Why Doesn't the Kuznets Curve on Income Distribution Hold in Ancient China?

Qichun He*
(Central University of Finance and Economics, Beijing, China)

Heng-fu Zou
(Development Research Group, Work Bank; CUFE, China)

Abstract

We find robust evidence that in ancient China that consists of many consecutive dynasties, within each dynasty, the inequality demonstrates a "U" shape (or a "spoon" shape to be more precise). Therefore, as inequality hits an upper bound, war happens and a new dynasty replaces the old one. The cycle repeats itself. A simple explanation has been offered. Policy implications have also been presented.

JEL Classification: C21; E65; N95; O11; O43

Keywords: Kuznets Curve; Income inequality; U shape; Ancient China

*Associate Professor, China Economics and Management Academy, Central University of Finance and Economics, No. 39 South College Road, Haidian District, Beijing, 100081, China. Email: qichunhe@gmail.com, heqichun@cufe.edu.cn. Tel: (86)10-6228-8619. Fax: (86)10-6228-8376.

1 Introduction

The Kuznets curve is one of the most cited terms in economics. To put it simply, the Kuznets curve indicates that economic inequality is inverted "U" related to income per capita for the modern era. In this paper we demonstrate that the Kuznets curve does not hold in ancient China (loosely speaking, ancient China refers to the history before 1949, the founding year of the People's Republic of China). We find that in the long Chinese history that consists of many consecutive dynasties, inequality actually exhibits a "U" shape (or a "spoon" shape to be more precise) over time within each dynasty. As inequality hits an upper bound, war happens and a new dynasty replaces the old one. The cycle repeats itself more than ten times during two thousand years of Chinese history.

We argue that two important features may help to explain why the "U" shape in inequality would happen repeatedly in ancient China. First, from 221 B.C. (the founding year of the Qin dynasty) till 1949, China remained to be an agrarian economy for over two thousand years. Therefore, the ancient Chinese economy can be deemed as a Malthusian era. In the Malthusian era, standard of living shows no trend upward or downward. The stagnation in standard of living is because people mainly rely on farmland for the production of the survival good, food. According to the Malthusian preventive check (Malthus, 1798), more farmland would bring higher fertility that would choke off growth. Since there are no major technological improvements in agriculture at least within each dynasty, the standing of living is stagnant and fully determined by per capita farmland.

Second, the Qin dynasty signals the beginning of the feudal system in ancient China. Therefore, the ancient China has a dictatorial government. The emperor is the dictator. Without democracy, there was no division of power that imposes checks and balances on the government. Therefore, the redistribution and the effort on combating corruption (either by government officials or by landlords via collecting farmland) would depend on the personal preference and ability of the emperor. The first emperor of each dynasty gained power in war by toppling the previous dynasty. Therefore, the founding emperor is always the ablest and often hates and even uses high income inequality as an excuse to overthrow the previous dynasty. He would redistribute farmland to the poor people. Therefore, income inequality drops, and fertility and thereby population would increase. In China, the first son of the emperor usually claimed the crown after the old emperor passed away. However, the first son may not be the ablest. Sooner or later, corruption emerges and poor people lose their land and cannot make a living, let alone reproduce. As more farmland concentrates at the hands of landlords, income inequality rises, and fertility and thereby population would decrease. When income inequality hits an upper bound, or a new powerful leader emerges, war happens, and often a new dynasty is erected. Even if an ablest son inherited the throne, he can only postpone but cannot avoid the inevitable, as the old Chinese saying illustrates: "History will always repeat itself."

The "U" shaped income inequality explains the historical cycles in China's over two thousand years of agricultural civilization. Nonetheless, the theme of our paper is more general. The historical cycle in ancient China may be partly due to the mentality in the Chinese culture: "People do not hate poverty but hate inequality". This mentality may also exist in other countries, as Rousseau (1762) elaborates in his seminal work "The Social Contract". In the industrialization era, if a country cannot combat corruption and avoid the concentration of wealth (that is, the income inequality is "U" shaped rather than inverted-U shaped), then the legitimacy of the government will be questioned. Sooner or later, people will rise and overthrow the government. When there is no democracy, war may be inevitable. Therefore, the lesson from Chinese history is that, if a government wants to have peace and prosperity, it'd better distribute income more equally.

Last but not least, there must be numerous shortcomings in our analysis, but we hope our study would initiate people's interest in income distribution, as Kuznets (1955, p. 27) forcefully argues the importance of studying income distribution:

> Since this [income] distribution is a focal point at which the functioning of the economic system impinges upon the human beings who are the living members of society and for whom and through whom the society operates, it is an important datum for understanding the reactions and behavior patterns of human beings as producers, consumers, and savers. It follows that better knowledge and comprehension of the subject are indispensable, not only in and of itself but also as a step in learning more about the functioning of society – in both the long and short run. Without better knowledge of the trends in secular income structure and of the factors that determine them, our understanding of the whole process of economic growth is limited; and any insight we may derive from observing changes in countrywide aggregates over time will be defective if these changes are not translated into movements of shares of the various income groups.

2 The Data

2.1 The data sample

When studying ancient China, the scarcity of data is the first and foremost constraint. Fortunately, there are numerous historical books documenting economic, cultural and demographic facts. The demographic facts may be the most consistent data that one can find from the historical books. Via the http::/baidu.com (the Chinese counterpart of google), we find that many history lovers have uploaded the demographic facts listed in the encyclopedia of Chinese ancient historical books (the most famous series would be

the twenty-four historical books (24 shǐ in Chinese), each of which has around 500 pages. The series of historical books alone would occupy a whole bookshelf of 1 meter wide and 2 meters tall). We are indebted to those anonymous history lovers who presented the excel files on demography for the ancient China of over five thousand years, namely, from Xia dynasty in 2146 B.C. till today. The Chinese civilization surely exits before 2146 B.C., but there is no written documentation.

In this paper we focus on the period from 221 B.C. to 1644 (the ending year of the Ming dynasty). The reason is mentioned above. 221 B.C. is the beginning year of the feudal system. Before that China was a slavery society. Therefore, we only consider the period after 221 B.C. We do not consider the Qing dynasty (1616-1911), the last one in the feudal system. This is because the Qing dynasty cannot be treated as a closed economy anymore. Many researchers have studied the trade between the Qing dynasty and the western civilization. Therefore, agricultural and industrial technologies may flow to China via international trade. Industrial production began to expand. Therefore, the Malthusian preventive check may not be applied to this period. Therefore, in this paper we cover the period 221 B.C. to 1644.

From 221 B.C. to 1644, there are over 17 major dynasties. Table 1 presents the names and the duration of the major dynasties in China. If we count all the dynasties, there are around 50 during this period, with the shortest lasting only three years (East Jin and Late Han, dong jin and hou han in Chinese). The Tang dynasty is one of the most powerful dynasties. It lasted 289 years (618-907). The Yuan dynasty that conquered part of Europe only lasted 162 years (1206-1368).

[Table 1 Here]

We have located the data on the major dynasties that we focus on. We ignore the short dynasties. The reason is twofold. First, it is because of the unavailability of data. Second, to study income distribution over a long horizon, we need the time span to be at least one hundred years long. Otherwise, the analysis would not be meaningful. Income distribution would not change very quickly in any society.

As illustrated in Table 1, even for the major dynasties, we only have available data for four of them, namely, East Han (25-220), Tang (618-907), Song (960-1279), and Ming (1368-1644). For each of the four dynasties, we only have data on some years, as detailed in Table 2. We will use the data presented in Table 2 for our analysis.

2.2 The proxies for income inequality and their patterns

We do not have the data to calculate the income inequality in ancient China. Since in the agricultural society, the standard of living shows no trend upward to downward within each dynasty. Therefore, we are primarily interested in plotting the income inequality against

time. As illustrated in Table 2, we have available data on the number of households, total population and the number of persons per household. Based on the demographic data, we build the proxy variable for income inequality as follows.

In the Malthusian era, farmland is the most important source of income. Therefore, we can use the distribution of farmland to proxy for income distribution. However, the data on the distribution of farmland is unavailable. Nonetheless, as mentioned in the introduction, in the Malthusian era, people's fertility choice and thus total population are determined by agricultural resources that are essential for the production of survival good, food, as Malthus (1798, ch.1, p.13) argues:

> The power of population is indefinitely greater than the power in the earth to produce subsistence for man. Population, when unchecked, increases in a geometrical ratio. Subsistence increases only in an arithmetical ratio. A slight acquaintance with numbers will show the immensity of the first power in comparison with the second.

In an agricultural society that is governed by the Malthusian trap, population should be determined by the quantity of farmland. As China has a long history, the amount of farmland remains relatively constant at least within each dynasty. Therefore, the population should be constant within a dynasty. However, when farmland (the primary source of income in the Malthusian era) is unequally distributed, population would shrink. This is because when more agricultural land is captured by the landlord (be it governmental official or pure landlord), the poor people would have less farmland. Therefore, the amount of children the poor people can raise would inevitably decrease. Total population would shrink. This is because the landlords are already rich enough to have as many children as they want. More wealth would not change their fertility behavior much.

Given this fact, we can use total population to infer the distribution of farmland in ancient China. As argued, the more unequal distribution of farmland, the lower per capita farmland of the poor people (the majority of the population), ending up lowering fertility rate of the economy. Therefore, we use the reciprocal of the population to proxy for the income inequality in ancient China. More equal distribution of farmland would yield more people. Therefore, a higher number of the reciprocal of population is positively associated with a larger number of income inequality.

We have plotted the data (the reciprocal of population) against time for each dynasty. The results are presented in Figures 1 to 4. The solid lines are cubic smoothing of the data. One can observe that generally the proxy for income distribution demonstrates a "U" shape (or a "spoon" shape to be more precise) over time within each dynasty.

[Figures 1 to 4 Here]

2.3 Robustness check

We have checked our results with another proxy for income distribution. Following the above argument, a more equal distribution of farmland in ancient China should be good for the poor people. The number of persons per household would increase. Therefore, the reciprocal of the series should also be positively related with income inequality.

The results with the second proxy for income inequality demonstrate patterns similar to those obtained above. That is, income inequality decreases at the beginning of a dynasty. As time goes by, income inequality increases and stays at a high value. We do not report the results here, but the readers can verify the results themselves.

3 Conclusions

We find that in ancient China that consists of many dynasties, within each dynasty, the inequality demonstrates a "U" shape. As inequality hits an upper bound, war happens and a new dynasty emerges. The cycle repeats itself. A simple explanation has been offered in the introduction. The lesson from Chinese history is that, if a government wants to have peace and prosperity, it'd better distribute income more equally.

However, as history always repeated itself in ancient China, it asks us a more profound question: can the dictatorial government be able to distribute income more equally? The Chinese history shows that the answer is no. Inequality is a "U" shape within each dynasty. Therefore, soon or later people would overthrow the old dynasty. To avoid the repeat of history, we may have to resort to Rousseau and Montesquieu (1748) who have demonstrated that the checks and balances on governments via the separation of power are essential for the welfare of the people. Dictators cannot ensure forever peace and prosperity, but democracy can, although democracy may not be sufficient. Things are easier said than done. It may need the collective wisdom of both the dictators and the general populous to find a way to democracy and prosperity.

References

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Table 1: Chinese Dynasties in the Feudal System

Name of Major Dynasties	Sub-dynasty	Duration	data available
Qin		221-207 B.C.	
Han	West Han	206 B.C.-8	
	East Han	25-220	YES
San guo		220-280	
Jin		265-420	
Nan Bei Chao	Nan chao	420-589	
	Bei chao	386-581	
Sui		581-618	
Tang		618-907	YES
Wu dai shi guo		907-960	
Song		960-1279	YES
Yuan		1206-1368	
Ming		1368-1644	YES
Qing		1616-1911	YES

Notes: we only list the major dynasties.

Table 2: Demography Data for Each Dynasty

Dynasty	Year	Number of Households (in 10 thousand)	Total Population (in 10 thousand)	Number of Persons per Household
East Han (25-220)	57	427.9634	2,100.78	4.91
	75	586.0573	3,412.50	5.82
	88	745.6784	4,335.64	5.81
	105	923.7112	5,325.60	5.77
	125	964.7838	4,869.08	5.05
	140		4,915.00	
	144	994.6915	4,973.06	5
	145	993.768	4,952.42	4.98
	146	934.8227	4,756.68	5.09
	156	1,067.80	5,647.69	5.29
Tang (618-907)	705	615.6141	3,714.00	6.03
	726	706.9565	4,141.97	5.86
	732	786.1236	4,543.13	5.78
	740	841.2871	4,814.36	5.72
	742	852.5763	4,890.98	5.74
	754	906.9154	5,288.05	5.83
	755	891.4709	5,291.93	5.94
	760	293.3174	1,699.38	5.79
	764	293.3125	1,690.00	5.76
	820	237.54	1,576.00	6.63
Song (960-1279)	1006	741.757	1,628.03	2.19
	1034	1,029.00		
	1053	1,079.27	2,229.29	2.07
	1066	1,291.72	2,909.22	2.25
	1083	1,722.17	2,496.93	1.45
	1122	2,088.23	4,673.48	2.24
	1162	1,113.99	3,311.23	2.97
	1187	678.9449	4,470.51	6.58
	1207	768.4438	4,581.61	5.96
	1223		7,681.00	
	1264	569.6989	1,302.65	2.29

(to be continued)

Table 2 (continued)

Dynasty	Year	Number of Households (in 10 thousand)	Total Population (in 10 thousand)	Number of Persons per Household
Ming (1368-1644)	1381	1,065.44	5,987.33	5.62
	1393		6,054.00	
	1403	1,141.58	6,659.83	5.83
	1502	1,040.98	5,090.87	4.89
	1504	1,050.89	6,010.58	5.72
	1578	1,063.15	6,069.29	5.71
	1620	983.5426	5,165.55	5.25

Note: data source: http://www.baidu.com. Author (an anonymous history lover).

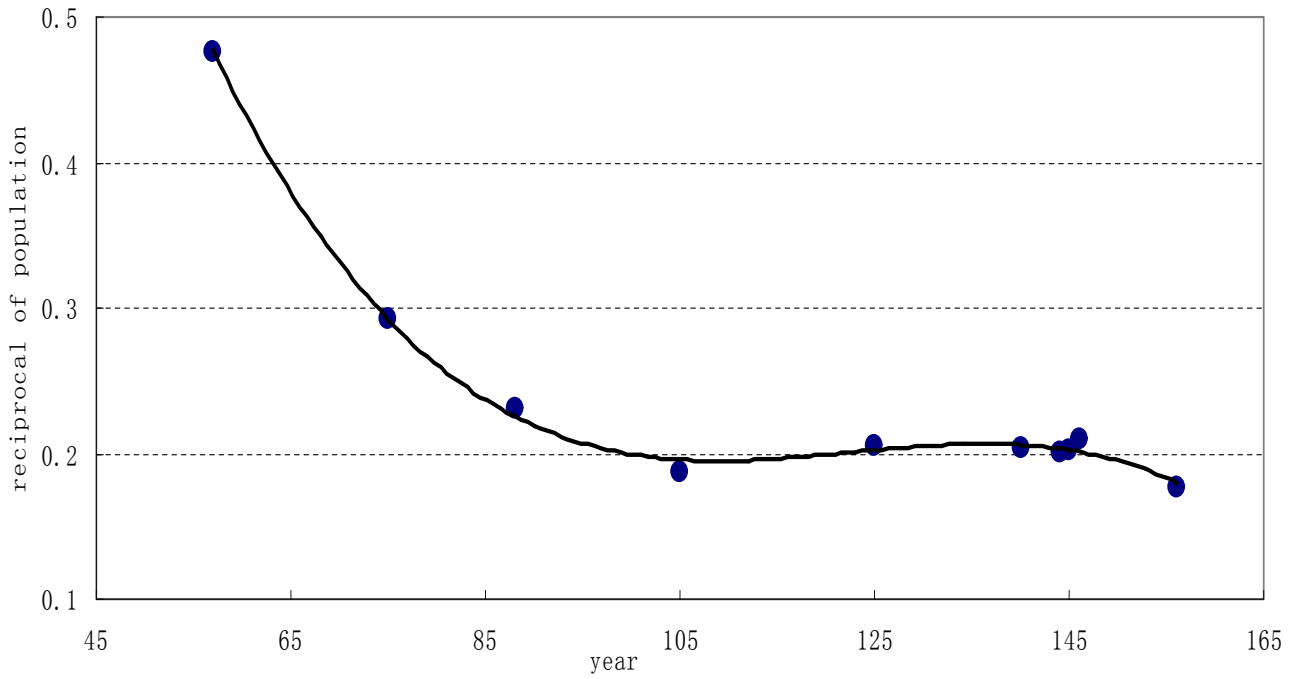

Figure 1: The Time Pattern of the Proxy for Inequality in East Han Dynasty

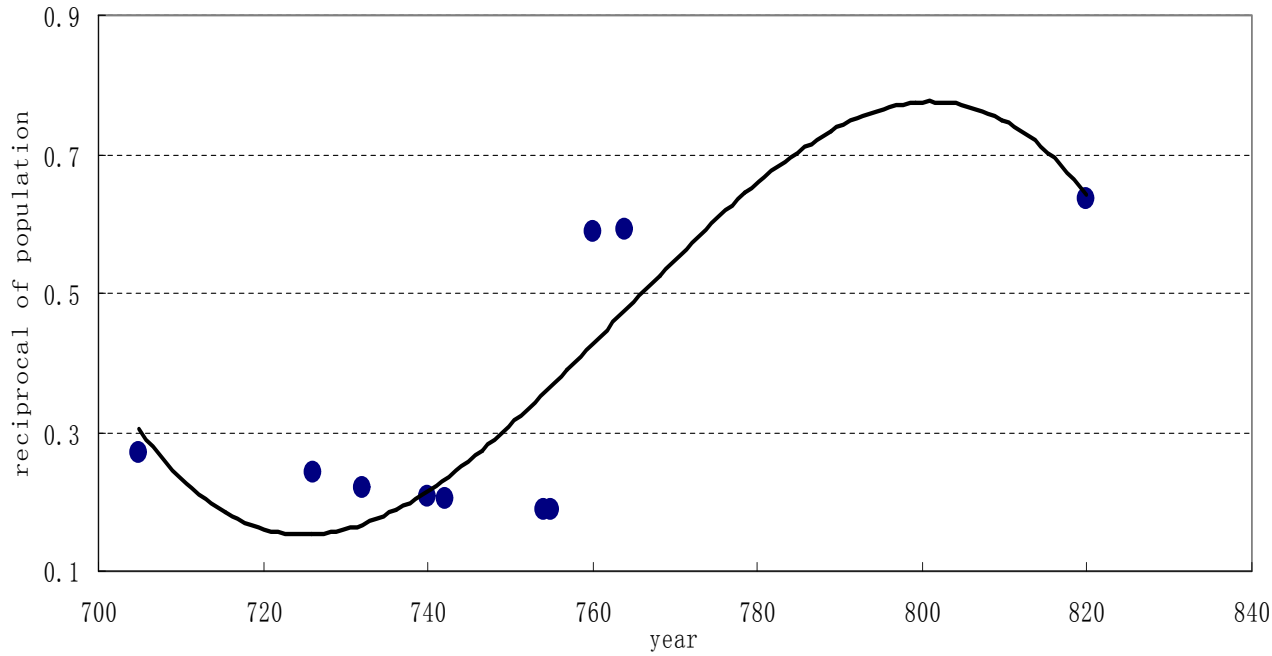

Figure 2: The Time Pattern of the Proxy for Inequality in Tang Dynasty

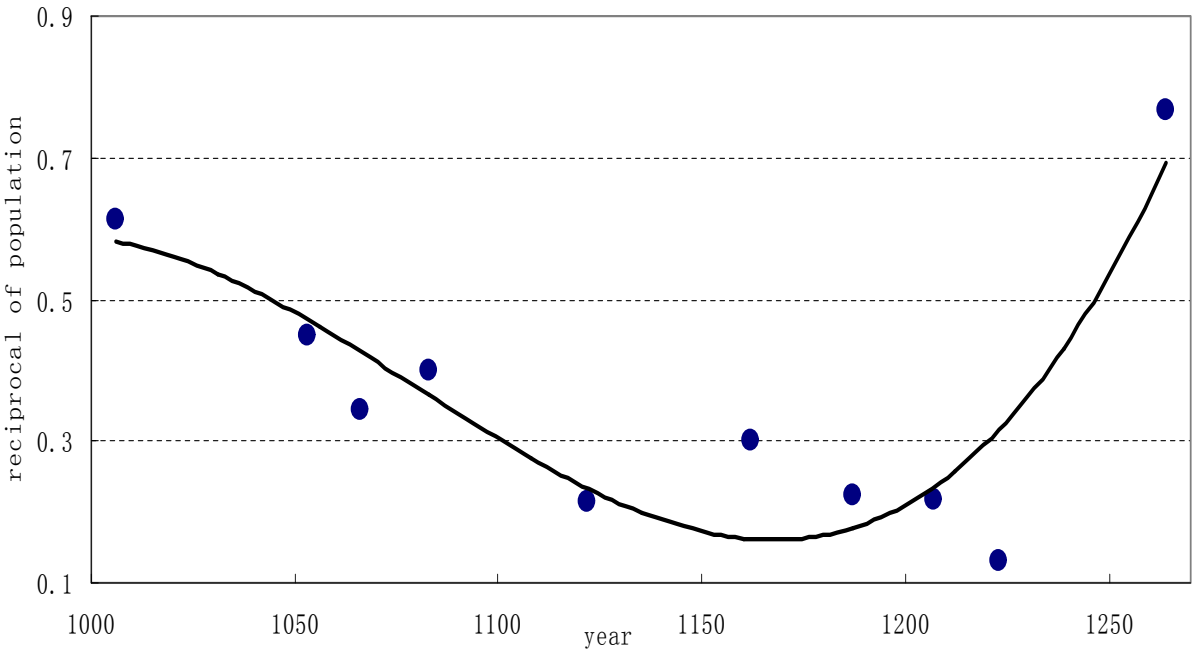

Figure 3: The Time Pattern of the Proxy for Inequality in Song Dynasty

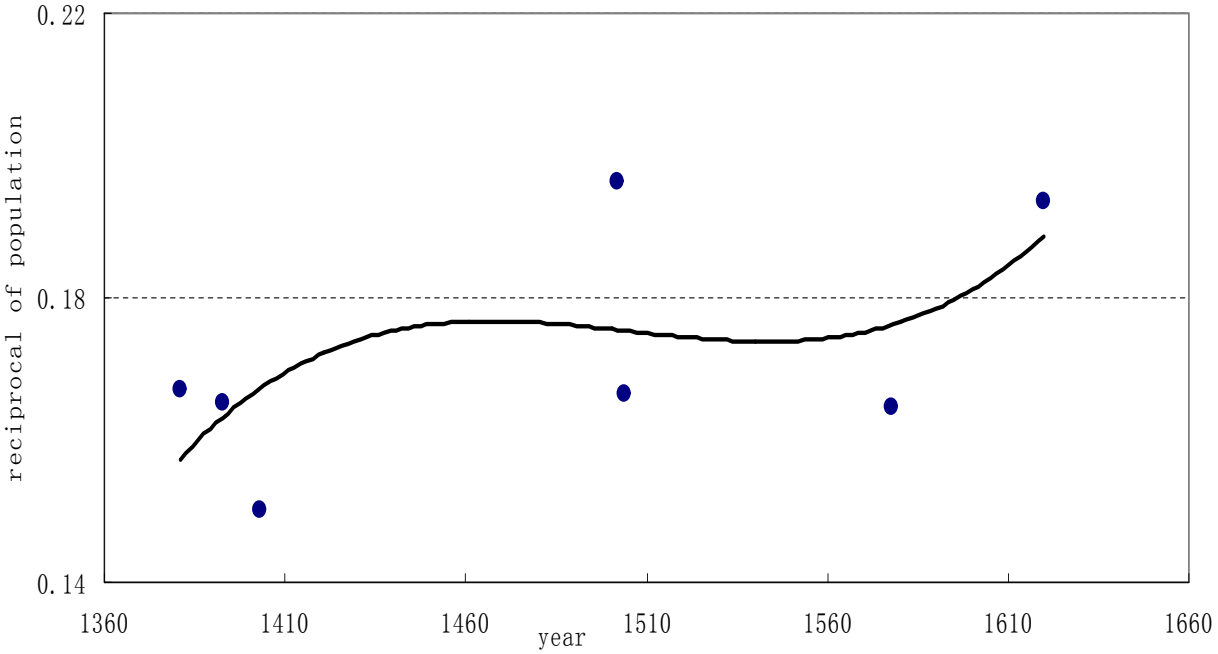

Figure 4: The Time Pattern of the Proxy for Inequality in Ming Dynasty

为什么库茨涅茨收入不平等曲线在古代中国不成立？

何其春

（中央财经大学 中国经济与管理研究院）

邹恒甫

（世界银行；中央财经大学中国经济与管理研究院）

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内容简介：我们发现稳健的实证证据：在由多个连续朝代组成的古代中国史上，每个朝代内部，收入差距都表现出一个“ U ”型（或者更准确地说，“ 勺子 ”型）。因此，当收入差距持续增加，战争因而发生，一个新的朝代取代旧的朝代。该周期律在历史上不断的重演。我们给出了一个简单的解释。最后我们还给出了政策含义。

关键词：库茨涅茨曲线；收入不平等；“ U ”型；古代中国

一、前言

库茨涅茨曲线是经济学里被最为广泛引用的概念之一。简言之，库茨涅茨曲线表明，在现代，经济不平等与人均收入呈一个倒“ U ”型关系。在本文里，我们表明，库茨涅茨曲线在古代中国不成立（宽泛的说，古代中国指 1949 中华人民共和国成立前的历史）。我们发现，在源远流长的、由多个连续朝代组成的中国历史中，收入差距在每个朝代内部都表现出一个“ U ”型（或者更准确地说，“ 勺子 ”型）。因此，当收入差距持续增加，战争因而发生，一个新的朝代取代旧的朝代。在我们关注的中国两千年历史上，该周期重复了至少十次。

我们认为两个重要的事实能帮助解释为什么“ U ”型的不平等在古代中国重复发生。首先，从公元前 221 年（秦朝的建立）到 1949 年，中国经济一直是一个农业经济。因此，古代中国的经济可以被看作是处于马尔萨斯时代。在马尔萨斯时代，人们的生活水平基本保持不变。人们的生活水平长期的停滞的原因是，人们主要依靠耕地来生产存活产品 – 粮食。根据马尔萨斯预防性机制（Malthus, 1798），更多的耕地将带来更高的出生率，从而阻碍经

济增长（人们的生活水平只会短暂提高，然后落回原来水平）。至少在每个朝代里，农业上没有重大的技术进步发生，因此，人们的生活水平停滞，且完全由人均耕地决定。

其次，秦朝的建立表明了封建制度在古代中国的确立。因此，古代中国有一个独裁的政府。皇帝就是独裁者。没有民主，因而没有分权带来的对于政府的限制。因此，收入的重新分配、以及对抗腐败（来自政府官员或者地主的兼并土地）的努力就取决于皇帝的个人偏好和能力。每个朝代的开国皇帝是在战争中通过推翻上一个朝代而获得权力。因此，开国皇帝总是能力最强的一个，且他通常痛恨收入不平等，并用收入不平等作为推翻上一个朝代的理由。因此，他会将耕地重新分配给穷人。因此，收入不平等降低，出生率、进而总人口随之增加。在古代中国，通常是皇帝的大儿子在老皇帝去世后继承皇位。但是，皇帝的大儿子不一定是最有能力的。早晚有一天，腐败发生，从而穷人失去土地，不能存活下去，更不要说传宗接代了。当更多的耕地集中于地主之手，收入不平等增加，出生率、进而总人口随之减少。当收入不平等增加到一定程度，或者一个有力的领袖出现，战争爆发，通常一个新的朝代建立起来。即使皇帝最有能力的儿子继承王位，他所能做的也只是延迟、而不能避免王朝最终的覆灭，正如中国古话阐述的：“ 历史总是重复自己。”

该“ U ”型的收入不平等解释了中国两千多年农业文明中的历史周期律。但是我们论文的主题更加一般化。古代中国的历史周期律或许部分的由中国文化中的“ 不患寡而患不均 ”的特质解释。但是该特质在其他民族和国家或许同样存在，如同卢梭（1762）在他的旷世之作《社会契约论》里阐述的。在工业化时代，如果一个国家不能很好的治理腐败，避免财富的集中（也就是说，收入不平等呈现“ U ”型，而不是倒“ U ”型），那么政府的合法性就会被怀疑。迟早，人们会起来推翻政府。如果没有民主，通常战争不可避免。因此，从中国历史中学到的经验教训就是，如果一个政府希望获得和平和繁荣，它最好更平均的分配收入。

最后，我们的分析里肯定有很多缺点，但是我们希望我们的研究能点燃人们对于收入分配的兴趣，如同库茨涅茨（1955, p. 27）铿锵有力的说明研究收入分配的重要性：“

因为这个[收入]分配是这样的一个焦点，经济体系的运作强加于社会里每个活生生的人，为人而运作，通过人而运作，因此，它是理解人类作为生产者、消费者和储蓄者的反应和行为特征的重要数据点。自然而然的，对于该主题的更好的知识和理解是必不可少的，不仅在它本身，而且作为更多的了解社会在短期和长期运作的重要一步。如果没有对于收入结构趋势和决定该趋势的各种因素的更好了解，我们对于整个经济增长过程的理解都会受到限制；且如果国家宏观变量的时间变化没有转化成各种收入组成部分的收入份额的变动，那么我们从观察这些国家宏观变量的时间变化中得到的洞见就会是有缺陷的。”

二、数据

（一）数据样本

研究古代中国的第一个也是最重要的约束是数据的限制。幸运的是，很多历史书籍记载了古代的经济、文化和人口事实。人口事实也许是我们能从历史书籍中找到的最一致的数据。我们从百度文库里找到了很多历史爱好者上传的、摘自中国古代历史书籍的人口统计数据。对国人而言，最出名的就是可以堆满一个一米宽的书架的《二十四史》。我们感谢这些匿名的历史爱好者提供的、覆盖中国历史上下五千年（从公元前 2146 年的夏朝到今天）的人口统计数据的 excel 文件。中华文明在公元前 2146 年就已经存在了，但是没有文字记载。

在本文里，我们只考虑公元前 221 年到公元 1644 年（明朝结束的年份）这一时间段。原因上面已经有所提及。公元前 221 年是我国封建制度的建立年份。在这之前，我国属于奴隶社会。因此，我们只考虑公元前 221 年后的历史。我们没有考虑我国封建社会的最后一个朝代，清朝（1616-1911）。这是因为清朝不能被简单看作一个封闭经济了。很多研究者研究了清朝和西方的贸易。因此，农业和工业技术有可能通过国际贸易流入清朝的中国。工业生产开始扩张。因此，马尔萨斯预防性机制或许不能很好的应用在清朝。后面附表的总人口数据也部分证实这点。在清朝之前的一千多年里，总人口在各个朝代的最大值一般稳定在五千万左右。但是，总人口在清朝初期突破一亿，后期突破 4 亿（这是毛主席说的四万万人口的来源）。因此，我们只考虑公元前 221 年到公元 1644 年这一时间段。

从公元前 221 年到公元 1644 年，我国共出现 17 个主要的朝代。表 1 给出了一些主要朝代的名称和持续时间。如果我们计数所有的朝代，我国在此时间段出现大约 50 个朝代。最短的朝代仅存在 3 年（东晋和后汉）。唐朝是最强大的朝代之一。它持续了 289 年。征服部分欧洲的元朝只持续了 162 年（1206-1368）。

[表 1 在这里]

我们收集到我们关注的主要朝代的数据。我们忽略短的朝代。原因有两个方面。首先，数据不可得。短的朝代本来持续时间就短，很难有人口统计数据、更别说多年的人口统计数据了。其次，研究长时间尺度的收入分配，我们需要时间跨度至少一百年。否则我们的分析就没有多大意义。这是因为，任何一个社会的收入分配在短时间内都难以快速变化。

在表 1 里列出的主要朝代里，我们只有其中四个朝代的数据，它们是东汉（25-220）、唐朝（618-907）、宋朝（960-1279）和明朝（1368-1644）。即便对于这四个朝代，我们也只是有某些年份的数据，具体参见表 2。我们根据表 2 里列出的数据进行分析。

[表 2 在这里]

（二） 收入不平等的代理变量和它们的特征

我们没有计算古代中国收入不平等的数据。但是在农业社会，在每个朝代内部，人们生活水平没有向上或者向下的趋势。因此，我们主要关注收入不平等随时间变化的特点。根据表 2，我们有每个朝代某些年份的人均户数、总人口和每户平均人口的数据。根据这些人口统计数据，我们建立如下的收入不平等的代理变量。

在马尔萨斯时代，耕地是最重要的收入来源。因此，我们可以使用耕地的分配作为收入分配的代理变量。尽管如此，耕地分配的数据也不可得。不过，如同前言里提及的，在马尔萨斯时代，人们的生育选择、进而总人口是由生产存活产品 – 粮食 – 所必不可少的农业资源决定，如同马尔萨斯（1798, ch.1, p.13）阐述：“

人口的力量比地球为人类提供存活物质的力量要无穷的大。人口，在没有限制的时候，以几何级数增加。存活物质只以算术级数增加。对于数字稍微熟悉的人都能明白第一个力量比第二个力量的绝对占优。”

由马尔萨斯陷阱支配的农业社会，总人口应该由耕地的数量决定。因为中国有悠久的历史，耕地的数量至少在每个朝代里基本上保持不变。因此，每个朝代的人口应该保持不变。前面已经提及，在清朝之前的一千多年里，总人口在各个朝代的最大值一般稳定在五千万左右。这证实古代中国的确处于马尔萨斯陷阱。但是，当耕地（马尔萨斯时代的主要收入来源）分配不平均，总人口就会萎缩。这是因为，当更多的农地被地主（不管是政府官员，还是纯粹的地主）攫取，穷人就只有更少的耕地。因此，穷人能够养活的孩子的数目不可避免的减少。总人口自然就萎缩。这是因为地主阶层本来就富裕的足够生养他们想要的数目的孩子。更多的财富对于地主阶层的生育行为没有多大改变作用。

根据这个事实，我们可以用总人口数来推测古代中国的耕地的分配。如同我们分析的，耕地分配越不平均，穷人（人口的绝大多数）占有的人均耕地就越低。结果是，经济的总生育率、进而总人口降低。因此，我们用总人口的倒数来作为古代中国收入不平等的代理变量。更平均的耕地分配会带来更多的人口。因此，总人口的倒数越大，表明收入不平等程度越大。

我们绘制了每个朝代的数据（总人口的倒数）的时间趋势图。结果见图 1 至 4。图中实线是用三阶多项式平滑后的数据的趋势线。我们可见，一般来说，收入分配代理变量在每个朝代内，随时间呈现一个“ U ”型（或者更准确地说，“ 勺子 ”型）。

[图 1 到 4 在这里]

（三） 稳健性检验

我们使用了另外一个收入分配的代理变量，来检验我们结果的稳健性。根据前述分析，在古代中国，更平均的耕地分配会对穷人有利。因此，每户的平均人口也应增加。因此，每户的平均人口的倒数应该也和收入不平等程度成正比例关系。

使用这个收入分配的代理变量的结果表明，其在每个朝代内的时间特征和上面得出的类似。也就是说，收入不平等在每个朝代的开始总是下降的。随着时间的推移，收入不平等程度开始增加，且停留在一个高的水平。我们没有汇报该结果，但是读者可以自己验证该结果。

三、结论

我们发现，在由多个连续朝代组成的古代中国，每个朝代内部，收入差距都呈现出一个“ U ”型。因此，当收入差距增大到一定程度，战争发生，通常一个新的朝代诞生，从而一个新的周期开始。该周期在历史上不断的重演。我们在前言给出了一个简单的解释。从中国历史中学到的一个经验教训就是，如果一个政府希望获得和平和繁荣，它最好更平均的分配收入。

但是，因为在古代中国，历史总是重复自己，因此，它追问我们一个更加深远的问题：一个独裁政府能够实现更平均的分配财富吗？中国的历史告诉我们，答案是不能。不平等在每个朝代内部总是“ U ”型的。因此，早晚人们会推翻旧的朝代。为了避免历史的重演，我们或许需要从卢梭和孟德斯鸠（1748）那里汲取智慧：为了人民的福利，通过分权对政府进行限制。独裁者不能够保证永久的和平和繁荣，但是民主能够，尽管民主不是一个充分条件。事情总是说起来容易，做起来难。现实中，人们要做到“ 以史为鉴 ”，或许需要依赖领导者和大众的集体共同智慧来找到一条通往民主和繁荣之路。

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表 1：中国封建社会的主要朝代

朝代名称	细分的朝代	持续时间	数据可获得
秦朝		公元前 221-207	
汉朝	西汉	公元前 206-公元 8	
	东汉	25-220	是
三国		220-280	
晋		265-420	
南北朝	南朝	420-589	
	北朝	386-581	
隋朝		581-618	
唐朝		618-907	是
五代十国		907-960	
宋朝		960-1279	是
元朝		1206-1368	
明朝		1368-1644	是
清朝		1616-1911	是

注：我们只列出主要的朝代。

表 2：每个朝代的人口统计数据

朝代	年份	户数（万）	总人口（万）	户均人口
东汉 （25-220）	57	427.9634	2,100.78	4.91
	75	586.0573	3,412.50	5.82
	88	745.6784	4,335.64	5.81
	105	923.7112	5,325.60	5.77
	125	964.7838	4,869.08	5.05
	140		4,915.00	
	144	994.6915	4,973.06	5
	145	993.768	4,952.42	4.98
	146	934.8227	4,756.68	5.09
	156	1,067.80	5,647.69	5.29
唐朝（618-907）	705	615.6141	3,714.00	6.03
	726	706.9565	4,141.97	5.86
	732	786.1236	4,543.13	5.78
	740	841.2871	4,814.36	5.72
	742	852.5763	4,890.98	5.74
	754	906.9154	5,288.05	5.83
	755	891.4709	5,291.93	5.94
	760	293.3174	1,699.38	5.79
	764	293.3125	1,690.00	5.76
	820	237.54	1,576.00	6.63
宋朝（960-1279）	1006	741.757	1,628.03	2.19
	1034	1,029.00		
	1053	1,079.27	2,229.29	2.07
	1066	1,291.72	2,909.22	2.25
	1083	1,722.17	2,496.93	1.45
	1122	2,088.23	4,673.48	2.24
	1162	1,113.99	3,311.23	2.97
	1187	678.9449	4,470.51	6.58
	1207	768.4438	4,581.61	5.96
	1223		7,681.00	
	1264	569.6989	1,302.65	2.29

（待续）

表 2（续）

朝代	年份	户数（万）	总人口（万）	户均人口
明朝（1368-1644）	1381	1,065.44	5,987.33	5.62
	1393		6,054.00	
	1403	1,141.58	6,659.83	5.83
	1502	1,040.98	5,090.87	4.89
	1504	1,050.89	6,010.58	5.72
	1578	1,063.15	6,069.29	5.71
	1620	983.5426	5,165.55	5.25

注：我们的数据来自 http://www.baidu.com。作者（一个匿名的历史爱好者）摘自历史书籍。

图 1：东汉的收入不平等的代理变量的时间趋势图

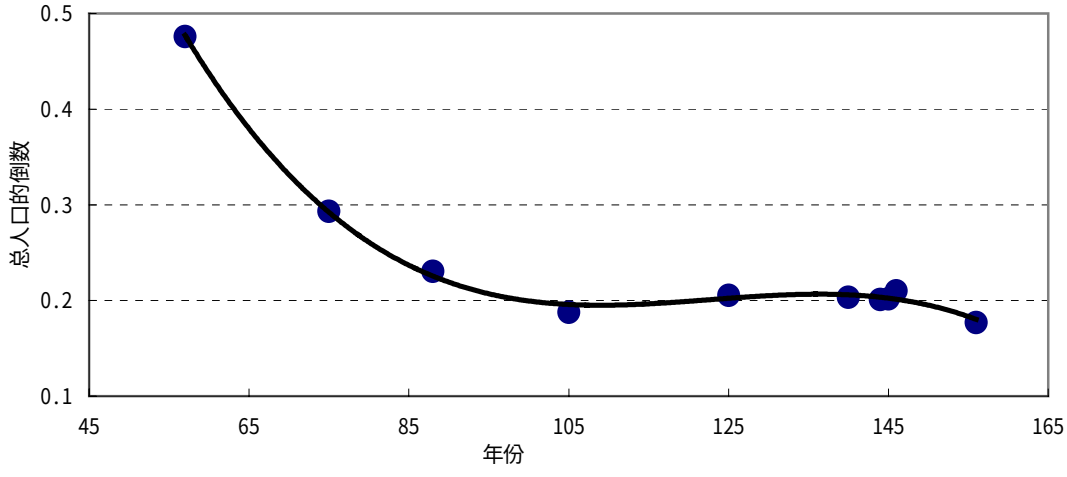

图 2：唐朝的收入不平等的代理变量的时间趋势图

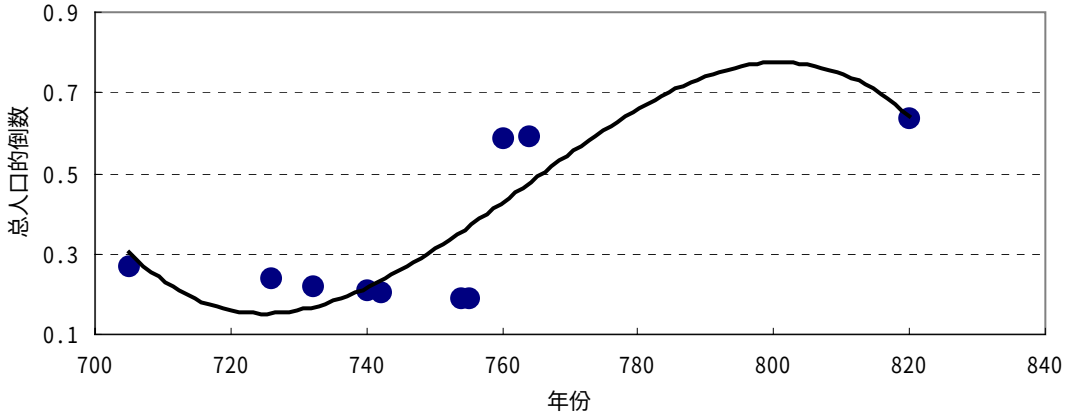

图 3：宋朝的收入不平等的代理变量的时间趋势图

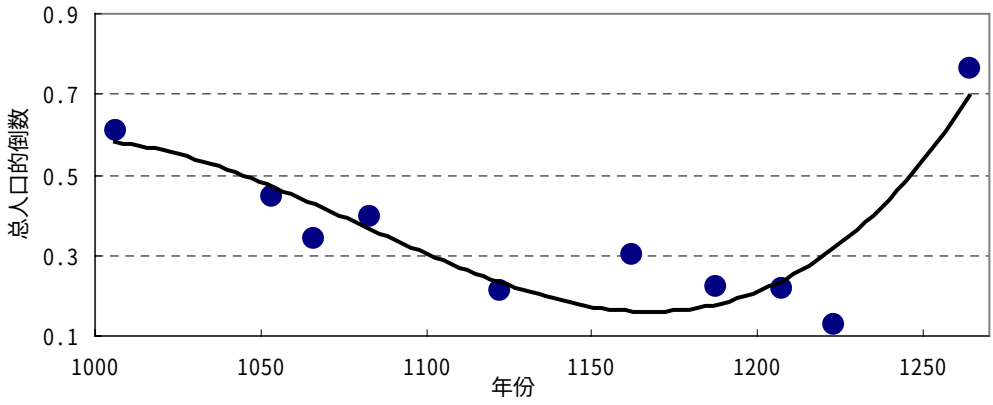
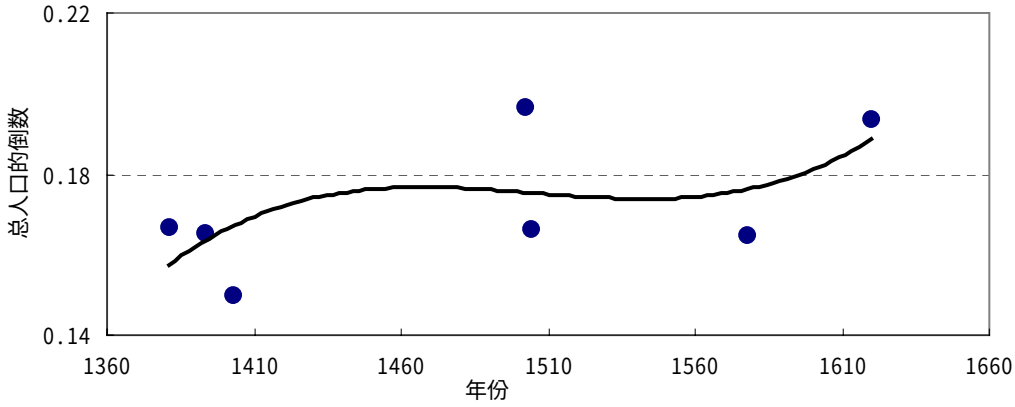
图 4：明朝的收入不平等的代理变量的时间趋势图