

Understanding Growth in Europe, 1700-1870: Theory and Evidence

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Unified Growth and its Critics

- Theorists show renewed interest in the transition from “Malthus to Solow”
- Models come in two flavors, endogenous and exogenous growth. In endogenous growth models, human capital acquisition is often key.
- Key contributions by Lucas, Galor and Weil, Hansen and Prescott, Moav
- Many theoretical papers take their cue from the British experience
- Many predictions and mechanisms appear to match historical reality poorly
 - Many models rely on a rise in human capital prior to the IR
 - Predict that bigger populations produce more new ideas, hence should be richer
 - Decline in fertility the result of economic factors, evidence for which is limited

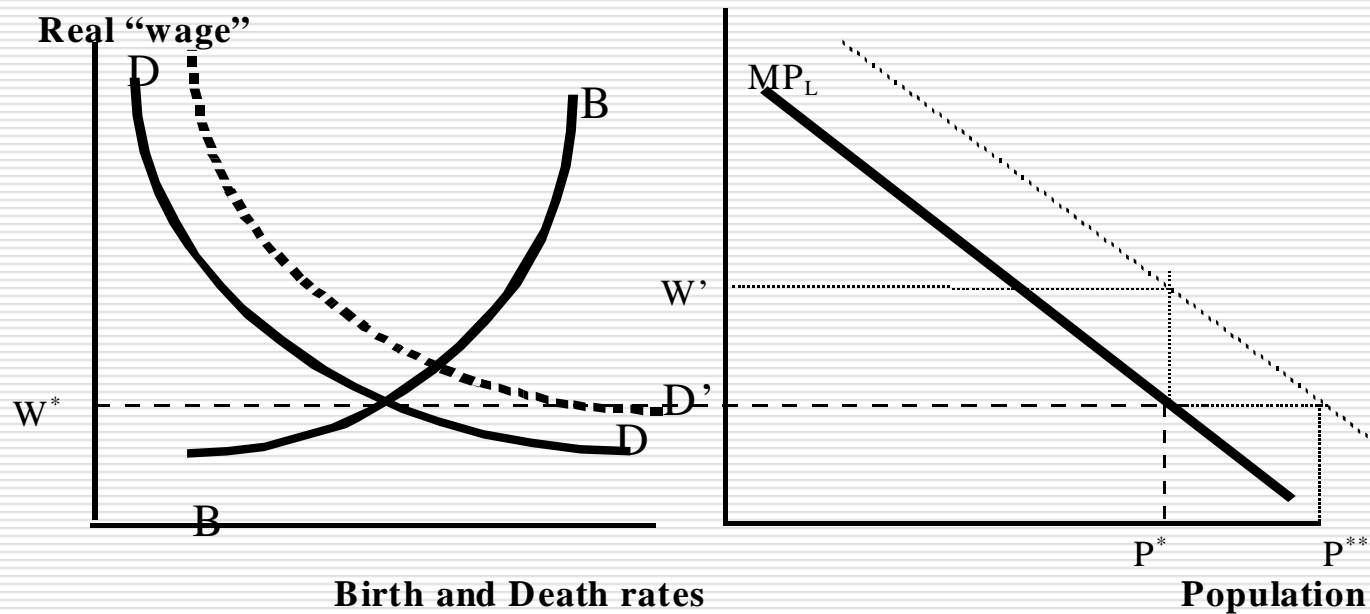
Aims of this paper

- Re-examine key areas of historical evidence, in the light of theoretical approaches
 - The nature of the Malthusian regime before 1750 – “Malthus Vanishing”
 - Institutions, good and bad
 - Human capital and culture
 - Technology
- Suggestions for direction of future research

Malthus Vanishing

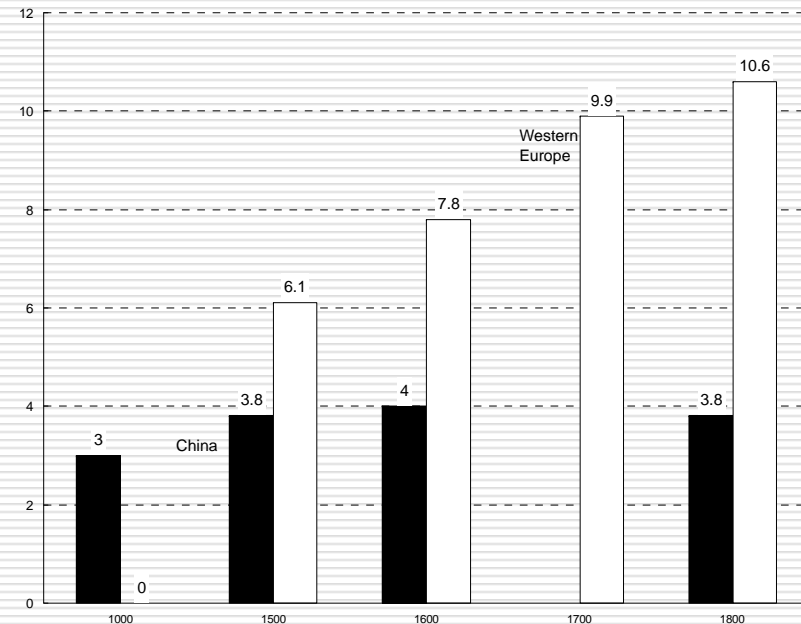
- Growing question marks about just how Malthusian the world before Robert Malthus actually was
 - Nicolini 2007
 - Crafts and Mills 2007
 - Kelly and O'Grada 2006
- Living standards by 1700 a far cry from those on the African savannah

A European Mortality Pattern?



Perverse effects of higher mortality

- Higher wages after the Black Death
- Higher urbanization – death rates rise
- More wealth – more trade and more government revenues
- Both lead to more movement of people [troops and merchants], driving up mortality rates
- Possible multiple equilibria (Voigtlaender and Voth 2007)



Institutions, good and bad

- Probably the leading explanation of divergence in per capita incomes before 1800
 - Glorious Revolution
 - Constraints on the executive
 - Atlantic Europe
- Issues
 - Data + measurement
 - Meaning of “constraints”
 - Ambiguity of better institutions in a bellicose world – “negative institutional feedback”

Constraints on the Executive

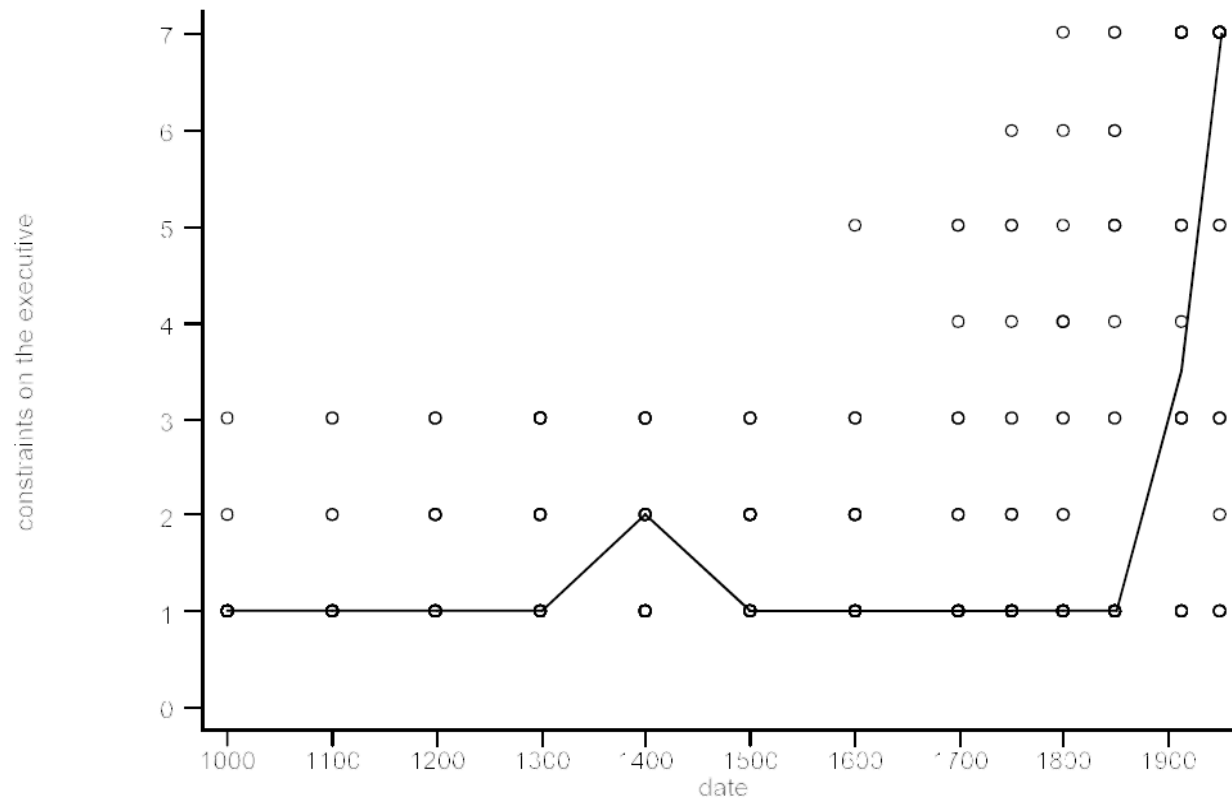


Figure 2: Dispersion and Median Score, Constraints on the Executive, Europe 1000-1950

Puzzling cases

- Data issues
 - Habsburg Spain = 100% absolutist?
 - Cortes
 - Aragon + Catalunya
 - Louis XIV
- Interpretation
 - How beneficial are constraints in an early modern setting?
 - Poland? Italy?
 - Ambiguities of constrained power + survival of the state
- Emphasis on state institutions, constraints on the executive has implied insufficient emphasis on private order institutions
- Need for a new research programme that looks at
 - Property rights
 - Case studies of constraints on the executive
 - Private contracting institutions

Human capital

- Classic criticisms of interpretations giving key importance to human capital
 - Canonical case of the UK – hardly any rise in literacy and other measures of human capital before and during the IR (Mitch 1999, Schofield 1973)
 - Wage premia probably didn't move much (some exceptions, Boot 1999)
 - Technological change probably not skill-biased, cf. Luddites (O'Rourke, Rahman, Taylor)
- But
 - Early modern Europe on the whole is a different story
 - Increase in book production (Baten and van Zanden)
 - Rise in numeracy (age heaping falls)
 - Change in non-cognitive skills, (patience, obedience, punctuality, etc.)
 - "industrious revolution" (DeVries, Voth)
 - Perhaps, what really matters is not human capital but "patience capital". If so, we need to collect the right kind of wage series showing the premium for discipline, etc.

Culture

- Possible change in cultural norms, patience
 - Selective breeding (Galor and Moav 2002, Clark 2007)
 - Rise of certain social groups because of the way culture and technological opportunity interact (Doepke and Zilibotti 2007)
 - possible links with interest rates, return on capital
- Rise of modern technology and science partly driven by “gentlemanly behavioral codes”, culture of invention (Mokyr 2007)

Technology

- ❑ Occasional breakthroughs in technology before 1750
- ❑ IR itself relied little on science, and more on scientific *methods*, experimental and analytical, and scientific culture.
- ❑ Yet it could have been just one of many “efflorescences” in European growth, petering out by the mid-19th century
- ❑ What sustained it afterwards – rise of science as a transpersonal undertaking that generates a steady stream of innovations and inventions

Rise of systematic scientific enquiry

- Not easy to understand in context of normal models
 - Jones 2001 presents a unified growth model, with a rise in property rights crucial for take-off
 - Actual value from patents etc. accruing to inventors very small (2.2%, Nordhaus 2004)
 - British system user-hostile (Khan and Sokoloff 1998)
- Advantage in the British case: cooperation of *savants* and *fabricants* (Birmingham Lunar Society, Spitalfields Mathematical Society, London Chapter Coffee House)
 - Suggests a need to look at non-economic motivation of inventors – esteem, public recognition, the benefits of influence in a group of peers

Conclusions: Lots of reasons for scepticism...

- Economists and economic historians often appear like two tribes, separated by a common field of enquiry
- Some theorists have been quick to gloss over minor issues like the lack of any evidence that skill premia rose after 1750 (other take the research challenge seriously)
- Economic historians have been quick to point out contradictions between highly stylized models and the British IR.
 - Timing: Demographic transition *follows* transition of growth rates
 - Lack of a rise in skill premia
 - In particular, emphasize the inability of models to explain **cross-sectional divergence**.

... but many criticisms of unified growth too narrow

- ❑ The British canonical case should be de-emphasized. The right “case study” for unified growth should be early modern Europe after 1500 as a whole, which sheds many of the characteristics of the Malthusian economy
- ❑ Theorists should work looking for theories that can explain divergence in the cross-section, rather than the transition to self-sustaining growth as a whole
- ❑ Economic historians should do more to look for evidence on the exciting research questions posed by theorists (what institutions really matter, how to measure skill premia correctly, what is the right empirical test for the role of culture, etc.)