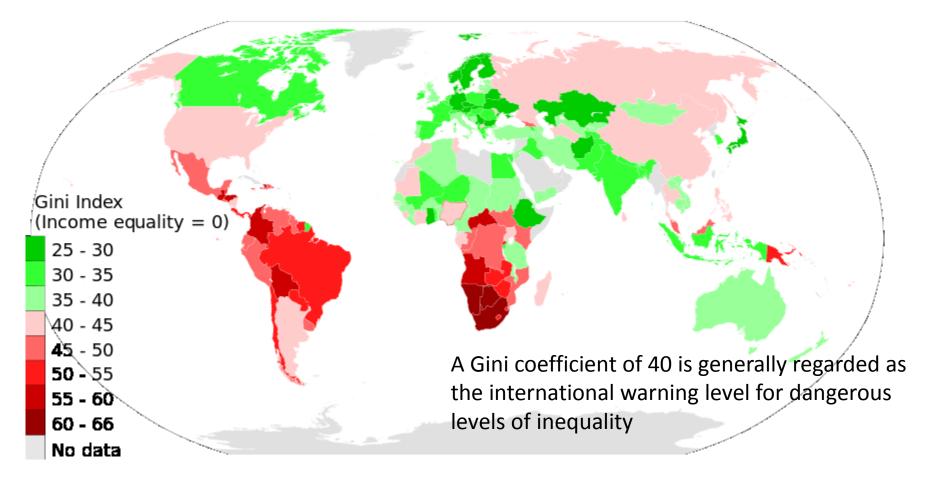
### **Growth and Inequality**

Lê Vũ Quân

David N. Weil (2008), Economic Growth, 3rd edition, Pearson Addison-Wesley. Chapter 13: "Income Inequality."

## **Income Inequality**



World Bank (2014): Countries' income inequality according to their Gini coefficients measured in percent: red = high, green = low inequality

# Korean Peninsula



- North Korea
  - GDP/capita: \$1800 (CIA 2013 est.)
  - Growth rate: -0.50% (WB 1990-2014)
  - Gini Index: 63 (Peterson Institute 1998)
- South Korea
  - GDP/capita PPP : \$33,600 (WB 2014)
  - Growth rate: 5.3% (WB 1990-2014)
  - Gini Index: 32 (WB 1998)

#### Source: Earth Observatory, NASA

# Vietnam



### Then and Now

1986:

- GDP per capita\*: \$268
- Gini Index: 35.65 (1992) 2014:
- GDP per capita<sup>\*</sup>: \$1078
- Gini Index: 42.68 (2010)

### Growth rate: 6.51% (1986-2014)

Source: WDI; \* constant 2005 US\$

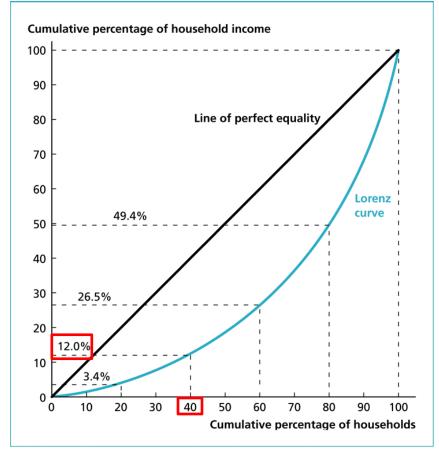
# Income Distribution

- Beyond the average level of income, economists are also interested in how that income is divided among the country's residents.
- Example (2005):
  - In India, GDP/capita: \$2557; fraction of the population living on an income of less than \$1.25 per day: 41.6%
  - In Pakistan, GDP/capita: \$2112; fraction of the population living on an income of less than \$1.25 per day: 22.4%
- India's per capita income was 21% larger than average income per capita in Pakistan, but Pakistan has a more equal distribution of income than does India.

# Gini Coefficient – A Measure of Income Inequality

- Collect data on incomes of all households (or a representative sample of households) in a given country.
- Arrange these households from lowest to highest income.
- Find the fraction of total income earned by the poorest 1%, 2% of households, and so on through 100%, where the fraction of income earned by the poorest 100% of households is 100%.
- Graphing these data produces a Lorenz curve.

# The Lorenz Curve for the U.S., 2009



Source: De Navas-Walt, Proctor, and Smith (2007).

Quintile	Average Household Income	Share of Total Household Income (%)
lst (Lowest)	\$11,352	3.4
2nd	\$28,777	8.6
3rd	\$48,229	14.5
4th	\$76,929	22.9
5th (Highest)	\$168,170	50.5

Source: DeNavas-Walt, Proctor, and Smith (2007).

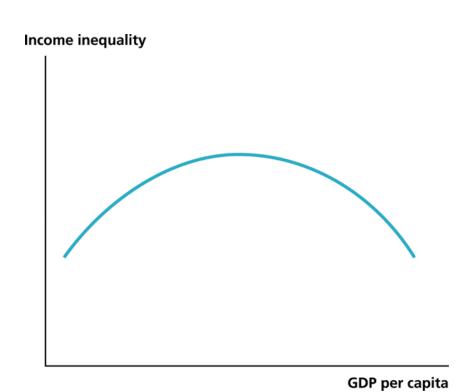
- The first line of the table shows that the poorest 20% of households earn 3.4% of total household income.

- Adding the first and second lines shows that the poorest 40% earn 12% of total household income.

- The Lorenz curve has a bowed shape because of income inequality.

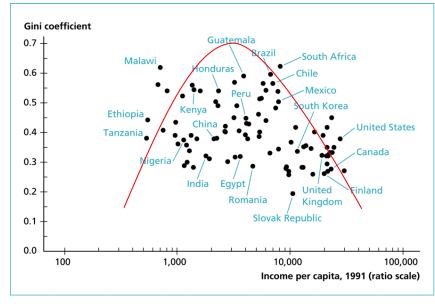
- If income were distributed perfectly equally, the Lorenz curve would be a straight line with a slope of 1.

# The Kuznets Hypothesis



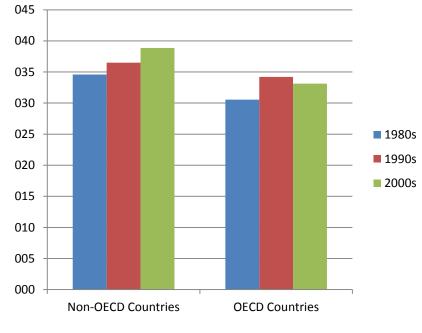
- Economist Simon Kuznets in 1955 hypothesized that as a country developed, inequality would first rise and then later fall.
- This has come to be known as the Kuznets curve.

### Income per Capita versus Inequality



Source: Deininger and Squire (1996), Heston et al. (2002).

The figure does not provide strong evidence of the inverted-U-shaped between development and income inequality as hypothesized.



WDI

According to Robert Barro, the peak of the Kuznets curve comes at a GDP/capita level of \$4815 (in 2000 USD).

# **Empirical Evidence**

- Alesina and Rodrik (1994)
- Deininger and Squire (1998)
- Robert Barro (2000)
- Banerjee and Duflo (2000)
- Thomas Piketty (2014)
- Scott Fritzen (2002)

Distributive Politics and Economic Growth Alesina and Rodrik (1994)

- Hypothesis: Inequality hurts growth
- Main Findings:
  - Growth is driven by changes in capital (Solow Growth Model).
  - High degrees of inequality cause political pressure to tax capital, benefitting unskilled labor.
  - Higher taxes on capital lead to lower investment, and thus lower growth.

New Ways of Looking at Old Issues: Inequality and Growth Deininger and Squire (1998)

- Analysis focused on income shares which enables us to recognize that growth and the distribution of income evolve simultaneously.
- Main Findings:
  - There is a strong negative relationship between initial inequality in the asset distribution and longterm growth.
  - Inequality reduces income growth for the poor, but not for the rich.

### Inequality and Growth in a Panel of Countries Robert Barro (2000)

- Main findings:
  - For growth, higher inequality tends to retard growth in poor countries and encourage growth in rich countries.
  - On an empirical level, the Kuznets curve was accepted through the 1970s.
- The Evolution of Inequality
  - Greater inequality leads to more redistributive policies, which distort the incentives to invest and be productive.
  - Poor households forego high capital-intensive human capital investment, as universal access to capital is decreased in unequal societies.
  - Inequality incentivizes the poor to disrupt the rule of law, which disincentivizes investment

# Inequality and Growth: What Can the Data Say?"

Banerjee and Duflo (2000)

- Main findings:
  - Changes in inequality (in any direction) are associated with reduced growth in the next period.
  - The growth rate in any period following a distributional conflict is lower than when there is no conflict, but the relationship is highly discontinuous.
  - What matters is not the actual change in inequality, but the absolute value of the change.

# Global Inequality in the 21<sup>st</sup> Century Thomas Piketty (2014)

- Thomas Piketty claimed that the richest earn the highest returns and save most of their earnings. If this is true, then rising capital will lead to inequality.
- Piketty expressed a concern that financial globalization will lead to a greater concentration of capital in the future (p. 430).
- Piketty's solution is a global wealth tax
  - This solution focuses on the distribution of wealth rather than the creation of wealth.
  - A global wealth tax would have a significant negative impact in developing countries, where people are just recently emerged from poverty.
- Enforcement of a global tax is unrealistic
  - With perfect capital mobility, it would be difficulty to stop the transferring of capital to places where the global tax doesn't apply.

# Inequality in Viet Nam



#### Lo ngại bất ổn xã hội vì khoảng cách giàu nghèo (VNExpress, 24/2/2016).

 'Chúng ta không muốn nhưng theo quy luật nếu khoảng cách giàu nghèo quá cao sẽ gây xung đột, không có ổn định xã hội', Chủ tịch Hội đồng Dân tộc Ksor Phước cảnh báo.

### Ý kiến bạn đọc:

- Hay! Đúng là chỉ cần minh bạch, công bằng, và mức lương tối thiểu phải đủ cho nhu cầu cơ bản như ăn ở, điện nước, thì dù phân hóa giàu nghèo cỡ nào cũng không quan trọng.
- Giàu nghèo không phải là nguyên nhân chính gây bất ổn xã hội. Theo tôi thì chúng ta phải tạo ra thật nhiều việc làm để xã hội ổn định, tỉ lệ người thất nghiệp cao sẽ phát sinh nhiều tội phạm và gây bất ổn xã hội.

## Growth, Inequality, and the Future of Poverty Reduction in Vietnam <sub>Scott Fritzen</sub> (2002)

- Vietnam has one of the highest Gini coefficients in Southeast Asia within 10 years.
- Three issues:
  - Approximately one-third of the population fall below a comparable international poverty line, and a large population is clustered just above that line (WB 1999, p.3).
  - Political sensitive issue: sporadic rural unrest in several regions of the country. Willingness of policy elites to pursue more rapid economic and institutional reforms.
  - Relations with the donor community: impact of policy environment on poverty reduction (WB, 2001).

# "Growth with Equity"

- Necessary relationship between growth and poverty reduction.
- Need for 'high quality' growth to maximize poverty reduction.
- No necessary relationship between growth and inequality
  - Contrary to Kuznets (1959)
  - Bruno et. al (1998) found inequality was slightly rise with growth in about half of the countries, and in half it actually fell in a study of 44 countries over the period 1981-1992

# Relationship between growth and inequality

### No

### Yes

- East Asian countries: Taiwan Latin American countries: • and South Korea
  - **Brazil and Mexico**

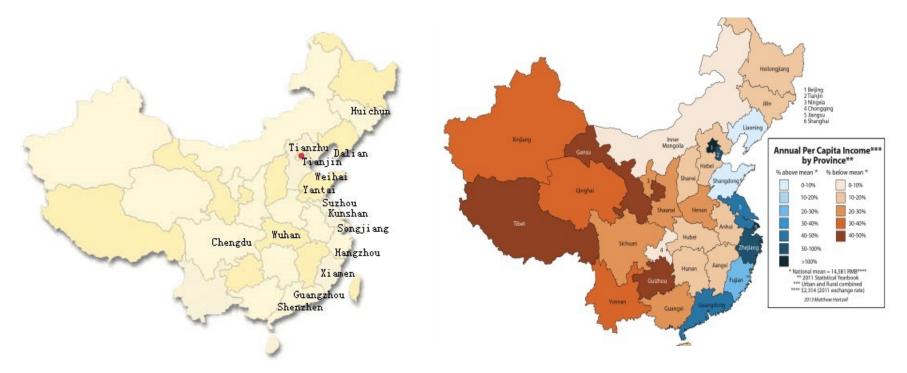
### China

- China presents a more complex interplay between growth, inequality and poverty reduction.
- Significant reduction in poverty over previous 20 years with poverty estimated to have fallen by over 50% between 1981-1995.
- However, Gini coefficient increased from 28.8 in 1981 to 38.8 over the same period.

# China's Growth and Inequality

### **Industrial Parks and EPZs**

### Per Capita Income

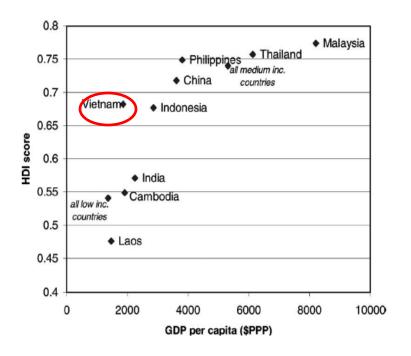


Regional disparities and the degree of inequality generated by policy.

# Vietnam

- To what extent have Vietnam's reforms followed a 'growth with equity' (Taiwan and South Korea?
- To what extent do they parallel Chinaextremely rapid inequality generation coupled with poverty reduction?

# **GDP Per Capita and HDI**



- Vietnam ranks near the bottom in terms of GDP/capita
- HDI score is significantly better than several other low-income comparators.

# **Regional HDI Estimates**

#### Table 1 Sub-national socioeconomic indicators

Region	Population (1998, millions) <sup>a</sup>	Incidence of poverty (%) <sup>a</sup>		GDP growth rate (average 1995–1999) <sup>b</sup>	GDP per capita (1999, \$PPP) <sup>b</sup>	HDI score (1999) <sup>b</sup>
		1993	1998			
Vietnam (total)	75.8	58	37	7.6	1860	0.696
Northern Uplands	13.5	79	59	7	899	0.629
Red River Delta	14.9	63	29	6.9	1616	0.723
North Central	10.5	75	48	4.9	939	0.662
Central Coast	8.1	50	35	6.6	1238	0.676
Central Highlands	2.8	70	52	11.5	1102	0.604
South East	9.7	33	8	9.9	3809	0.751
Mekong Delta	16.3	47	37	5.5	1496	0.669

<sup>a</sup> Source: World Bank and others (1999).

<sup>b</sup> Source: NCSSH (2001).

Red River Delta (Hanoi) and Southeast (HCMC) 's HDI scores are nearly as well off as average residents of richer countries in the region such as Malaysia, while others are on par with Vietnam's poorest neighbors, Cambodia and Laos.

# **Regional Comparisons of Inequality**

#### Table 2 Regional comparisons of inequality

	Survey year	Gini	Ratio of top to bottom income quintile	
Malaysia	1997	49.2	12.4	
Philippines	1997	46.2	9.8	
Thailand	1998	41.4	7.6	
Cambodia	1997	40.4	6.9	
China	1998	40.3	8	
India	1997	37.8	5.7	
Laos	1997	37	6	
Indonesia	1999	31.7	4.6	
Bangladesh	1995	33.6	4.9	
Vietnam (VLSS)	1993	33	3.9	
Vietnam (VLSS)	1998	35.4	5.6	
Vietnam (UNDP)	1995	35.6	_	
Vietnam (UNDP)	2000	40.7	7.3	

Source: GSO (1999) and NCSSH (2001) for Vietnam; UNDP (2001) for all other countries.

## Poverty Reduction Scenarios in Vietnam

#### Table 3 Poverty reduction scenarios in Vietnam

	Growth low	Growth high
Inequality high	I. Worst case. Limited poverty reduction in better-off areas, possibility of reversal of current gains, and possible worsening in minority areas. Increasing tension. Happen if structural reforms not carried out. <i>Indicative comparison:</i> <i>Russia (1980–1993)</i>	II. Current track. Poverty reduction to decelerate. Regional differences and socioeconomic differences to accelerate, leading to increasing governance tension. <i>Indicative comparison: China</i> (1985–1993), Thailand (1981–1992)
Inequality low	III. Stagnation of poverty reduction. Somewhat unlikely scenario except in event of economic crash, in that decreased economic growth likely to be accompanied by limited structural reform and hence increased rent seeking. <i>Indicative</i> <i>comparison: Sri Lanka (1981–1990)</i>	IV. Best case; significant poverty reduction (continuing trend found in VLSS), with improved income distribution. <i>Indicative</i> <i>comparison: Malaysia</i> (1979–1989), <i>Indonesia</i> (1980–1993)

Source for comparisons: see World Bank (1997, p. 8).

Can Vietnam sustain 'growth with equity' as a poverty reduction strategy?

- Maintenance of macroeconomic stability
- Rapid employment generation
- Broad access to productive assets and human capital
- Provision of public goods that raise productivity of assets controlled by the poor
- Safety net policies
- Institutional reforms