

Income Inequality and Subjective Well-being in Urban China: Changes in the 2000s

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Outline

- 1 Introduction
- 2 Literature Review
- 3 Data and Methodology
- 4 Empirical Results
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Introduction

Growing inequality but positive inequality-happiness relationship in China?

- The national Gini coefficient is 0.38 in 1998, surges to 0.45 in 2002, and reaches 0.49 in 2007 (Li et al., 2013; Xu and Yue, 2013; Knight, 2014)
- The positive correlation between inequality and individual subjective well-being has been observed in rural and urban China in the early 2000s (Knight and Gunatilaka, 2010a; Jiang, Lu and Sato, 2012)

Introduction

The positive correlation between inequality and happiness is not common, but has been observed in:

- Some transition economies: Poland (Grosfeld and Senik, 2010), Russia (Senik, 2004)
- Societies with higher perceived mobility: the US (Alesina et al., 2004)

Introduction

- However, this positive relationship is suggested to be ephemeral/unstable (Hirschman and Rothschild, 1973)
- Whether the urban Chinese have changed their tolerance for income inequality?

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Literature Review

The relationship between income inequality and subjective well-being

- Studies in China
- Findings from other countries
- Two competing hypotheses for interpretation
 - Relative deprivation theory
 - Tunnel effect theory

Literature Review

Studies in China

- Using data from the Chinese Household Income Project 2002 (CHIP 2002), two studies reported a positive and significant role of Gini coefficient.
 - Knight and Gunatilaka (2010a): rural China
 - Jiang, Lu and Sato (2012): urban China
 - 1 General inequality: positive effect
 - 2 Between-group (identity related) inequality: negative effect
- Using data from the Chinese General Social Survey 2005 (CGSS 2005), Wu and Li (2013) found that a higher Gini coefficient leads to reduction in happiness.
- Wang et al. (2015) found an inverted U-shaped association between Gini coefficient and subjective well-being using CGSS 2006 data.

Literature Review

Findings from Other Countries

Studies conducted in other countries also yield ambiguous results:

- The **negative** effect is found in a number of studies (Morawetz et al., 1977; Hagerty, 2000; Verme, 2011; Oishi et al., 2011)
- However, some studies indicated that there is **no significant** relationship between happiness and inequality (Schwarze and Härpfer, 2007; Berg and Veenhoven, 2010)
- Several studies demonstrated that the **positive** effect of inequality also exists (Grosfeld and Senik, 2010; Clark, 2003)

Literature Review

Two Competing Hypotheses for Interpretation

The interpretation of the positive/negative effect of income inequality largely relies on two different hypotheses.

- The relative deprivation theory (Runciman, 1966; Yitzhaki, 1979; Walker and Smith, 2002)
 - Estimating the role of relative income (Alesina et al., 2004; Fahey and Smyth, 2004; Morawetz et al., 1977; Oshio and Kobayashi, 2010)
- The tunnel effect theory (Hirschman and Rothschild, 1973)

Literature Review

Two Competing Hypotheses for Interpretation

The tunnel effect theory (Hirschman and Rothschild, 1973)

- Analogy: when caught in a traffic jam in a two-lane tunnel, when the cars in the other line begin to move, the stayed people would feel better because they are expecting to move soon.
- The tunnel effect theory suggests that in the early stage of rapid economic development when inequality is apt to increase sharply, society's tolerance for such disparity can be substantial, even those who are currently left-behind may have positive attitudes toward inequality.
- However, the tunnel effect is bound to be ephemeral; when people see that the disparities cannot be narrowed, the tunnel effect would decay.

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Data

Chinese Household Income Project 2002 and 2007 (CHIP 2002 and CHIP 2007)

- Merging data from the Urban Household Survey and the Migrant Household Survey
- 26 cities in 2002 and 15 cities in 2007

Methodology

In line with the study of Jiang, Lu and Sato (2012):

$$Happiness_{ij} = a_0 + \alpha_1 * Gini_j + \alpha_2 * BI_j + \beta * X_{ij} + \gamma * Z_j + \epsilon_{ij}$$

- i and j denote individuals and cities respectively
- $Gini_j$: general income inequality
 - City-level Gini coefficients, calculated based on the household income per capita from the datasets
- BI_j : identity-related (between group) income inequality
 - The ratio between the mean incomes of urban residents and migrants within the same city from the datasets

Methodology

- $Happiness_{ij}$: self-rating of subjective well-being of person i in city j
- X_{ij} : individual and household characteristics
- Z_j : characteristics of city j , including the per capita GDP, population growth rate, city size and regional dummies

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Empirical Results

Income Inequality and Subjective Well-being

- General inequality tends to be a negative factor reducing the happiness of urban Chinese in 2007 compared with 2002.
- Between group inequality has a negative impact on happiness in both 2002 and 2007.
- The results indicate that the tolerance for general inequality has been lowered during the five-year period, and suggest the possible decay of tunnel effect which has performed during the initial growing years in urban China.

Empirical Results

Income Inequality and Subjective Well-being

- Similarities in both years: gender, age, marital status, self-rated health, employment status.
- Differences between the two years: *hukou*-identity, education, city size.

Empirical Results

Robustness Check

- 1 Ordered probit models with different inequality estimators
- 2 Multilevel linear models with different inequality estimators
- 3 Restrict to seven common cities in both surveys

Empirical Results

Subsamples Analysis

Subsample analysis suggest an explanation for why city-level Gini turns to affect happiness negatively in 2007:

- ① Urban residents had lowered their tolerance
- ② The middle aged and the elder residents had become averse to general inequality
- ③ People who belong to the poorest 30 percent turned to be unsatisfied with inequality

Empirical Results

Explanation with the Tunnel Effect

In 2002,

- The positive sign of Gini coefficients for the poorest 30 percent in 2002
- Interaction terms between future income prospects and Gini coefficient

In 2007,

- The negative sign for the poorest 30 percent in 2007 suggest the worn out of the tunnel effect

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Conclusions

Inequality and the happiness of urban Chinese:

- 1 Compared with 2002, general inequality turns to be a negative factor in 2007.
- 2 Identity-related inequality between urban residents and migrants is found to have negative impact on happiness in both years.
- 3 In specific, the poor and those who beyond middle age have the inclination to be unsatisfied with income inequality.

This contrast suggests that:

- 1 The tolerance for general inequality has been lowered among the urban Chinese during the 2000s.
- 2 The tunnel effect is no longer prevalent in 2007 in urban China.

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