An Optimal Tax That Destroyed the Government:

—An Economic Analysis of the Decline of Tang (唐) Dynasty
(A very rough and preliminary draft, not for citation)

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Introduction

In the book, "Japanese Law: An Economic Approach" (co-authored with Professor Mark Ramseyer), we tried to explain the ancient Japanese people's behavior by applying theories in micro-economics. I believe we could do just the same in Chinese context. This small piece of paper is on a micro-economic analysis of ancient Chinese history.

In this paper, I try to prove that people act in essentially the same way, that is rationally, no matter when and no matter where they live, even in ancient China. A micro-economic analysis of the ancient Chinese people would be possible, for example, in such various ways as follow:

One would be a study on stories of merchants recorded in the famous "Historian's Records"(Shiji, 史記)written by Sima Qian (司馬遷). The chapter 69 of its Biographies of the Famous People (Liezhuan, 列傳) is titled "Biographies of Merchants" (貨殖列傳). This chapter contains various bibliographical stories of important Chinese merchants. Here Sima Qian writes how hard these merchants indeed tried to maximize their economic rent with their entrepreneurship. He even writes in it the reason Confucius became famous was that one of his disciples (子貢) supported him financially:

"夫使孔子名布揚於天下者,子貢先後之也。此所謂得埶而益彰者乎?" In the chapter, Sima Qian also cleary admits that pursuing the wealth is of human nature:

"富者、人之情性、所不學而俱欲者也。"

Another interesting study would be that of economic policies adopted by Prime Minister Guanzi(管子、管仲),who supported Huan Gong(桓公,Duke of Qi (齊)) in 7 c. B.C. He proposed and pursued economic policies that were quite market-oriented, as is recorded in a chapter of a book which is a collection of what he said: Guanzi (管子輕重篇). Several interesting episodes on his economic thought are recorded in the book. For example, he said in it that a country with ten thousand chariots surely had merchants with ten thousand gold, a country with a thousand chariots surely had merchants with a thousand gold and a country with a hundred chariots surely had merchants with a hundred gold:

"管子曰:「萬乘之國,必有萬金之賈。千乘之國,必有千金之賈。百乘之國,必有百金之 賈。」"

These two examples would show that the ancient Chinese people were not very much different from the modern Western people, that is, they acted in a rational way and tried to maximize their utility.

Instead of analyzing those two examples, here in this paper, instead, I would like

to focus on the political impact of the activities of salt smugglers (鹽賊) in the late part of Tang Dynasty. Even though the activities of salt smugglers in later dynasties, such as Sung (宋), Yuan $(\overline{\pi})$ and Ming (明), are also very important, the first active movement of salt smugglers are found in Tang Dynasty.

Please note that I only cited materials that we could get through internet in this paper. This is mainly because I wrote this piece while I was staying in the United States. I wrote this only for my personal amusement. In that sense I may not call this an academic paper.

1. History of Salt

First, in order to explain why salt matters so much in the ancient Chinese history, I must start this paper by reaffirming a very simple fact based on the common sense that salt has indeed been indispensable for the existence of human kinds in any place and at any time.

(1) Importance of Salt in European History:

We easily notice that many famous cities around the world have their origin as a center of salt trade. One of the oldest examples of the salt trading center almost 10,000 years ago would be the city of Jericho¹. Even Rome may have been one such city, too. The English word "salary" has its origin in the Latin phrase "salarium argentums referring to a portion of every Roman soldiers pay." ² The Latin phrase "salarium argentums" literally means "salt silver." On the importance of salt in the ancient Roman society, one author says:

"In ancient times, salt (or the lack of it) could drastically affect the health of entire populations. Trade in salt was very important, and salt was valuable enough to be used as currency in some areas. The Latin phrase "salarium argentums," "salt money," referred to part of the payment made to every Roman soldier, and the word has been carried down the ages into the English word "salary". Everyone must have salt, so it has been a commodity much abused by attempts at monopoly, by individuals, corporations, cities, and nations. The city of Rome may have begun as a salt-trading center, like Venice after it. Certainly the salt traders of the Roman port of Ostia raised the price so high that the state was forced to take over the industry about 506 BC.

Man-made salt-ponds along the Mediterranean shore date back to Roman times, and it is

¹ http://www.specialtyfood.com/do/news/ViewNewsArticle?id=241.

² http://www.architecturals.net/restore/home.cfm?page=subcats&CategoryID=40.

inevitable that we will find older ones. Salt was already being mined in the Alps when Rome was founded." ³

Munich was also famous for its salt trade: there is the Salzstrasse (Salt Street) in the city. Salzburg (meaning "Salt Town") even takes its name directly from the salt trade. 4

(2) Ancient Chinese Salt:

As the birthplace of one of the oldest civilization in the world, China has a long history of manufacturing and trading salt, too. For example, such legendary figure as Huangdi (黃帝, Yellow Emperor) is associated with ancient stories on political battles over salt. ⁵

Various forms of salt production have been used in China. There have been basically five kinds of salt in China, namely, sea salt (海鹽), lake salt (池鹽), underground water salt (井鹽) ⁶, soil salt (土鹽), and rock salt (崖鹽、岩鹽). Among these various forms of salt, in the ancient times at least, lake salt was probably the most important. It is believed that the ancient Chinese civilization first started around the

4 One study says:

"The great salt center of **Reichenhall**, in southern Bavaria, operated in Roman times, but was destroyed later, possibly by Attila the Hun but more likely by the German Odoacer. It was rebuilt and became the concession of the Bishop of **Salzburg**, who derived a great deal of power and money from the salt trade. The Bishops were promoted to Archbishops." (http://teamwork.ucdavis.edu/~gel115/salt.html)

5 Mark Kurlansky says in his book:

"Chinese salt history begins with the mythical Huangdi (黄帝), who invented writing, weaponry, and transportation. According to the legends, he also had the distinction of presiding over the first war ever fought over salt."

(Mark Kurlansky, Salt: A World History, chapter 1, 2001)

6 Zigong(自貢、四川), which is famous for its underground water salt, is called the Capital of Salt (鹽都). In the United States, there are salt springs, too:

"Salt springs were utilized where groundwater percolated through deep rock salt deposits and reached the surface as brine. Salt was produced by boiling the brine in large cauldrons heated by wood fuel from the seemingly endless forests."

(Walter Plinske, The Salt of the Earth, in Natural Enquirer, November/December, 2004, p.3.)

³ http://teamwork.ucdavis.edu/~gel115/salt.html.

salt lakes (鹽池) in China. Historically, Yun salt (Yunyan, 解鹽) produced in Lake Yuncheng (解池) in the Province of Shanxi (山西省) was especially famous and important(解州鹽池)⁷.

2. History of Taxation in Ancient and Medieval China

(1) Before Tang Dynasty

Here we will see a brief outline on how the tax system of Tang Dynasty had been prepared historically 8 . For that purpose, we first start our story with the tax system of Han Dynasty.

Han (漢) Dynasty had various forms of taxes, such as tax on crops (田租), tax on sea catch (海租), tax on commercial profits (関布税), tax on salt (鹽税), tax on alcohol (酒税), poll tax (算賦・口賦), and labor duties (徭役) ⁹. We will, however, focus on the tax on salt only.

It is historically very important that Emperor Wudi (武帝) made salt and iron under state monopoly (專売). This is because he loved military expansions and

7 Mark Kurlansky writes in his "Salt: A World History," chapter 1, 2001 as follows:

"One of the earliest verifiable saltworks in prehistoric China was in the northern province of Shanxi. In this arid region of dry yellow earth and desert mountains is a lake of salty water, Lake Yuncheng. This area was known for constant warfare, and all of the wars were over control of the lake."

"The earliest written record of salt production in China dates to around 800 b.c. and tells of production and trade of sea salt a millennium before, during the Xia (夏) dynasty. It is not known if the techniques described in this account were actually used during the Xia dynasty, but they were considered old ways by the time of this account, which describes putting ocean water in clay vessels and boiling it until reduced to pots of salt crystals."

"Many Chinese, including Mencius (孟子), the famous Confucian thinker who lived from 372 to 289 b.c., were said to have worked **selling both fish and salt**."

- 8 Even though Zhou (周) Dynasty had various forms of tax on agriculture (助法、撤法、贡法), details are not quite clear.
- 9 It is said that "the first few rulers of the Han Dynasty did not politically interfere into the economy but rather relied on a laissez-faire policy." (Han Dynasty economy, http://www.chinaknowledge.de/History/Han/han-econ.html)

invasions and needed vast amount of money for that purpose. He also tried to control price of grain with acts (均輸法·平準法 administered by Minister of Agriculture 大司農, Sang Hongyang 桑弘羊, who was a son of a merchant, 143–80 B.C.). It might be possible for us to say that Emperor Wudi adopted a kind of market-intervention policy here.

Then Emperor Zhaodi (昭帝), in 81B.C. (始元六年), called upon a famous discussion group (鹽鉄会議) of some sixty scholars in order to discuss state monopoly of salt and iron. Huan Kuan (桓寬)'s famous book *Yantielun* (鹽鐵論), "**Discussions over Salt and Iron**", is a historic record of such discussions made in the meeting ¹⁰. This book describes in details the difference in opinions among various schools of thought at the time. On this book, one summarizes as follows:

"There are two parties that fought to gain hand over the actual politics: The modernists and the reformers. Modernist statesman like Sang Hongyang (桑弘羊) favoured the encouragement of agriculture and the intensification of state monopolies and the tax system to fill the state treasury. The reformists like Dong Zhongshu (董仲舒) protested against the growth of large land estates in order to extend tax income and liked more a privatization in the sphere of estates, mines and commerce." ¹¹

And following these discussions, the next Emperor Xuandi (宣帝) finally abolished the monopoly of salt and iron.

In Western Jin (西晋) Dynasty, Emperor Wudi (武帝) introduced a new land system (占田·課田法), and a new tax system (戸調式). Northern Wei (北魏) Dynasty adopted the famous Prefectural Militia System (*fubing* 府兵制) with Equal Fields System (*juntian*均田制), which had a strong influence on the political systems of the succeeding Sui and Tang Dynasties ¹².

10 It is said:

"traders highly profited from **the state monopoly on the transport of salt and iron**. Emperor Wudi's expansionist politics required an increased tax revenue that was partially ensured by defending the state monopole over cash minting, salt and iron/steel production and alcoholic liquors."

(Han Dynasty economy, http://www.chinaknowledge.de/History/Han/han-econ.html)

- 11 "Yantielun 鹽 鐵 論 "Discussions about Salt and Iron" by Huan Kuan 桓 寬 " (http://www.chinaknowledge.de/Literature/Diverse/yantielun.html).
- 12 Edward Kaplan writes an interesting explanation (http://www.wwu.edu/~kaplan/H370/mp24.pdf):

 "For example, **the prefectural militia** (*fubing* 府兵) provided a way to settle barbarian aristocrats in particular localities, give them access to land (cf. below) but in return for that

Sui (隋) Dynasty basically followed Northern Wei Dynasty and adopted its Equal Fields System (*juntian*均田制). And it adopted the tax system of *zuyongdiao zhi* (租庸調制) ¹³. Under this system of taxation, three taxes in kind were imposed: namely, the tax in grain (*zu* 租), the tax in labor or military service (*yong* 庸) for 20 days every year, and the tax in textiles or other materials (*diao* 調). Each household was assigned a certain area of land and had to pay the same amount of these taxes irrespective of its income. ¹⁴ We should note that this system was directly imported into Japan in its Taika Revolution in 645 by Prince Naka-no-Oe.

- (2) Tang(唐) Dynasty
 - i) Brief History

Tang Dynasty first adopted the Sui Dynasty's Equal Fields System (juntian 均田制) with zuyongdiao zhi (租庸調制). Later, however, Tang Dynasty moved to the new

access make themselves available to constitute at the prefectural level • • • a kind of a national guard or army reserve which the government did not have to directly support because it had allocated land to its members."

"This *fubing* prefectural militia's members supported themselves through what was called **the "equal fields" or** *juntian* **均田 system**. This system originated when pastoral-nomads conquered oasis farmers out on the high plains. It was supposed to assure the oasis farmers equal access to land and their pastoralist conquerors access to agricultural products. It was carried over into first the borderlands and then North China."

- 13 It is said that "[t]he Sui Dynasty administration followed the equal field system (*juntianfa* 均田法) and the taxation system of the Northern Wei Dynasty (*zuyongdiao zhi* 租庸調制)."
 (Sui Dynasty economy, http://www.chinaknowledge.de/History/Tang/tang-tech.html)
- 14 "The tax system of the Sui Dynasty was also not new. It consisted of three parts, the tax in grain (zu 租), in textiles or other materials (diao 調), and in corvée labour or military service (yong 庸) for 20 days every year. ···From the begin of the equal-field system, a great problem of taxation was that the tax basis was the household. Every household, irrespective of its production power and income, had to pay the same tax, what meant a heavy burden for the average peasant, while princes and high officials were exempt of taxes. Furthermore, a large amount of the population did not possess their own household but sought employment with the rich landowners as servants (nubi 奴婢), labourer (buqu 部曲), and tenant farmers (dianke 佃客), and therefore did not pay taxes."

(Sui Dynasty economy, http://www.chinaknowledge.de/History/Tang/sui-econ.html)

Double-Tax System (*liangshuifa* 兩税法). In addition to these, they heavily relied upon salt monopoly for revenues.

ii) Zuyongdiao (租庸調) System

Under the equal fields land system in Tang Dynasty, the government, just as in Sui Dynasty, allocated land to all households. In return they paid three taxes in kind as in Sui Dynasty. Because of various tax preferences on land ownership for aristocrats and Buddhist temples, however, these privileged ones soon began to acquire more and more land. In the end, there eventually happened a shortage of land for distribution under the Equal Fields System, which in turn meant the serious decrease in tax revenues from the *zuyongdiao* system for the government. This phenomena inevitably affected political stability of the Dynasty.

iii) Salt Monopoly

In the process of the political decline of the government especially after the rebellion of An Lushan (安禄山), Tang Dynasty heavily depended upon the revenues from the salt monopoly. Faced with the serious shortage in tax revenues, the Emperor Suzong (肅宗) appointed Liu Yan (劉晏) as the top of the salt administration and reformed the salt monopoly¹⁶ in order to raise more revenues. But this reform was not quite enough.

iv) The Double-Tax System (liangshuifa, 両税法)

"Under this system, although tax was raised from landowners, it took the form of a poll tax and was levied on the number of people in a family rather than on the acreage owned."

"The amount of land available for distribution decreased as more was acquired by legitimate means by the aristocracy and members of the imperial clan. These great estates and the tax free land holdings of the Buddhist monasteries failed to render tax, as did the land endowments held by the counties and prefectures."

(http://www.travelchinaguide.com/intro/history/tang/economy.htm)

16 "The An Lushan rebellion had a deep impact on the financial situation of the central government. On the one side, much of the economy in northern China had suffered heavy losses, peasants were uprooted, had no land and could pay no taxes, on the other side, what was left from the economy in the north was occupied by mighty military governors who collected taxes for themselves and not for the imperial court in Chang'an. For a long time, seventy percent of the tax revenue of the Tang court came from the state monopoly on the production and merchandise of salt."

(http://www.chinaknowledge.de/History/Tang/tang-event.html)

¹⁵ This tax system is explained:

In order to raise more revenues, the Emperor Dezong (徳宗) abolished *Zuyongdiao* System (租庸調制) and introduced the Double-Tax System (*liangshuifa*, 両税法) in 780 A.D. with the help of the Prime Minister (*Zaixiang*, 宰相) Yang Yan (楊炎) ¹⁷. With this fundamental reform, state ownership of land was finally abandoned. After this tax reform in 780, one half of the tax, which was imposed on household, was paid in cash, and the other half, which was imposed on land, was paid in grain¹⁸. This reform contributed to the increased tax revenues under a fairer tax system with a slight touch of ability-to-pay principle..

v) Development of Manors (zhuangyuan 莊園) in Tang Dynasty

As was described above, because of the various tax preferences on land ownership for aristocrats and Buddhist temples, these privileged ones began to acquire more and more land with their hands even under the formal principle of the state ownership of land. These privately owned lands were called "manors" (*zhuangtian*, 莊田, or *zhuangyuan*, 莊園) ¹⁹. Salt was the main source of tax revenue for the government now.

"The **equal-field land system** was in full force early in the Tang. · · · This system held up through the middle of the Tang, despite inequities and favoritism, and helped the peasantry's state of affairs. **Buddhist temples and monasteries acquired land without taxation**. The tax reforms of 780 instituted by the official **Yang Yan** (楊炎, 727–81) aimed at saving the declining equal-field system. This created a new structure known as the **double-tax system** (paid in summer and fall): **half was a household tax payable in cash**, indicating the rise of monetary economy; and **half was a land tax payable in grain**."

(The Encyclopedia of World History, 2001, http://www.bartleby.com/67/370.html)

18 It is said that "[u]nder Emperor Dezong 唐德宗 chancellor Yang Yan 楊炎 reformed the tax system. · · · The threefold tax system of grain, silk and corvée (*zuyongdiao* 租庸調) was given up, and instead, two times a year the household was taxed according to its income (*liangshuifa* 兩稅法 "two-tax system")." (http://www.chinaknowledge.de/History/Tang/tang-event.html)

It is also said:

"[t]his provided for tax collection twice a year, in summer and autumn, hence the title Double Tax System. This varied from the Zuyongdiao System inasmuch as it was based on the size of the land owned (land tax) and the amount of the harvest (income tax). To a certain extent the Double Tax System rectified the inequality of the level of taxes imposed on the rich and poor while increasing the revenues of the central government."

(http://www.travelchinaguide.com/intro/history/tang/economy.htm)

¹⁶ The Double-Tax System is explained as follows:

This automatically means that the state tax revenues declined sharply, which lead to the decline of the government.

Development of the same manors or large estates (called *shoen* 莊園 in Japan) took place in Heian period (平安時代) in Japan, too. The spread of manors was, however, associated with the emergence of the *samurai* (侍, or bushi 武士) class in Japan. They ultimately established Kamakura Shogunate in 1192, as we will see in 4 (1) below.

3. History of Salt Tax and State Monopoly of Salt in Ancient and Medieval China

(1) Salt and State Budget

In many countries all over the world, salt has long been used to raise revenues for the government either in the form of state monopoly or in the form of an excise tax on it. China is no exception on this matter²⁰. Chinese governments had heavily been dependent upon the revenues from salt after Tang Dynasty.

(2) Salt and Budget in China

"From the second half of the Tang Dynasty on manors or large estates (*zhuangtian* 莊田, *zhuangyuan* 莊園) were a normal form of land ownership. A great part of the manors were owned by members of the imperial family, and by high officials, but also by monasteries."

"A main source of tax revenue for the Tang state was now salt production and sales. • • • Private vending of salt and disturbing the salt distribution were prohibited."

"The burden of taxes on the population was quite high at the end of Tang, mainly because the central government had lost its grip on the different regions of the empire and because more and more land was purchased by large estate owners."

(http://www.chinaknowledge.de/History/Tang/tang-econ.html)

20 France used salt as source of tax revenue, too, as is explained in one paper:

"Salt was taxed by governments from the ancient Chinese and Romans to late medieval Burgundy, where salt was taxed at more than 100% as it came from the salt-works. Extended to the whole of France when Burgundy was absorbed, the notorious salt tax "la gabelle" became necessary to the government. Cardinal Richelieu said that it was as vital to France as American silver was to Spain."

(http://teamwork.ucdavis.edu/~gel115/salt.html)

Salt was very important in the state budget already in Han Dynasty as we saw it above. Emperor Wudi (武帝) of Han Dynasty made salt and iron under state monopoly (專売). And Emmeror Zhaodi (昭帝) of Han Dynasty, in 81B.C. (始元六年), called upon a discussion group on salt and iron (鹽鉄会議), and Emeror Xuandi (宣帝) of Han Dynasty abolished the monopoly of salt and iron²¹.

Whereas in Tang Dynasty, Emperor Suzong (肅宗) appointed Liu Yan (劉晏) as commissioner of salt administration and reformed the salt monopoly in order to raise more revenue. Even though this change seems a trivial one, it might mean a lot, I believe. We could even say that it led to active salt smuggling²², and eventually destroyed the Dynasty.

(3) History of salt smuggling in Tang

In the era of Emeperor Muzong (穆宗), peasants suffered severely from the double tax system and the salt monopoly. Naturally, in the era of Emepor Xizong (僖宗), in

21 Mark Kurlansky, Salt: A World History, chapter 1, 2001 gives us detailed explanation of the debates in the discussion group on salt and iron:

"The central subject was to be the state monopolies on iron and salt. But what emerged was a contest between Confucianism and legalism over the responsibilities of good government—an expansive debate on the duties of government, state profit versus private initiative, the logic and limits of military spending, the rights and limits of government to interfere in the economy."

22 It is said:

"A main source of tax revenue for the Tang state was now salt production and sales. The salt distribution and disposition was rigidly controlled by special salt agents (*yanguan* 鹽官) in 13 salt touring brokerages (*xunyuan* 巡院) all over the country. Private vending of salt and disturbing the salt distribution were prohibited."

(http://www.chinaknowledge.de/History/Tang/tang-econ.html)

Mark Kurlansky writes:

"The state salt monopoly disappeared for 600 years. But it was resurrected. During the Tang dynasty, which lasted from 618 to 907, half the revenue of the Chinese state was derived from salt. ----- Over the centuries, many popular uprisings bitterly protested the salt monopoly, including an angry mob that took over the city of Xi'an, just north of Sichuan, in 880

(Mark Kurlansky, Salt: A World History, chapter 1, 2001)

879, started the famous revolt led by a rich salt merchant/smuggler²³ Huan Chao (黄巣) ²⁴ together with other salt traders Wang Xianzhi (王仙芝) and Shang Rang (尚讓). The power of Tang Dynasty declined dramatically after this revolt. Local military commissioners took over the control of various regions. Even though Huan Chao was killed in 884, Tang Dynasty itself was ultimately destroyed in 907 by a follower of Huan Chao²⁵.

4. Economic Analysis

(1) Optimal tax theory and history

What could we learn from the very brief history of China above? Even though it might be possible to explain the history with the traditional idea of revolution by the economically oppressed people, as in the case of Marxism doctrine, here I dare try to prove that a simple micro-economic theory could explain the historical events logically

23 舊唐書卷二百下、列傳第一百五十下(朱泚·黃巢·秦宗權) says: 「黃巢, 曹州冤句人,本以販鹽為事.」

24 Here is a brief biography of Huan Chao on a famous encyclopedia:

"Huang Chao, or Huang Ch'ao, died 884, China

Chinese rebel leader whose revolt against the **Tang** dynasty, though ultimately defeated, so weakened the dynasty that it collapsed shortly thereafter.

A **salt smuggler** turned rebel, Huang captured Guangzhou (Canton) in 879 and the **Tang** capital of Chang'an in 881. There he proclaimed himself emperor but was driven out by an alliance of government troops and Turkish nomads. One of his generals overthrew the **Tang** (907) and founded the first of the short-lived Five Dynasties."

("Huang Chao." Britannica Concise Encyclopedia. 2004. Encyclopædia Britannica.

19 Apr. 2004, http://concise.britannica.com/ebc/article?eu=392780)

25 It is said:

"the rising salt price - as a state monopoly becoming almost the only source of revenue for the Tang state - caused many peasants to take part in the popular uprisings that shook the Tang empire from the 850es on."

"In 881 Huang Chao proclaimed himself emperor of a Qi Dynasty 齊, Emperor Xizong 唐僖宗 had fled to Chengdu 成都 in Sichuan like Emperor Xuanzong 唐玄宗 some 125 years before.In 884 Huang Chao was finally defeated."

(http://www.chinaknowledge.de/History/Tang/tang-event.html)

in the ancient Chinese context.

We have already seen that the ancient Chinese governments relied heavily on revenues from poll tax, land tax and salt tax (and salt monopoly). Please note that, for the sake of convenience, we dare not distinguish the salt tax from the salt monopoly here.

From the point of view of the optimal tax theory, all of the three taxes listed above seem to be economically efficient in the sense that they do not distort economic activities in the market. To put it in a very simple way, optimal tax theory states that hard-to-avoid taxes are more neutral and efficient. This is because they do not distort market activities in the sense that a taxpayer's behavior after taxation is not different from that before taxation when the taxpayer finds that tax hard to avoid by changing behavior.

Under optimal tax theory²⁶, the following taxes are generally considered typical examples of comparatively neutral one:

First, poll tax (head tax) is considered neutral because it is difficult for a taxpayer to avoid it by changing his/her economic behavior. Of course, there ultimately exist several ways to avoid it, such as running away and hiding oneself in the mountains, going out of the country, or even committing suicide.

Second, regressive-rate income tax might be more neutral than other income taxes. This is because a taxpayer could have higher marginal after-tax return when he works hard and earns more. This income tax rate structure could stimulate productive people to work more. They could maintain their incentives to work under this rate structure.

"Ramsey put forward his model of efficient taxation in his 1927 article "A Contribution to the Theory of Taxation." The question he sought to answer was how to raise a given amount of revenue while incurring the least possible excess burden on society. From this analysis, he came up with the Ramsey rule:

"to minimize total excess burden, tax rates should be set so that the percentage reduction in the quantity demanded of each good is the same."

By utilizing elasticities, the Ramsay Rule can be transformed into the inverse-elasticity rule for goods that are unrelated in consumption. This rule basically results in inelastic goods being taxed the highest and elastic goods being taxed the lowest."

(www.aph.gov.au/senate/committee/economics_ctte/completed_inquiries/2002-04/tariff 02/submissions/sub06a.doc)

²⁶ In the world of taxation, we have Ramsey rule. See, Andrew Irwin, "Fine Vintages?, A Study into Wine Taxation in Australia," 2001:

Third, land tax is generally considered neutral. It is essentially a tax on economic rent. As people are maximizing the economic rent in their market activities, a tax on rent does not generally affect people's behavior. It is a very famous historic fact that Henry George wrote a book "Progress and Poverty" in 1880 to advocate the tax in the United States.

Forth, excise taxes on necessities are usually considered neutral. As people anyway consume a certain amount of necessities no matter what the price is, taxes on them generally do not affect taxpayers' behavior.

Thus most of the old taxes in ancient China seem to be rather neutral and efficient at least theoretically. But could we say that those taxes were really efficient? Quite to the contrary! I believe that even such a tax could indeed distort economic activities of taxpayers in the sense that it causes people to evade taxes when the tax rate is too high.

Occasionally such activities of tax avoiders/evaders (like salt smugglers) might even result in the overturn of the government itself, as we could see in the case of the establishment of Kamakura Shogunate in 1192 in Japan²⁷.

"Although Kyoto aristocrats formally controlled the central government during the 7th to 12th centuries, this was the time when actual power shifted to the warrier class. There, power would remain for most of the next 700 years. These warriers began as armed landlords in eastern Japan (the Kanto area; now the greater Tokyo area). Initially, they lacked formal property rights to the farmlands they developed. In this short article, we show how they transformed their informal control over these lands into legally enforceable property rights and political power -- and explain the crucial role that tax policy played in that transition."

"Rather than rely on a powerless Kyoto court, the armed landlords began to form rival private governments. They then fought each other for control, but the samurai who in 1192 eventually came to dominate them all was Minamoto Yoritomo. He based his new government in Kamakura, near present-day Tokyo. As a shrewd politician, he maintained a formally coordial relationship with the Kyoto court, and from the court obtained the title of shogun (generally translated "barbarian-subduing-generalissimo")."

"In Japan, a combination of high tax rates, illegal evasive efforts, and legal tax incentives led to the development of the class of armed landlords. As the new samurai class, they eventually displaced the Kyoto aristocracy. Hard-to-avoid taxes are good from the view point of the optimal tax theory, because these taxes do not distort taxpayers' activities (before

²⁷ Minoru Nakazato & J. Mark Ramseyer, The Tax Incentives That Destroyed the Government: An Economic Analysis of Japanese Fiscal Policy, 645-1192 社会科学研究 5 1 巻 3 号 3 - 1 2 頁)

Japan directly imported the tax system of early Tang Dynasty in China. After Taika Revolution in 645 (大化改新), the Japanese government established a new land policy (Kouti-Koumin Sei, 公地公民制) with a new tax system (So-You-Chou, 租庸調). As the aristocrats, shrines and temples were generally exempted from taxation, however, powerful local farmers began to donate the newly-developed land to the privileged ones in Kyoto in order to avoid the taxes. These local farmers in fact controlled the land locally and paid rent, which was cheaper than the official taxes, to the aristocrats, shrines and temples in Kyoto. This is similar to the modern American tax shelter called "sale and lease back." It is a typical form of tax arbitrage. These local farmers later became the powerful Samurai class (侍). In Heian period (平安時代), there were plenty of such tax-free manors (Shouen, 荘園) all over Japan²⁸. Even though the ruling class people were rich, the Kyoto government did not have enough revenue to supply such basic public goods as police service even in the capital city of Kyoto, as was vividly seen in a famous film "Rashomon(羅生門) by Akira Kurosawa (黒 澤明). And finally in 1192, a leader of these *samurais*, Minamoto Yoritomo (源頼朝) established their own government in Kamakura (鎌倉). The Kamakura Shogunate started first as a provisional military regime. It originally was a kind of private government. Later, however, the samurai people acquired the total control of the

tax activities and after tax activities are not much different). But even poll tax distorts economic activities as is shown in the example of Kamakura Shogunate."

28 Minoru Nakazato & J. Mark Ramseyer, The Tax Incentives That Destroyed the Government: An Economic Analysis of Japanese Fiscal Policy, 645-1192 社会科学研究 5 1 巻 3 号 3 - 1 2 頁)

"Here is a historical document on the effects of tax incentives in ancient Japan. Lord Kiyoyuki of Miyoshi (三善清行, 847 A.D. – 918 A.D.) submitted his "Twelve Opinions to the Emperor Daigo" (御意見封事十二箇条) in 914. It was a lengthy piece written in classical Chinese. Kiyoyuki himself was Professor of Literature (monjo hakase 文章博士) at the University (daigaku 大學). Founded in the 8th century, the University was built to educate bureaucrats, and was the predecessor to the modern University of Tokyo.

In this document, we find a description of the decline of the state land ownership. Kiyoyuki had hoped to restore the political system of the Taika Reforms. Shortly after those Reforms, the Fujiwara clan had come to dominate the Kyoto court. Although the leading scholar of his time, as a non-Fujiwara Kiyoyuki had only a lackluster bureaucratic career. It is thus not surprising that he would urge the court to restore the Taika system and pick bureaucrats by ability.

country. The *samurai* class controlled the country politically for nearly 700 years till Meiji Restoration (明治維新) of 1868.

Indeed in China, exactly the same thing happened. Tang Dynasty was overturned after the revolt of the salt smuggler, Huan Chao. But in China one thing was quite different from Japan. The same overturn of the government happened repeatedly in later Chinese Dynasties. Later in Chinese history, salt smugglers continued to play a very important role as leaders of revolts, because the later dynasties continued imposing heavy tax on salt (and/or salt monopoly). Why is China different from Japan?

(2) Salt tax and Chinese dynasty changes

Production and trade of salt has been an important source of power in the history of mankind. It is by no means an exaggeration when one says, "salt created and destroyed empires." ²⁹ One even says that the power of the British Empire in the world came from "saltworks in the Bahamas and North American cod." ³⁰

At the end of the discussion on an economic analysis of the decline of Tang Dynasty, I cite the following from our own paper:

"That tax law can have apparently unanticipated political ramifications is obvious enough. A simple but vivid example comes from ancient and medieval China. Some imperial Chinese governments imposed a tax on the consumption of salt. They both monopolized the industry itself and taxed the product. This salt tax was an important source of state revenue, and the rate was

29 "Salt" in http://www.thefreedictionary.com says:

"Salt was, until the 1900's, one of the prime movers of national economies and wars. Salt has played a prominent role in determing the power and location of the world's great cities. Timbuktu was once a huge salt market. Liverpool rose from just a port to Ireland to become the prime producer of the world's salt in the 1800's. Salt created and destroyed empires."

30 "Salt" in http://www.thefreedictionary.com says:

"The salt trade was based on one fact — it is more profitable to sell salted foodstuffs than to sell just salt. Thus sources of food to salt went hand in hand with salt making. Before the salt mines of Liverpool where discovered, a huge trade in British fish for French salt existed. This was not a happy accord, for each nation did not want to be dependent on each other. The search for fish and salt led to the Seven Years War between the two. With the British in control of saltworks in the Bahamas and North American cod, their sphere of influence quickly covered the world."

usually very high -- sometimes 5000 percent.

Optimal tax theory suggests that a tax on necessities like salt can be economically efficient. Because the elasticity of demand for such goods is low, the tax does not affect behavior. People need salt, and need it in largely fixed quantities. As a result (to overstate the argument a bit), they can no more avoid the salt tax by changing the way they behave than they can avoid a poll tax. Because the tax does not distort market decisions, it raises revenue efficiently. Or so optimal tax theory might seem to suggest.

If fact, of course, the Chinese salt tax was not efficient. Chinese consumers may not have much changed the amount of salt they consumed, but they did change the way they acquired it. Because they aggressively tried to avoid the tax, the government's fiscal policy led to the development of a large black market. That market, in turn, created a corps of illegal salt dealers. And those dealers, in turn, from time to time overturned the government.

The point is simple: even when demand for a good is inelastic, consumers will usually have alternative routes for acquiring it. As a result, a high tax rate will cause them to shift from taxable transactions to effectively (even if illegally) non-taxable transactions. Precisely because taxes generate their own evasion, they almost always distort market activity.

Tax incentives (as a legal form of tax evasion) can sometimes have similar effects. Given the presence of a tax, consumers will try to avoid it. Where the government offers a legal way to do so, (if the penalties for illegal evasion are sufficiently high) they will choose those legal tax incentives over simple evasion. Legally or illegally, the government loses the revenue. Either way (as we explain below), apparently unanticipated political consequences sometimes ensue.

The tax on salt generated its own evasion, and led to the overthrow of medieval Chinese governments." 31

Especially the salt tax would be relatively easy to evade or avoid, as we could observe that there were so many powerful salt smugglers in China. A very heavy salt tax inevitably induces people to avoid/evade it and increases the number of salt smugglers.

As later Chinese Dynasties continued imposing salt tax, salt smugglers continued to maintain economic and social power. But salt smugglers' powers and roles remained basically in the underground world. They could not become the leading social class, which was quite different from the *samurai* class in Japan who not only maintained economic power but also became new aristocrats in the main-stream society.

This may be because Japanese governments did not impose salt tax which

³¹ Nakazato & Ramseyer, The Tax Incentives That Destroyed the Government: An Economic Analysis of Japanese Fiscal Policy, 645-1192, supra.

inevitably creates smugglers. Land tax paid in the form of rice was the main source of tax revenues in Japan. This kind of tax did not create underground commercial activities.

(3) Conclusion: Tax Law and Political History

At first, the story seems quite the same both in Japan and in China at least superficially after the 7th century. Both had Equal Fields System (均田制) with three taxes in kind (租庸調). In both countries the aristocrats and temples were exempt. And these privileged ones began to acquire land and created huge manors (荘園) for them all over. Both governments suffered from the shortage in tax revenues. And political struggles followed.

But the result seems quite different. In the later Chinese history, the same story of Dynasty change repeated itself over and over again just in the way as in the process of the decline of Tang Dynasty. In Japan, even though there were changes in political power several times after the establishment of the Kamakura Shogunate, power basically remained in the hands of *samurai* (侍) class until the late 19th century. Why was it so? A salt tax (and/or salt monopoly) might be one reason. Japan basically did not have a heavy salt tax (and/or salt monopoly).

It might be possible for us to explain the repeated changes in dynasties in China with a salt tax (and/or salt monopoly), as one puts:

"When humans first became farmers instead of hunters, they lost meat, which was the main supply of salt. This common need for salt led to uprisings and revolts. In fact, it has often been attributed to whether salt was taxed or not whether the people where happy. Rome had a policy to not tax salt, while the often changing Chinese Dynasties rose or fell depending on their tax policy." ³²

After all, a salt tax (and/or salt monopoly) produced powerful smugglers in China, whereas in Japan land tax in kind produced *samurai* class, which might explain the later history in those two countries. In Japan power struggles were confined basically within the *samurai* class, whereas in China salt smugglers could destroy the government repeatedly.

^{32 &}quot;Salt" in http://www.thefreedictionary.com.