Immigrants' Life-Cycle Earnings and the Swedish Generational Economy

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A short background

- Immigrants tend to be younger than the native-born pop., which may help sustain intergenerational transfers.
- But immigrants also earn less than the native-born population, which may increase deficits.
- Is immigration beneficial or costly for the generational economy?

- A general finding from developed countries: the fiscal effect of total immigration is in a range -/+1% of host countries' annual GDP (Rowthorn 2008).
- But what about deficits in non-public sector?



This talk will...

- ☐ compare immigrants' life-cycle earnings with that of the native-born Swedes.
- □ examine the Demographic and Economic consequences of immigration.



Demographic Dependency Ratio (DDR)

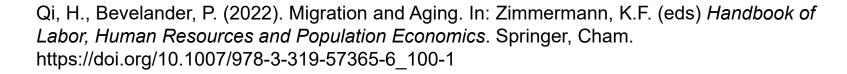
- Measure the relative size of the non-productive population to the size of the productive population.
- DDR increase will threaten the generational economy because the per worker cost of supporting a given number of dependent persons.
- Migrants mostly young, can they lower DDR?



DDR | What if no immigration

Young Old Total 0.8 Demographic Dependency Ratio 2000 2005 2010 2015 2015 2000 2005 2010 2015 Year No Immigration Observed

Figure 2: Counterfactual Demographic Dependency Ratio





Economic Dependency Ratio (EDR)

- Measure the relative size of deficit to income (or the per income cost of supporting dependent persons' deficits).
- For example, if EDR has a value of 0.25, it means that for every dollar an average worker produces, 25% of which will need to be reallocated to finance the deficits.
- Can immigration lower EDR? Depends on immigrants' economic life cycle.



Economic Life Cycle



Qi, H., Bevelander, P. (2022). Migration and Aging. In: Zimmermann, K.F. (eds) *Handbook of Labor, Human Resources and Population Economics*. Springer, Cham. https://doi.org/10.1007/978-3-319-57365-6_100-1



Public and Private Deficits

$$d(x) = c(x) - y(x)$$

$$d(x) = d_{pri}(x) + d_{pub}(x)$$

$$d_{pub}(x) = c_{pub}(x) - (\tau(x) - b(x))$$

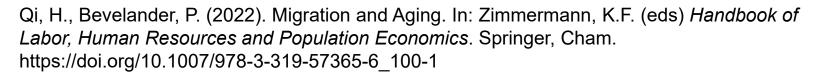
$$d_{pri}(x) = c_{pri}(x) - [y_l(x) + y_k(x) - (\tau(x) - b(x))]$$



Disposable Income and Private Consumption

Swedish **Immigrant Descendants Immigrants** SEK in Thousand pri.Cons Disp.Inc

Figure 4: Average Life Cycle Disposable Income and Private Consumption





Immigrants' Economic Life Cycle

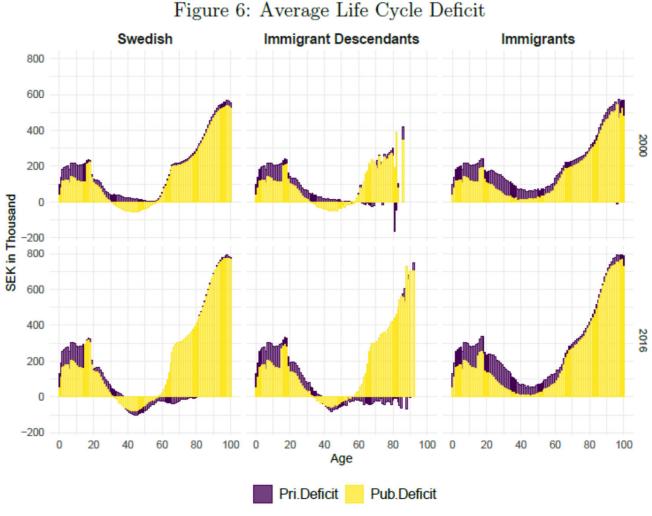
Swedish **Immigrant Descendants Immigrants** 500 250 SEK in Thousand 250 -2500 20 40 60 80 100 80 20 60 100 Age pub.Cons Transfer

Figure 5: Average Life Cycle Transfer and Public Consumption

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Life Cycle Deficits



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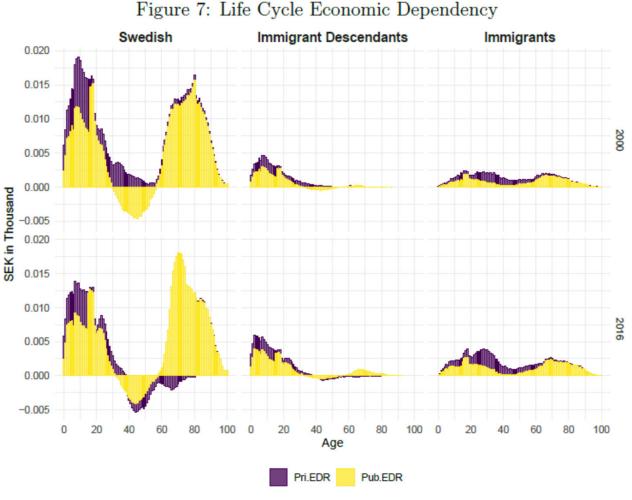


Characteristics of Immigrants' Economic Life Cycle

- First gen. immigrants' economic life cycle, compared to the natives
- Lower income
- Higher deficits
- Children of immigrants are similar to the natives
- What are the implications for EDR?



Aggregated Life-Cycle Deficit



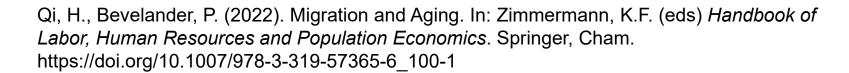
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Immigration and EDR

Pri.EDR Pub.EDR Tot.EDR 1.00 Economic Dependency Ratio 2000 2005 2010 2015 2000 2005 2010 2015 2000 2005 2010 2015 Year No Immigration Observed

Figure 8: Counterfactual Economic Dependency Ratio





Summary

- Immigration makes the Swedish population younger, but immigrants' low earnings result in large life-cycle deficits.
- However, most deficits are in the private sector, rather than in the public sector.
- Hence, the fiscal impact is small, consistent with previous findings (e.g. Auerbach and Oreopoulos (2000); Borjas (1994, 1999); Lee and Miller (2000); Rowthorn (2008); Ruist (2015, 2019); Storesletten (2000)).
- In the long run, if immigrant children continue to exhibit a similar economic life cycle pattern as the natives, immigration may exert a positive impact on the generational economy.



Implications

- Tightening immigration policy may save some short-term costs, but, at the same time, lose some long-term benefits.
- Children of immigrants may be economically constrained when they are young, due to large deficits that first gen. immigrants accumulate.
- Investment in children of immigrants could be beneficial.

