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## Smoking Guns

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### 0. Abstract

China is poised, if things go moderately well, to become the world's largest national economy in the 2030s and to become an international superpower. In an attempt to propel itself to this vantage position, the country has opened its doors. As a result, changes from both the economic and social fronts are sweeping through the country. In this article, we discuss various political, economical and social issues including smoking, human rights, and WTO.

## 1. INTRODUCTION

Recently, I took an extended tour to various regions of China, including trips to the countryside and hinterlands. One recurring sight is the massive development and megaprojects since the country opened its doors two decades ago. This sight is especially conspicuous along the coastal regions.

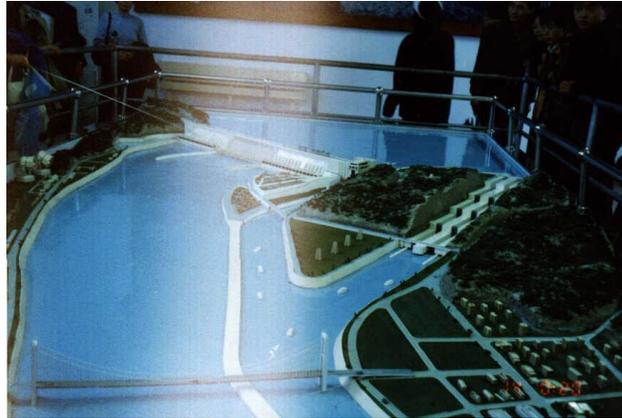


Figure 1. A model of the mammoth Three Gorges Dam. After a lengthy and extensive survey, on April 5, 1992, the National People's Congress approved the Three Gorges Dam Project (TGP). Official groundbreaking of TGP occurred on December 4, 1994. Damming work was successfully implemented on November 8, 1997. Completion is scheduled for 2009. When complete, it will be the world's largest hydroelectric power project, generating as much as fifteen times as a standard nuclear power station. TGP will create a reservoir approximately 400 miles long, permanently submerging 150,000 acres (including 160 towns and 16 archeological sites) and resettling 1.3 million people.



Figure 2. A snapshot of modern Shimchun. In the 1970s, Shimchun was a rice field village, the Chinese side of the border between China and Hong Kong. During those days, US and British intelligence agencies on the Hong Kong side kept their high powered lens focused for any suspected illegal Chinese immigrants crossing the border. On the Chinese side, the Red Army kept guard. Today, the city, better known as Shenzhen, is a city of over one million and home to hundreds of foreign businesses, skyscrapers and departmental stores. In this snapshot along one of the

busiest streets of Shenzhen, Shennan TaDao, is the Shenzhen Development Bank (the ziggurat shaped building). Adjacent to the bank is the Shenzhen Stock Exchange.

Amidst all the excitements, many contradictions begin to surface, particularly all-pervasive undesirable social habits such as smoking and excessively imbibing of hard foreign liquors. Smoking in closed environments such as on buses, in taxis, restaurants, disco bars, karaoke bars, and homes, and in open environments such as in scenic areas and along streets, is a common sight. The scale of the habit is so widespread that it has become almost a part of everyday life and is very much taken for granted. Three instances prompted me to write this article. In the first instance, I noticed an obedient young girl would buy her smoking mother brand cigarettes each time she went out. The mother could only afford local brands and this was a way to express her love for her mother. In the second instance, en route from Huangshan to HeFei on a bus, the passengers sitting close by me were chain smoking away as if there was no tomorrow. The passengers were a group of Beijing businessmen visiting the Province of Anhui. The interesting thing about this incident was that the passenger sitting immediately to my left was probably not a smoker, as I could see from how quickly he distinguished the cigarette after a few puffs. It seemed like he had no other choice if he was not to offend his superior, who offered him the cigarette! In the third instance, when I was introduced to a friend of my host at a karaoke dance floor, the stranger immediately reached for his shirt's front pocket to retrieve a packet of cigarettes to offer me as a gesture of friendliness. When I declined the offer, I created quite an awkward situation. Other instances abound, but these instances will suffice to substantiate my point that smoking is rampant in China.

The rapid rise in the standard of living, which 15-folded in the past two decades, leads to a huge increase in disposable income. Though smoking has been around in China even before the recent open-door policy, the rapid increase of disposable income is an indicator of potential rise of consumption of more foreign cigarettes, if the current smoking trend is left unchecked. (In a related problem, the rise of disposable income of the working young has already led to a huge increase in the demand for hard foreign liquors.)

For a country as vast as China, with a rich culture, an ancient history, and an unprecedented international influence, it will be almost impossible to discuss one aspect of the country without touching on other facets. Thus, we begin this article with discussions of health effects of smoking, then delve into how China has surfaced above the global economy, and the subsequent sweeping changes in its social fabrics.

## **2. SMOKING KILLS - A KNOWN EPIDEMIOLOGICAL FACT**

We will begin with the 1947 seminal work by Sir Bradford Hill. This work is pertinent to our discussion in two ways:

1. It marks the first seminal piece of work that puts epidemiology on a scientific basis,
2. It coincides in chronology with the founding of the People's Republic of China (1949).

It has been known for decades that nicotine and cigarettes can kill. In 1947, Bradford Hill of Britain was summoned by the Medical Research Council to investigate whether smoking might explain the startling 15-fold increase in the death rate from lung cancer in Britain over the previous 25 years [1]. The main problem facing Hill was 90% of the adult male population were smokers, so clearly it would not be possible to implicate tobacco simply on the grounds of whether someone smoked or not. Rather, it was necessary to establish dose-response relationship. Together with colleagues Edward Kennaway, Percy Stock and Dr. Richard Doll, Hill found that 99.7% of the lung cancer patients confessed to smoking, compared to 95.8% of those with diseases other than cancer. Such an observation by itself hardly established anything conclusive. However, when the patients were subdivided into four groups depending on how much they smoked daily, they were able to discern a trend of a higher lung cancer risk among heavier smokers. The results are tabulated below [2]:

Table 1. Smoking habits between patients with cancer and controls.

|   | <b>1 Cigarette/Day</b> | <b>15 Cigarettes/Day</b> | <b>50 Cigarettes/Day</b> |
|---|------------------------|--------------------------|--------------------------|
| <b>649 Lung Cancer Patients (99.9%)</b> | 33 (5.1%)              | 196 (30.2%)              | 32 (4.9%)                |
| <b>649 Controls (100%)</b>              | 55 (8.5%)              | 190 (29.3%)              | 12 (2.0%)                |

Examining the final figures, 4.9% of lung cancer patients smoked 50 cigarettes a day, twice as high a percentage as the 2.0% of controls, a subtle difference perhaps. But whichever way the smoking habit was investigated, either looking at the amount smoked daily, or the maximum amount smoked, or the total amount smoked over the years, the result was unmistakable: the greater the amount of tobacco consumed, the higher the risk.

This case-control study was retrospective in that it tried to make sense of something that had happened. But if the association between lung cancer and tobacco was valid, the same result should be obtained looking forward, starting with a large number of men and women. For this, Hill chose a cohort of 60,000 doctors on the Medical Register, who were likely to be more reliable in answering the survey questionnaires posed to them. Within a short period of two and half years, of the 40,000 doctors who replied, 789 had subsequently died, though a mere 36 from lung cancer. The results are shown in Table 2 [3].

Table 2. Mortality rate per 1,000 male doctors in relation to the most recent amount of tobacco smoked.

| <b>Cause of Death</b> | <b>Number of Deaths Recorded</b> | <b>Death Rates of Men Smoking a Daily Average of Tobacco of:</b> |            |             |
|-----------------------|----------------------------------|--|------------|-------------|
|                       |                                  | <b>1g</b>  | <b>15g</b> | <b>25g+</b> |
| <b>Lung Cancer</b>    | 36                               | 0.48   | 0.67       | 1.14        |
| <b>All Causes</b>     | 789                              | 13.42  | 13.48      | 16.3        |

The trend is clear: the more tobacco smoked, the greater the death rate, rising from 0.48 per 1,000 doctors smoking 1g daily to 0.67 for those smoking 15g, to 1.14 for those smoking 25g or more. This should be compared with those who died from "All Causes" in whom there was no gradient with increase in smoking habit. In 1993, Sir Richard Doll (knighted for his contribution to this research), on his eightieth birthday celebration, summarized the results of the study forty years on. By then almost half of the doctors who answered the 1951 questionnaires had died, of

whom 883 had succumbed to lung cancer. Those smoking 25 or more cigarettes a day has a 25-fold increased risk of lung cancer compared to non-smokers [4].

## 2.1. Adverse Health Effects of Tobacco

There are a lot of publications on the adverse effects of smoking on health, active and passive tobacco exposure [5], and the enormous disparity between what the tobacco industry knew and what is said publicly about the dangers and addictiveness of cigarettes [6].

Nicotine is one of the most highly addictive substances available. It meets all the criteria that define an addictive substance - it produces brief, pleasurable psychoactive effects; its use occurs despite the known harmful effects; tolerance to both the pleasurable and unpleasant effects develops during early usage; higher usage overcome tolerance; and withdrawal symptoms occur when the substance is no longer used [7]. At least 40% of those who have ever smoked cigarettes believe they are physically dependent on tobacco products. By contrast, only 6-8% of those who have ever drunk alcohol have recently binged or have felt dependent, and only 4% of those who have ever used cocaine feel dependent. In a test, chronic smokers (5-7 years average duration) who had not smoked for 2-8 hours before exercise testing had blunted heart rate responses to exercise and diminished exercise tolerance compared with nonsmokers. Maximal heart rate in smokers was decreased by 4% and exercise test duration by 7% [8].

The smoke that cigarette smokers inhale into their lungs is "mainstream" smoke, while the smoke that comes off the burning tip of a cigarette is "sidestream" smoke. Sidestream smoke actually contains higher concentration of many toxic chemicals than mainstream smoke because sidestream smoke is not filtered and because cigarettes burn at a lower temperature when they are smoldering, leading to a less complete, dirtier combustion. The air pollution arising from sidestream and extracted mainstream smoke is secondhand smoke or environmental tobacco smoke (ETS), and people who breathe this smoke are known as passive smokers or involuntary smokers. Research conducted in the 1970s showed that children exposed to ETS have higher rates of respiratory diseases [9].

In the US, risk factors for initiating smoking include use by other family members and friends, peer approval/pressure, low socio-economic status, poor academic achievements, poor self-image and susceptibility to influence of others, and advertising images that project smoking as pervasive and glamorous [10]. It is also known that some females have resorted to smoking to maintain their slim look at the hefty expense of good health. There is every indication these factors are equally applicable in China.

The Cigarette Papers [6] - a collection of confidential internal tobacco industry documents, together with other material subpoenaed by the US Congress - provide a definitive examination of how tobacco companies have concealed from the public and deceived the public on health effects of tobacco. Tobacco documents subpoenaed from the Council for Tobacco Research, Brown & Williamson, Philip Morris, RJ Reynolds Tobacco, Lorillard Tobacco, and Tobacco Institute, holding information on the tobacco industry's history from 1954 through the early 1990s, including information and research on smoking and health, are available online [11]. For

more than three decades the industry had internally acknowledged that smoking was addictive and that use of tobacco products caused diseases and deaths. Despite this acknowledgment, the industry had engaged in a variety of tactics to deny its own findings and to convince the public that there was still doubt about the harmful effects of tobacco or that the effects had been exaggerated. The campaigns of misinformation had been designed to maintain company profits, to block government regulation, and to defeat lawsuits filed by individuals with tobacco-induced illnesses. The US government, the public, as well as cigarette consumers had been duped. The Former Surgeon General of the US, Dr. C. Everette Koop commented on the Cigarette Papers, "...Read this and weep - tears of sadness for what the tobacco companies have done to us..."

### **3. BEHIND THE GLOOMY NUMBERS**

This epidemiological dose-response observation is very significant and its consequences can attain a critical proportion when it is applied to the world's most populous nation, China.

China, home to 1.2 billion people, has more than 300 million smokers. Of the 300 million, half a million succumb annually. With the present rates of smoking, 50 million of today's children will die prematurely from tobacco-related diseases. This makes tobacco-related illnesses the largest preventable cause of death. By way of comparison, tobacco-induced illnesses are the second largest preventable cause of death in the US.

According to Dr. Roderick Gee, a representative from the World Health Organization (WHO) in China, the number of smokers is increasing by 3 million every year and the death rate will soar to 2 million by 2025 [12]. Being the most populous nation in the world, there is no doubt that China is the world's largest latent cigarette market. As of date, it already is the world's largest cigarette market. The annual sales volume is 1.6 trillion cigarettes. With this volume of sales, the state revenue from cigarette tax is a handsome number of \$8.55 billion or more than 10% of the total government income. To count on this revenue is terribly myopic because the hidden healthcare and other costs related to smoking far outstrip the revenue.

#### **3.1. Beijing' Counter Jabs**

In Western countries, county investment in the tobacco industry will be considered socially irresponsible because tobacco has been proven to take a costly toll on the health and general welfare of the citizens. Widespread programs to educate the public on the harmful effects of nicotine and smoking appear in leaflets, on the radio, television and billboards.

Impressed by the economic prowess of the West, China is very anxious to enter the world scene. However, it is constantly pressured by trading partners to swing their doors wide open. This puts China in a predicament. While China is gradually becoming aware of the economic costs of smoking, it is also under tremendous pressure to open up its market for foreign goods, including cigarettes, which currently face stiff import tariffs. The irony is health authorities in the West advise against smoking, but interest groups and lobbyists for foreign tobacco companies will continue to pressure their respective governments to force China to open up its cigarette market.

Though Beijing has initiated campaigns to curtail smoking by imposing restrictions on cigarette advertising and banning smoking in public places, greater efforts are needed to ensure future generations do not pick up the addictive bad habit. Western tobacco companies, squeezed by hostile anti-smoking activism back home, have been increasingly eyeing Asian countries (and Former Eastern Bloc countries) to maintain their revenue stream. In particular, in China, currently more than 60% of men smoke compared to less than 10% of women smoke. This is rather disturbing and threatening because international companies tend to advertise more aggressively than the local Chinese tobacco monopoly, and they will seize the golden opportunity to target young people and women.

#### **4. IT IS A MATTER OF SEX - XXX**

Promoting smoking habit is socially irresponsible, but promoting smoking habit in women is triply disastrous, as we see presently.

Many recent studies have shown that both smoking and nonsmoking women are at a much higher risk of developing lung cancer than their male counterparts. Dr. Sharon P. Shriver, a biologist at Pennsylvania State University, inferred that women are more likely to develop lung cancer after less smoking exposure than are men. Also, a non-smoker who develops lung cancer is three times more likely to be female than male. This suggests women are more sensitive to tobacco-induced lung cancer, and a genetic difference between male and female may contribute to the greater lung cancer risk.

The culprit gene has been identified that explains why female smokers are more likely to develop lung cancer as male smokers. The discovery came a result of researchers studying the genetic structure of lung tissue cells removed from both male and females. In a study with a cohort of 78 subjects (38 women and 40 men), of whom 58 were smokers, the activity of a gene called gastrin-releasing peptide receptor (GRPR) was studied. The gene prompts cells to link up with the GRP hormone. This linkage, in turn, causes abnormal cell growth that can lead to lung cancer [13].

The GRPR gene was found to be active in 55% of the nonsmoking women and about 75% of the smoking women, even if they had been smoking less than 25 pack years [A pack year is smoking 20 cigarettes a day for one year]. Among male nonsmokers, the gene was not active at all, whereas the gene is active in only 20% of the male smokers who puff less than 25 pack years. In other words, men have to smoke for the gene to kick in, whereas women do not have to smoke at all for the gene to be active. GRPR gene is found on the X-chromosome. Women have two X-chromosomes and most genes on one of the X-chromosomes in women are inactive. Dr. Jill M. Siegfried of University of Pittsburgh argued that for some reason, GRPR gene can remain active on both X-chromosomes in women. This most likely explains why we see more frequent expression of the gene in females.

Inferring from these observations, international tobacco companies targeting on the young and the woman segments can lead to very undesirable consequences.

## **5. CHINA - ENTER OF eDragon.com**

Economic development and social progress should go hand in hand. One without the other is lame. Only with a healthy social progress can the current miraculous economic growth in China be sustained.

Two hundred years ago, Napoleon warned that when the Chinese dragon awoke from its slumber it would shake the world. For more than two decades in the US, it has been apparent that trade flows and capital flows, and the wealth and power that derive from them, are shifting from the old Atlantic-centric world to an increasingly Pacific-centric world, a phenomenon sometimes called Pacification. What has become evident recently is that China is in the center of this Asia shift. The aggregate size and the scope of China's economy, coupled with its centrality to Asia and its precedent-setting influence through the developing world, will make it formidable and unique superpower in its own right [14].

Currently, China remains positioned to become the world's largest economy in the 2030s [15]. It will, however, be different from any of the great power the world has ever witnessed. The political-economic system it will evolve - a unique hybrid of many influences, including socialism and capitalism - will also be different from any system the world now knows.

Patrick J. McGovern, founder and Chairman of International Data Group, a Boston-based publishing and market research company, in his article "*Forget Silicon Valley - China is the new, new thing*", opined that the 20<sup>th</sup> Century ends on a high note in Silicon Valley [16]. A confluence of brain power, infrastructure and investment capital has helped talented people of Silicon Valley create more knowledge, technology and wealth per capita than anyone else in this century. However, this trend cannot be sustained into the 21<sup>st</sup> Century because there is a shortage of skilled people. Without more brainpower, Silicon Valley will have exhausted its ability to grow. The smart money is beginning to look beyond the Valley and go to where the people are - China, which has the largest untapped pool of technically trained and entrepreneurial people in the world. With a literacy rate of 95% and millions of technicians and engineers, many trained in the US, China is awash in the human and intellectual capital. The relocation to China of Hong Kong's and Taiwan's labor-intensive manufacturing bases, including management skills and export know-how, has had a synergistic effect on the virtually inexhaustible pool of cheap labor and emerging entrepreneurial talent. This has enabled China in two decades, to join the league of world's major trading powers [17].

McGovern, who has been to China more than sixty-five times, predicted that within a year, solid evidence that China presents an even greater opportunity for e-commerce and technology investors than Silicon Valley will begin to surface. The stampede has already begun. Sino.com, China's most visited website, raised \$65 million. China.com exploded to \$3.5 billion, much due

to the November 1999 landmark agreement between China and the US to open the Chinese Internet market to all investors [18].

Bill Gates, Chairman of Microsoft remarked, "China is only 1% of our sales now, but it is one of the fastest growing markets."

## **6. LEST WE FORGET THE OPIUM WAR**

While we may want to forget Silicon Valley in the 21<sup>st</sup> Century, we may not want to forget the Opium War of the 19<sup>th</sup> Century [19].

In the 1700s, foreign traders had to pay China for their purchases (tea, silk, rhubarb and other articles) in silver and gold. The balance was heavily in China's favor. For example, between 1781-1790, 16.4 million taels of silver and between 1800-1810, 26 million taels of silver flowed into China [1 tael of silver  $\equiv$  US\$1.63]. The balance of payment soon became a source of alarm for the British government. Lord George Macartney was sent to the court of Emperor Qianlong on behalf of King George III to open up China to free trade in 1793. The senile eighty-year-old emperor recognized opening up China as Macartney proposed, which included British rights of diplomatic residence in Beijing and the opening of new ports to international commerce, would have destroyed the Chinese imperial system. The Emperor declined the proposal.

Dismayed at the failure of Macartney's mission, the next British tactic was opium, which was banned in Britain. By introducing opium into China from their colonial lands in India, the British government solved their trade deficit problem. The opium trade exploded from less than 4000 chests per year [opium was packed in chests, which weighed approximately 133.3 pounds for West Indian opium, and 160 pounds for Bengal opium] in 1790 to almost ten times by the 1830s. The balance of payment also tipped quickly as a result. There was a net silver inflow until the mid-1820s, when it settled into an equilibrium by 1826. Beyond 1826, there was a net outflow. For example, between 1831-1833, nearly 10 million taels of silver flowed out of China.

The flow of silver back to the British triggered an economic crisis in China. As the British opium trade rose ever higher, Emperor Daoguang decided to enforce a ban on the drug. A tense atmosphere developed, thick with the inevitability of a clash. Local traders dispatched William Jardine (who would later found the venerable Hong Kong-based trading house Jardine, Matheson and Company), a leading opium merchant with the equivalent of \$20,000 to go back to London to lobby on their behalf. His mission was to convince the British Parliament and public opinion of the necessity of war over the issue. The British ultimately responded by dispatching fleets and mobilizing troops to start what would be known as the Opium War (1839-1842). Decimating the Chinese forces, the British blockaded ports, occupied Shanghai, and brought China's internal trade to a standstill. The emperor had little choice but to accept a humiliating peace.

The unequal Nanking Treaty of August 29, 1842, which formally concluded the hostility, specified that China should make huge treasury-draining reparations (\$21 million) to Britain. It also opened up five cities (Canton, Amoy, Foochow, Ningpo and Shanghai) to British traders and

ceded to them the Island of Hong Kong. This unequal treaty would usher in China's century of deeply resented unequal treaties, which gave foreigners trading privileges, special concessions, and special extraterritoriality rights that allowed them to set up their own fiefdoms inside Chinese cities but free from Chinese laws. Indeed, it would be the Chinese citizens who were subjugated inside these concessions, as in the case of the park for Europeans along the Bund in Shanghai with its notorious sign, still posted in the 1940s: "No Chinese or dogs allowed."

## **7. POLITICAL POTATOES**

Why do we discourse so much into the Opium War? The current tobacco business is quite reminiscent of the Opium War. The painful history will caution us away from a repeat of another Opium War, but we might be unconsciously marching towards a Nicotine War.

### **7.1. Opening the Door to the World**

The lesson of the Opium War, the subsequent century of humiliation and the series of unequal treaties are still fresh in the Chinese minds. It is clear that foreign powers chose not to topple the political nervous system of the Qing Dynasty. Rather, the weak political system guaranteed them access to and control over the Chinese resources. Bertrand Russell wrote in *The Problem of China* (1922) that "the British view is still that China needs a central government strong enough to suppress internal anarchy, but weak enough to be obliged to foreign pressure."

In the recent quarter of a century of economic development, China had adopted a two-stage economic growth policy of import substitution followed by export promotion. In simple terms, during the import substitution stage (1980s), it overvalued its currency (US\$1=3 RMB) in order to lower the cost of imports needed to develop its mission-critical infrastructure, telecommunications and technology base. When these have been developed, the export promotion stage began (1990s), at which time the currency is devalued (US\$1 = 8 RMB) to make the export more competitive on the international market. Besides devaluation, China signed the 1995 Accord on Intellectual Property Protection with the US, and dropped import barriers in 1996 to gain access to international trade conventions.

Unified tariff conditions are key to gaining entry into the World Trade Organization (WTO) [20]. Entry into WTO will relieve China of perpetual bilateral trade bargaining process with the US to be a Most Favored Trading Nation (MFN) and propel it onto a level playing field with the world's major trading countries. This will in turn allow China better access to the world's markets for Chinese products.

However, the Chinese still impose stiff tariff on certain foreign goods and capital. Tariff on foreign goods includes cigarettes, the tariff of which as we have seen is in jeopardy. China's regulations on investment is an attempt to prevent a recurrence of the creation of dependency relationship, similar to that developed between the West and Latin America or the West and Africa. Dependency relationship has the spiraling effect of keeping the underdeveloped world (the dependent client) underdeveloped and concentrating capital in the developed world (the

patron) which grows richer through manufacturing finished goods, which the underdeveloped world becomes dependent on.

Anyone who has seen advertisements on the TV in China will agree that there is a lot of misinformation and gilding. There are informercials, which are banned in the US but are freely broadcast on the TV in China. Let us recall a well-known instance in history. When the Nestle Corporation was pressured to suspend infant formula advertising and aggressive marketing products in developing countries, the controversies focused was not on the freedom-based issue of poor dissemination of information. Rather, it was on the felt need to educate a population about breast feeding and about the risks and benefits of the use of baby formula [21]. In a similar argument, advertisement of smoking being cool to peers is gilding information.

The opening of China's Internet market to foreign investments on November 15, 1999 brought China yet another step closer to WTO membership [22]. The issue of human rights remains a recalcitrant hindrance to the WTO membership entry.

## **7.2. The Rights to Exist**

According to international law, the issue of human rights may be viewed on two planes: the right to exist, and the right to develop. A person's right to exist is a basic right, whereas a person's right to develop is contingent on the conditions and the individual's attitude under these conditions. For China, the human right issue is a question of 1.2 billion people having the right to eat. Only when the issue of simple human existence - access to the three basic needs of life: food, clothing and shelter - has been resolved can the nation begin to address the right to develop in any way that will be meaningful to the people. In the past twenty years, to the Chinese, the human rights to food, clothing, shelter, economic development, security, as well as individual's right to live in a stable society are paramount. Judged from this plane, China in the past two decades is a leader, and not a laggard, in promoting human rights of its people.

This view is clearly expounded in a 57-page report published by the Information Office of the State Council in November 1991. In the report, the Chinese government had high praise for the Universal Declaration of Human Rights. It also added that the evolution of human rights is circumscribed by a country's historical, social, economic, and cultural conditions.

President Jiang Zemin is reported to have said in an interview with The Washington Post just before his summit with President Clinton in 1997, "The theory of relativity worked out by Einstein, which is in the domain of natural sciences, I believe can also be applied to the political field. Both democracy and human rights are relative concepts and not absolute and general. There can be discussion on the human rights issue, but I hope the West understands that our primary issue is to ensure that all the Chinese people have adequate access to food and clothing."

Subject to interpretation or viewed from different planes, the US accuses the Chinese of human rights violation in religion oppression, political dissident oppression. The Chinese counter that the US violates their rights by intervening in its domestic affairs.

China's burden is its huge population. Though we do not agree with oppressions of any form, we argue that the oppression of religious ceremonies in China probably has an economic root. During the hard times of the civil war just before the founding of the People's Republic and the famines of post-Cultural Revolution, the country was facing starvation, let alone having more than 1.0 billion people burning candles, incense and joss sticks on a festive day. A similar argument in terms of the huge population may explain the quick response to any demonstrations or marches. China's population is four times that of the US. A Million People March will translate to much larger than Four Million People March, for the effects of any such movements reverberate factorially with the population. This is evident from the historical lessons of how Mao Zedong used to mobilize the population for causes of his movements, some of which led to very adverse consequences.

It is only a matter of simple arithmetic to translate this argument to more than 50% of 1.0 billion people (assuming 60% of men smoke and 10% of women smoke) smoking habitually. Burning of candles, incense and joss sticks is a waste of resources that a starving nation cannot afford. Smoking (and imbibing hard liquors) is a chronic "luxury" an up-and-coming superpower cannot entertain.

### **7.3. We Men, Women and Breaking the Glass Ceiling**

In a related issue, at the World Conference on Women held in Beijing in 1995, delegates, including First Lady Hilary Clinton, went to China ready to make a point that Western women had been liberated and that they had something to teach their socialist sisters in China. While Western women may be more liberated in sexual equality, no one at the Conference was in a position to criticize the advances made by the women in the Chinese society, in both the business and political spheres [15]. Currently, 46% of China's workforce is comprised of women. Women hold executive positions in corporations, both private and state-owned. Women also hold senior government positions, a fact in which the Chinese take pride. For example, there were 626 women deputies in the Eighth National People's Congress (the Chinese parliament). Women's share of family income in rural China has doubled since the 1950s to 40%. In rural households that operate their own businesses, women's shares of the income reach 60-70%.

Indeed, Article 48 of the First Constitution of the People's Republic of China gives women equality. On the other hand, the Equal Right Amendment, granting women equality with men under the American Constitution has never been passed by the US Congress!

### **7.4. One-Child Policy - six-pocket princes and princesses**

Also at the Conference, foreign delegates were prepared to point out that among the peasant population of rural China there were instances where girls are sold, given away, or suffocated to death in preference to male children. They were eager to criticize the one-child policy [15].

The one-child policy is virtually the only way China can control its population. It was implemented against the age-old tradition of large extended families in the old agrarian economy.

The fact that the policy has been successfully implemented in order to avert what could become a food-population crisis of unimaginable proportion demonstrates the power of a guided market economy. The one-child policy has been implemented via widespread sex education programs. State organizations freely distribute contraceptives and couples are taught the methods of birth control as a prerequisite to obtaining a marriage license. Thus, such a policy, instead of being a violation of human rights, it ensures basic human rights to exist by alleviating starvation.

## **8. DISCUSSIONS**

In the days of global business and e-commerce, the door of a country eager to get onto the international scene cannot remain shut. China, eager to ascend to the main stage of the world economy, is moving cautiously, as reflected in Deng Xiaoping's statement "When we cross the river, we must first feel the rocks to make sure they are secure, and then move forward taking one step at a time."

### **8.1. To Be or Not To Be, That is WTO**

The British way of circumventing the trade imbalance of the 1840s using gunboat diplomacy was a containment and control foreign policy. The US approach to the Soviets during the Cold War was a containment policy. In contrast, the current administration's policy toward China is an engagement policy. Unfortunately, it is a long list of if-then propositions: "if the Chinese change this behavior, *then* we will give them this carrot". If the Chinese do not violate "human rights", then we will let them in the WTO. This is a form of behavioral modification therapy.

For most part of the 20<sup>th</sup> Century, the US has had the irresistible urge to change China "for the better", molding it in the American image, rather than managing to deal with its differences and accept it on its own terms. Burstein and de Keijzer suggest a dynamic engagement, i.e., not a one-way flooding of China with American views and values, but a commitment to a genuine mutual dialogue [14]. Not a calculated system of behavioral control, but a willingness on the part of the US to take first steps to rebuild trust and cooperation proactively. The Vice Foreign Minister of China, Li Zhaoxing once remarked, "Even the best food tastes sour if you stuff into people's mouths by force."

It is noteworthy that in a poll conducted on behalf of the Committee of 100, a group of well-known Chinese-Americans, less than half of all members of Congress of the United States rated themselves "highly familiar" with China issues. Yet this is the same Congress that is seeking to wrest a greater role in China policy-making away from President Clinton.

Karen Elliott House, Vice President of Dow Jones once said, "In Washington, long-term thinking about China amounts to putting membership in the World Trade Organization ahead of the latest human rights incident. In Beijing, by contrast, long-term thinking about the United States amounts to assessing when during the next century China will overtake America as the pre-eminent global power and how adversarial the relationship will become in the interim."

Lowering tariff for fair trade with trading partners is acceptable. But to lower tariff for goods that will lead to social degradation is absolutely irresponsible. There is no reason why China (and Eastern Bloc countries) should be the dumping grounds for tobacco companies.

## 8.2. History is a Lesson

G.K. Chesterton regards "History is a high point of advantage from which alone men can see the age in which they are living." Most knowledgeable Chinese believe that Russia's flirtation with shock therapy and radical privatization to be an unmitigated disaster. They have no intention of repeating the experience. James Shinn of Weaving the Net commented that "unlike Gorbachev's economically imploding Soviet Union, Jiang Zemin's China is growing at a 10% annual rate. And given that the United States and Europe are no longer the world's center of economic gravity - the bulk of the PRC's trade and investment is within Asia - the cold reality is that the United States cannot isolate China economically."



Figure 3. Replicas of some of the terracotta warriors of Qin Shi Huang uncovered in Xi'an in the 1970s. The question that is usually asked of the terracotta warriors is why did Qin Shi Huang, the Emperor who founded the Qin Dynasty in 221 B.C., use so many large terracotta figurines as funerary objects? Can you see the author among the warriors? From that historical vantage point, the author can see you very clearly.

The knowledgeable Chinese can see the disastrous consequences of shock therapy, but how can they be so oblivious to the other factors of the equation, which are equally important in dictating whether or how soon China will eventually become an international superpower? One of these factors is the social factor, which unfortunately includes smoking. The Opium War is a historical lesson. Nicotine War should be averted early.

## 8.3. Socialist Market Economy with Chinese Characteristics

China's road to China *in silico* has a fifteen-year history. In the mid-1980s, the then Head of the Chinese Ministry of Electronics, Jiang Zemin, visited the Silicon Valley. He met scores of Chinese engineers and scientists working there. When he asked them why they did not go home to work, the recurring response was there was no opportunity in China. This deeply troubled

him. He was determined to create Silicon-Valley-style opportunity in China. Today, this same man is the President of China, and the seed he sowed only a decade ago are beginning to reap dividends.

The spectacular growth has propelled China into a status what New World meant for Europe several centuries ago: a huge new land of dynamic growth, possibility, and profit. In addition to this, it may also be the fulcrum of global competition, where companies compete for market shares and control of engines that drive cost curve down and consumer benefits up. To become a fully integrated, networked, and truly global corporation of the future, participation in China may be a virtual requirement.

An old adage from the Province of Sichuan, where Deng Xiaoping came from, says, "It does not matter whether the cat is white or black, it only matters if the cat can catch mice." Whatever the Chinese or the West label the economic system of China, as long as the system works, that is the deciding tale of the tape.

#### **8.4. Generation Demographics - a new social fabric**

Still on the issue of population, the social fabric is changing rapidly. The kind of sweeping political and economic change that China ultimately needs to partake in is closely linked to generation changes. Mao Zedong, Zhou Enlai, Zhu De and their fellow revolutionaries established the People's Republic in 1949. They were the First Generation leaders, who were battle-tested, tempered by war and revolution and were the ultimate modern nationalists focussing on big, unifying visions on how to advance the interest of the country. Deng Xiaoping and colleagues are the Second Generation. These are the people who reform and improve the system the First Generation had started. This is also the generation who had the open mind to open China to the world and to modernity. Because of age, this generation is disappearing from the political scene by attrition.

Jiang Zemin, Zhu Ronji and colleagues are the Third Generation. They participated in China's 1949 revolution, but only as students and young adults. They are not war heroes, but survivors of rounds and rounds of purges and intra-party struggle. Many, like Jiang, who is a university-educated engineer, are better educated and are skillful technocrats. This is the generation that is currently in power. The Fourth Generation is the one that now runs banks and financial institutions, or hold positions as mayors and governors. They are scattered throughout think tanks, government ministries, and innovative Chinese companies at home and abroad. They are in their forties and fifties and who will be taking senior positions in the power structure in the next decade. They believe political reforms are crucial to China's future. Experiences from the Cultural Revolution have made this generation more mature, sophisticated and cosmopolitan. They are highly educated, many from overseas. They think more independently and critically.

The Fifth and Sixth Generations have lived almost all their lives in the post-Mao era. Reform, modernization and change have been constants in their experience, while purges, intra-party struggles and extreme dogmatism have been almost nonexistent. They have never been indoctrinated with communist beliefs. They grow up in Confucian-communist values in the

global classroom of MTV, karaoke, Coca-Cola, McDonald's, Kentucky Fried Chicken. They are hyperlinked to the world wide web of commerce and technology. They follow government edicts on birth control and one-child policy. They are the counterparts of the US X- and Y-Generations, and are the pillars of Future China.

Because of the one-child policy and the Asian culture "to invest in future generations", the child is usually pampered with presents and gifts from parents, grandparents, and grandparents-in-laws. Thus the X- and Y- generations are sometimes referred to as the six-pocket (2 parents and 4 grandparents) princes and princesses. It is thus not difficult to figure out the business opportunity in this segment of the population, all the way from magazines, newspapers to consumer products like cosmetics. In 1995, off to a fast start, Mary Kay Cosmetics announced it had sales of \$2.4 million. It reached its target of \$10 million by August 1996. Commented Vice President of sales and marketing, Cecilia Yang, "We're way over capacity right now; our existing cities are growing like crazy."

Table 3. An approximate comparison of the generation demographics between China and the US.

| Generation   | China                              | USA   |
|--|------------------------------------|---|
| <b>First Generation</b>                            | Mao Zedong, Zhao Enlai, Zhu De     | Franklin Roosevelt  |
| <b>Second Generation</b>                           | Deng Xiaoping, Zhao Ziyang         | -   |
| <b>Third Generation</b>                            | Jiang Zeming, Zhu Rongji           | -   |
| ↓  |                                    |   |
| Transition from 3 <sup>rd</sup> to 4 <sup>th</sup> |                                    | Same as transition from the old, out-of-touch Reagan-Bush generation to the new, skilled, smart generation of Clintonites |
| ↓  |                                    |   |
| <b>Fourth Generation</b>                           | City mayors, governors, financials | -   |
| <b>Fifth Generation</b>                            | Dwellers in information age,       | X   |
| <b>Sixth Generation</b>                            | MTV, Coca-Cola, MacDonaldis        | Y   |

Table 4. The United States population demographics [23].

| Generation        | Period       | Characteristics   |
|-------------------|--------------|---|
| War Generation    | 1925-1934    |   |
| Depression Babies | 1935-1944    |   |
| Baby Boomers      | 1945-1954    | 120 million over 50 years old by 2000, wealthiest group, own over 77% of financial assets, and opinionated  |
| Baby Busters      | 1955-1964    |   |
| Generation X      | 1965-1974    | 20 million.<br>Firsthand experience with crimes, independent, skeptic, concern, live with dad, better educated, larger single adults, settle for smaller homes, watch TV, on the Internet |
| Generation Y      | 1975-1984    |   |
| Millenium Babies  | 1985-present | 28 million.<br>Also known as Echo Boomers.<br>???   |

## 8.5. The Western Frontiers

The recent fragmentation of nation-states such as Yugoslavia and the Soviet Union has been driven by ethnic, religious, linguistic, and cultural differences. China also has such differences in Xinjiang [24] and Tibet [25]. Xinjiang and Tibet rank with Taiwan as one of China's most worrisome political flash points. Beijing feels mounting concerns after watching ethnic rebellions spread elsewhere in the world - Chechnya, East Timor and Kosovo. The main contradistinction between the Chinese situation and the others is that the rapid economic growth is helping the Chinese pull China together. The population is also more homogeneous, which softens the ethnicity issue. According to John Ackerly, a director of the International Campaign for Tibet in Washington, DC, "... You won't have the problem you have now in the Baltic States, with the Russian's presence being an enduring problem due to the higher standard of living in the Baltic States. Tibet is too poor. The Hans would all go home..." if a significant political loosening should occur [25].

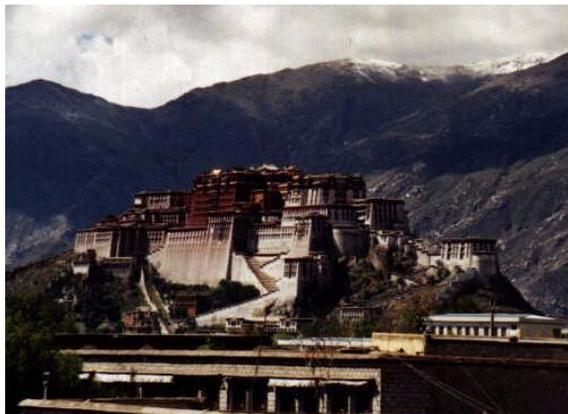


Figure 4. Sights along the ancient trade route between China and the Middle East include the Potala Palace in Lhasa, Tibet. The Palace, perched upon the Marpo Ri Hill, is 130 meters above the Lhasa Valley and rises another 170 meters into the sky. Early legend tells of a sacred cave, the dwelling place of the Bodhisattva Chenresi, used as a meditation retreat of Emperor Songtsen Gampo in the 7<sup>th</sup> Century. In 637, the Emperor built a palace on the hill. In the 17<sup>th</sup> Century, the palace was incorporated into the foundation of the present building. Construction of the present building began in 1645 during the reign of the 5<sup>th</sup> Dalai Lama. Three years later, the Potrang Karpo (White Palace) was complete. The Potrang Marpo (Red Palace) was added between 1690-1694. The construction required the labor of more than 7000 workers and 1500 artists and craftsmen. The Potala Palace was only slightly damaged during the Tibetan uprising against the Chinese occupation in 1959, and during subsequent Chinese occupations of 1960s and 1970s.

There is a well-known social behavior. When a country is at war, the population will unite together to fight again the common external enemy. At times when the country is doing well, domestic problems tend to surface. Such is the case when a superpower finds fault with another country to direct its population's attention to a common foreign enemy. For example, Japan bashing of the early 1990s when the US economy was doing poorly, or President Richard Nixon's tactical heavy bombardment of Vietnam at the height of the Watergate investigation to distract the US population from the scandal, or we may add Bill Clinton's attack on Kosovo at the prime of the Monica Lewinsky's investigation.

In a less vengeful and harmless way, the same tactical measure can be applied to the chronic smoking habit in China. China is doing extremely well right now. Why not make fighting against smoking a national issue and unite the population to fight against this common enemy?

## 8.6. Tidbits on Past, Present and Future

A contemporary of Chairman Mao Zedong, Charles de Gaulle described China as "A great people, the most numerous people on earth, a race in which the patient, laborious and industrious capacity of the individual has, for thousands of years, compensated for the collective lack of cohesion and method, and has constructed a very unique and very profound civilization;... a state older than history, always bent on independence, constantly striving toward centralization, instinctively withdrawn into itself and disdainful of foreigners, but aware and proud, unchangeable, perpetual - such is eternal China." Many of these attributes of the people are still true. But as China moved along to celebrate its Golden Jubilee on October 1, 1999, it had proven many a prediction wrong.

In 1974, the year when China's market economy engine was being put into action, a Harvard economist Dwight Perkins wrote that it would be a sheer fantasy to imagine that China has the large market potential - let alone interest - to bail out ailing American aerospace industries. Twenty years later, Nicholas Heymann of NatWest Securities commented on the same topic, "Without China, Boeing would be flat on its back." This is how far China has come along in those twenty years.

As for the future, the Nobel Peace Laureate Henry Kissinger has this to say, "We have no fundamental conflicting interests. China will become a great power and have greater influence. We have to get used to it." I will end this section with a statement from the Prime Minister of Malaysia (national religion is Islam and my birthplace), Tan Sri Dato' Mohamed Mahathir, "It is time for us to stop seeing China through the lenses of threat and to fully view China as the enormous opportunity that it is."

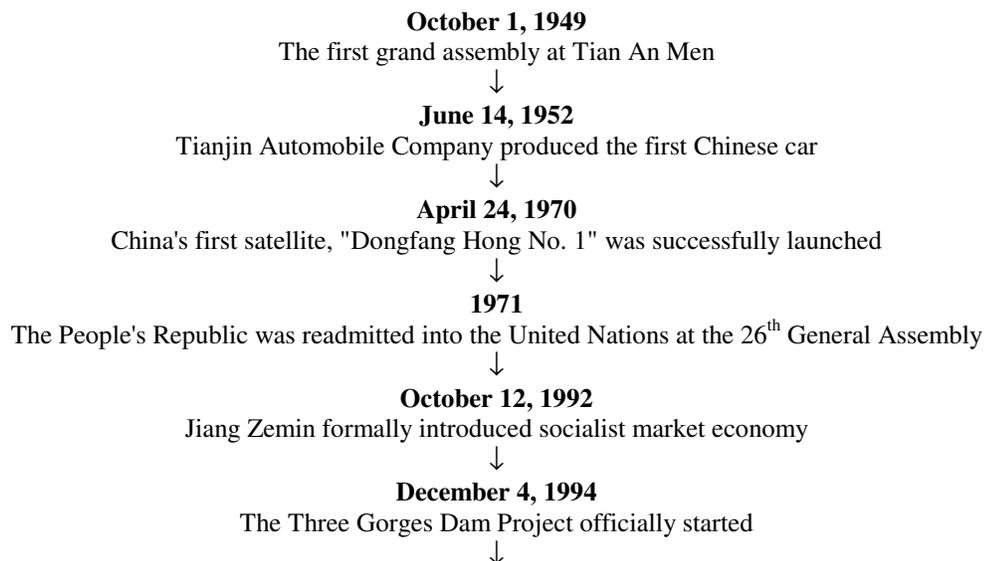




Figure 5. Milestones of the First Fifty Years of the People's Republic of China.

In the first fifty years since the founding of the People's Republic in 1949, China has gone through many metamorphoses. Through all these developments, one fact remains constant since the seminal work of Sir Bradford Hill of the same time - cigarettes kill! And the economic growth of China may be hampered if this habit is left unchecked.

### 9. BIRDS AND FLIES - CONCLUSION

When Chen Yun, Mao's Minister of Finance, opened up China, he proposed a birdcage theory of "the market should fly like a bird within the cage of State planning, but without a cage the bird will fly away". Deng Xiaoping's reforms took a more drastic approach of "Go ahead and open the window wide and let breeze in; if a few flies come in- then swat them!" The latter policy is partially responsible for the spectacular growth of the Chinese international commerce in the past two decades.

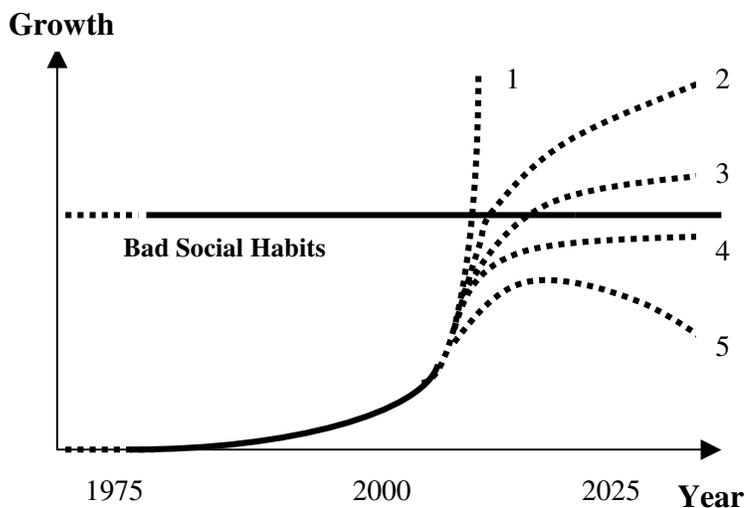


Figure 6. A representative graph to show the possible economic growth of China beyond 2000. Scenario 1 is a hypergrowth. This is a rather unlikely sustainable growth pattern. Scenario 2 is a normal growth. Scenario 3 is a normal growth retarded by social bad habits. Scenario 4 is a normal growth inhibited by bad social habits. Scenario 5 is a regressed growth. This scenario, though possible, is unlikely since bad social habits like smoking are not contagious. But one projection is a certainty, if social bad habits are left unchecked, the growth will be hampered

Projection of the future role of China aside, the fact is still a strong country has a healthy population. Nicotine is addictive. A smoking population is not a healthy nation. Women are

three times more likely to suffer from tobacco-induced lung cancer, and it will be sad to see the only child in the family is also addicted to nicotine. May be in Deng's parlance, cigarette is a fly, even though he himself was a smoker. If this is the case, China should swat the fly before the eDragon goes up in smoke. In this Lunar Year of the Dragon, may we resolve to giving up smoking, one of the very few games in life which when you quit, you actually win!

### **Note Added after Proof:**

The author made another extended trip to China (Feb 9 - Mar 6, 2000) after completion of the article. During the trip, the author learned that the largest tobacco company in China, Yuxi Hongta Tobacco (Group) Co. Ltd., headquartered in Yunan, has invested a lot of monies to establish a gene bank for health-related research. The company is also investing into other high-tech projects. According to an unsubstantiated source, the annual revenue of Yuxi Hongta is US\$20 billion. For the purpose of comparison, the annual revenue of Maotai (the wine Mao Zedong entertained President Nixon in 1972) is about US\$100 billion.

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## 12. About the Author



The author, Dr. Hwa A. Lim, at a cotton plantation in the Province of Anhui.

Hwa A. Lim was born in Malaysia and is a naturalized US citizen. He has a Ph.D. and an M.A in Science, and an MBA from the USA, a B.Sc. (Hons) and ARCS from UK.

In 1997, he founded D'Trends, Inc., a software and database emerging company serving the biotech, pharmaceutical and healthcare sectors. Prior to this new venture, he was Vice President of Sc. & Tech., Pangea Systems [now Double Twist] (1996-1997), Director of Bioinformatics, Hyseq, Inc. (1995-1996), a faculty member and Program Director, Supercomputer Computations Research Institute, Florida State University (1987-1995). He has participated in two different projects that went on to win Nobel prizes, authored/edited eight books, and has been a popular keynote speaker at international meetings. He is credited with coining the word "bioinformatics" and for initiating the first bioinformatics conference series (Bioinformatics & Genome Research), which is still ongoing. In addition to his scientific background, he has strong experience in market research and developing strategic alliances internationally.

Currently he also serves as a bioinformatics expert for the United Nations, a review panelist for the US National Science Foundation and the US National Cancer Institute.

Dr. Lim has made about 10 all-purpose trips (all-purpose meaning not visiting tourist sites or in high power meetings, but to the countryside and hinterland to mingle with the locals) to China since 1993. Since 1998, he frequents China 2-3 a year.