

# Rethinking of Gini Inequality on Vietnam

Keio University  
Tadashi KIKUCHI

- Simplicity on idea
- Easiness of calculation
- Usefulness for policy analysis

## How can Living Standards be measured?

Person A



With \$10 wage

Person B



With food, \$15 market value

**Income or Consumption?**

# How can Household be compared with ?

## Family A: \$100

One adult, 20 years old  
One young, 10 years old  
One child, 3 years old

## Family B: \$100

One adult, 20 years old  
Two young, 10 years old  
10 years old

### Equivalence scale

Adult: Young: Child = 1.00: 0.455: 0.226

1.68 members

v.s.

1.91 members

### Representative Household Consumption

\$59.5(=100/1.68) v.s. \$52.3(=100/1.91)

## Two types of errors

1) Fitting error

2) Sampling error

Regression model

NO Regression

Economic implication

Exact calculation

Two Gini indexes

from: Grouped data

and

Individual data

# Lorenz curve of Vietnam

Household consumption expenditure in 1998

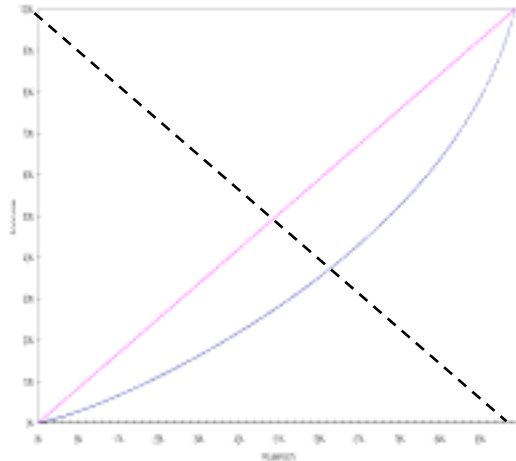
## Economic implication

The rich skew inequality more than twice than the poor.

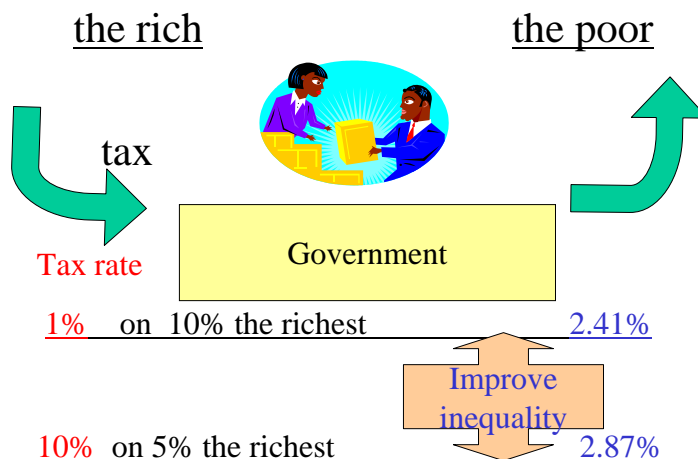
- The fitness of model is very good,  $R^2 = 0.99$
- Gini is **0.33672**  
From 24 grouped data.

## Exact calculation

- Gini is **0.3322**  
From 5,938 household data.



# What's the effect of redistribution policy?



# Which and to what extent?

## - Urban and Rural development -

area	growth rate of consumption power		Gini Inequality		
	by area	nationwide	before	after	Improvement change %
Urban	100%	45.3%	0.33223	0.43824	-32.2%
Rural	0%	63.6%	0.33223	0.35635	-7.3%
Urban	80%	66.4%	0.33223	0.3042	8.4%
Rural	50%	54.7%	0.33223	0.23173	30.3%
Urban	50%				
Rural	90%				
Urban	0%				
Rural	100%				

# Education is needed for whom?

area	growth rate of consumption	growth rate of consumption power		nationwide	Gini Inequality		
		by area	by education level of household		Improvement change (1)%	Improvement change (2)% see Table VII	
Urban	100%		Primary education NO completed	100%	75%	-15.37%	14.60%
			Primary education completed	0%			
			Lower secondary education	0%			
			Uppersecondary education	0%			
Rural	0%		University graduate	0%	101%	10.98%	2.86%
			Primary education NO completed	50%			
			Primary education completed	40%			
			Lower secondary education	30%			
			Uppersecondary education	20%			
Urban	50%		University graduate	10%	92%	3.15%	-5.46%
			Primary education NO completed	10%			
			Primary education completed	20%			
			Lower secondary education	30%			
Rural	80%		Uppersecondary education	40%	62%	22.31%	-10.22%
			University graduate	50%			
			Primary education NO completed	0%			
			Primary education completed	0%			
Urban	0%		Lower secondary education	0%			
			Uppersecondary education	0%			
			University graduate	0%			
			Primary education NO completed	0%			
Rural	100%		University graduate	100%			