Cardiff Workshop on the Economics of Migration

Reassessing Migration's Impact
Search Frictions, Redistribution, and Tax Policy

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The Challenge

- Most OECD countries will need large migration inflows in light of (among other things) falling TFRs

- Increasing share of migrants from countries of origin that are more diverse than in the past. So far that has been associated with less favourable outcomes

- Evidence that attitudes towards migration depend on ethnicity and income at origin (Schahbasi et al. 2020 using the European Social Survey)

- As researchers, we need to continue to engage with the public discourse on the effects of migration, allowing for both labour market and fiscal effects

Outline

1. Battisti, Felbermayr, Peri, Poutvaara (2018) - BFPP
2. Discussion of some of its limitations
3. A few charts
4. Possible next steps

- **Wage effects**
  Borjas, 2003; Ottaviano and Peri, 2012, ...
  No labour market frictions or redistribution.

- **Employment effects**
  Felbermayr et al., 2010; Chassamboulli and Palivos, 2014
  No government, reduced form.

- **Fiscal effects**
  Razin et al. 2011; Dustmann and Frattini, 2013
  No complementarity effects, no interaction between labour market effects and redistribution.

Data from 20 OECD countries: 16 EU countries, plus the US, Canada, Australia and Switzerland.

Most data are from 2011, with 2006-2011 for some variables.

Large heterogeneity in population shares and skill mix, wage and unemployment gaps, public finance

Perfect competition in **production**.

- Cobb Douglas production function between K and Z

$$Y = AK^{\alpha}Z^{1-\alpha}, \alpha \in (0,1)$$

- Input Z: CES production function of intermediate inputs

$$Z = [xY_L^{\rho} + (1-x)Y_H^{\rho}]^{1/\rho}, \rho \in (0,1), x \in (0,1)$$

- Linear production of intermediate inputs

$$Y_i = \sum_j (1-u_{ij})\pi_{ij}Q_{ij}, i = \{H,L\}, j = \{N,I\},$$

BFPP Model: Labour
Random matching à la Mortensen & Pissarides (1994)

N and *I* have different flow value of leisure $b_{ij} + h_{ij}$, with $h_{iN} = 0, h_{iI} \leq 0$ and split rates s_{ij}

By free entry condition, for each skill $i \in \{H, L\}$

$$\underbrace{\frac{c_i}{q(\theta_i)}}_{[1]} = \sum_{j \in \{N, I\}} \underbrace{\phi_{ij}}_{[2]} \underbrace{\frac{\pi_{ij} p_i - w_{ij}}{r + s_{ij}}}_{[3]}$$

[1] Expected hiring costs, increasing in θ_i

[2] Probability that the match is with either *N* or *I*

[3] Expected job rent from the match.

$\implies$ Migration affects incentives for job creation

BFPP Model: Government and Welfare

- Government budget constraint

$$t \left(\sum_i \sum_j (1 - u_{ij}) Q_{ij} w_{ij} \right) \geq \sum_i \sum_j b_{ij} u_{ij} Q_{ij} + G$$

where $G \equiv g \sum_i \sum_j Q_{ij}$

- Welfare of native workers

$$\mathcal{W}_N = \underbrace{y_N}_{[1]} + \underbrace{R_N}_{[2]} + \underbrace{g}_{[3]}$$

[1] y_N is net employment and unemployment income
[2] R_N is capital income
[3] g is the lump-sum transfer from the government

BFPP: Equilibrium

10 Equilibrium Conditions

- two free entry conditions
- two market clearing conditions
- one condition for capital returns
- four wage equations
- one GBC

10 Endogenous Variables

- two market tightness parameters θ_i
- two prices p_i
- the level of the capital stock
- four wages w_{ij}
- one tax rate t

BFPP: How migrants affect non-migrants?

1. **Complementarity Channel**:
   Immigrants benefit complementary factors.

2. **Job Creation Channel**:
   In a labour market with frictions, migration affects
   vacancy creation.

3. **Fiscal Channel**:
   Immigrants pay taxes, receive transfers and public goods.

BFPP: Some of the Results

Increasing the stock of immigrants by one percentage point holding parameters at calibrated values.

Welfare effects for non-migants:

	US			Germany		
Models	$\mathcal{W}_N$	$\mathcal{W}_{LN}$	$\mathcal{W}_{HN}$	$\mathcal{W}_N$	$\mathcal{W}_{LN}$	$\mathcal{W}_{HN}$
1: complementarity	0.00	0.01	-0.02	0.00	-0.05	0.11
2: + wage gaps	0.04	0.08	0.00	0.07	0.03	0.17
3: + unempl. gaps	0.04	0.08	0.00	0.02	-0.03	0.12
4: + b_{ij}	0.05	0.08	0.01	0.02	-0.02	0.12
5: + g	0.05	0.06	0.03	-0.01	-0.03	0.04

Improving on BFPP - Road Ahead

- More recent data
- Size of government vs. redistribution
- Going beyond linear taxation with one tax rate
- Random matching is problematic (Albert 2021), as is assuming away downgrading (Albert et al. 2024)
- Life-cycle considerations

More Recent Data

Building the dataset we need:

- EU-LFS and EU-SILC are the main data sources
- Census for the United States (and Canada)
- IMF, WB, OECD, Eurostat
- We collected data for 2019 (pre-covid), and 2015-2019 for strongly cyclical variables
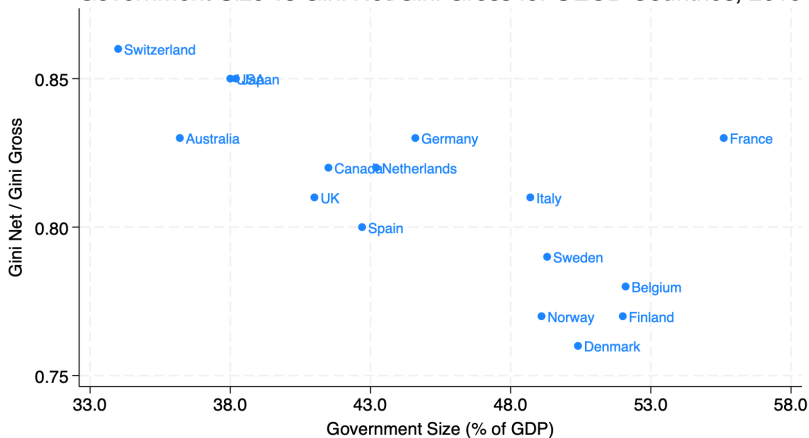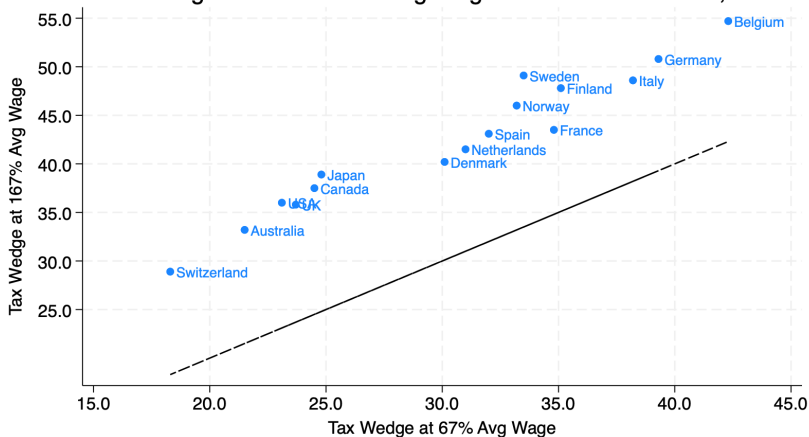
Low-Skill Unemployment Rates: Natives vs Immigrants
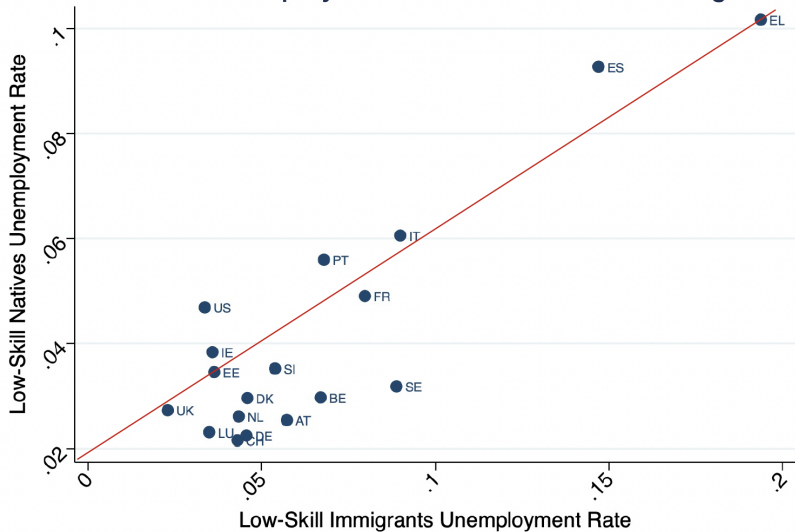
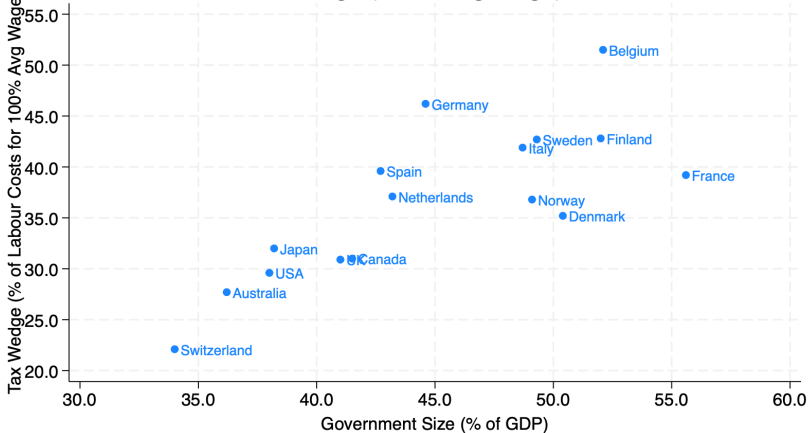High-Skill Unemployment Rates: Natives vs Immigrants
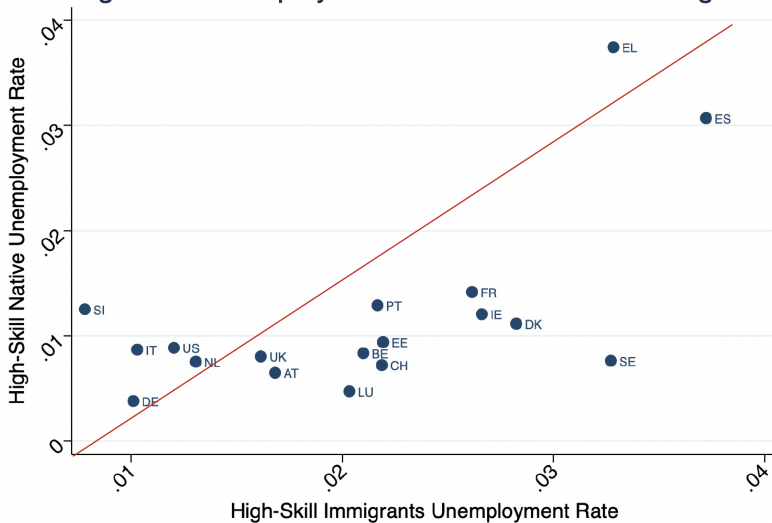
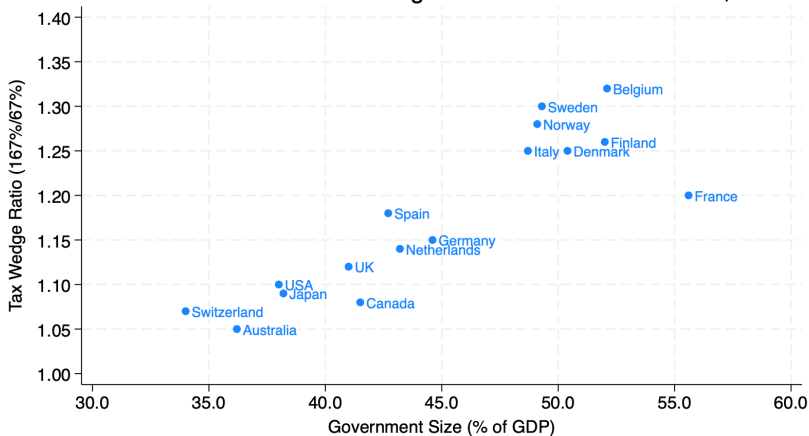Government Size vs Gini Net/Gini Gross for OECD Countries, 2019

Tax Wedge: 167% vs 67% Avg Wage for OECD Countries, 2019

Government Size vs Tax Wedge (100% Avg Wage) for OECD Countries, 20

Government Size vs Tax Wedge Ratio for OECD Countries, 2019

Government, Redistribution, Tax Policy

- Model allowing for both size of government and redistribution (work in progress)
- ... and for more realistic tax policy (not even work in progress)
- Our goal is to try to contribute to the debate on the way in which effects of migration depend on the welfare state

Thank you very much
for your attention
and patience