

Eurostat/UNECE Work Session on Demographic Projections

18-20 April 2016

International Migration in the Belgian Population Projection

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Main characteristics

1. Different modelling for short- and long-term immigration flows.
2. World population growth is a key driver of the LT evolution of immigration to Belgium.
3. Reasons for migrating depend upon country of departure.
4. If relevant, economic determinants of migration are estimated using econometric methods.
5. Future evolution of the emigration rate (from BE) is in line with the future evolution of immigration.

Main characteristics

1. Different modelling for short- and long-term immigration flows.

- **SHORT TERM:**
 - A flexible approach for taking into account unexpected shocks (change in migration policy, asylum seekers crisis...) .
 - Needs to be revised on yearly basis.
 - **LONG TERM trends reflect:**
 - An increasing globalisation and mobility.
 - The expected growth of the world population.
 - Short-term variation in immigration flows does not influence the long-term projection of immigration.
- ⇒ Yearly revision might have a substantial impact on the population projection on the short term, but not on the long term.

Main characteristics

2. World population growth is a key driver of the LT evolution of immigration to Belgium.

$$\text{IMMI}^{\text{receiving (BE)}} = \text{EMI rate} * \text{pop}^{\text{sending}}$$

- EMI rate = the immigration to Belgium from a sending country divided by the population in this sending country.
- Different approaches for calculating EMI rate, depending on the countries (group) of departure.

Main characteristics

3. Reasons for migrating to BE depend upon the country of departure

- “Old” Member States of the EU (EU15):
 - Geographical and cultural proximity, European and international institutions and attractive housing market for neighbouring countries.
 - In the short run : economic crisis has led to a substantial increase in immigration from EU15 countries particularly hit by the economic crisis (Spain, Greece, Italy, Portugal).
- “New” Member States of the EU (EU13):
 - Relative economic attractiveness (employment, wages)
- “Rest of the world”(or non EU-countries):
 - Looking for a higher well-being (multi dimensional criteria, not limited to economic attractiveness).
 - Influence of family reunification or asylum request.

Main characteristics

4. If relevant, economic determinants of migration are estimated using econometric methods.

- Immigration from EU15

- *General rule*: EMI rate = constant
- *Exception*: in the short run, for EU15 affected by crisis:

$$\text{EMI rate} = f(\text{unemployment rate}) + \varepsilon$$

- Immigration from EU13

- *General rule*: EMI rate = $f(\text{relative economic attractiveness, dummies}) + \varepsilon$

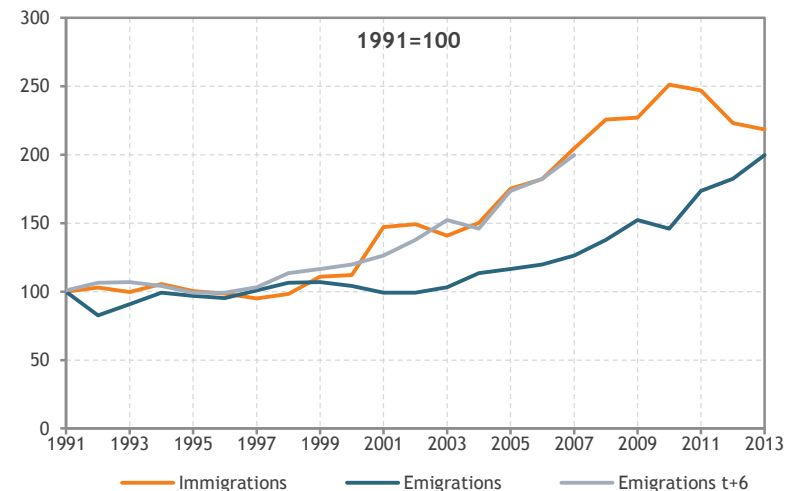
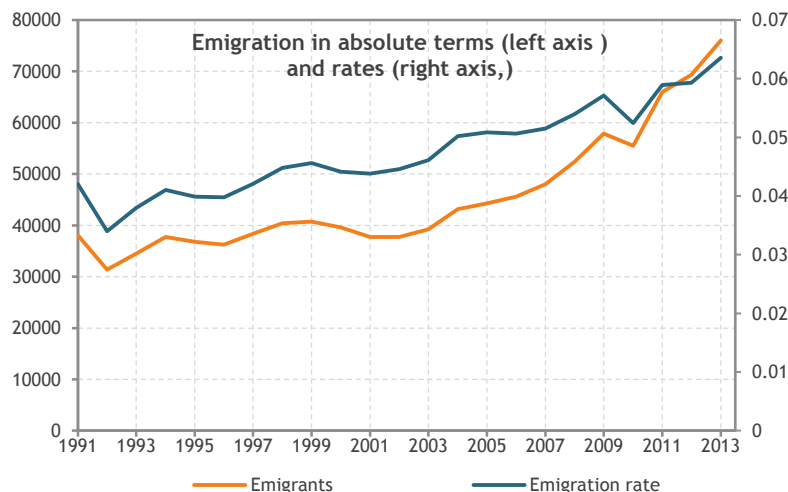
- Immigration from third countries:

- *General rule*: EMI rate = constant (average on a relatively long period)
- *Exception* : specific “exogenous” adjustment in the short term (policy change in the previous projection; asylum crisis in the current projection)

Main characteristics

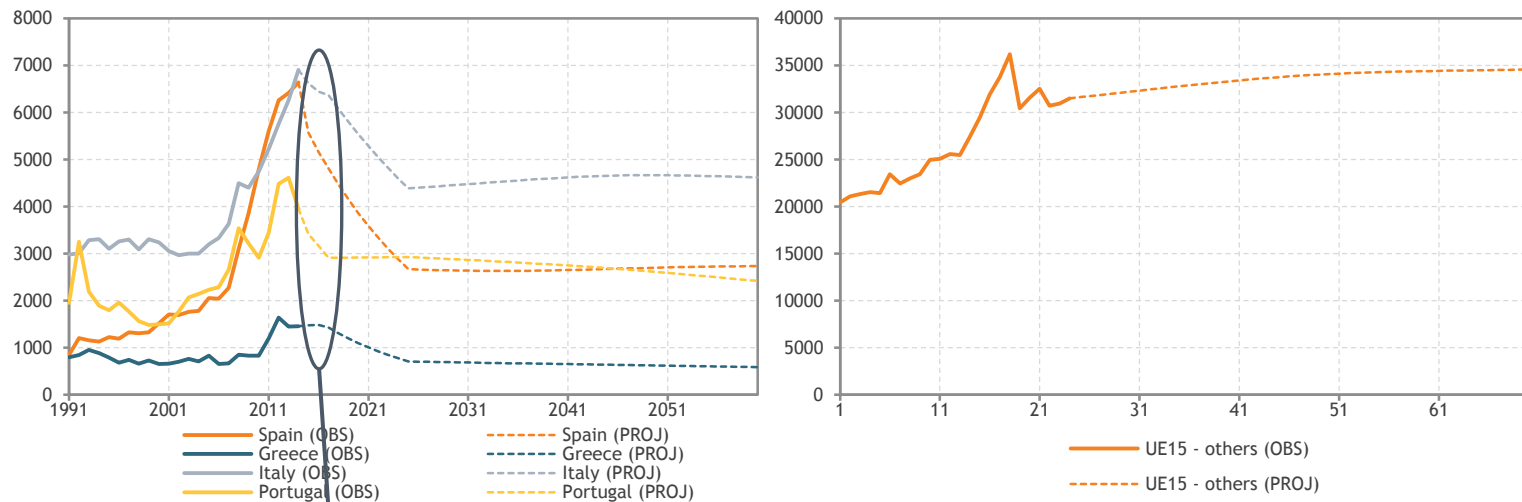
5. The emigration rate from Belgium is in line with the evolution of immigration

- Based on the analysis of the historical trend of the emigration rate from Belgium
- A lag of some years is observed between immigration and emigration trends



Main results

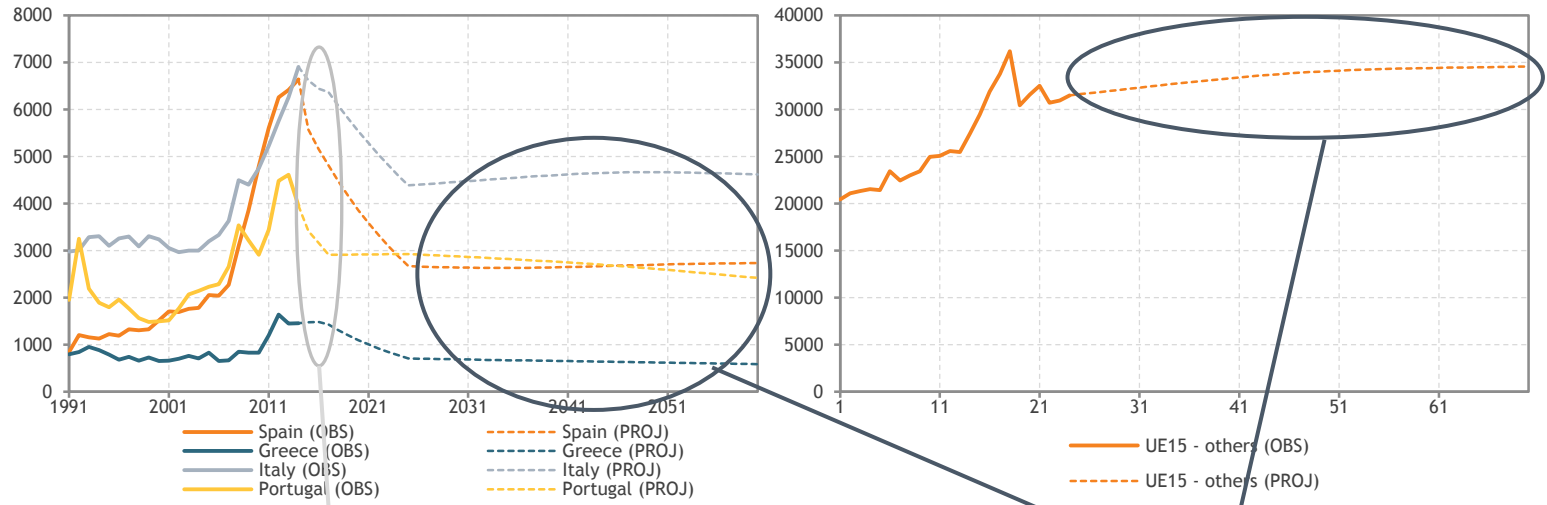
Immigration from EU15 ('Old' Member States)



$$\frac{IMMI_{FROM\ ieu15crise}}{POP_{ieu15crise}} = \beta_1 + \beta_2 * UR_{ieu15crise} + \varepsilon_{ieu15crise}$$

Main results

Immigration from EU15 ('Old' Member States)



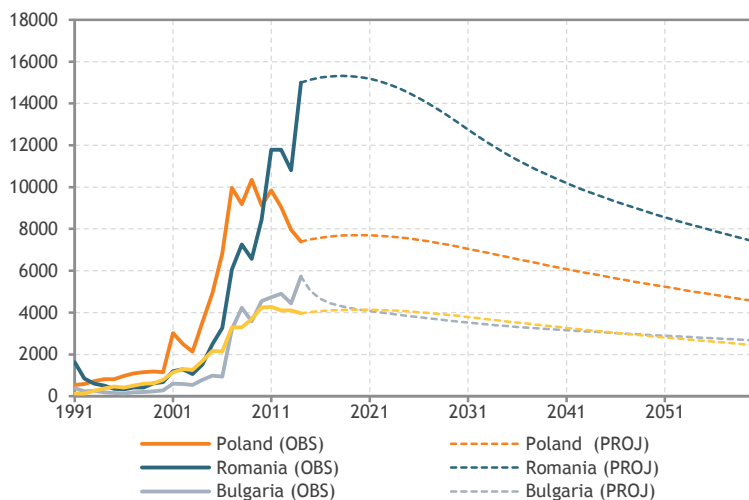
$$\frac{IMMI_{FROM\ ieu15crise}}{POP_{ieu15crise}} = \beta_1 + \beta_2 * UR_{ieu15crise} + \varepsilon_{ieu15crise}$$

$$\frac{IMMI_{FROM\ ieu15}}{POP_{ieu15}} = constant$$

Main results

Immigration from EU13 ('New' Member States)

$$\frac{IMMI_{FROM\ ieu13}(t)}{POP_{ieu13}(t)} = \beta_1 * \underbrace{IMMI_{FROM\ ieu13}(t-1)}_{(1)} + \beta_2 * \underbrace{\frac{PIB_{BE}}{PIB_{ieu13}}}_{(2)} + \beta_3 * \underbrace{D_{REGUL}}_{(3)} + \beta_4 * \underbrace{D_{ADH}}_{(3)} + \beta_5 * \underbrace{D_{STAB}}_{(3)} + \varepsilon_{ieu13}$$



Explanatory variables:

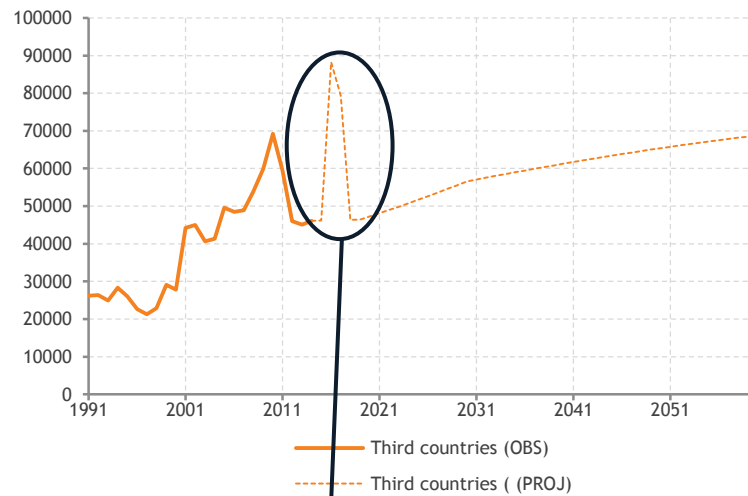
- (1) Immigration in t-1
- (2) The ratio of real GDPs per capita (GDP_{BE}/GDP_{ieu13})
- (3) Dummy variables for specific events
 - regularisation campaign
 - accession to the European Union
 - stabilisation period few years after accession

Immigration declines in projection :

- Expected decrease in the economic attractiveness of Belgium (Ageing Working Group projections)
- Expected decrease in the population in the EU13 countries (Eurostat's population projections)

Main results

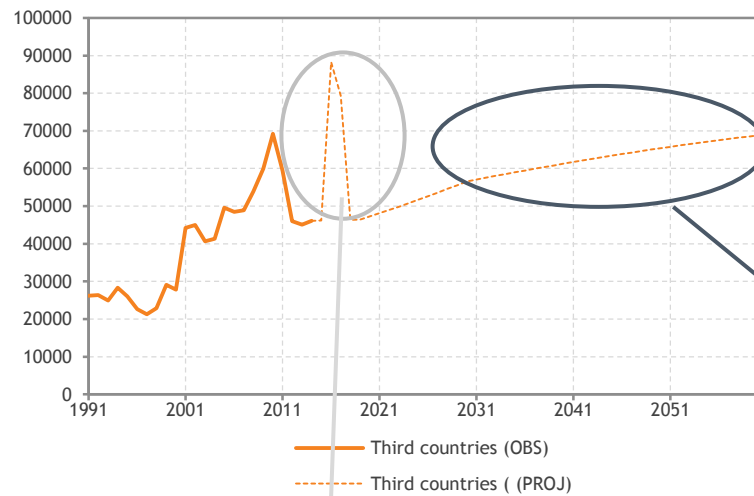
Immigration from third countries



Specific “exogenous” hypothesis on the additional number of refugees in the short-term

Main results

Immigration from third countries

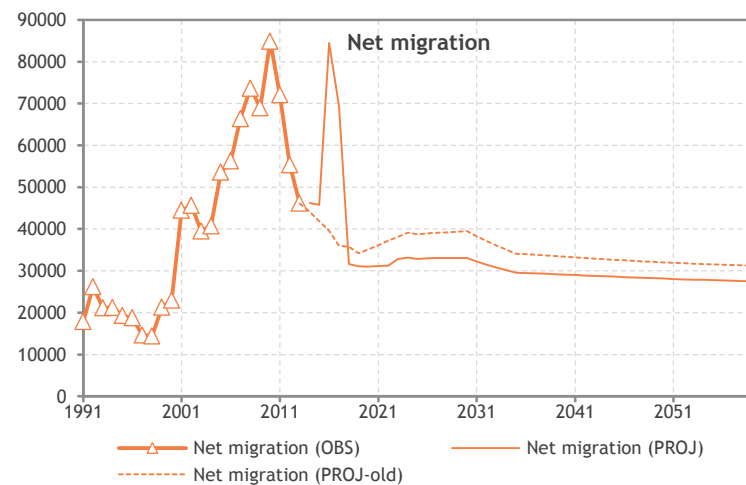
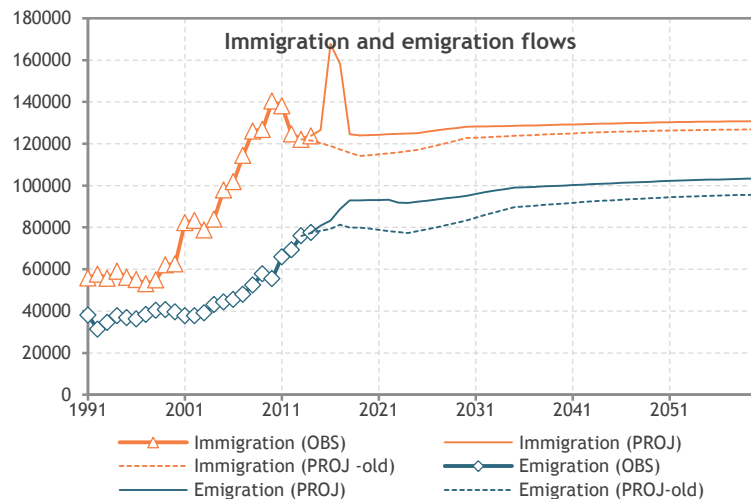


Specific “exogenous” hypothesis on the additional number of refugees in the short-term

$$\frac{IMMI_{FROM\ ieu15}}{POP_{ieu15}} = constant$$

Main results

comparison with previous exercise



- Short term: update based, among other, on the migration crisis (asylum seekers).
- Long term:
 - Minor revision → based on new world population forecast (United Nations 2015)
 - No substantial revision of international migration

→ important when updates are made on a regular basis (yearly basis for Belgium)
- Emigration rate revised on new immigration forecast

International migration in the Belgian population projection

Conclusion

- Economic determinants → only if relevant.
- Use of non demographic determinants and use of external projection => bring more uncertainties ? Maybe...
- ...but, at least we try to catch some of the determinants of migration
- ...and is a projection based on constant or zero net migration of better quality? The debate remains open...
- Applicable to all countries?
Depends on the availability of the data... but the main principles could be applicable.