Economic Development

Economic Inequality and Polarisation

October 2010

Mid-term Test

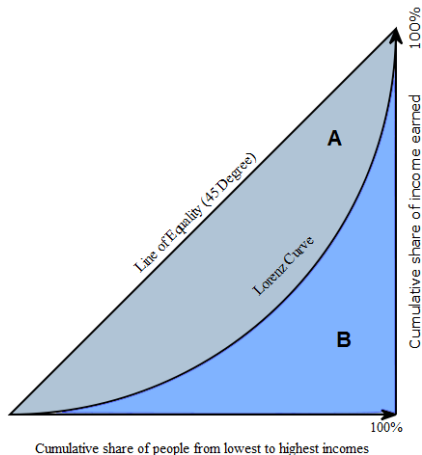November 2, 2010

Economic inequality

Definition
A situation in which there is no equality or fair treatment in the sharing of wealth or opportunities between different groups in society.   © *Cambridge Dictionary*
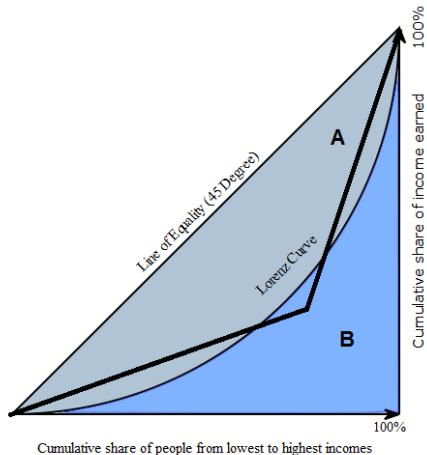
Lorenz Curve and Gini coefficient
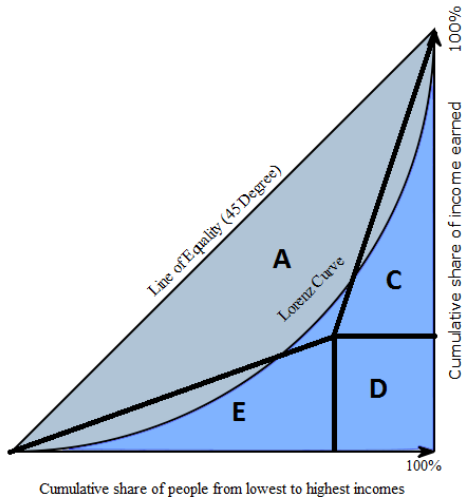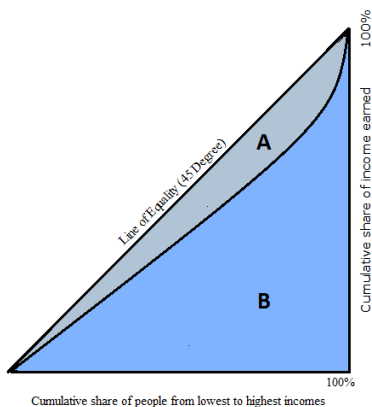A/(A+B)

Lorenz Curve and Gini coefficient
A/(A+B)
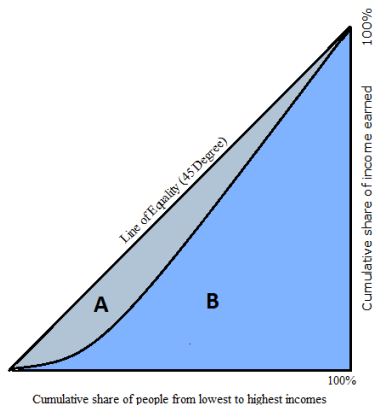
Lorenz Curve and Gini coefficient

1 - (C+D+E)/(A+C+D+E)

Defficiencies of Gini coefficient

A/(A+B)

Cumulative share of income earned — Line of Equality (45 Degree) — 100%

A

B

Cumulative share of people from lowest to highest incomes — 100%

Cumulative share of income earned — Line of Equality (45 Degree) — 100%

A

B

Cumulative share of people from lowest to highest incomes — 100%

Alternative Measurements of Inequality

Richest-to-poorest-quintile Ratio

$$RtP_{20\%} = \frac{I_{80-100}}{I_{0-20}}$$

Population	income
20%	1%
20%	3%
20%	5%
20%	10%
20%	81%

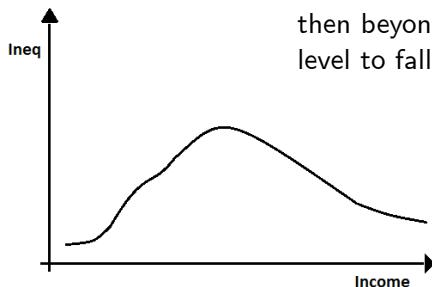# Inequality and Poverty

- Income inequality *vs* consumption inequality
- Inequality and poverty

Kuznets Curve

Definition
Kuznets Curve is an inverted
U-shaped curve depicting the
trend of inequality to first
increase with the income, and
then beyond a certain income
level to fall.

Kuznets Curve and Explanations

- ► Marx theory and 'inner contradictions' of capitalism
- ► Fields' 'dual economy' and threefold economic growth
    - ► traditional-sector-enrichment growth
    - ► modern-sector-enrichment growth
    - ► modern-sector-enlargement growth

Kuznets Curve and the US

The Top Ten Percent Income Share, 1917 - 2008
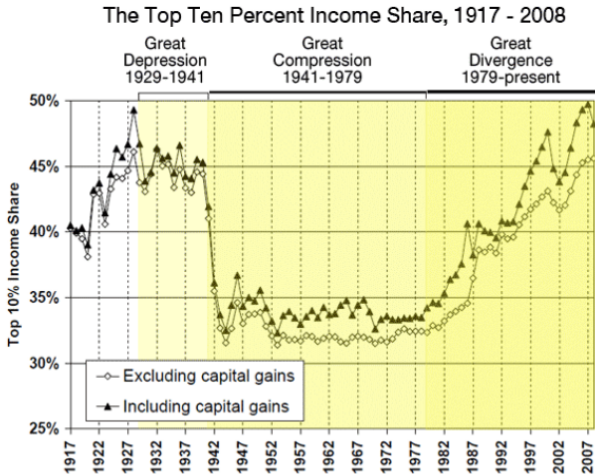
Income is defined as market income (and excludes government transfers).
In 2008, top decile includes all families with annual income above $109,000.
Source: Thomas Piketty and Emmanuel Saez.

Kuznets Curve and Taiwan

	Growth rate	$RtP_{10\%}$	Gini
1953	3.3 % p.a.	30.4	0.558
1964	8.6 % p.a.	8.6	0.328
1972		6.8	0.301

Sources of Inequality
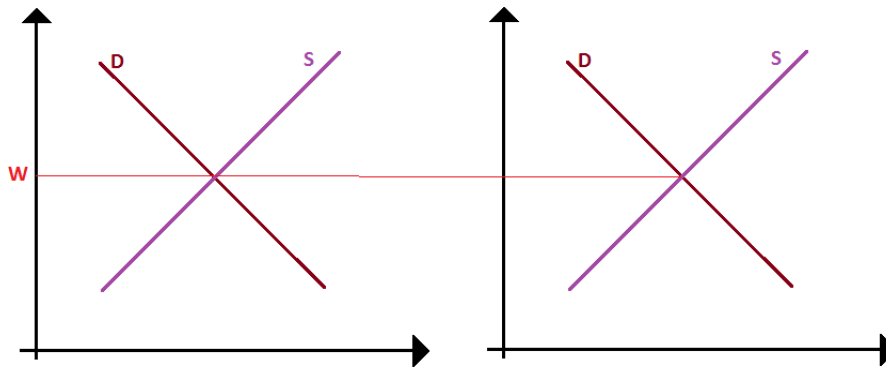
Where does the inequaltiy come from?

Sources of Inequality

- Differences in abilities
- Cultural and institutional differences
- Solow model
- Neoclassical economics?
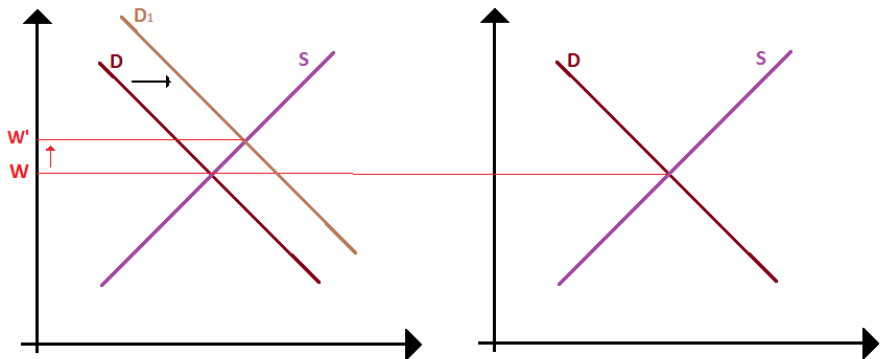
Sources of Inequality: Neoclassical explanations

- Assume 'dualistic economy'
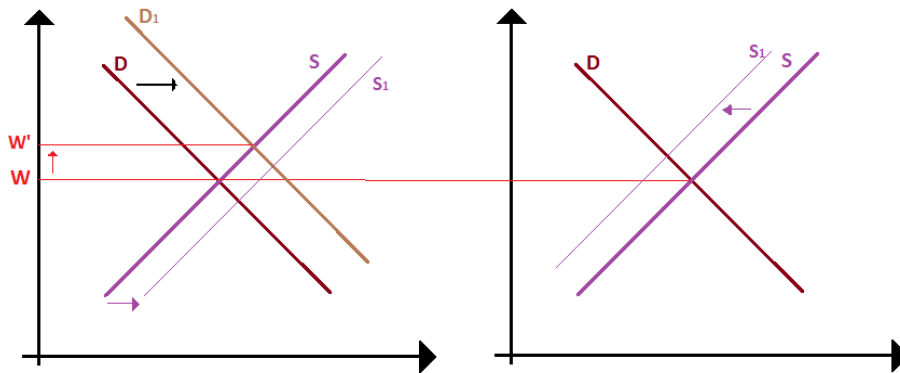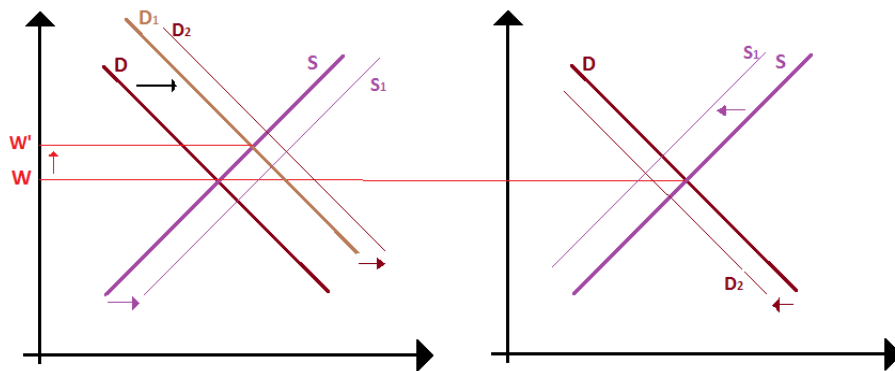- Initial equilibrium
- Demand shock for labour in one sector

Sources of Inequality: Myrdal Model

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Sources of Inequality: Myrdal Model

Sources of Inequality: Myrdal Model

- ▶ The shock does (not necessarily) lead to new equilibrium
- ▶ Disequilibrium prevails
    - ▶ instead of wage equality, further demand shocks

Definition
Myrdal 'backwash' effect - a chain of cummulative expansion in the favoured region.

Sources of Inequality: Myrdal Model for Capital

- ▶ People move with capital
- ▶ Assume increasing returns
  - ▸ small scale industry *vs* big industrialisation
  - ▸ external economy from the other business existence

End of Polarisation

- 'Trickle down'
  - Itself by the economic forces (e.g. diffusion of technology)
  - Government intervenes

- Inverted-U shape
  - Centripetal forces (external economies)
  - Centrifugal forces (external diseconomies, e.g. congestion)

Centre-Periphery Models

Prebisch model

- Geographical dualism (primary and manufactured commodities)
- difference in product's *income elasticity of demand*
  - $\varepsilon_m > 1, \varepsilon_p < 1$
- growth in export and import
  - $x_c = m_c, x_p = m_p$
- growth in production $g_c = g_p(=3)$

Centre-Periphery Models

Prebisch model

- Centre

$$
\begin{aligned}
x_c &= g_p \cdot \varepsilon_m (= 3 \cdot 1.3 = 3.9) \\
m_c &= g_c \cdot \varepsilon_p (= 3 \cdot 0.8 = 2.4)
\end{aligned}
$$

- Periphery

$$
\begin{aligned}
x_p &= g_c \cdot \varepsilon_p (= 3 \cdot 0.8 = 2.4) \\
m_p &= g_p \cdot \varepsilon_m (= 3 \cdot 1.3 = 3.9)
\end{aligned}
$$

Centre-Periphery Models

Prebisch model

- Periphery

$$
\begin{aligned}
m_p &= g_p \cdot \varepsilon_m \\
m_p &= x_p
\end{aligned}
$$

so

$$
g_p = \frac{x_p}{\varepsilon_m} = \frac{g_c \cdot \varepsilon_p}{\varepsilon_m} \left(= \frac{0.8}{1.3} g_c = 0.62 g_c \right)
$$