

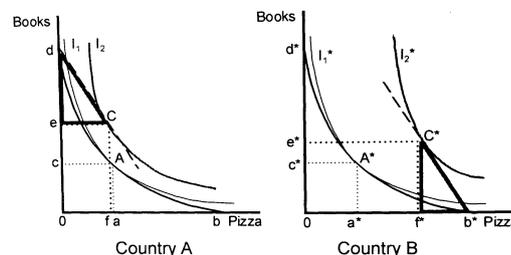
International Trade and Monetary Systems

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2015

Explain how trade based on comparative advantage derived from the expansion of increasing returns to scale industries points to potentially beneficial strategic trade policies.

Unequal Gains from Specialization with Increasing Returns



What conditions would Schumpeter suggest as most appropriate for promoting entrepreneurial activity and innovation?

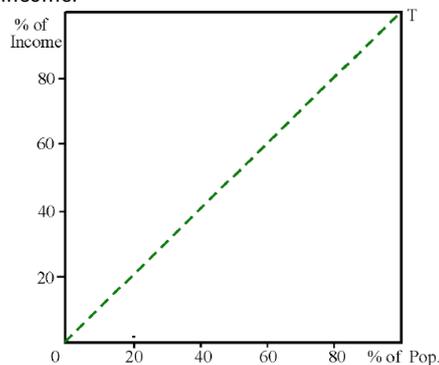
Theodore Roosevelt once said that "The only thing worse than a regulated monopoly is an unregulated monopoly." Based on what you know about his model of technological change, do you think Joseph Schumpeter would agree with Roosevelt's statement? Explain why or why not.

What role does depreciation play in the Solow growth model? How would the model's conclusions change if all capital lasted forever and remained productive forever?

Paul Krugman claims that the East Asian tigers grew because, among other things, they greatly increased the levels of education of their labor forces. Use the Solow model to explain why economic growth cannot continue forever if only human capital is expanded.

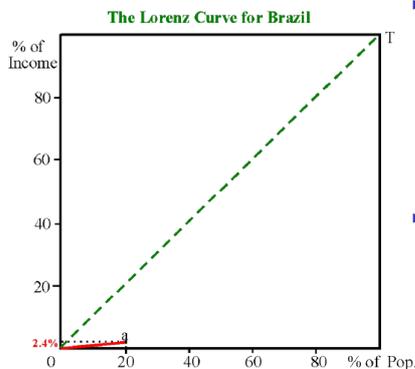
The Lorenz Curve

The diagonal line, which represents a perfectly equal distribution of income, shows that each successive quintile of the population accounts for exactly one fifth of national income.

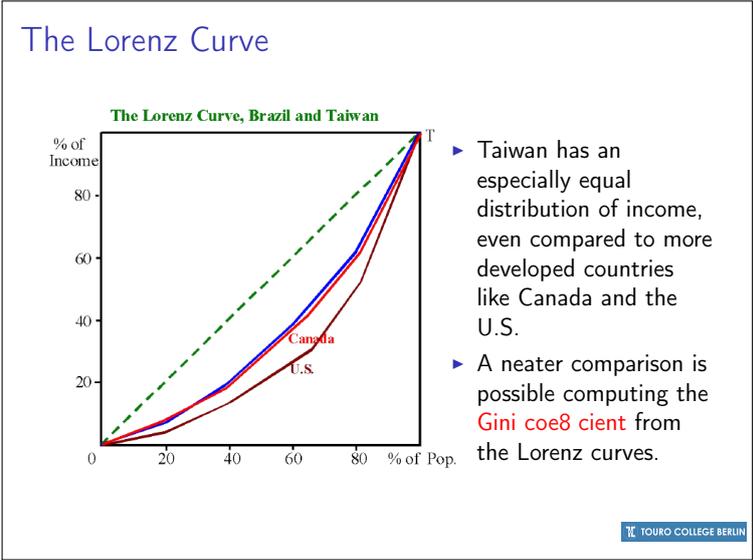
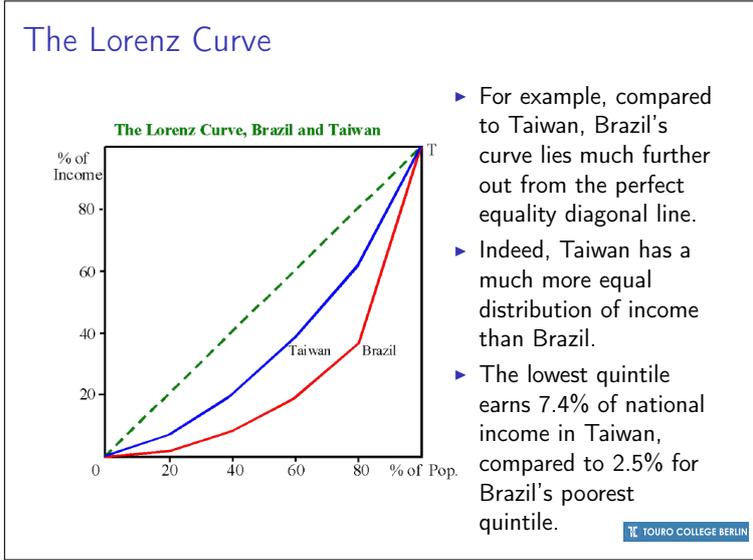
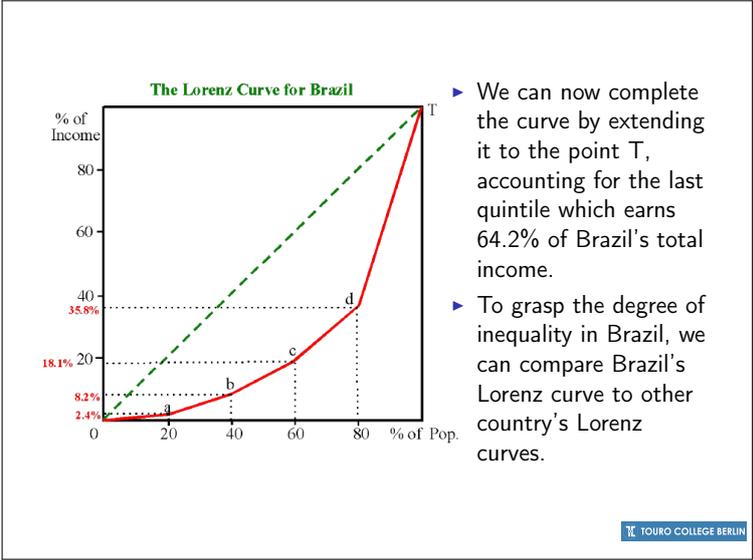
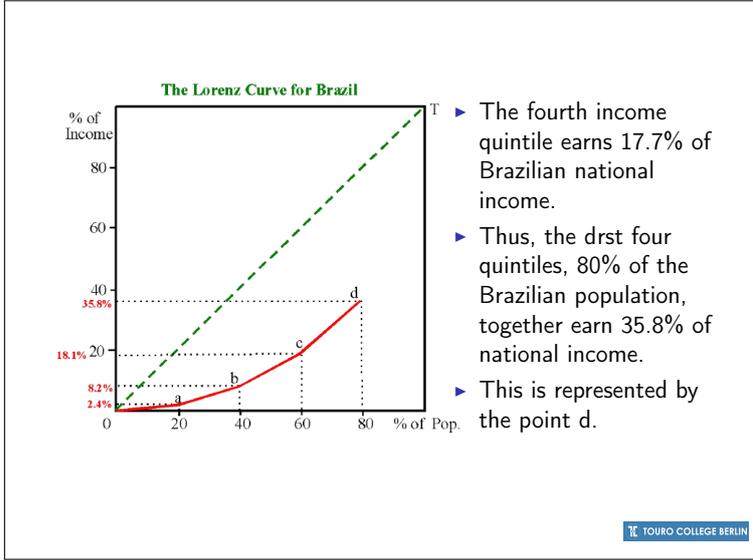
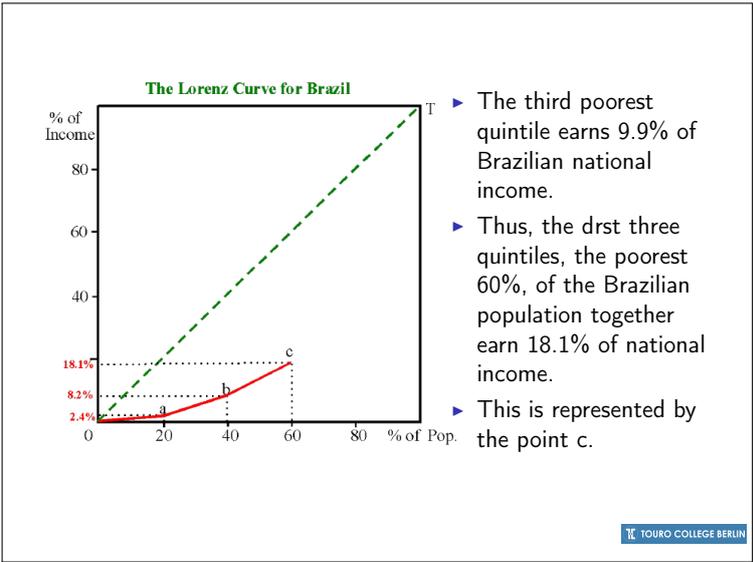
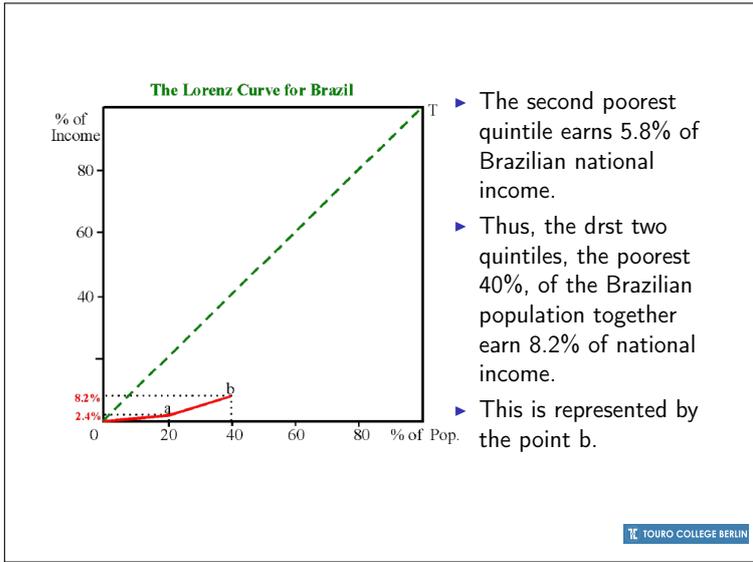


The Lorenz Curve

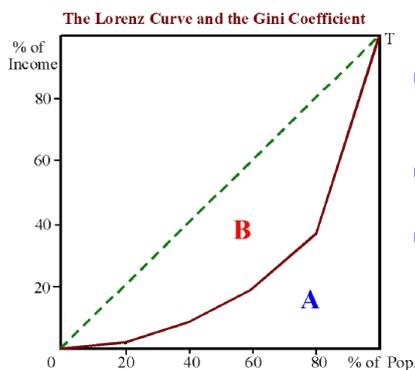
Let's now derive the Lorenz curve for Brazil.



- ▶ On the diagram, the % of income is shown on the vertical axis, the quintiles of population, from the poorest to the richest, on the horizontal axis.
- ▶ From the data in the book, notice that the poorest quintile of the Brazilian population earns just 2.4% of national income: this is the point a.



The Gini Coefficient



- ▶ The Gini coefficient is derived from the Lorenz curve diagram.
- ▶ The Gini coefficient is equal to $B/(A+B)$.
- ▶ The smaller the Gini coefficient, the more equal the income distribution.

The Gini Coefficient

- ▶ The global Gini coefficient estimates suggest that the very substantial growth of international trade over the past 200 years has not reduced or increased global income inequality.
- ▶ This contradicts the HO model and its factor price equalization theorem, which predict that international trade effectively makes returns to the factors of production more equal across countries.

Is there an **ideal** distribution of income?

The Ideal Income Distribution

- ▶ We know the human happiness and satisfaction with life depends largely on one's relative status and comparisons with other people.
- ▶ This fact complicates the analysis of international trade because trade affects both total income and the distribution of that income.
- ▶ The expansion of GDP does not imply an increase in human welfare, if the distribution also changes.
- ▶ But, what is the best distribution of income?
- ▶ What is a fair income distribution?
- ▶ Many people agree that, in the abstract, **fairness** or **justice** require that everyone have an equal opportunity to pursue his or her interests.
- ▶ What economic conditions provide such **equal opportunity**?

Rawls & The Ideal Income Distribution

- ▶ The social-contractist philosophy of John Rawls (1971) provides a reasonable definition of a just society and what a just society's distribution of income might look like.
- ▶ Rawls reasoned that a truly unbiased definition of social justice can only be arrived at from behind a **Veil of ignorance** that hides one's own personal characteristics, background, culture, and circumstances.
- ▶ In short, a just society strives not only for equal opportunity, but to the extent that outcomes are determined in part by forces beyond the control of individuals, for mechanisms by which the lucky compensate the unlucky.

Rawls & The Ideal Income Distribution

- ▶ From behind a hypothetical veil of ignorance, the basic human rights that underlie social justice are inseparable from basic economic rights.
- ▶ As President Roosevelt of the United States stated in his 1943 State of the Union Address:
We have come to a clear realization of the fact that true individual freedom cannot exist without economic security and independence. Necessitous men are not free men.
- ▶ At the midpoint of the last century, nearly all governments of the world explicitly accepted the idea when they signed the United Nations Universal Declaration of Human Rights.
- ▶ This declaration supplements basic human rights like political rights, freedom of speech, freedom of assembly, freedom from torture, a ban on servitude and slavery, and equal rights before the law with a set of specific economic rights.

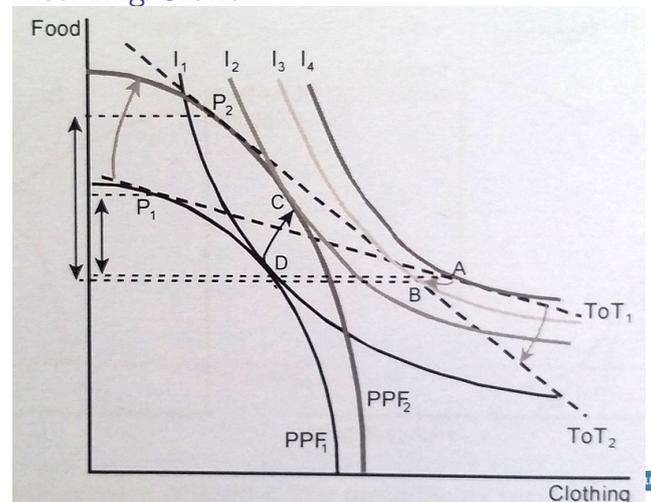
- ▶ International trade enters into the discussion of human rights and economic rights.
- ▶ It is suggested that foreign competition is one of the reasons the main reason why employers are cutting health benefits and pension contributions.
- ▶ Transnational firms continually threaten to shift production overseas if governments do not reduce the taxes they need to provide education, healthcare, unemployment benefits, etc.
- ▶ Employers use the same threats when they deal with labor unions, threatening to pull up stakes or to outsource parts of their domestic production to foreign plants if unions do not agree to wage and benefits cuts.
- ▶ These distributional effects of international trade do not fit neatly into the orthodox neoclassical models.

How does international trade affect the distribution of income?

Trade and Dynamic Comparative Advantage

- ▶ Vernon's product cycle model suggests that trade conditions to continually-shifting comparative advantages across countries, related to technological change and diffusion.
- ▶ Samuelson uses neoclassical analysis to explain how technology transfers alter comparative advantage and shift the gains from trade.
- ▶ **Immiserizing growth** can occur.
- ▶ From a dynamic perspective, international trade does not necessarily operate as an arbitrage process that equalizes prices, incomes, and welfare levels across countries.

Immiserizing Growth



Why does some economic activity tend to agglomerate geographically?

Agglomeration

Edward Glaeser et al. (1991) offered some simple intuition to explain agglomeration:

P...intellectual breakthroughs cross hallways and streets more easily than oceans and continents.R

Knowledge creation occurs mostly in a relatively few locations.

Agglomeration

- ▶ Alfred Marshall (1920) devoted an entire chapter of his popular economics textbook to the RConcentration of Specialized Industries in Particular Localities.R
- ▶ He attributed concentration to three factors:
 - ▶ The availability of specialized labor.
 - ▶ The development of specialized suppliers of intermediate goods and services.
 - ▶ The flows of technology between the industries.
- ▶ Regional economists have developed models that explain urban concentration and differences in the economic development across regions of a country.
- ▶ Agglomeration is also explained by the dynamic interactions among sectors of the economy and economic development occurs.

Agglomeration

- ▶ At the early stages of development, the quest for food dominates the economy.
- ▶ Hunter/gatherer activity is by nature dispersive.
- ▶ Agriculture, too, tends to disperse across a country's territory, although permanent settlements are likely as investment in clearing land has specific location.
- ▶ It requires other services, especially as technology improves and incomes rise, and that is why towns and cities developed and spread out wherever agricultural activity flourished.
- ▶ The Industrial Revolution gave towns and cities a much stronger reason to exist: Cities and towns were the best location for factories that needed large numbers of workers and outside suppliers of other inputs and support services.

Agglomeration

- ▶ Paul Krugman (1991) attributes the agglomeration of industrial activity to increasing returns to scale.
- ▶ In manufacturing, it is more efficient to produce a large amount of output in one large factory than to produce the same amount of output in a large number of small factories scattered throughout the economy.
- ▶ As economic development lowers transport costs, increasing returns to scale can be further exploited.
- ▶ Hence, over time industrial economies become more agglomerated.

Agglomeration

- ▶ Not only industrial activity agglomerates.
- ▶ Industrial firms require more and more outside support services as their output grows, and the workers at the factories spend a large portion of their income where they live and work, the services sector agglomerates in the same locations where industrial activity agglomerates.
- ▶ This agglomeration of much of our modern economic activity requires workers to move out of the dispersed agricultural sector and to the industrial and services activities concentrated in urban areas.

Agglomeration

- ▶ Note that this process of agglomeration shows up in the form of increased specialization of tasks, more concentrated investment, and human migration from rural to urban areas.
- ▶ And, because the forces that bring about agglomeration cross borders, the process leads to international specialization and trade, international investment, and immigration.

Agglomeration

- ▶ There is widespread evidence that innovative activity tends to concentrate geographically.
- ▶ Richard Florida (2005) uses data on copyrights, patents, and scientific citations to show that creative and innovative activity is still much more concentrated than human production of goods and services.
- ▶ As far as global innovation is concerned, perhaps a few dozen places worldwide really compete at the cutting edge.

Agglomeration

- ▶ The agglomeration of innovative activity is partially driven by the geographic concentration of the resources needed for innovative activities.
- ▶ Countries with large numbers of highly educated people tend to have a comparative advantage in generating new ideas and technologies. Technology transfers are costly, even when knowledge and technology is openly available.
- ▶ The tacit nature of most knowledge and technology means adoption requires costly and time-consuming person-to-person interactions.

Agglomeration

- ▶ Economies of scale in industrial production and innovative activities are fundamental forces in the process of international economic integration.
- ▶ Agglomeration increases regional and national specialization, which means agglomeration leads to more regional and international trade.
- ▶ Because investment is increasingly in the form of private foreign direct investment, the integrated global economy is increasingly dominated by transnational business organizations.
- ▶ Also, immigration expands as a brain drain carries talented and educated people towards countries where innovative activity agglomerates.

Agglomeration

- ▶ Agglomeration is limited by the resources available in any given geographic location, however.
- ▶ The rising costs of agglomeration will then tend to drive away and disperse those activities least subject to increasing returns to scale and those least affected by transport costs.
- ▶ Agglomeration will, therefore, increasingly become specialized agglomeration based on either production or innovation.
- ▶ Some activities are more lucrative than others, and thus a competition for the most lucrative type of agglomeration ensues.

International Trade Policy

- ▶ The HO model does not support trade barriers, except to serve the short-term well-being of some special interest group.
- ▶ But, from a dynamic perspective, trade policy can be justified from a long-term strategic perspective.
- ▶ The next three chapters examine trade policy in detail.
- ▶ Chapter 10 returns to the holistic/dynamic perspective of this chapter in order to examine whether trade barriers can enhance a country's long-run economic development.