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Is the China Model Equitable? – An Analysis from the Economic and Sociological Perspective

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Introduction

- The purpose of this paper is to analyze the different aspects of income distribution and poverty in China. This is based on the application of a special 3-dimensional mapping system under the uses of Mathematica software version 8.0 to observe the income and poverty distribution in all China. Hence, the main objective of this paper is to build a large number of maps and equations that can show the real situation in the income distribution and poverty of China. Finally, this paper tries to find all possible weaknesses and vulnerabilities that income distribution and poverty can generate on the Chinese economy in the long run. At the same time, it aims to generate possible policies to benefit far areas of China. In our case, we study income distribution and poverty from the economic, historical, cultural, environmental, social, political and technological perspective.

Mapping Income Distribution

This paper has two general objectives:

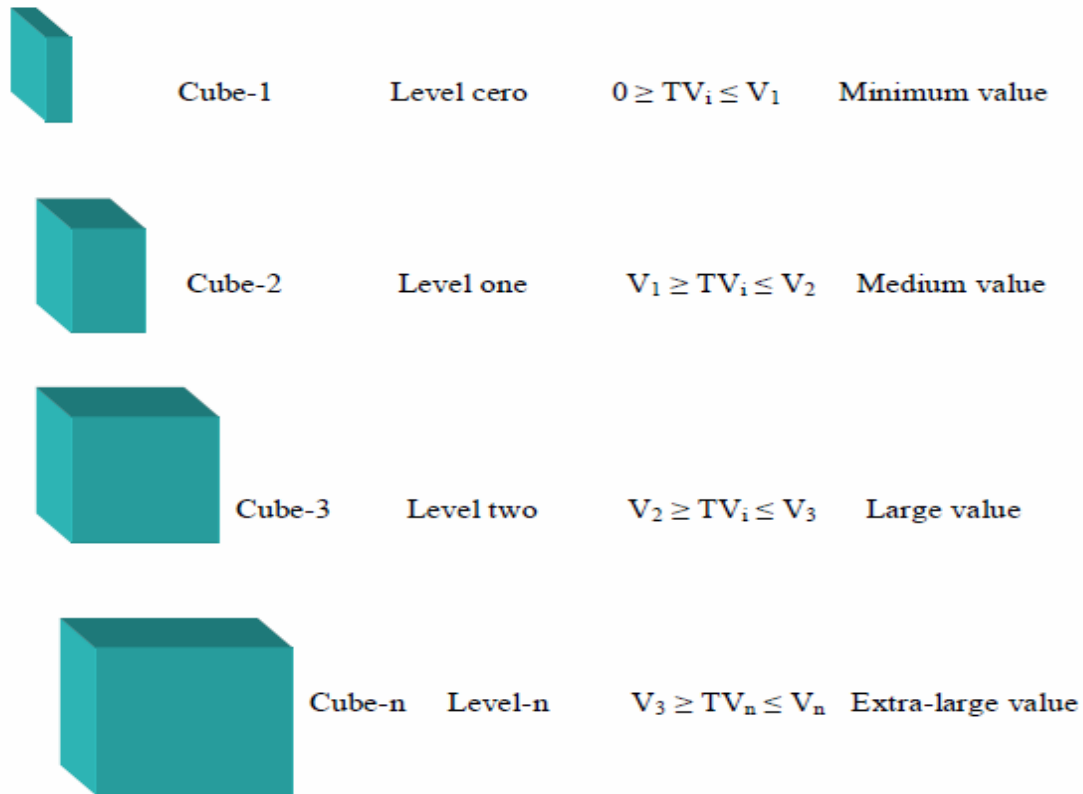
- The first objective is to evaluate the evolution of income distribution among all regions in China from 1960 until 2060 by building a series of maps using different color such as green (high income growth), yellow (irregular growth), and red (low income growth).
- The second objective is to propose a series of policies that can generate a better performance in the income distribution by using a large model of equations of distribution and poverty eradication simultaneously.

Analysis

- The income distribution in this paper is based on the application of the Cubes Cartesian Space (See Ruiz Estrada, 2011). The Cubes-Cartesian physical space is open to the possibility of generating a multi-dimensional visual effect to show the vulnerability of many macroeconomic structures (or scenarios) in the same graph and time. Each macroeconomic structures (or scenarios) is formed by a large number of general structures, sub-structures and mini-structures (see model parameters and graphical modeling) in different axes, levels, and cubes by sizes and colors. However, details of the analysis of each structure by axes, levels, perimeters and cubes by sizes and colors is depending on the parameters as established in our research. Finally, all these general structures, sub-structures and mini structures are under the imbalance dynamic state under the application of the *Omnia Mobilis* assumption (Ruiz Estrada, 2011).

Model Parameters

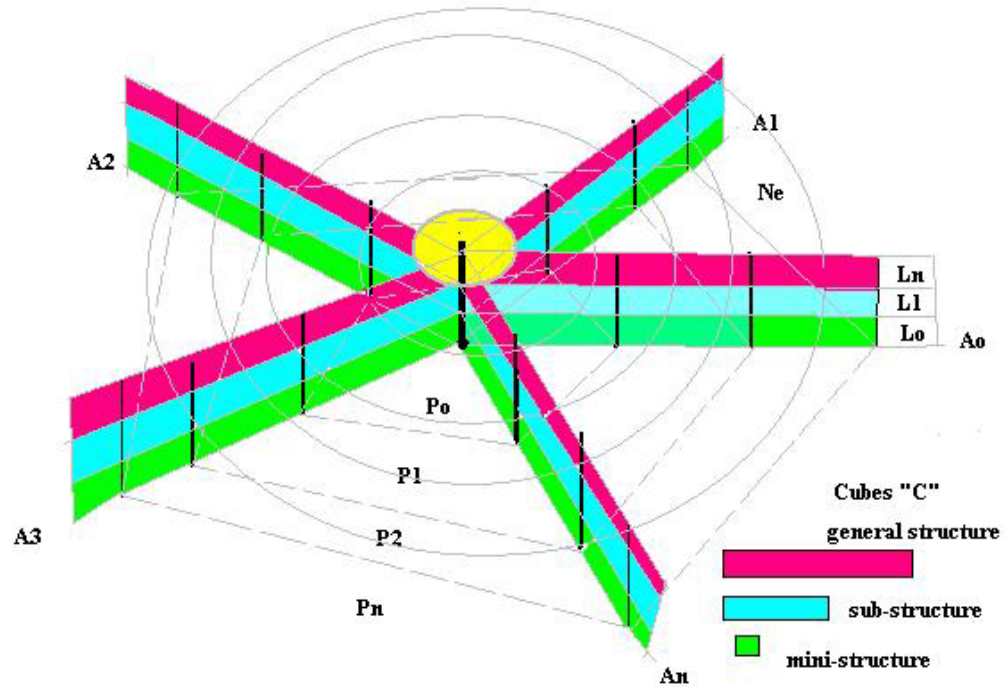
FIGURE 1: Cubes Parameters



Note: TV = Total Value, V = Value and "n" is equal to any value between 1 and ∞ ...

Graphical Modeling

FIGURE 2:
The Cubes-Cartesian Space Coordinate System



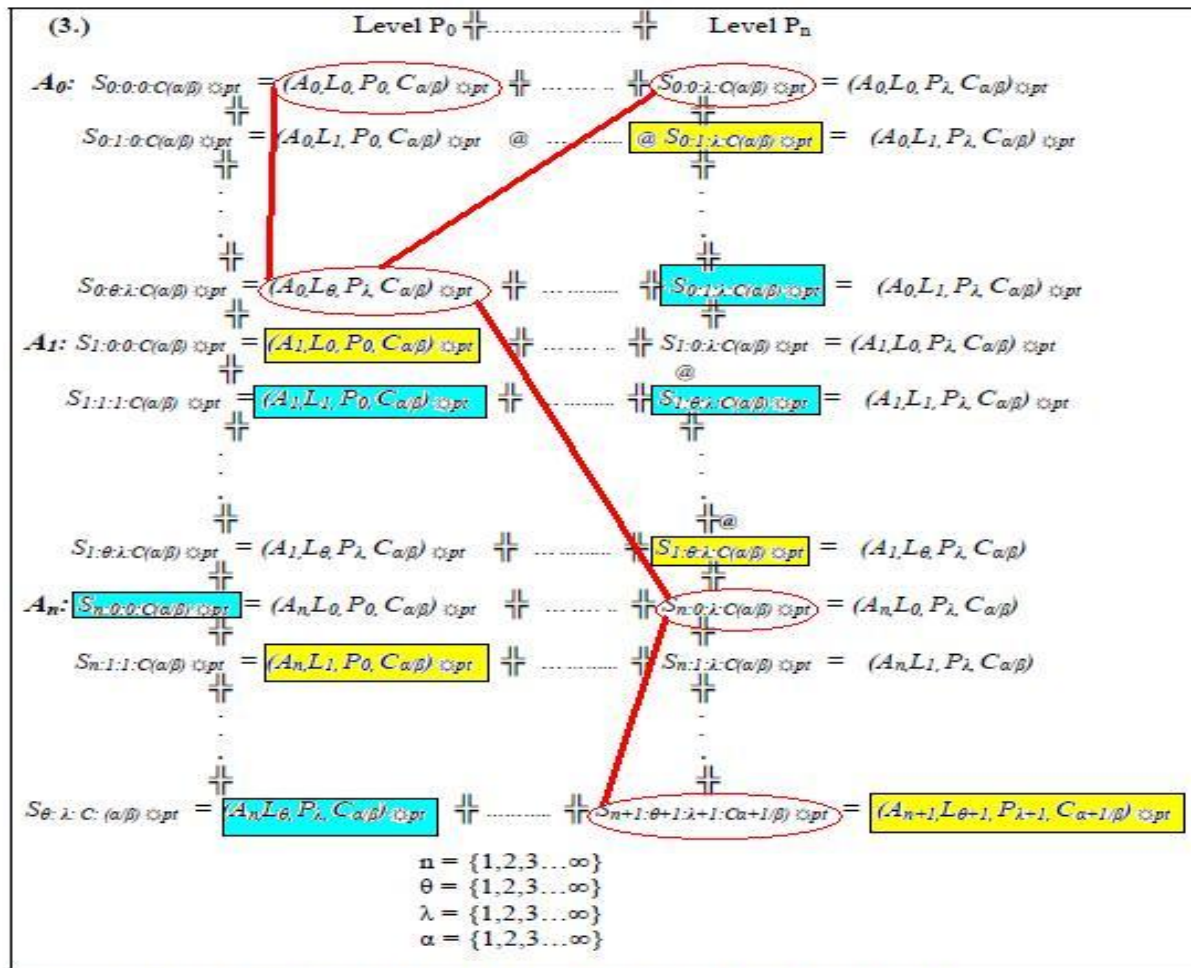
Model

- Finally, the Cubes-Cartesian space shows a general function Y_g that is the result from the interconnection of all the macroeconomic structures (S_0, S_1, \dots, S_n) under different axes (A_1, A_2, \dots, A_n), levels (L_1, L_2, \dots, L_n), perimeters ($P_0, P_1, P_2, \dots, P_n$) and cubes with different sizes and colors ($C_0/\beta, C_1/\beta, \dots, C_n/\beta$) respectively:

$$Y_g = (A_0 \langle \Sigma S_0 \parallel S_1 \parallel \dots S_\infty \rangle \parallel A_1 \langle \Sigma S_0 \parallel S_1 \parallel \dots S_\infty \rangle \parallel \dots \parallel A_\infty \langle \Sigma S_0 \parallel S_1 \parallel \dots S_\infty \rangle .)$$

- Note: Y_g = The General Variable, \parallel = Interconnection, A_i = Axis and S_i = General Structures.

Equations by Region



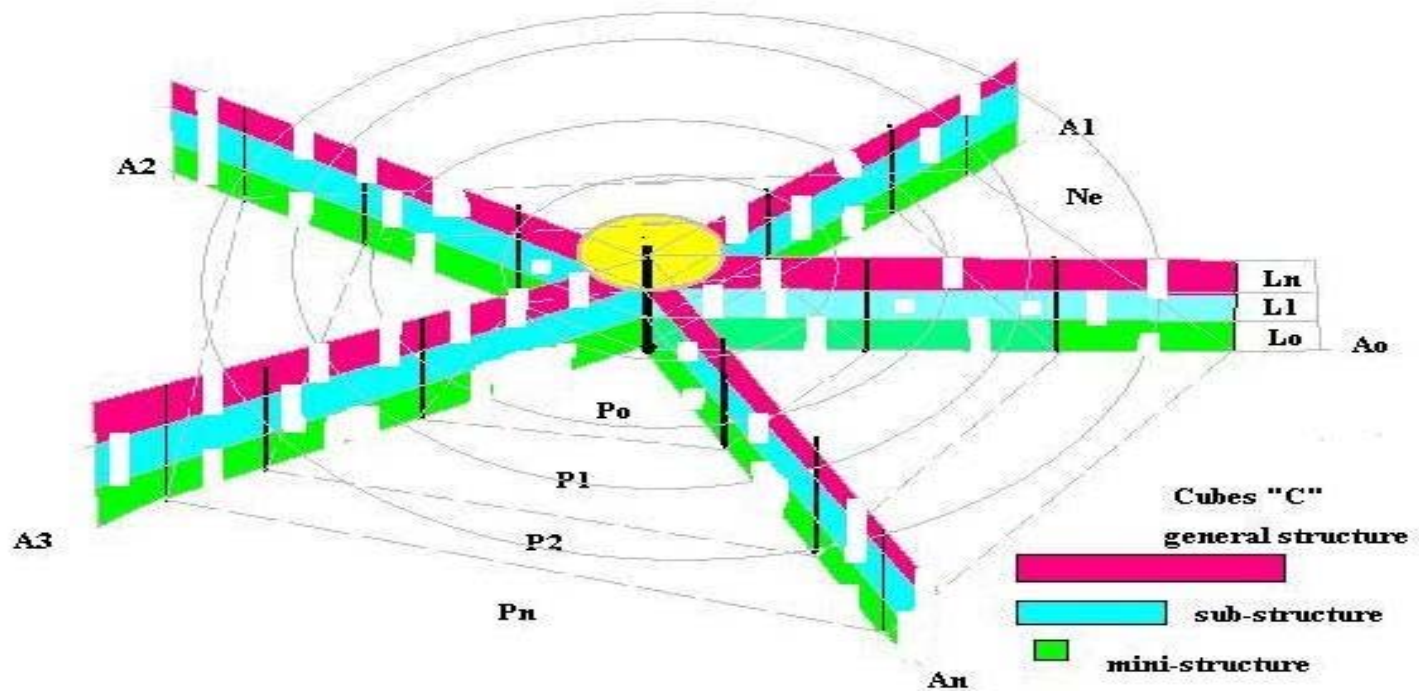
Note: S = Macroeconomic structure, A = Axis, L = Level, P = Perimeter, C = Cube and β = Colors

Chinese Sensibility Equation

$$(5.) \quad Yg \pm \odot_{gt} \hat{si} \sqrt{\frac{n + 1/n + \left[\frac{1}{\pi} (A_{n+1}, L_{\theta+1}, P_{\lambda+1}, C_{\alpha+1/\beta}) \odot_{pto} \right] - \left[\frac{1}{\pi} (A_{n+1}, L_{\theta+1}, P_{\lambda+1}, C_{\alpha+1/\beta}) \odot_{ptn} \right]}{\left[\frac{1}{\pi} (A_{n+1}, L_{\theta+1}, P_{\lambda+1}, C_{\alpha+1/\beta}) \odot_{pto} \right]^2}}$$

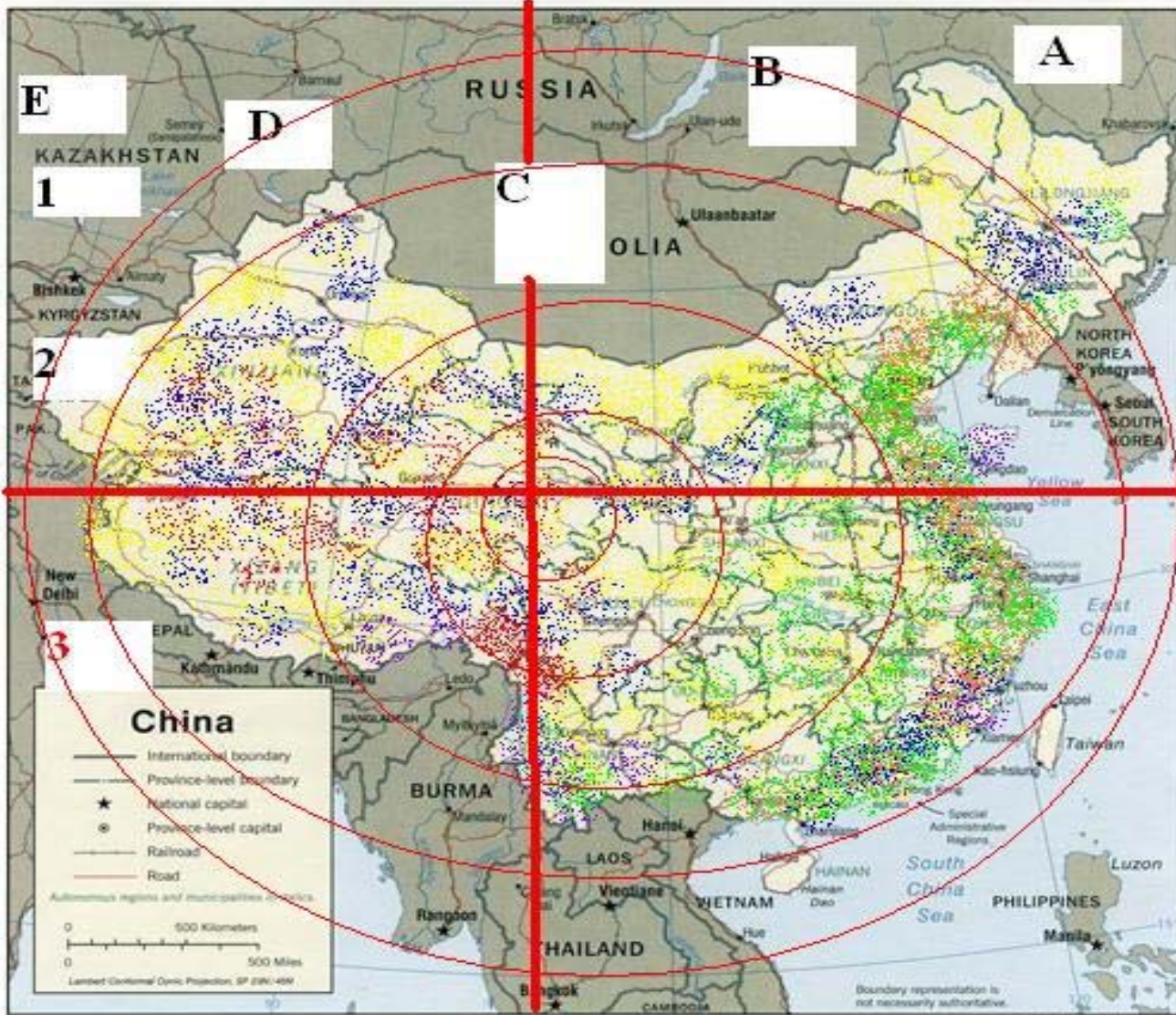
Note: A = Axis; L = Level; P = Perimeter; C = Cube; β = Colors; \odot_{pt} = Partial Times Speed and \odot_{gt} = General Time Speed


Chinese Vulnerability







Beijing	北京	Guangzhou	广州	Harbin	哈尔滨	Hainan Dao	海南岛
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Nanjing	南京	Shanghai	上海	Shenyang	沈阳	Taipei	台北
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SOC 

ECO 

TECH 

POL 

ENV 

Income Distribution

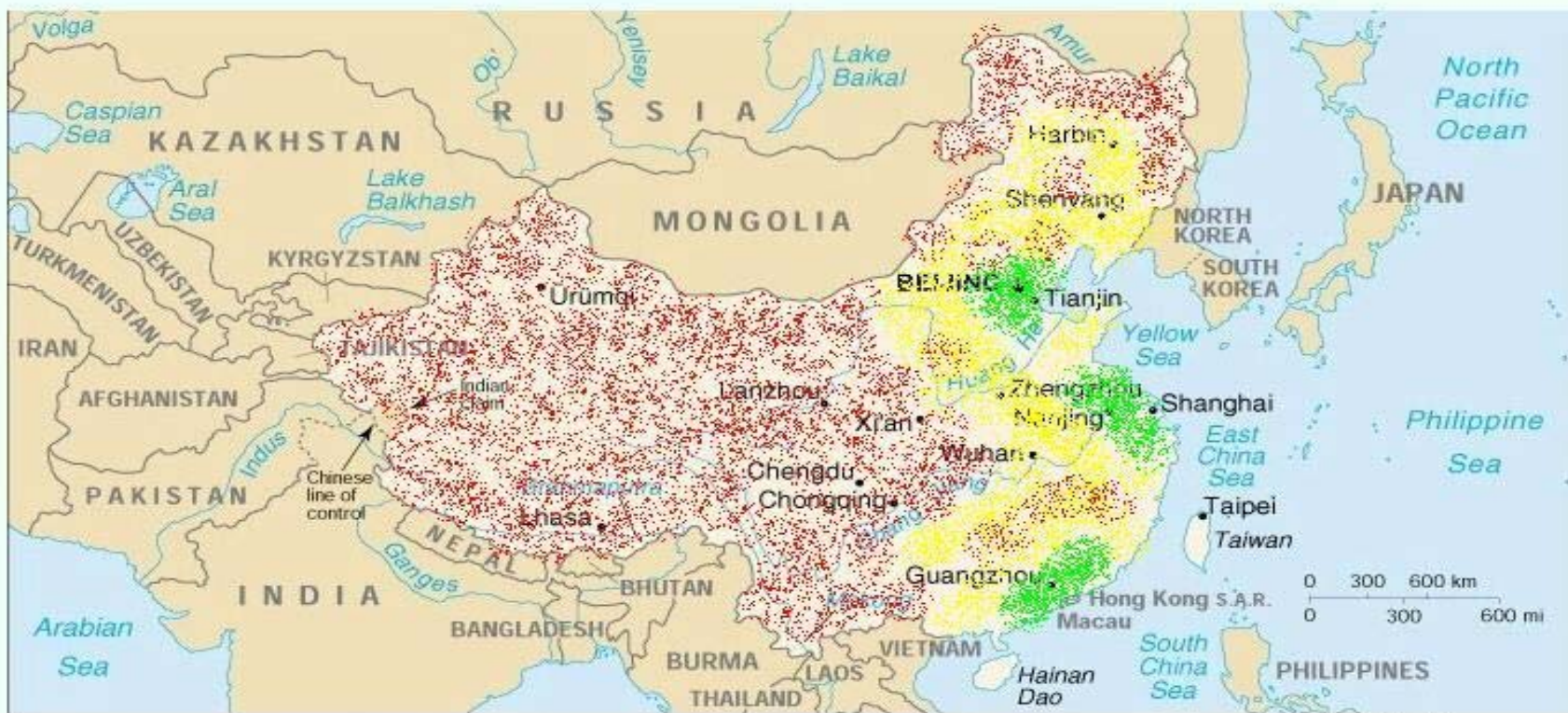
1940/1950



Beijing	北京	Guangzhou	广州	Harbin	哈尔滨	Hainan Dao	海南岛
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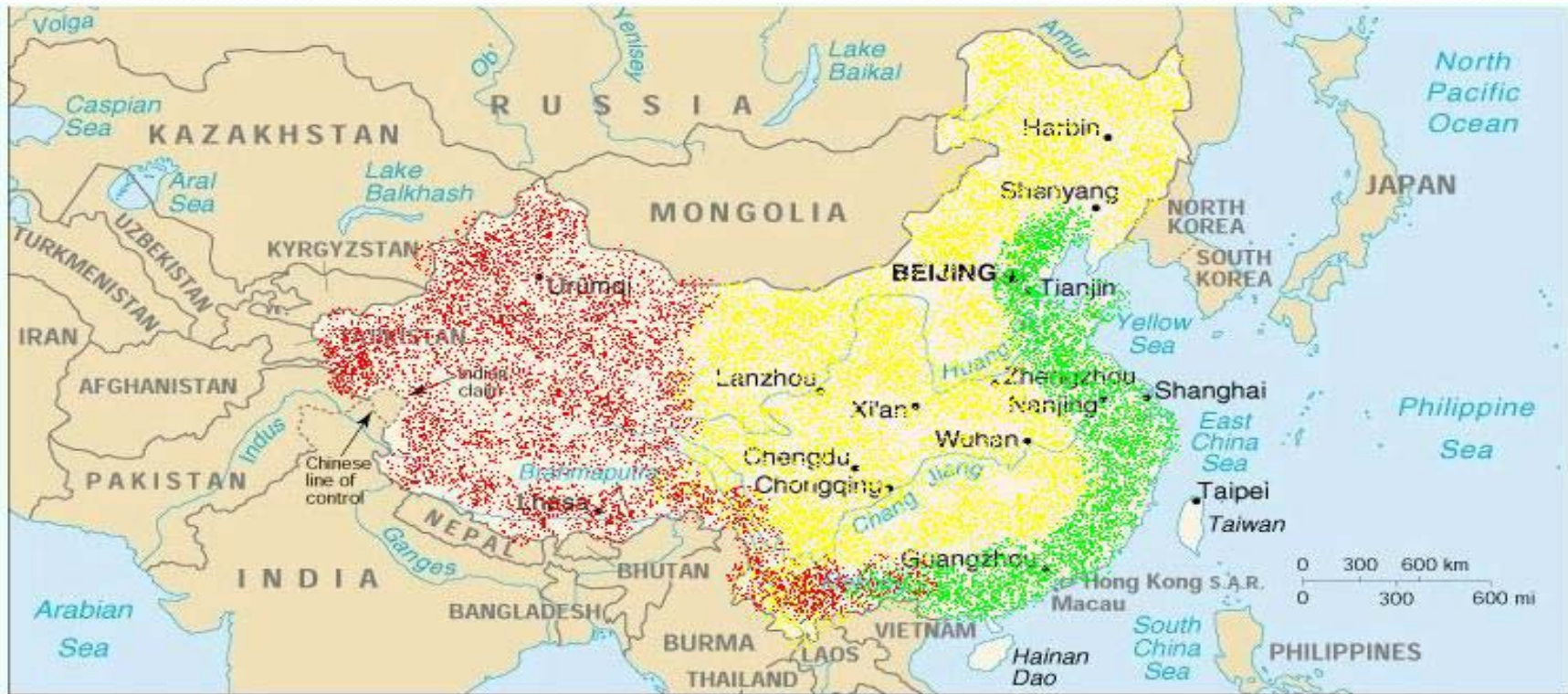
China's Income Distribution

2005



Beijing	北京	Guangzhou	广州	Harbin	哈尔滨	Hainan Dao	海南岛
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China's Income Distribution 2015



Beijing	北京	Guangzhou	广州	Harbin	哈尔滨	Hainan Dao	海南岛
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China's Income Distribution 2020



Beijing	北京	Guangzhou	广州	Harbin	哈尔滨	Hainan Dao	海南岛
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Tianjin	天津	Wuhan	武汉	Xi'an	西安	Zhengzhou	郑州

China's Income Distribution 2040



Beijing	北京	Guangzhou	广州	Harbin	哈尔滨	Hainan Dao	海南岛
Lhasa	拉萨	Lanzhou	兰州	Mount Everest	珠穆朗玛峰	Lanzhou	兰州
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Tianjin	天津	Wuhan	武汉	Xi'an	西安	Zhengzhou	郑州

China's Income Distribution 2050



Beijing	北京	Guangzhou	广州	Harbin	哈尔滨	Hainan Dao	海南岛
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Conclusion

- This paper concludes that China's income distribution depends directly on the good performance of its GDP in the long run by keeping a good management of natural resources and environment, major control of population growth, fast expansion of information and communications systems, more human and physical infrastructure, attraction of industries with highly intensive uses of labor to the far areas in China respectively. If we refer to the mapping of China's income distribution, there exists high concentration of income in the coastal region, and the adverse income distribution of China is most sensitive and vulnerable from an environmental and a technological perspective. As for the rest of China, according to the SEC-Model, there exist very high levels of vulnerability economically, politically and socially.

Mathematica 8.0

- <http://www.wolfram.com/broadcast/videos/quicktour/>



Thank you