

The Effect of Emigration on Unemployment in the Grand Duchy of Luxembourg

Early Results

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Rapid review the research question & project positioning

- Research question: "**How does emigration affect unemployment in Luxembourg?**"
- Luxembourg has a highly **international workforce** (almost **50%** of workers are non-Luxembourgers).
- Two possible effects of emigration:
 1. **Positive impact on unemployment:** Fewer workers → more vacancies filled by unemployed locals → lower unemployment.
 2. **Negative impact on unemployment:** Skilled labour shortages → employers struggle to fill roles.
- The findings could inform Luxembourg's **labour migration policies**, by seeing whether **emigration** creates **labour gaps** or relieves pressure on the job market.

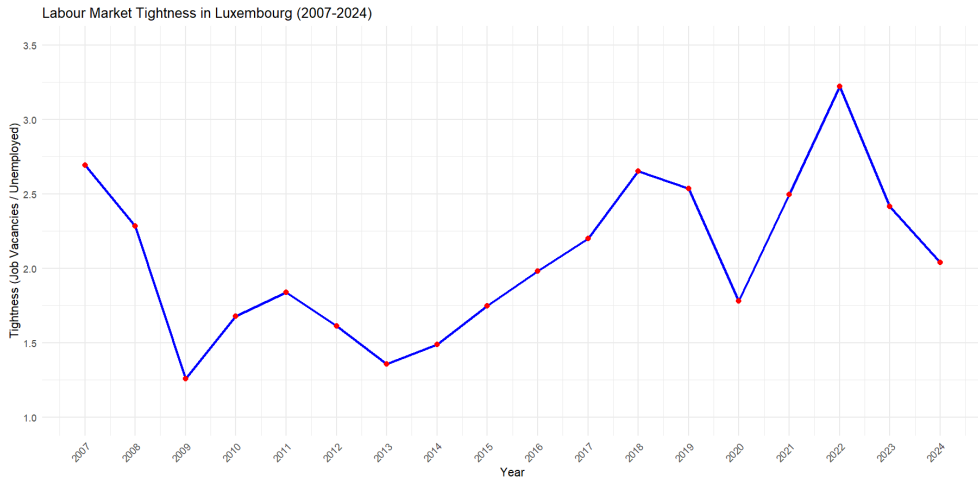
Empirical Approach

- **Labour Market Tightness** (Job Vacancies / Unemployment) Over Time → (key graph & equation determining job-finding rate, job-filling rate, welfare etc).
- **Migration Trends, Arrivals/Departures/Net Migration trend** for Luxembourg, Belgium, France, Germany, Italy, Spain, and Portugal.
- **Relative Labour Market Tightness** → see if changes in Luxembourg's labour market tightness influence labour market conditions in surrounding countries, particularly those with a high percentage of cross-border workers
- **Labour Market Tightness & Net Migration Over Time, Unemployment & Net Migration Over Time, Labour Market Tightness & Portugal's Net Migration Over Time.**
- **Vector AutoRegression Model** → Tests how emigration and unemployment interact over time. Testing the **statistical link** between emigration and unemployment.
- **Granger Causality Test** → Checks if migration "causes" unemployment changes, or vice versa.

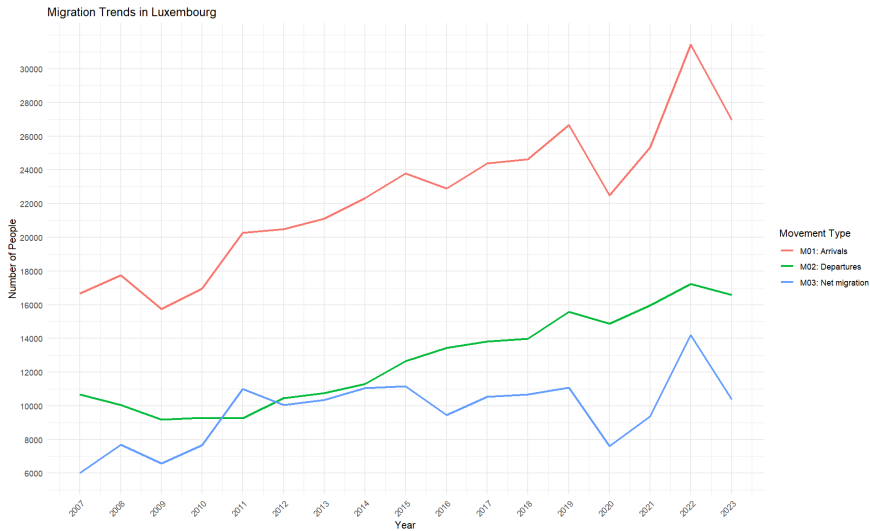
Data Collection

- **Sources:** STATEC (Luxembourg's national statistics office) – Unemployment & vacancies.
- **Eurostat:** Migration & labor force statistics.
- **Data:** Unemployment rates, vacancy rates, emigration trends.

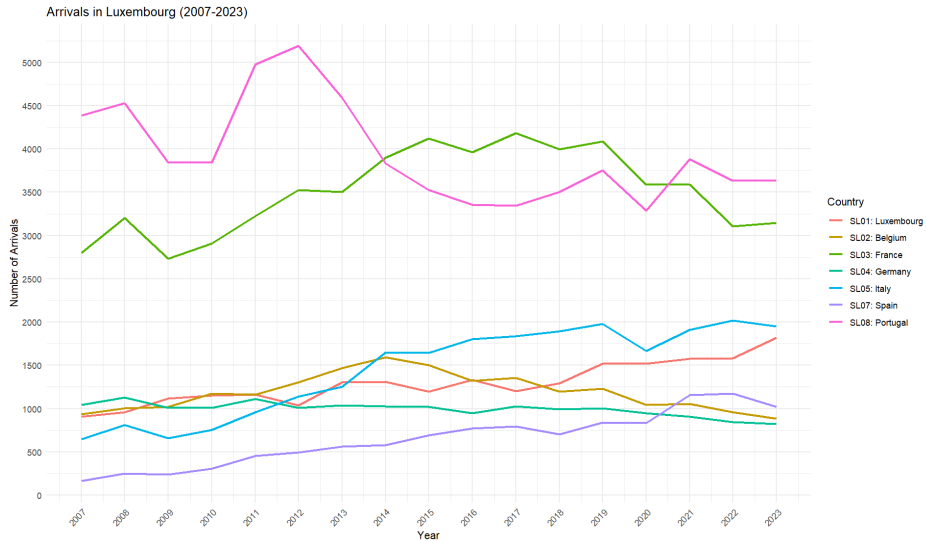
Detailed presentation of the early results, with tables & graphs



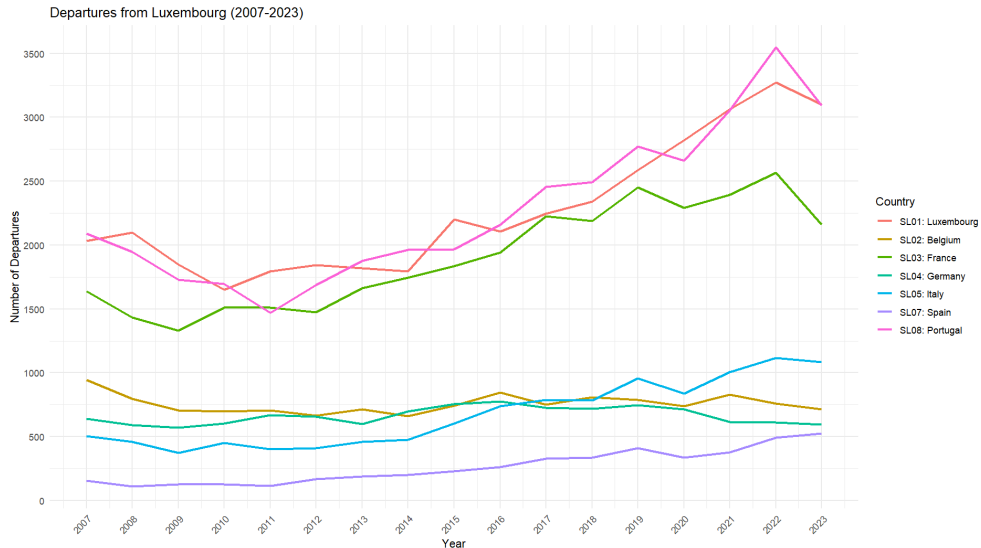
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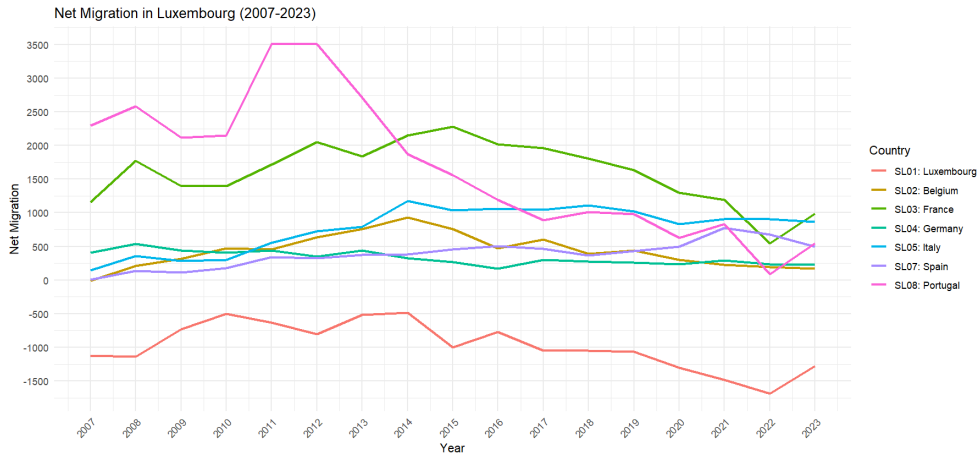
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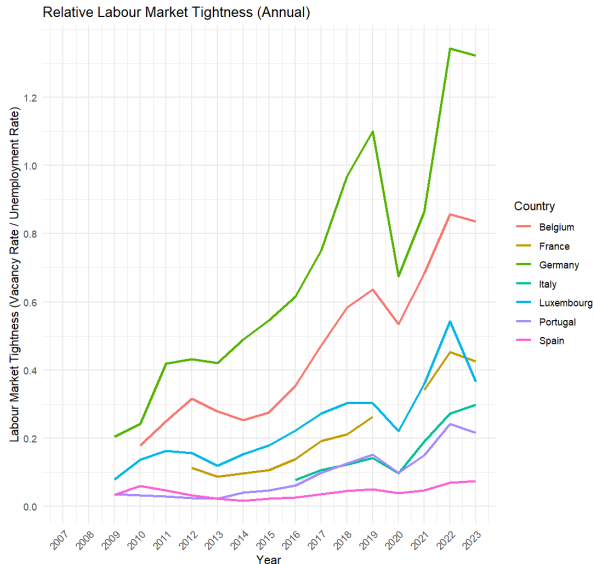
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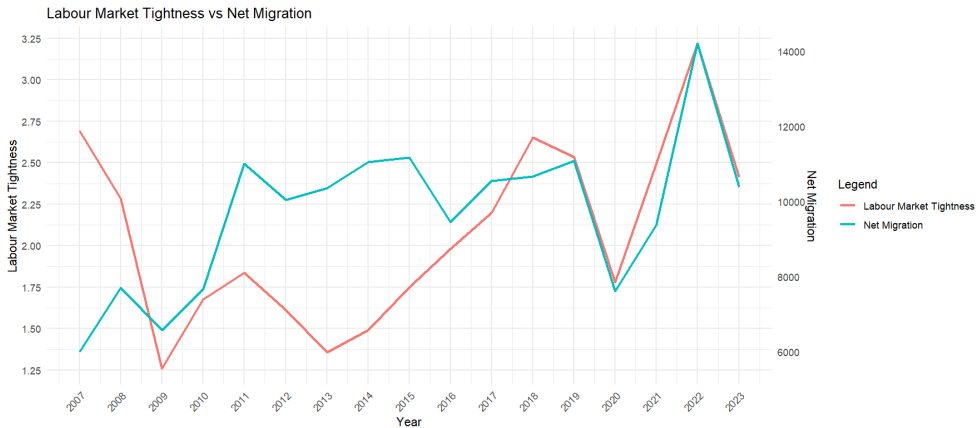
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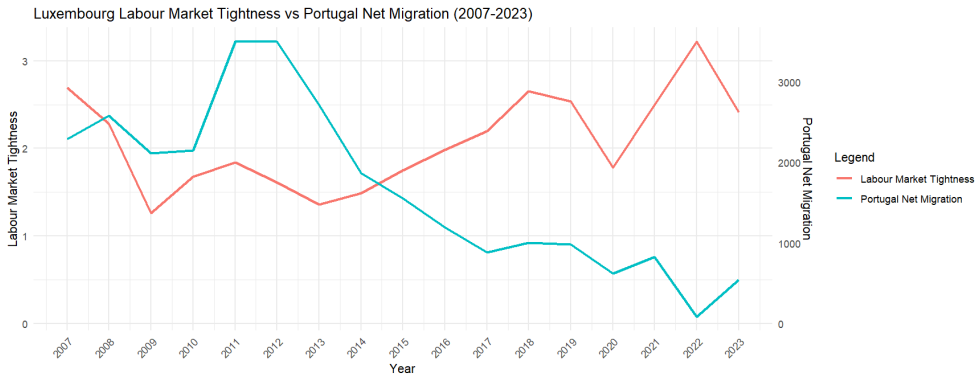
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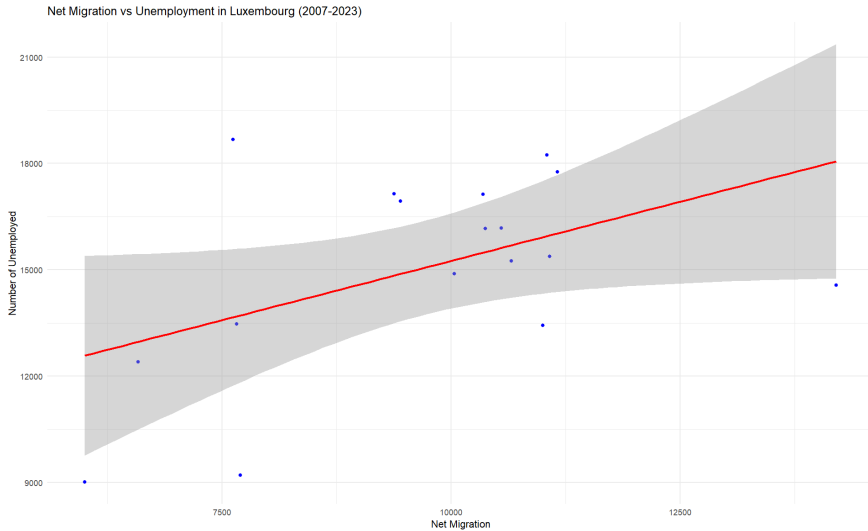
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Regression Results: Net Migration vs Unemployment

Dependent variable:	
Unemployed	
Net Migration	0.668* (0.315)
Constant	8,570.302** (3,115.888)
Observations	17
R2	0.231
Adjusted R2	0.180
Residual Std. Error	2,568.025 (df = 15)
F Statistic	4.502* (df = 1; 15)
Note: *p<0.1; **p<0.05; ***p<0.01	

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Granger Causality Test Results

Direction	F_Statistic	P_Value	Significance
Net Migration → Unemployment	4.948719	0.0444432	* Significant
Unemployment → Net Migration	5.292105	0.0386260	* Significant

Existing research hurdles & next steps

Hurdles:

- **Data availability:** Difficult to find **sector-specific data** in Luxembourg.
- **Causality issue:** Unemployment & migration **move together**, but why? Do workers leave because jobs are scarce, or does emigration create skill shortages that increase unemployment?
- Hard to distinguish **voluntary vs. forced emigration**.
- **Policy Distortions:** Government interventions (e.g. tax incentives) may alter migration trends, affecting findings.

Next Steps:

1. **Explore Sectoral Trends:** Investigate whether **certain industries** are more impacted by migration shifts.
2. Draft **final findings** for review and refinement.