

Development Economics

Slides 8

Debraj Ray, NYU

Development Traps II: History-Dependence

■ Macroeconomic feedback

- Outcomes affecting seemingly exogenous parameters, such as s or n .
- Self-sustaining inequality

■ Increasing returns

- Fixed costs for setting up a business, learning by doing

■ Status quo bias

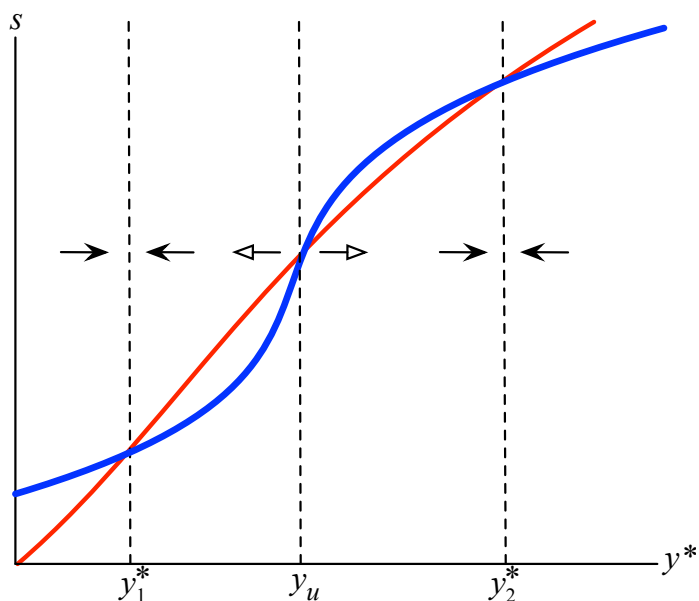
- Will affect the direction of change

■ Extractive industries and colonial institutions

- Influence on subsequent political and legal arrangements.

■ Politics, culture, legal systems, ...

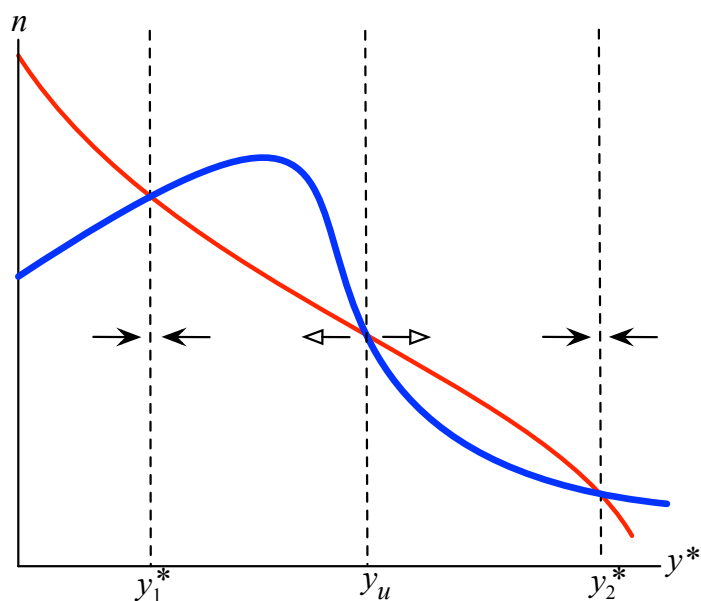
Macro-Feedback: The Endogeneity of s



Blue line: How s is affected by steady state income y^* .

Red line: How y^* is determined by s (as in Solow model).

Macro-Feedback: The Endogeneity of n

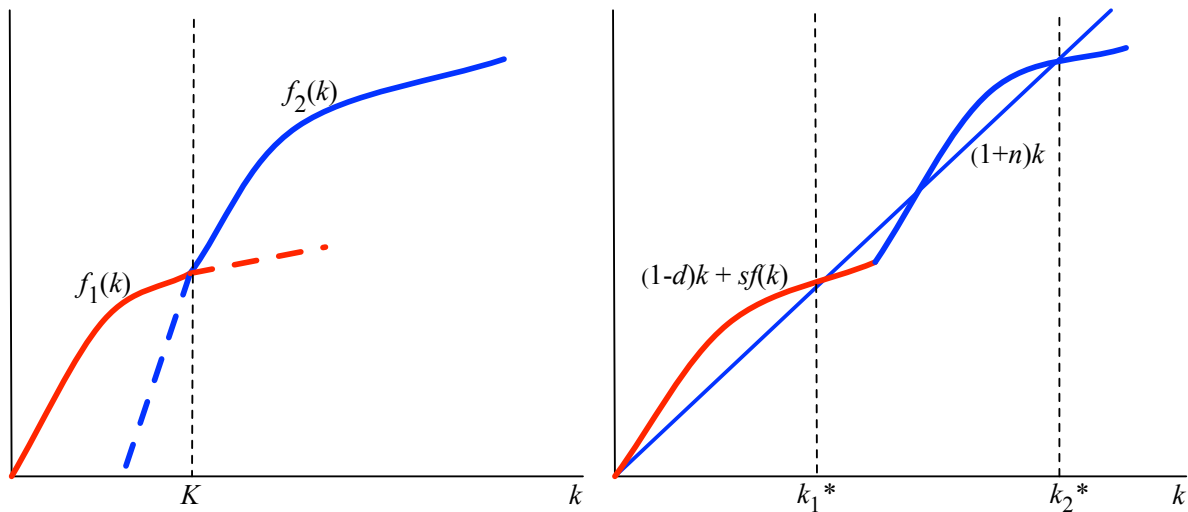


Blue line: How n is affected by steady state income y^* .

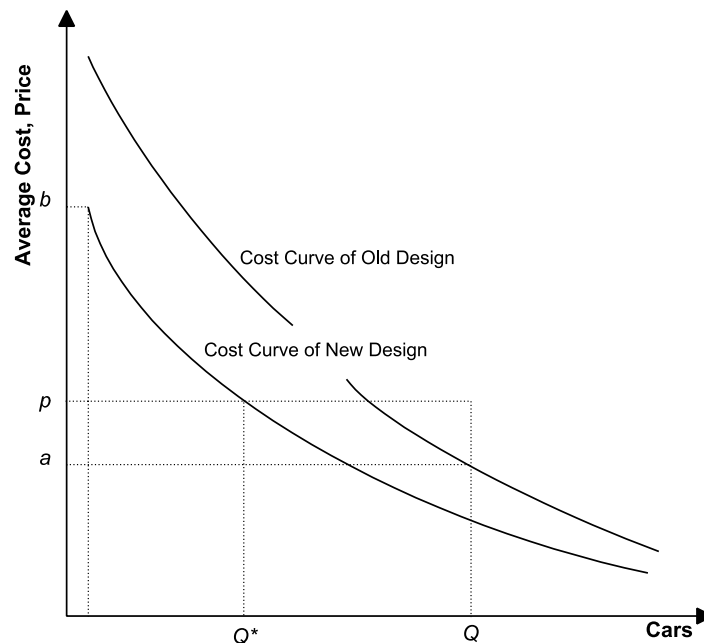
Red line: How y^* is determined by n (as in Solow model).

Increasing Returns: Growth Model

- $y = f(k)$, but f has two techniques built in.
- $f_1(k) = Ak^\alpha$ and $f_2(k) = Bk^\beta - C$. $B \gg A$ and C is a fixed cost.



Increasing Returns: Business Setups



- (a) IRS (b) gradual switching, and (b) imperfect capital markets

Increasing Returns: Roundabout Production

- $Y = [Q_1^\alpha + Q_2^\alpha + \dots + Q_n^\alpha]^{1/\alpha}$
- Available capital budget is K .
- One unit of K makes one unit of any intermediate.
- Indirect production function: divide K equally among n , so

$$Y = \left[n \left(\frac{K}{n} \right)^\alpha \right]^{1/\alpha} = n^{(1-\alpha)/\alpha} K.$$

- **Total factor productivity** TFP rises with the number of intermediates.
- Imagine a fixed cost to be paid for each new intermediate used.
- Small scale production \Rightarrow few intermediates \Rightarrow TFP is low \Rightarrow income low
 \Rightarrow low demand \Rightarrow small scale production

Status Quo Bias

- Fernández and Rodrik (1991)
- **Proposed project pays off** +1 to a beneficiary and -1 to a loser.
- It is known that 70% will be beneficiaries.
- **I. Beneficiary identity unknown:** all vote yes, project passes.
- **II. Beneficiary identity known:** 70% vote yes, project passes.
- **III. Beneficiary identity partially known:** Say 45% know they will benefit.
- Then the remainder vote no! (Why?)
- **The project (once in) won't be voted out. But if not there, not voted in.**

Institutions

Institutions: Ambient rules (formal or informal) for conducting economic, social and political transactions.

- **E.g., institutions that** protect property rights (law enforcement)
- Or provide old age pensions (social security)
- Or **provide insurance** against a banking crisis (FDIC)
- Or **enable financial holdings** in companies (the stock market)
- Or guarantee that **contracts will be upheld** (courts)
- Or oversee **safe and fair elections** (Electoral Commissions)
- Or **norms** of reciprocity and sanctions (informal).

■ **Good economic institutions promote investment and growth**

- But institution creation is deeply conditioned by history
- Bad institutions (such as autocracies) self-generate or generate worse institutions (dictatorships), as beneficiaries struggle to keep their benefits.

■ **Sokoloff and Engerman (2000) on North and South America:**

- “Voltaire, for example, considered the conflict in North America between the French and the British during the Seven Years’ War (1756-63) to be madness and characterized the two countries as ‘fighting over a few acres of snow.’ The victorious British were later to engage in a lively public debate over which territory should be taken from the French as reparations — the Caribbean island of Guadeloupe (with a land area of 563 square miles) or **Canada**”!!

■ **South America: Huge mineral riches, lots of native labor**

- Extractive economies (mine rights, tribute-taking, etc.).
- Plantation economies with slave labor; few large landowners.

■ **Rights assigned in controlled, restricted way.**

- E.g. strict restrictions on migration to the New World.
- ⇒ unequally situated elite, which tried to hold on to power.
- Restrictions on commerce and political participation:
e.g., need to own substantial land in order to vote.

■ **North America: US and Canada**

- No large amounts of native labor
- No appropriate climate for sugar except in the South
(but even here, size of sugar plantations relatively small)
- Laborers of European descent, equality in human capital
- Relatively small landholdings, open immigration
- Hard to create institutions with unequal political power.
- Voting restricted at the beginning, but franchise was rapidly extended.

■ **Sokoloff and Engermann conclude:**

“These early differences in the extent of inequality across New World economies may have been preserved by the types of economic institutions that evolved and by the effects of those institutions on how broadly access to economic opportunities was shared. This path of institutional development may in turn have affected growth. Where there was extreme inequality, and institutions advantaged elites and limited the access of much of the population to economic opportunities, members of elites were better able to maintain their elite status over time, but at the cost of society not realizing the full economic potential of disadvantaged groups ...[S]uch biases in the paths of institutional development likely go far in explaining the persistence of inequality over the long run in Latin America and elsewhere in the New World.”