

Analysis of the Causes and Effects of Inflation in the Late Northern Song Dynasty in Ancient China

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Abstract: The Northern Song dynasty was one of the dynasties with a highly developed economy in Chinese history. In the middle and late periods of the Northern Song Dynasty, the country had a serious inflation problem. This article mainly refers to and summarizes the literature, and analyzes the emergence of inflation in the Northern Song Dynasty and its impact on society from the perspective of economics through the demand-pull, cost-push and monetary factors from the historical facts. High spending on officials, the military, and the royal family has left the country in financial trouble. To get rid of the financial crisis, the continuous exploitation and oppression of the ruling class and the influence of the war severely destroyed the productive forces. To alleviate economic pressure and curb inflation, the wrong monetary policy adopted during The Period of Huizong aggravated inflation, and the economy was hit hard when money could not be tightened. Finally, the Northern Song dynasty collapsed under the impetus of many problems.

Keywords: Economic, Inflation, Song Dynasty, Chinese history.

1. Introduction

The Song Dynasty (960-1279) was a highly developed economic dynasty in Chinese history. It mainly experienced two parts, the Northern Song and the Southern Song. Among them, the Northern Song Dynasty was the most prosperous part, and it was in the Song Dynasty that “jiaozi”, the earliest paper money used in the world, appeared. Angus Maddison, a British economist, speculated in *The World Economy* that China's GDP during 960-1280 was about 26.55 billion US dollars, accounting for about 30% of The World's total GDP at its peak [1]. Inflation means a general and sustained increase in the price level in an economy. In history, the problem of inflation often occurs, and the hyperinflation in the late Northern Song Dynasty is a very classic case. In the famous genre painting *Along the River During the Qingming Festival* of the Northern Song Dynasty, there is a scene of three charioteers transporting a large amount of money with carts, which also reflects the serious inflation at that time [2]. This history has considerable academic value and practical significance for the study of inflation history and Chinese economic history. As a highly developed dynasty, the Song Dynasty has been studied by many historians and economists. The main purpose of this paper is to combine historical records and the results of other researchers through the demand pull inflation caused by excessive consumption, the cost push inflation caused by the high production cost, and the monetary inflation caused by improper government policies to find out the causes of hyperinflation problems in Northern Song Dynasty, and analyze the impact of inflation on northern Song dynasty society, want to be able

to for the follow-up study of the Song dynasty economic history and the future of monetary and financial decision-making to provide a historical reference.

2. Demand Inflation

Demand pull inflation refers to the excessive growth rate of aggregate demand exceeding the growth rate of aggregate supply, resulting in the market having to raise prices to rebalance, which leads to persistent and general price level rise. Aggregate demand consists of consumption, investment, government expenditure, and net export. Excessive consumption and high government expenditure are the main factors analyzed in this paper which caused the aggregate demand to increase rapidly. The cause of inflation is excessive consumption leads to a shortage of supply in the market, and the country is also in a financial crisis. The Song Dynasty was still a society with agriculture as its main economy. Farmers had very little income and needed to pay taxes, so their consumption was very small and had little impact on inflation. This means that the phenomenon of excessive consumption is mostly caused by the extravagance of the ruling class. Song History Song Qi biography mentioned: What is triple redundancy? The country's official posts are limited, and the number of officials unlimited is a redundancy; The armies of countries that are not good at fighting but consume a lot of food and clothing are the second redundancy; More and more monks, the government can save but not save more and more expenses, this is the third redundancy. Unless these three problems are solved, the country will not become strong and prosperous.

3. High Official Expenditure

3.1. Excessive Number of Officials

The number of officials in the Song dynasty was extremely high, especially the number of civil officials. This was mainly because the Song Dynasty emperors generally adopted the policy of paying more attention to civil servants than to military generals. In 1049, according to an incomplete count by Bao Zheng, deputy director of the Hu department (see appendix 1), the number of officials in service reached seventeen thousand which is twice as many as 40 years ago [3]. By 1088, the number of officials had grown to thirty-four thousand, and in 1119 it had reached as many as forty-eight thousand [4]. Such a large number of officials led to huge financial expenditure and the phenomenon of having many officials but few posts, many of them enjoyed salaries and favorable policies but had no real work to do. The reason for such a large number of officials in the Northern Song was that there were too many ways of selecting officials and some of them were not reasonable. During the Northern Song period, the main methods of selecting officials were the following: the imperial examination, military exploit, Gui Zheng (see appendix 2), Gui Ming (see appendix 3), Yin Bu (see appendix 4), and there was even the phenomenon of buying officials in some areas. Every year, hundreds of people were elected to official positions through the imperial examinations, and there were even cases where more than 500 people were elected at one time. The number of people who were given official positions as a result of Yin Bu at the Qian Yuan Festival (see appendix 5) and rituals was even more serious, with thousands of people being given official positions as a result of YinBu every three years. The class structure of the Song dynasty states that "the proliferation of YinBu became a very serious and prominent drawback of the Song dynasty as the Song emperors continued to increase the number and scope of Yin Bu." As a result of this series of abuses and unreasonable selection of officials, the number of officials was excessive and the quality was low. Corruption of officials and oppression occurred repeatedly [5].

3.2. High Official Costs

In the Northern Song Dynasty, the expenditure of officials was a large number, and the types of expenditure were various. We leave aside the value of the currency in the Song Dynasty and only consider other expenses besides the salaries paid by the Northern Song government, but the expenditure on the salaries of officials in the Northern Song was second only to the military expenses. Officials in the Northern Song dynasty not only had power but also received very generous treatment. Officials receive a fixed annual salary, food, and high office expenses. The government also pays for food, clothing, and cooking materials for officials' entourage and their slaves. In 1033, the government even began to provide land and GeiQuan (see appendix 6). But a large part of the official's expenses also came from awards, subsidies, land, brocade, gold, and sometimes even a mansion. Each reward was a huge outlay. In 1101, when Fan Chunren, the prime minister of the Song Dynasty, died, the emperor rewarded him with 3,000 Liang of platinum [6]. However, the cost of illegality is high and corruption is frequent. Officials across the country misused office expenses as the government allowed them to have meals with them. At that time the so-called official banquet was very popular officials gathered together, under the guise of official duties, using the office expenses of the government to splurge.

4. High Military Expenditure

4.1. High Number of Troops

The Northern Song had a very large army, and its number increased year after year. Since the founding of the Northern Song dynasty, the number of troops was about four hundred thousand, and by 1049, the number of troops even reached about 1.4 million [7]. In the process of the northern Song's development, the surrounding ethnic minorities also developed rapidly and the two most powerful regimes, Liao (see appendix 7) and Xixia (see appendix 8) emerged. These two regimes posed a huge threat to the Northern Song, which was also one of the reasons for the Northern Song's continuous development of military power and expansion of the military scale. The northern Song adopted the mercenary system. The army would recruit some starving and homeless people as soldiers, and most of these soldiers were old and weak and had no systematic training. As a result, the fighting capacity of the Northern Song army was not high.

4.2. High Military Costs

The expenses of the northern Song army were extremely high. In addition to the pensions and the supplies of the soldiers, the supplies of weapons, food, and horses, all cost a great deal. Much of this spending is grossly unreasonable. In the Northern Song Dynasty, after the implementation of the horse herding law (1102), only 1,829 horses were raised on 3007.33 hectares of land, which was undoubtedly a waste of resources. In 1108, the imperial court purchased 400,000 horns and 100,000 jin of beef sinews to prepare for war. This meant that 400,000 cattle were slaughtered, which caused great damage to agricultural productivity at that time [8].

5. Excessive Government Expenditure

5.1. High Superstitious Activity Costs

In the Song Dynasty, the emperor often held a variety of sacrificial activities to establish heavenly power, emphasizing the core idea of divine right, and each sacrificial activity would bring huge costs. In addition to sacrificial activities, the Emperor of the Song dynasty set up a wide range of Taoist temples, and the number of Taoist priests and monks in the country was huge. In 1042, the number

of monks in the whole country reached about 415,000 [9]. In the year of Jingde (1004-1007), there were as many as 25,000 temples throughout the country. In the year of Jiayou (1056-1063), the number of temples rose to 39,000 [10]. Food was provided by the court, and they paid no taxes. Some monks even befriended powerful people and oppressed others. During the period of Emperor Huizong of the Song Dynasty, Emperor Huizong believed deeply in Taoism and regarded himself as the son of heaven. He devoted his national strength to building Taoist temples and even started to hold thousand of Taoist meetings. Since then, the loss of each activity was huge, and Taoist officials were added, who also enjoyed a salary and many Taoist temples were given thousands of acres of land.

5.2. High Royal Costs

The royal life of the Song dynasty was extremely luxurious, and the expenses have been unimaginable. In 1043, according to government statistics, about 200,000 timber trees were needed to repair the capital in one year. In the palace, just in the imperial kitchen staff as high as more than 1,000 people. During the Reign of Jiayou (1056-1063), the emperor had more than 10,000 concubines and hundreds of servants to serve each concubine. The rice used to make wine in the imperial palace reached 80,000 Shi (1 Shi was about 59.2kg), and each new Cai ren(see appendix 9) in the imperial palace was given 5,000 Liang silver and 500Liang gold. The monthly salary of one Cai ren was comparable to the tax of hundreds of families [6]. In addition, the emperor's birthday, the birth of children, and other activities to celebrate or reward the use of gold and silver jewelry are countless, and the construction of palaces, mountains, and other costs are unimaginable. During the reign of Emperor Huizong (1082-1135), imperial orders were issued to build many palaces. More than a hundred thousand workers were sent to dig out three mountains, and 4.9 million workers were transferred to repair the imperial mausoleum river. Many palaces housed thousands of cranes, deer, peacocks, and other animals. Chronicle of nine dynasties describes that the biggest project is the WanSui Mountain, Buildings and palaces within five kilometers of the WanSui mountain cannot be counted [11].

6. Cost Push Inflation

Cost push inflation refers to the situation where the total supply decreases due to the increase in production cost. The total supply is less than the total demand, and there is a shortage in the market. The market has to return to equilibrium by raising the price level. To satisfy the desires of the ruling class, the continuous exploitation of the ruling class, and the continuous wars are the hardships that the common people have to bear. These factors have also been destroying productivity, reducing production enthusiasm, and continuously increasing production costs, thus increasing the degree of inflation. The economic growth of the Song Dynasty gradually slowed down and then began into a recession, and the living standards of the people became worse and worse.

6.1. Exploitation by the Ruling Class

Since the middle of the Northern Song Dynasty, the exploitation of the ruling class has become increasingly severe. In addition to regular taxes, there are exploitation methods such as Zhe Bian (see appendix 10), He Di (see appendix 11), and He Mai(see appendix 12). This brought about great destruction to the productivity of the common people, and even the phenomenon of the "Tax collected ten times by Zhe Bian" appeared [12]. For merchants, there is even a Ke Lv (see appendix 13) policy of exploitation. Xu Zi Zhi Tong Jian mentioned that "Ke Lv made the people poor, but the court did not stop" In addition, the Song dynasty adopted the policy of not inhibiting land annexation [6]. Although this was in line with land privatization to some extent and had a positive impact on economic development, the land was mostly owned by officials or some landlords by the middle of the Northern Song Dynasty. As the ruling class exploited and oppressed, the government imposed

higher and higher taxes. During the reign of Emperor Renzong (1010-1063), about one stone of grain was produced per acre of land, and the amount of grain collected changed from one bucket to several. If the land was rented by officials, it was levied on eight buckets to one stone, regardless of the quality of the soil. Officers don't need to pay taxes. Landowners underreport their land to avoid paying taxes, the tax is then passed on to poor tenants at the bottom of society. In the period of Huizong, the failure of the Average land Tax Law (1120) made the northern Song reach the second climax of land annexation after Renzong (1010-1063). As landlords occupied more and more land, more and more taxes were transferred to the tenants, and more and more tenants had to flee to other places to make a living. Agriculture was badly affected, business was depressed and the economy was in recession. During the periods of Huizong and Qinzong (1100-1127), there were more than 40 large-scale peasant uprisings, in which a large number of peasants were killed by the government. Seven million peasants were killed in the Fang La Uprising (see appendix 14) alone. A large number of labor losses, agricultural land was abandoned, and the agricultural manufacturing industry seriously contracted.

6.2. Constant War

Since the middle of the Northern Song Dynasty, wars have become an important factor to destroy the productivity of the Northern Song Dynasty. In 1039, a war broke out between the Northern Song dynasty and the Xi Xia. "Yuan Hao launched a war in Shanxi, the domestic army began to expand, the rampart began to build, and the people are very difficult." "All the resources are used, even the blood of the people but were still not enough." The northern Song's economy suffered a heavy blow as the state Treasury was empty, people suffered casualties and production stagnated [6]. In 1041, the Northern Song was defeated at Shui Chuan, and in 1042 at Ding Chuan Zhai with Xi Xia. Wherever the Western Xia cavalry arrived, the land was trampled and the people were hurt. Later, under the "mediation" of the Qi Dan, Song, and Xi Xia negotiated peace, but the Northern Song needed to provide the Sui Bi: a hundred thousand pieces of silk and a hundred thousand Liang of silver. It provided hundred thirty thousand pieces of silk, hundred fifty thousand Liang of silver, and ten thousand kg of tea. At the end of the Northern Song dynasty, the Jin Dynasty emerged and the Xi Xia continued to invade the Northern Song dynasty. Finally, the Northern Song dynasty was destroyed and the Southern Song dynasty began.

7. Monetary Inflation

Monetary inflation is when the money supply of a country continues to increase, but there is no increase in goods or services in the market, resulting in a devaluation of the currency and an increase in the price level of goods or services. After a series of high expenditures by the court, the Northern Song had entered a state of financial deficit. However, to continue to satisfy the extravagant needs of the ruling class, the Northern Song began to issue currency. At that time, the currency was mainly made of copper, but due to the shortage of copper material and the court had no other effective measures to develop the economy, the Song Court could only produce large amounts of money with big value or issue a large amount of paper money. These actions seriously affected the natural law of currency circulation, and had serious consequences for the society, and the inflation problem became more acute.

7.1. Circulation of Large Denomination Currency

CAI Jing, the prime minister of The Huizong period (1082-1135), was the main advocate of issuing large-denomination currency. In December 1102, he ordered Shanxi to begin minting Zhe five coins, which are the coins worth five common coins. In February 1103, he ordered Shaanxi to mint Zhe ten coins, which is the coins worth five common coins, and it could be circulated throughout the country

except in some special areas In May, some regions were required to replace the regular money they minted each year with a Zhe five coins [13]. In October, the name of the currency was changed from "Zhe" to "Dang", with no change in practical meaning. In December, most of the important areas began to stop casting Dang two coins, and all changed to Dang ten coins. This is because four Dang two coins' material can make three Dang ten coins. Some officials mistook this for a huge profit and made this decision. In January 1104, in some important areas, the Dang five coins were also required to be changed to Dang ten coins. In February 1106, CAI Jing was deposed, and while Dang ten coins were abolished in some places and replaced by Dang five or Dang ten coins, but it was still used in some places. In February 1107, CAI Jing resumed his post and again urged the use of dang Shi Qian. In June 1109, CAI Jing was deposed again. In January 1110, when the Dang ten coins were abolished, the large denominations remained in circulation, its harm lasted for ten years [6].

8. The Effects of Inflation

For a long time, the increasing inflation and the improper policies adopted by the Northern Song Government have seriously affected society, and the economic order has become more and more chaotic. In the middle and late Periods of the Northern Song Dynasty, there were many problems due to the increasing inflation, such as the large devaluation of the currency or the soaring prices, which caused social unrest and accelerated the collapse of the Northern Song Dynasty.

8.1. Devaluation of the Currency

The excessive minting and widespread circulation of Dang ten coins led to a severe devaluation of the currency, and the reluctance of people to accept Dang ten coin transactions led to a depression in the market. Song history states that in 1103, after the issue of large denomination coins, the market was closed during the day and it was difficult for people to buy things with money until the afternoon [8]. Why did people not want to trade in large denominations? The actual weight of a dang ten coin was similar to that of ordinary money, but the actual price was more than twice as much. If one used large coins to make a purchase, the seller would still need to find money in ordinary money, and with the rampant counterfeiting of large coins, the seller was losing money. The deterioration of paper money was even more serious, and in 1107 the number of Sichuan jiaozi issued reached twenty times that of the reign of Renzong period (1010-1063), with money from the whole country only being exchanged for a tenth of the money in Sichuan, and in the later years even only for a hundredth of the money. And this phenomenon gradually became widespread, occurring everywhere. The constant devaluation of the currency made people eager to exchange their money for goods or something useful, and there was a mad rush to buy goods everywhere. In particular, some officials with inside information were the first to replace their money. This led the commoners to follow suit, and a large amount of fictitious money flowed into the market, which further fuelled inflation and a significant devaluation of the currency.

8.2. Soaring Prices

Price rise is a specific manifestation of inflation. During the Period of Huizong (1110-1135), prices rose much more than in other periods of the Northern Song Dynasty, which we also call the period of vicious inflation. The Song Dynasty generally adopted Qian and Guan as the unit of measurement of money, and one thousand qians equals one guan.

Rice prices. From 1068 to 1077, the price of rice was generally 70-80 yuan per bucket. In 1078-1085, the price dropped to 30-40 qians per bucket. However, after this, prices began to rise rapidly. In 1103, due to the impact of the war in some border areas, rice reached 4 guans per bucket [8]. In 1112, the general price of rice was 120 qians per bucket. In 1122, this rose to 250-300 qians per

bucket. By 1127, the price of rice in the capital of the Northern Song dynasty reached 2 guans per bucket. (Xu, 1986-1990) For six or seven years after 1136, it was difficult to buy a bucket of rice by using ten guans, and people even ate people [14].

Salt price. From 1048 to 1085, the price of salt was about 20 qians per kilogram. Between 1094 and 1100, the price had risen to 215 qians per kilogram. By 1111, the price per kilogram of salt had increased by 4 to 19 qians. By 1125, the price of salt had risen to 500-560 qians per kilogram [15].

Gold prices. For the past 10 years, the price of gold has remained at 200 guans per kilogram. By the time Emperor Huizong ascended to the throne around 1100, the price of gold had risen to about 350 guans per kilogram. In 1126, jin soldiers besieged the capital of the Northern Song Dynasty and demanded gold and silver from the imperial court. The emperor had to buy gold at a high price in exchange for peace. At this time, the gold price had reached 400 guans per kilogram. In December of that year, gold rose to 640 guans per kilogram. In January 1127, gold reached 700 guans per kilogram [16].

9. Conclusion

Based on historical documents, this paper analyzes the inflation phenomenon in the Northern Song Dynasty of ancient China with the thinking way of modern economics. Through the study and the collation of ancient documents, the following important factors are emphatically analyzed: the excessive consumption caused by the three redundancy is an important factor of the demand-pull inflation. The exploitation of the ruling class and wars with neighbouring countries have largely destroyed productivity, resulting in cost-push inflation. At the end of the Northern Song Dynasty, the government's wrong monetary policy led to monetary inflation, which further aggravated the degree of inflation. History has left us with a lot of experience and lessons of inflation, the northern Song dynasty inflation phenomenon is a very typical case. Whether it is the macro national development factors in the Northern Song Dynasty, or the microlevel of currency circulation factors, the law of development is worth our reference. This paper is also mainly committed to summarizing and analyzing these historical facts, objectively studying and discussing the development rules, seriously summarizing the experience and lessons brought by history, and playing a reference role in future monetary and financial decisions.

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Appendix

1. Hu department: One of the six government departments responsible for household statistics, finance.
2. Gui Zheng: A policy of giving awards to people who were originally members of the Northern Song but moved to live in other countries and then returned to the Northern Song. The extent of the reward depends on status or wealth in other countries.
3. Gui Ming: A policy of giving rewards to the inhabitants of the surrounding ethnic minorities and defected to the Northern Song. The extent of the reward depends on status or wealth in other countries.
4. Yin Bu: It is a kind of hereditary system, which means that the status of merit of the previous generation can be inherited by the next generation, and the next generation can continue to enjoy special treatment.
5. Qian Yuan Festival: The birthday of Emperor RenZong which is celebrated throughout the country.
6. Gei Quan: A widely used voucher system with different types of vouchers that can be exchanged for free goods or services. Food vouchers, transportation vouchers, station vouchers and so on.
7. Liao: A unified regime established by the Qi Dan people which was originating in northeast China. It existed in the same period as the Northern Song and Xi Xia, the Liao dynasty was established in 907 and collapsed in 1125.
8. Xi Xia: A unified regime established by the Dang Xiang people which was originating in northwest China. Xi Xia was established in 1038 and ended in 1227.
9. Cai Ren: A kind of concubines of the Emperor of the Northern Song Dynasty which is the fourth of the nine grades, and there are six grades higher than Cai Ren.
10. Zhe Bian: The policy of using money instead of material tax in the Northern Song Dynasty was an important beginning of the transformation of material tax into money tax in ancient China. During the period described in the article, taxes were generally higher than the physical value after being discounted
11. He Di: A policy which the government buys people's rice by force.
12. He Mai: A policy which the government buys people's goods by force, at the end of the Northern Song Dynasty, it was directly changed to compulsory free collection from the common people.
13. Ke Lv: A policy which is similar to He Mai, but mainly for merchants.
14. Fang La uprising: In October 1120, due to the exploitation of the ruling class, the peasant uprising led by Fang La which was one of the largest uprisings in the late Northern Song Dynasty.