Government Revenue in Chinese Civil War: A Quantitative Estimation

Wang Chuyao

Department of World History, Shandong University, Jinan, Shandong, 518000, China

18217712639@163.com

Keywords: Kuomintang; Chinese Communist Party; Government Revenue; Chinese Civil War

Abstract: The paper attempts to compare government revenues of Kuomintang (KMT) and Chinese Communist Party (CCP), through exploratory estimations of their respective ones on wheat in 1946. The balanced scenario suggests that CCP was of far more superior taxation efficiency (4.28 times) than KMT, and its revenue may even had surpassed the latter (1.25 times) as of the year. Thus, the outcome of civil war largely proclaimed by the great divergence of taxation efficiency and financial mobilization, marking the eventual phase in state construct since late imperial China.

1. Introduction

After The Great Divergence and Qing Empire overthrown, different factions in China were forced to engage in prolonged competition, domestically and internationally. Eventually, Chinese Civil War (1946-1949) highlighted the vital significance of financial mobilization upon war efforts. When it comes to explaining the victory of seemingly weaker CCP, previous scholars made more arguments on factors such as personal leaderships, military tactics or foreign influences, but less to the two parties' respective financial-economic foundations. Among latter ones, however, were normally qualitative narratives about how KMT conducted insufferable taxation against populace, with fragmented data available. Therefore, this essay attempts to perform a refreshing quantitative comparison on revenues of two regimes, after converting them into wheat, as taxation in kind was both widespread in wartime finance and comparable in scholarly analysis.

2. KMT Revenue

Based on 1946-47 records by Kia-Ngau Chang (then director of Central Bank), KMT grain taxation was 25,501,156 bushel rice and 2,907,967 bushel wheat, while grain taxation, borrowing, and purchase combined were 37,398,304 bushel rice and 4,441,776 bushel wheat.[1] Figures above were reliable as from primary sources.

Table I: KMT Government Revenue (Nationwide, in Kilogram Wheat, 1946)

Grain Taxation	Grain Taxation, Borrowing or Purchase	Total Taxation	Total Revenue	Total Expense
A-1. Rice to Wheat Price Ratio = 1.5: 1 (High Estimation)				
1,120,202,422	1,647,635,738	3,211,636,175	7,588,331,117	19,979,180,714
A-2. Rice to Wheat Price Ratio = 1.3: 1 (Medium Estimation)				
981,394,530	1,444,069,290	2,814,836,473	6,650,770,429	17,510,740,170
A-3. Rice to Wheat Price Ratio = 1.13: 1 (Low Estimation)				
863,407,822	1,271,037,822	2,458,549,651	5,882,109,721	15,479,236,108

In Fengxian county, price ratios of rice to wheat were 1.13 (1946) and 1.12 (1947). [10] Fengxian was one of China's most commercialized areas, and the price ratio appeared stable, thus data above are normally considered reliable and widely cited. Also, records by Chang indicated that total taxation was 1,217,641 million, income totaled 2,876,988 million, and total expense stood at 7,574,790 million in "Legal Currency".[1] Also, Fengxian was abundant in rice, while the density for

  DOI: 10.25236/cstss.2019.050

rice is 0.8 kg/dm^3 and for wheat is 0.75 kg/dm^3, elevating rice to wheat price ratio per bushel, so this thesis would also assume moderately higher price ratio than previous data in Fengxian. Accordingly, estimations of KMT government revenue (converted to wheat) are presented in Table I, based on certain rice to wheat price ratios nationwide.

3. CCP Revenue

Across different CCP occupied zones, diverse currencies were unstable and incomparable. Meanwhile, practices where taxation shifted from monetary forms to in kind ones were widely adopted in communist "liberated zones".[7] In other words, CCP conducted "Grain Standard" to support civil war in a peasant economy. Here, two methods will be introduced to estimate income of the CCP government.

Firstly, an important report from Jin-Ji-Lu-Yu (a major liberated zone) in October 1946 suggested that direct tax annually per capita was 4 to 4.2 dou (equaled 29.93 to 31.43 kilograms) in wheat.[12] Further, it was emphasized that such standard was determined by Central CCP, and was used to frame budget, while direct tax accounted for around 85% of total taxation.[12] Assuming direct tax was 4.1 dou, this meant that taxation per capita was around 72.19 kilograms per capita each year. In addition, the population controlled by CCP was 136 million (39% of Chinese population) in mid-1946,[11] among whom "taxation-bearing population" may be around 128 million. Jin-Ji-Lu-Yu was a region of peasant economy, and it was not blessed with some industries or larger farms as in Northeast, nor more yield as in the south (other zones may allow higher indirect tax), yet its taxation appeared as a nationwide limitation. Conservatively, this paper assumes different taxation ration of Jin-Ji-Lu-Yu to nationwide per capita as in Table II.

Table II: CCP Government Revenue (Nationwide, in Kilogram Wheat, 1946)

B-1. Tax per capita = Jin-Ji-Lu-Yu (High Estimation), Total Revenue 9,240,320,000
B-2. Tax per capita = 0.9 times Jin-Ji-Lu-Yu (Medium Estimation), Total Revenue 8,316,288,000
B-3. Tax per capita = 0.8 times Jin-Ji-Lu-Yu (Low Estimation), Total Revenue 7,392,256,000

Secondly, fragmented records reflected approximate levy rates in diverse places under CCP rule. In 1946, tax rates from seven major "liberated zones" indicated an average of 14.6%, as well as a median of 12.75%, further reinforcing the mean levy rate of 14.09% based on the first method (details are shown later).[9] Separate populations of the seven regions in 1946 remained too vague to allow weighted average, yet available data for population were over 30 million in Jin-Cha-Ji, 28 million in Jin-Ji-Lu-Yu and 31.12 million in Shandong, where respective tax rates were 10-15%, 12.3% as well as 16% respectively.[9] With these three regions altogether accounting for two-thirds of population under CCP governance, it appeared that weighted average of taxation rate could represent unweighted mean (14.6%) with minor disparity in estimation.

During civil war, the ratio of taxation to output were even higher. In April 1947, CCP Finance Conference in Northern China pointed out that people bearable taxation normally meant 15%-20% of civil output, based on abundant evidences across regions. Actually, ratios that year were 20% in Shandong, 21.7% in Jin-Ji-Lu-Yu, 23.98% in Northeast, and 27.33% in Shan-Gan-Ning.[9, 12] During 1947-1948, average levy rate was 23.78% for "Formerly Liberated Regions", while such figure was around 17% for more recent occupied ones in 1949.[9]

4. Economic Bases of Two Sides

Furthermore, this essay attempts to conduct rough estimations of national levy rates, which would progress through three steps as follows. The first is converting grain to equivalent wheat. In 1937, overall grain production was 185 billion kilograms, with rice 86.8 (almost half) billion wheat, corn, potato all were around 20 billion nationwide.[5] Plus, total grain production was 113.18 billion kilograms in 1949, increasing to 163.92 billion in 1952. A simplified linear assumption is adopted, where annual effects of war and peace are respectively treated as the same. Thus, internal peacetime

1949-1952 resulted in a 16.913 billion grain production increase annually. Between 1937 and 1949 were 11 years in war and 1 year (1945-1946) in peace, which meant a 8.067 billion annual decrease for wartime, after considering growth in peace. Since corn and potato were cheaper than wheat and rice being more expensive with larger quantity,[10] it is acceptable to assume grain (weighed average) equaled 1.1 times wheat in value. Therefore, grain production (137.381 billion grain) was equivalent to 151.12 billion kilograms wheat in 1946.

The second step is to estimate the proportion of grain production in GDP. In 1952, the economic structure was "Agriculture, Forestry & Fishery" accounting 59.7% of GDP.[4] This essat assumes that "Agriculture, Forestry & Fishery" represented 65% of GDP in 1946 after prolonged war. Crops production represented 87.6% value of agricultural sector in 1933,[6] and it is reasonable to provide a 89% estimation for 1946. Thus, grain value represented 57.85% of GDP, and nationwide GDP that year would equal 261.23 billion kilograms wheat.

The third step is to allocate national GDP into two areas. In Jun 1946, CCP controlled 136 million population (29%), and on KMT side, it was 339 million population (71%).[11] CCP ruled areas were mostly distant or mountainous countrysides with lower GDP per capita, while almost all major cities and industrial bases were under KMT's control. But such a difference could not be overestimated, given the limited industrialization level in 1946 China. So KMT's controlled areas shall be moderately wealthier than CCP ones, as shown in Table III.

Table III: Estimation of Respective Economic Bases for CCP & KMT, 1946

GDP Nationwide (Billion kg Wheat)	Population Ratio (KMT: CCP)	GDP per Capita Ratio (KMT: CCP)	GDP Ratio (KMT: CCP, Billion Kg Wheat)
C-1. KMT Higher Estimation			
261.23	71: 29	1.6: 1	210.81 (80.7%) ; 54.03 (20.3%)
C-2. Balanced			
261.23	71: 29	1.4: 1	202.19 (77.4%) ; 59.04 (22.6%)
C-3. KMT Lower Estimation			
261.23	71: 29	1.2: 1	194.88 74.6%) ; 66.35 (25.4%)

5. Comparison of Taxation Efficiency

Ultimately, Table IV provides an overall comparison over taxation efficiency and total revenue of KMT and CCP. During total war, taxation efficiency is defined by the ratio of government revenue to GDP in corresponding controlled areas.

Table IV: Comparison of KMT and CCP Taxation Efficiency (in Kilograms Wheat, 1946)

KMT Revenue	CCP Revenue	KMT Efficiency	CCP Efficiency	CCP: KMT (Revenue)	CCP: KMT (Efficiency)
Extreme Estimation, KMT Favoured: A-1, B-3, C-3					
7,588,331,117	7,392,256,000	3.89%	11.14%	0.97: 1	2.86: 1
Balanced Estimation: A-2, B-2, C-2					
6,650,770,429	8,316,288,000	3.29%	14.09%	1.25: 1	4.28: 1
Extreme Estimation, CCP Favoured: A-3, B-1, C-1					
5,882,109,721	9,240,320,000	2.79%	17.10%	1.57: 1	6.13: 1

According to "Balanced Estimation", KMT income was less than 80% of that for CCP, and its taxation efficiency was as low as 23% of the latter. Estimations are impossible to achieve perfect accuracy, yet astonishing discrepancies above may have revealed the big point. Major factors are considered and explained during the estimation, and conservative figures (KMT-lean) are usually preferred. Deviations in rice-wheat price ratio or KMT-CCP GDP distribution are relatively

insignificant, while Kia-Ngau Chang and CCP presented reliable tax records. Thus, even if all adopted data in this estimation prove to be unexpectedly CCP-lean, as in “Extreme Estimation, KMT Favoured”, KMT would also caught in apparent disadvantage in taxation efficiency when confronted with CCP, where core arguments in the paper remains roughly true.

Needless to elaborate, the economic burden for KMT was much heavier than that of CCP, resulted from larger administration, a corrupted and inefficient bureaucracy, plus an overwhelming force totaled 4.3 million (1.27 million for CCP) with more delicate equipment.[11] With limited abilities to collect regular taxes apart from bank borrowing, KMT administration collapsed as total war continued, while its seemingly weaker opponent stood still financially and won militarily.

6. Conclusion

Rises of levy rates were vivid reflections of state-construct contributing to “fiscal-military states” in wartime China, similar to those in early modern Europe. In 1908, the Qing Empire collected a mere 2.4% of GNP, and was left far behind European Powers, suggesting a great divergence in government finance. With a share of 3.29%, KMT failed to progress remarkably from the defeated Qing, where its financial divergence with modern government maintained. Meanwhile, CCP achieved an average levy ratio of 14.09%, comparable to industrialized superpowers such as the United States, whose government receipt equaled 17.24% of GDP in 1946. Despite sharply opposite political ideologies, they were both blessed by superior revenues against their respective rivals. The victory of CCP indicated the successive convergence of China and industrialized countries in strong state capabilities and vast economic resources processed. Nowadays, CCP Government has been among the largest and most complex ones worldwide.

In contrast to widespread narratives, the point of KMT failure was not unbearable taxation collected, but its massive losses among landlords, gentries, fractions and bureaucrats without supporting total war, fundamentally unchanged as imperial era. Its regime was characterized by a strange combination of personal directorship and weak state capabilities. Just in 1946, KMT had caught in a huge deficit twice as much as its revenue, when regular taxation constituted a mere 42% of total government income[1], and its heavy dependence on bank borrowing (mostly notes issue) indicated its terrible financial collapse in 1949. In comparison, tight grassroots control, general education, spellbinding publicity plus rigorous party-state-army organization guaranteed minor loss in the process from grassroots to the top and vise versa, which allowed superior revenue available for CCP war efforts under perhaps similar or even less civil burden, as widely acknowledged.

In front of Chiang Kai-shek was not some ragged pirates as CCP appeared to be, but a great power probably even mightier than his “central government” in finance. Eventually, the success of CCP was also the triumph of modern organization and stronger taxation capabilities, concluding the long and winding evolution of Chinese state construct since late imperial era.

References

[1] Chang Kia-ngau, *The Inflationary Spiral: The Experience in China, 1939-1950*, Cambridge: Technology Press of Massachusetts Institute of Technology, 1958.

[2] Arthur N. Young, *China's Wartime Finance and Inflation, 1937-1945*, Cambridge: Harvard University Press, 1965.

[3] Michael Geyer & Adam Tooze, *The Cambridge History of the Second World War, Volume III (Total War: Economy, Society and Culture)*, Cambridge: Cambridge University Press, 2015.

[4] Angus Maddison, *Chinese Economic Performance in the Long Run, 960-2030 AD (Second Edition, Revised and Updated)*, Paris: OECD Development Centre, 2007.

[5] Dwight Heald, *Agricultural Development in China*, Chicago: Aldine Press, 1969.

[6] Yi Xu, Zhihong Shi, Bas van Leeuwen, Yuping Ni, Zipeng Zhang, Ye Ma, “Chinese National Income, ca. 1661–1933”, *Australian Economic History Review*, Vol. 57, No. 3, 2017, pp. 368-393.

[7] Michael Lindsay, “The Taxation System in the Shansi-Chahar-Hopei Border Region, 1938-1945”, *China Quarterly*, No. 42, 1970, pp. 1-15.

[8] (Text in Chinese) Treasure Department of Northeast Liberated Zone Administration, *Treasury Report of Northeast Liberated Zone*, Mar 10th 1948.

[9] (Text in Chinese) Chen Guangyan, Ye Qing, Yan Shengpeng ed., *Comprehensive History of Chinese Government Finance (Volume VII, IX, X)*, Changsha: Hunan People’s Press, 2015.

[10] (Text in Chinese) Tan Wenxi, *A History of Prices in China*, Wuhan: Hubei People’s Press, 1994.

[11] (Text in Chinese) Liu Bing & Li Qingfeng ed., *A History of People’s Liberation Army Emancipating the Nation, Volume 2, 1946.7-1947.6*, Beijing: Military Science Press, 1996.

[12] (Test in Chinese) Sun Yigang & Wang Wensu, “On the Contribution of People in Liberated Zone upon Chinese Revolution”, *Journal of Historical Government Finance Studies (Issue IV)*, 2011.