

Pre-industrial economies and demographic transitions

Readings:

- Gareth Dale (2019) Economic Growth: A Short History of a controversial idea. *Open Democracy* www.opendemocracy.net/en/oureconomy/economic-growth-short-history-controversial-idea/
- Tim Dyson (2001) A partial Theory of World Development: The Neglected Role of the Demographic Transition in Shaping Modern Societies. *International Journal of Population Geography*
- E. A. Wrigley (1999) Chapter 7 in *Poverty, Progress and Population*, Cambridge University Press

Question for the lecture:

- Why was growth not a natural state of affairs in a pre-industrial economy?
- How does the role of demographic transition interact with the growth process?

A traditional prototype economy:

- A society with low productivity or low value is created per capita.
- With moderate inequality (absolute equality is unrealistic historically, even in most traditional societies), there is a low ceiling on consumption, a low ability to produce surplus and, therefore, a low capacity to grow.
- Poverty is a near-universal phenomenon (relative poverty might be low, but so is an absolute standard of living)
- The typical wisdom suggests an externally induced growth path to escape this poverty path.
- Once growth picks up, poverty is effectively dealt with by an increase in the *average* standard of living.
- The capacity to produce enough value for increased consumption is the primary requirement to deal with this kind of poverty.

General growth constraints faced by a traditional economy:

- 70-90 per cent of the labour force engaged in agriculture with low productivity and limited potential to enhance it (low economies of scale and room for a division of labour)
- *'The nature of agriculture, indeed, does not admit of so many subdivisions of labour; nor of so complete a separation of one business from another; as manufactures . . . The spinner is almost always a distinct person from the weaver; but the ploughman, the harrower; the sower of seed, and the corn reaper are often the same.'* (Adam Smith)
- Diminishing marginal returns in land/agriculture vs. the possibility of increasing returns in manufacturing
- The income elasticity of demand for food and other necessary primary commodities was very high (near unity), with little scope for demand for secondary manufactured commodities.

- Demographic patterns which added to the population pressure on social output
- The scarcity of energy to transform the production process and increase average productivity.

Critical elements of a demographic transition:

- The process starts with a decline in death rates due to advances in medicine, hygiene and scientific knowledge in general.
- This leads to a decline in birth rates with a lag (why?)
- In the interim, population growth increases and then slowly comes down as the decline in birth rates kicks in.
- The process is completed as both death and birth rates stabilize at a low and approximately equal level implying a stable population size.
- The average age of the population tends to increase with the demographic transition.

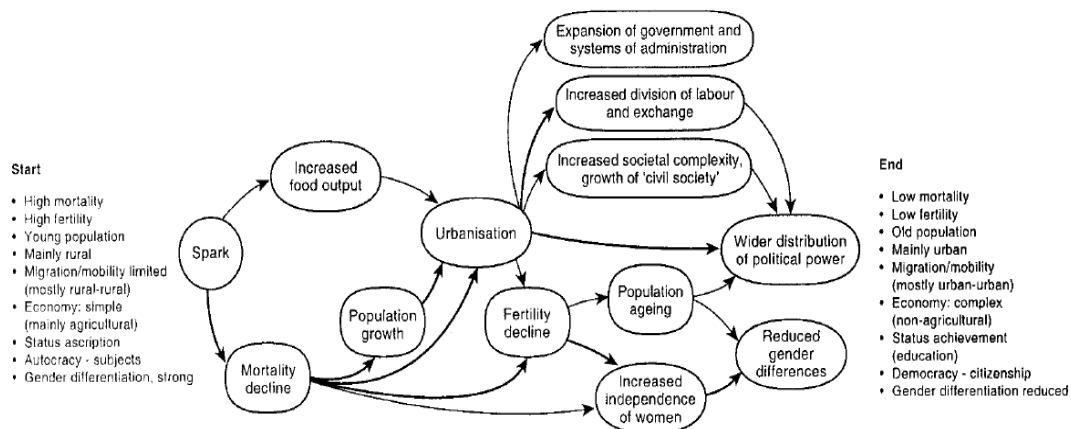


Figure 1. The role of the demographic transition in shaping the modern world. *Notes:* The elements shown in this highly simplified chart, and those listed as 'start' and 'end' conditions, are selected. There is merit in simplicity. The many cases of feedback and interdependence between processes (e.g. increased food production and urbanisation) have been ignored, although in reality these were often necessary for the processes to be self-sustaining. While the text provides some elaboration, inevitably it too is selective – *inter alia* giving somewhat greater weight and attention to those relationships indicated with a bold arrow.

Why does fertility come down following mortality?

- Micro decision at the level of household/individual: higher probability of children's survival slows fertility. Budget constraints at the level of households for rearing children
- Facilitating factors: female education, availability of contraception, urbanization and associated constraints
- Macro or systemic reason: Overall resource constraint at the societal level

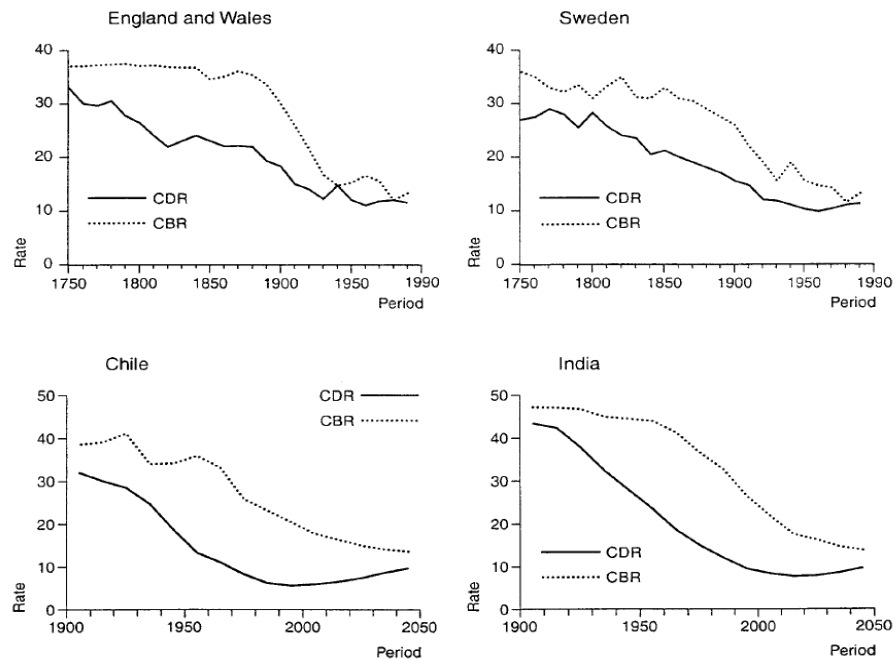


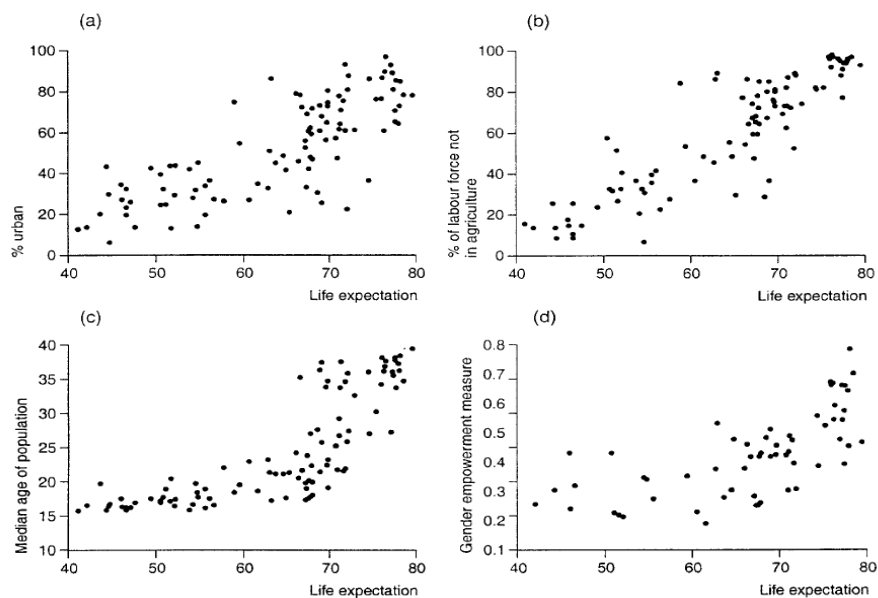
Figure 2. Selected demographic transitions : England and Wales, Sweden, Chile and India. *Note:* Series have

Significant phenomena associated with the demographic transition

- Migration and Urbanisation
- Structural transformation (as a de-agrarian nation and increased division of labour)
- Female empowerment
- Change in population structure (ageing) and related issues of social provisioning
- Spread of democracy

A Partial Theory of World Development

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Urbanization:

- Urbanization causing fertility decline:
'In short, under the impact of urban life, the social aim of perpetuating the family gave way progressively to that of promoting the health, education, and material welfare of the individual child; family limitation became widespread; and the end of the period of [population] growth came in sight.'
(Notestein, 1945: 41, my emphasis)
- Demographic transition leading to urbanization:
 - Creation of 'urban' as the population in certain settlements increases as the death rate falls below birth rates
 - Rapid fall in urban death rates, increasing rate of urbanization (autonomous urbanization)
 - As rural death rates fall, everything else being equal, there is an increase in the rate of rural-urban migration leading to an increase in urban populations (extraneous urbanization)
- In the initial stages, 3 dominates 2 as the primary driver of urbanization, but eventually, 2 takes over

Structural Transformation

- Both caused by and a cause of urbanization
- Structural change in the economy away from agriculture is a significant determinant of urbanization
- Urban clusters also facilitate the division of labour and increased complexity in economic production, which in turn results in structural change
- Increased food productivity and production allow faster urbanization and are also forced by population growth in the initial phase of demographic transition

Female Empowerment

- A strong impact of low fertility on female choices in addition to longer life expectation
- A transition from short lives dominated by maternal duties to longer lives with less proportion spent on maternal duties
- Related outcomes range from higher female literacy, higher female employment (outside the household), female voting rights and an increase in women who do not marry or marry late.
- Regionally uneven trajectories and mediated strongly by cultural and religious factors.

Ageing of Population

- Demographic transition almost always increases the average age, ultimately leading to a high share of the old in the total population
- The dependency ratio (% of retired to working age population) increases
- This implies a challenge for maintaining the old with the value created by the young
- Both a problem of running the economy and transferring a large part of the value generated to the retired (typical in many rich countries)

- The reverse situation of a young population is seen as an advantage for many poor countries: demographic dividend

Democracy

- Democracy as an Outcome of urban societies: classical Greece and Medieval Italian Cities
- An additional push for democracy coming out of a more aged population (due to demographic transition)
- Urbanization and Liberation from identity-based oppression
- The uneven spread of democracy and the possibility of European exceptionalism

Table 1. Average democracy scores for the 100 most populous countries, by levels of urbanisation and population ageing, mid-1990s.

% urban	% population aged 15 and over			Total
	<57%	57–74%	>74%	
<34%	2.6 (20)	3.4 (13)		3.0 (33)
34–66%	3.0 (10)	4.2 (16)	7.1 (8)	4.5 (34)
>66%	2.0 (2)	5.9 (11)	8.9 (20)	7.5 (33)
Total	2.7 (32)	4.4 (40)	8.4 (28)	5.0 (100)

Notes: The brackets contain the number of countries in each cell. Libya and Jordan (scored respectively at 0 and 4) fall in the cell combining urbanisation above 66% with less than 57% aged over 15. For Afghanistan, Somalia and the Democratic Republic of the Congo (formerly Zaire), the Polity 3 data-set give no democracy scores for 1994;