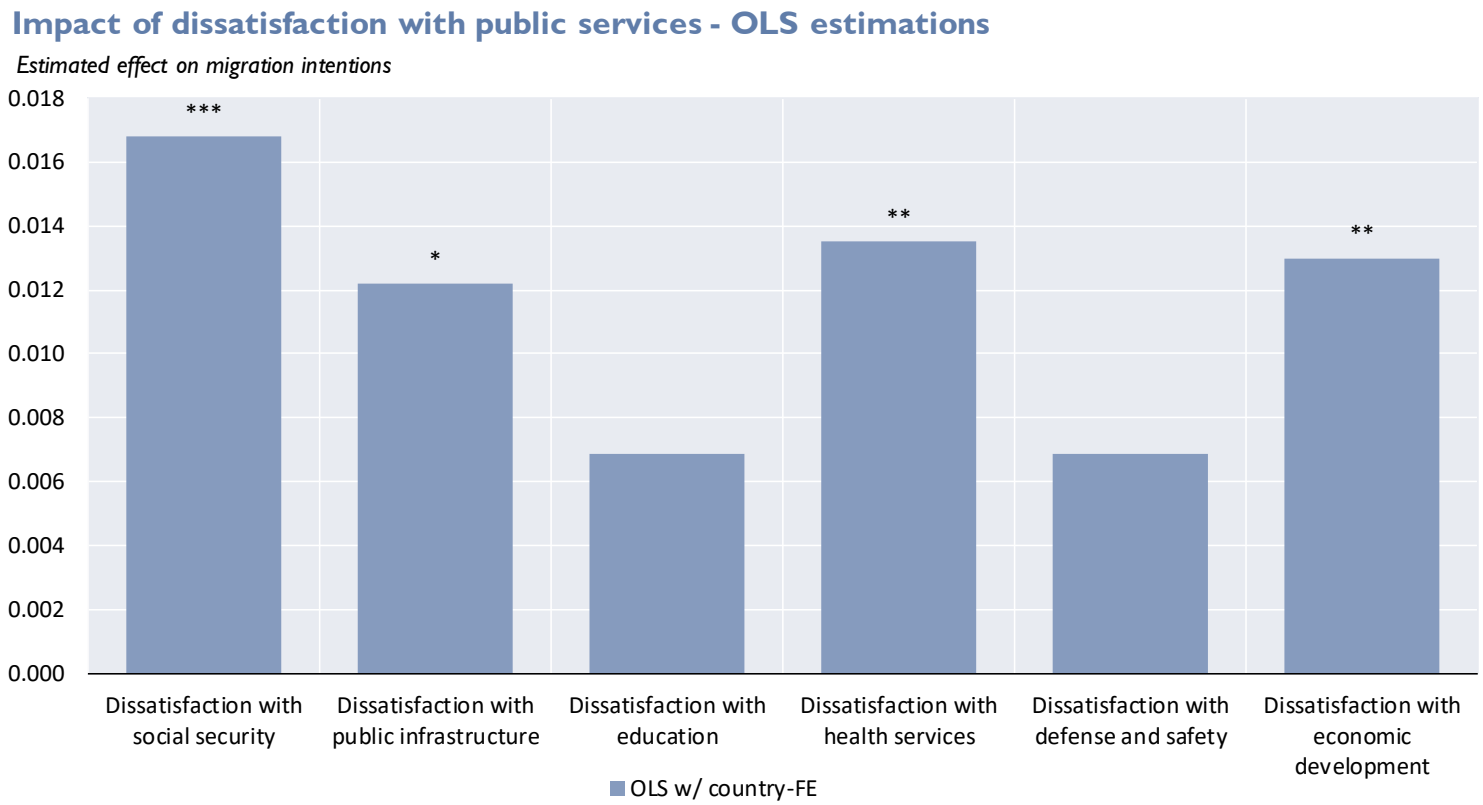
t statistics in parentheses. All specifications include three principal components representing the level of regional development based on night light, regional unemployment, income, and a constant. Specifications (1) to (6) include in addition a full set of country dummies, specification (7) includes PSU fixed effects.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Results: IV estimation

	(1) OLS	(2) IV	(3) IV	(4) IV	(5) IV	(6) IV
PPCA: Dissatisfaction w/ public services	0.00755***	0.126**	0.0854**	0.0153***	0.0168***	0.0166***
	(3.79)	(2.47)	(2.00)	(2.85)	(3.13)	(3.09)
Observations	6604	6593	6593	6604	6593	6593
Kleibergen-Paap F-statistic		4.260	3.205	27.14	23.96	22.36
Hanson-J		1.661	7.326	24.73	31.93	36.27
Hanson-J p		0.646	0.198	0.364	0.235	0.166
Instrumental variables:						
PCA Road density (4 components)		Yes	Yes	No	Yes	Yes
PCA Urban fabric (2 components)		No	Yes	No	No	Yes
State spending inadequate		No	No	Yes	Yes	Yes

t statistics in parentheses. All specifications include the full set of covariates that are used in the most exhaustive OLS specification as well as country fixed effects.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Results: OLS estimation – distinguishing by type of public service



Source: Estimations based on OeNB Euro Survey (2018).
Note: All specifications include the full set of covariates that are used in the most exhaustive OLS specification as well as country fixed effects.
** p < 0.1, ** p < 0.05, *** p < 0.01.*

Conclusions

- 9% of the working-age population in CESEE intends to move abroad within the next year
- Actual emigration would not only change the size but also the demographic decomposition of the population in CESEE

- Factors closely related to individual migration intentions are
  - age and gender
  - family characteristics
  - unemployment
  - networks

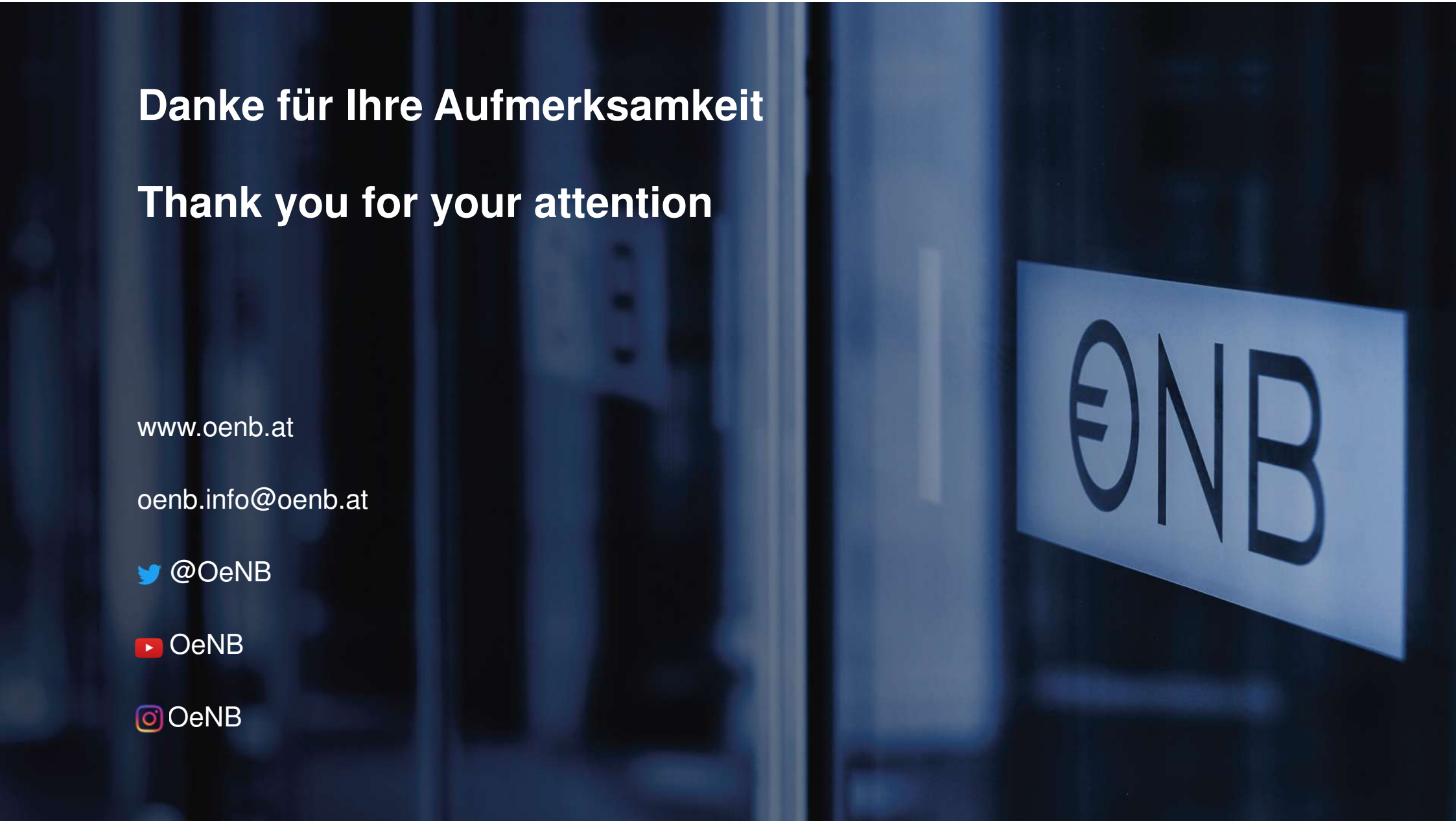
- But also the **dissatisfaction with public services** plays a role in shaping migration intentions

Conclusions

Policy relevance:

- Effects of demographic and family characteristics as well as of networks leave little room for policy interventions
- Employment opportunities: currently tight labor markets might reduce migration intentions
- **Public services:** improved quality of public services can reduce emigration pressures and might incentivize re- and immigration

- Yet, emigration did and will challenge social security systems and public finances in the region:
  - **Risk of a vicious circle:** Dissatisfaction with public services → emigration → increased pressure on public finances → decrease in quality of public services → dissatisfaction → emigration…
  - But also opportunity to turn this into a **virtuous circle by adopting appropriate policies**



Danke für Ihre Aufmerksamkeit

Thank you for your attention

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