Population and economic growth

1. Motivation

Thomas Baudin (IESEG-LEM) and Robert Stelter (Univ. of Basel)

Motivation I: The Topic

Why do we care about the interplay of the dynamics of populations and economic growth?

Thomas Robert Malthus (1766-1834):
"Population, when unchecked, increases in a geometrical ratio, Subsistence, increases only in an arithmetical ratio."

(Malthus 1798)

Similar argument - less antiquated:
https://www.youtube.com/watch?v=_xI1ekgmk1A

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Why do we care about the dynamics of populations and economic growth?

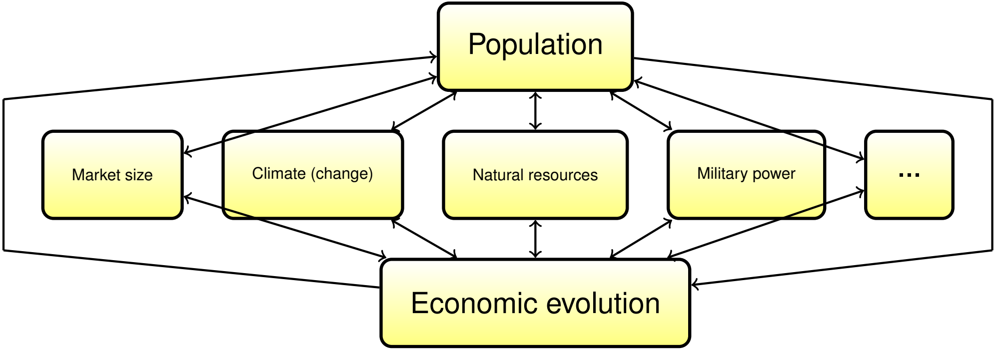

Figure: INTERPLAY OF POPULATIONS AND ECONOMIC EVOLUTION

Motivation I: The Topic

Why do we care about the dynamics in the interplay of populations and economic growth?

- From the supply side: individuals embody labour and human capital
- From the demand side: we are interested in happiness, welfare, utility, standard of living,... of humans.

Motivation II: Historical evolution

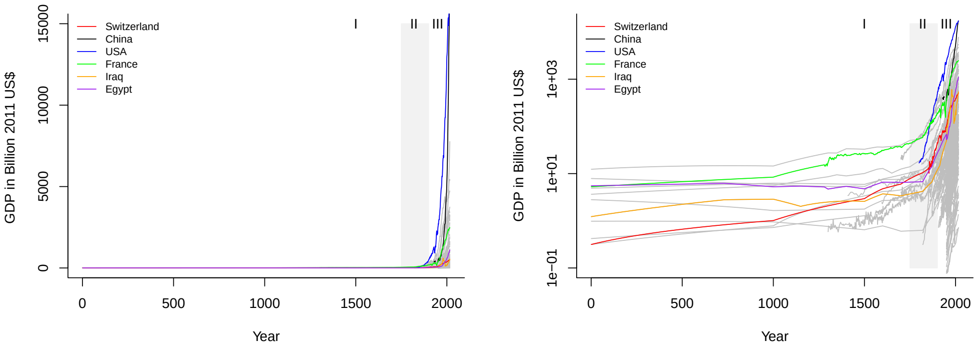

Figure: EVOLUTION OF GDP (DATA SOURCE: MADDISON 2018)

Motivation II: Historical evolution

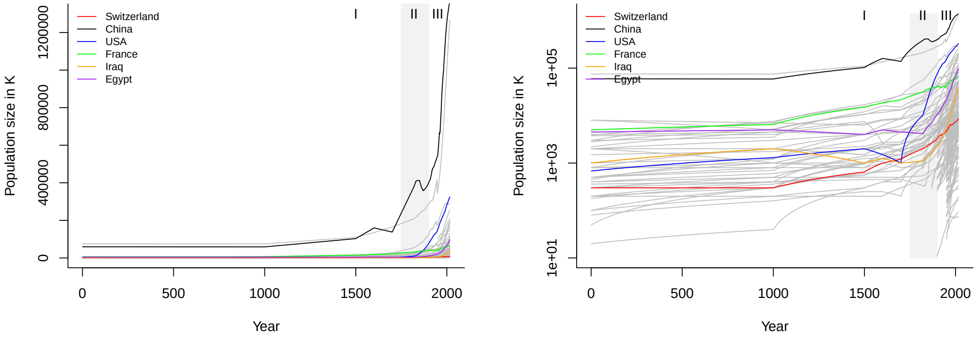

Figure: EVOLUTION OF THE POPULATION SIZE (DATA SOURCE: MADDISON 2018)

Motivation II: Historical evolution

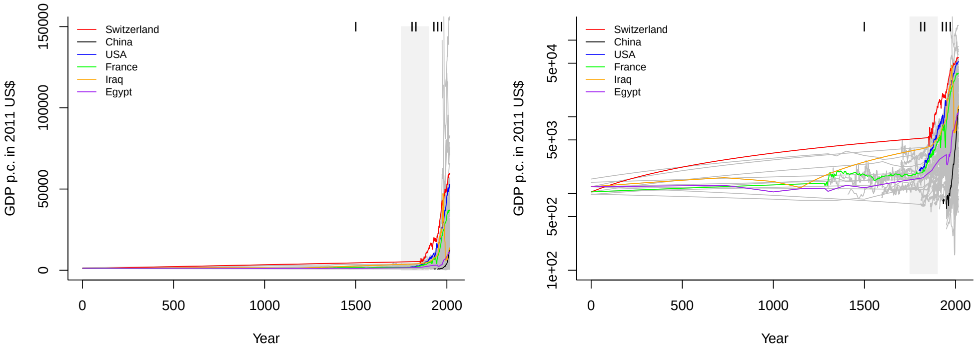

Figure: EVOLUTION OF THE GDP PER CAPITA (DATA SOURCE: MADDISON 2018)

Motivation II: Historical evolution

To sum up, economies experienced a transition between different historical *regimes*:

I Malthusian Regime
Economic stagnation and a positive link between income and population growth

II Post-Malthusian Regime
Onset of permanent growth, the positive link between income and population growth still exists

III Modern growth regime
Sustainable economic growth and a negative link between income and population growth

Agenda

1. Motivation
2. Overlapping-generations models
3. The Beckerian model of fertility
4. The Epoch of Malthusian stagnation
5. From Malthusian stagnation to Modern growth

Motivation II: Objectives

Why should you care about this lecture series?

- You are interested in the topic
- The lecture transfers some basic methodological skills
- It provides a fundamental introduction to OLG
- UGT as most recent (important) development in economic growth
- You need some credits for your degree :-)

Literature

- **De la Croix, D. & MICHEL, P.** (2002). A theory of economic growth: dynamics and policy in overlapping generations. Cambridge University Press.
- **Galor, O.** (2011). *Unified growth theory*. Princeton University Press.

Original papers are referred to in the specific topics.

Questions, comments, suggestions,...?