



Entrepreneurship and Innovation in China

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1978-2008
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Three Decades of Decentralized Economic Growth

by Bret Swanson*

But though North America is not yet so rich as England, it is much more thriving, and advancing with much greater rapidity to the further acquisition of riches.¹

— Adam Smith, 1776

China has been long one of the richest, that is, one of the most fertile, best cultivated, most industrious, and most populous countries in the world. It seems, however, to have been long stationary.²

— Adam Smith, 1776

THE ASCENT OF CHINA after some 500 years of inward-looking stagnation is the central phenomenon of today's global economy. China is not yet the richest nation on earth, but, in Adam Smith's words, it is the most thriving. In a replay of a young America's relationship with England, moreover, China is now on a path to challenge the United States in every measure of national power.

In one way or another China dominates the discussion across many realms of culture and commerce. From international trade, monetary policy, and intellectual property to energy use and military power, and from the hype of the Beijing Olympics to the surge of Asian food, dress, and style in the West, China factors centrally in many of our most profound public policy debates and everyday conversations. Americans are filled with a mix of awe and anger over China. Visitors are astounded at its unrivaled

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¹ Smith, Adam. *The Wealth of Nations*. New York: Random House, 1994. p. 80. [1776]

² Ibid. p. 82.

growth and palpable energy and optimism. Detractors believe China has driven up oil prices, manipulated its currency, stolen American jobs, oppressed its own citizens, and is preparing for an inevitable clash with the U.S.

Some of America's most prominent foreign affairs commentators are doing their best to make this clash happen. In a recent 8,000-word article in *The New Republic*, Robert Kagan of the Carnegie Endowment for International Peace referred to China as an "autocracy" (or some formulation thereof) 71 times.³ Kagan thus dedicated nearly one percent of his words to defining China as a "one-man dictatorship." Perhaps thinking Kagan too subtle, the American Enterprise Institute's Michael Ledeen followed quickly with a high-profile article calling China the modern embodiment of "classical fascism."⁴ Upping Kagan's ante, Ledeen used more than one percent of his words to make sure we understand the new talking point: the Chinese are "fascists" who "will pursue a confrontation with the West." Finally, in case the point about "autocrats" and "fascists" still was not clear, conservative writer William Kristol compared Chinese President Hu Jintao to Iran's crazed leader Mahmoud Ahmadinejad.⁵

A host of other sophisticated commentators have warned of China's many dangers to itself and the world. In *The Coming China Wars*, Peter Navarro offers a relentless and exhaustive list of every dangerous and depressing factoid and trend in Chinese economic, cultural, environmental, and military affairs.⁶ Longtime China critic James Mann, in *The China Fantasy*, rejects the "Soothing Scenario" view of the China optimists. But he does not necessarily adopt Gordon Chang's view of a *Coming Crash of China*. Instead Mann outlines a "Third Scenario" in which Chinese economic growth continues but either the Communist Party or another "authoritarian" and "autocratic" body remains in power and continues severely to limit political freedoms.⁷ On the other hand, French author Guy Sorman believes China's internal problems are so grave that the West doesn't have anything to fear, either economically or militarily, from this *Empire of Lies*.⁸ Then there is the very long list of American politicians who use China as a scapegoat for every perceived or real American economic problem, from the loss of manufacturing jobs and Main Street stores to the sub-prime housing bust and inflation.

Of such a large and complex society as China, many true things can be said. Many stories, both encouraging and depressing, uplifting and outrageous, can be told. After much progress, China still falls short of our Western standards of human rights, free speech, intellectual property, and the rule of law. But if the U.S. and the world are to craft effective strategies – economic, political, and military – we must do our best to see China as it is, not as a caricature or cartoon. This article is an attempt to tell the economic story of China's rise since Deng Xiaoping's historic "Reform and Opening Up"

³ Kagan, Robert. "The End of the End of History." *The New Republic*. April 23, 2008.

⁴ Ledeen, Michael. "Beijing Embraces Classical Fascism." *Far Eastern Economic Review*. May 2008.

⁵ Kristol, William. "Will Russia Get Away With It?" *The New York Times*. August 10, 2008.

⁶ Navarro, Peter. *The Coming China Wars*. Upper Saddle River, New Jersey: Financial Times Press, 2007.

⁷ Mann, James. *The China Fantasy*. New York: Viking Penguin, 2007.

⁸ Sorman, Guy. *The Empire of Lies*. New York: Encounter Books, 2008.

campaign began in 1978. The hope is to illuminate contemporary China and, I believe, the very nature of capitalism itself.

ADAM SMITH BASED HIS OBSERVATIONS on North America on vague population statistics and anecdotes of enterprise in the New World. No doubt he would have relished the data available to today's economists. He would know that in 2007 China consumed one billion tons of cement, almost half the world total. Or that by 2003, the Chinese bought more washing machines and mobile phones than anyone, and in a sure sign of their rendezvous with greatness are second only to the United States in the consumption of beer.⁹ By 2003, China produced annually more than a fifth of the world's 900 million metric tons of steel and in 2002 accounted for 58 percent of the increase in global steel production.¹⁰ Just five years later, by May 2008, China again almost doubled its share of world steel production to 38.5 percent. At some 46 million metric tons per month, it now produces more steel than the U.S., Japan, Russia, and Europe combined.¹¹ From a standing start just a decade ago, China rapidly passed Germany in automobile production and, at 8.9 million units in 2007, ranks third behind Japan and the U.S.¹² Chinese *purchases* of 8.8 million cars in 2007 rank second behind only the U.S. Annualized foreign direct investment in China by April of 2003 reached a record \$95 billion¹³ and remains on track to hit the \$100 billion mark yet again in 2008.¹⁴ Wal-Mart alone imported some \$48 billion in goods from China in 2007 and, if it were a nation, would be China's fourth largest trading partner. In 2005 and 2006, China was home to three of the largest initial public offerings of all time when China Construction Bank raised \$9.2 billion, Bank of China raised \$11.2 billion, and the Industrial and Commercial Bank of China raised \$19.1 billion. The People's Bank of China holds foreign reserves of \$1.8 trillion.

Smith believed "[t]he most decisive mark of the prosperity of any country is the increase of the number of its inhabitants."¹⁵ With a birthrate of 1.80 children per woman, China's *rate* of population growth is not high, but its demographics are nonetheless daunting. Despite the nation's one-child policy, the average Chinese woman bears more children than almost all of her Western counterparts, and more than her neighbors in Japan and South Korea.¹⁶ Each year, more than 18 million Chinese enter the workforce. At 60 cents an hour, unskilled labor in China is one-quarter the cost in

⁹ Hsu, Hubert, and Jim Hemerling. "The Value Trap: China." *Foreign Direct Investment*. February 2, 2003. http://www.fdimagazine.com/news/printpage.php/aid/125/The_value_trapChina.html

¹⁰ "World Steel Production exceeds 900 million tonnes." International Iron and Steel Institute. January 20, 2003. <http://www.worldsteel.org/?action=newsdetail&jaar=2003&id=75>.

¹¹ World Iron and Steel Institute. June 20, 2008. http://www.worldsteel.org/pictures/newsfiles/0508_release%20and%20production%20figures.pdf

¹² "World Motor Vehicle Production, by Country and Type, 2006-2007." OICA. <http://oica.net/wp-content/uploads/all-vehicles.pdf>

¹³ Malpass, David. "Reflation, Dollar, Global Growth." Bear Stearns *Global Notes*. May 21, 2003. p. 34.

¹⁴ "China's FDI up 55% in first five months." Xinhua. June 12, 2008. http://www.chinadaily.com.cn/china/2008-06/12/content_6756636.htm

¹⁵ Smith, Adam. p. 80.

¹⁶ United Nations Population Division. "World Population Prospects: The 2002 Revision." <http://www.un.org/esa/population/publications/wpp2002/wpp2002annextables.PDF>

Malaysia, one-eighth the cost in Singapore or Taiwan, and one-twentieth the cost in the U.S. or Japan.¹⁷ The phenomenon is just beginning. By 2020 China will have some 900 million citizens of working age, and by 2040 China will add some 300 million people – an entire United States – to its already world-leading population of 1.3 billion.¹⁸ Robert Mundell, the Nobel Prize winner and founder of the “supply-side” school of economic thought, writes that “[l]ike most growth ‘miracles,’ China’s has been associated with the shift of labor from low-productivity agriculture to high-productivity industry, combined with rapid urbanization, absorption of foreign technology, and a favorable age distribution of the labor force. The period of supergrowth ends when bottlenecks, such as the supply of labor, appear. But in China, this bottleneck is a long way off.”¹⁹ When Mundell noted this trend in 1996, “Two thirds of the labor force [was] still in agriculture, and there [were] over 150 million surplus workers in the countryside.”²⁰ Mundell concluded that “China will run out of water before it runs out of people.”²¹

This endless supply of inexpensive labor is twisting and wrenching the world economy. Viewing China chiefly through a demographic lens, however – a lens that focuses with wonderment on how much the Chinese can consume or how fully Westerners can exploit the cheap labor there – offers a distorted view of its transformation. After all, China is an aging society and will probably level off at around 1.6 billion people – and be passed by India – by mid-century.

Mere demographics is *not* destiny. For centuries China was the world's most populous nation, but beyond the nuclear weapons it acquired in 1964, it was inconsequential on the world scene. If anything, China's demographics revealed the scope of the late dynastic and Communist tragedies.

That China has experienced explosive economic growth in the last 30 years is not a secret, but the depth of change it is now imposing on the world – and the reasons for that change – are still widely unknown. The consumer tendencies, intellectual property practices, and “sweat-shop” capacity of today’s Chinese people are surely of interest to the world's multinational corporations, and they will surely fuel all the trends that the analysts say. Western companies will find vast new markets and see their property purloined, and low- and moderately-skilled Western workers will feel the downward pressure on their wages. But if the leaders of the West focus only on these phenomena, they will miss both the great alarms and opportunities emerging from China. They will also ignore one of history's most important lessons about the very nature of capitalism.

¹⁷ Tredennick, Nick, and Brion Shimamoto. "The China Phenomenon." *Dynamic Silicon*. Gilder Publishing, August 2002.

¹⁸ Andrieu, Michel. "China, a Demographic Time Bomb." *OECD Observer*. September 1, 1999. (also, *China in the 21st Century: Long-Term Global Implications*(1996): OECD... ISBN: 92-64-14924-4)

¹⁹ Mundell, Robert A. "Introduction" in *Inflation and Growth in China*. Manuel Guitián and Robert A. Mundell, eds. Washington D.C.: International Monetary Fund, 1996. p. 2.

²⁰ *Ibid.* p. 2.

²¹ *Ibid.* p. 2.

CHINESE CIVILIZATION CAN BE TRACED back many thousands of years and, as Adam Smith noted, was long considered materially and intellectually wealthy. By the Han dynasty, which stretched from 206 B.C. to 220 A.D., the great historian Sima Qian had already summarized the “division of labor” and the “invisible hand,” two famous concepts of the market economy Smith would not write about until eighteen centuries later. “There must be farmers to produce food,” Sima wrote,

men to extract the wealth of mountains and marshes, artisans to produce these things, and merchants to circulate them. There is no need to wait for government orders: each man will play his part, doing his best to get what he desires. So cheap goods will go where they will fetch more, while expensive goods will make men search for cheap ones. When all work willingly at their trade, just as water flows ceaselessly downhill day and night, things will appear unsought and people will produce them without being asked. For clearly this accords with the Way and is keeping with nature.²²

The Tang dynasty of 618-907 A.D. brought trade with the Romans along the famed Silk Road, and around this time “the city of Guangzhou” – on the southern coast – “had two hundred thousand foreign residents: Arabs, Persians, Malays, Indians, Africans, and Turks.”²³ Paintings depicting the Song dynasty, which lasted until 1279, show a highly developed capitalist culture.

Throughout this early historical period, China was more advanced technologically than Europe. China invented iron casting in the second century B.C., fifteen centuries before the West. It used automatic seeders to plant fields in the first century B.C., some eighteen hundred years before the West. It made paper ten centuries before Europe and porcelain fifteen centuries before. Chinese printers used moveable type four hundred years before Guttenberg. Gunpowder and bombs, respectively, were used three hundred and six hundred years before Europe conjured these tools of entertainment and war. In 1954, Joseph Needham began exhaustively cataloguing these Chinese discoveries and innovations in his series *Science and Civilisation in China*, new volumes of which continue to appear to this day.

By 1400, China was ready to seek out new lands and expand its influence. After the Muslim eunuch Zheng He helped his patron, prince Zhu Di, depose the emperor, Zhu rewarded Zheng He with the command of the world's largest fleet. As Nicholas Kristof has described,

Between 1405 ad 1433, Zheng He commanded seven major expeditions, involving the largest naval fleet that the world would see for the next five centuries. Not until World War I did the West mount anything comparable. Chinese records show that Zheng He's fleet included twenty-eight

²² Sima, Qian. *Records of the Historian*. As cited in Chow, Gregory, *China's Economic Transformation*.

²³ Kristof, Nicholas, and Sheryl WuDunn. *Thunder From the East: Portrait of a Rising Asia*. New York: Vintage Books, 2001. p. 31.

thousand sailors on three hundred ships, the longest of which were four hundred feet long. By comparison, Columbus in 1492 had ninety sailors on three ships, the biggest of which was eighty-five feet long. Zheng He's ships also had design elements such as balanced rudders and watertight bulwark compartments that would not be introduced in Europe for another 350 years.²⁴

Zheng He sailed throughout the Indian Ocean, often stopping in Calcutta, and then to the Persian Gulf, and even to the east coast of Africa. The largest ships – the “treasure ships” – “had nine masts, huge red silk sails, twenty-four bronze cannon, carved wooden animal heads, and painted sides with large ‘eyes’ in front to see the ocean ahead.”²⁵ There were vessels specially designed for various types of cargo – from horses to troops to drinking water. There were two types of warships. Traveling with 10 translators, five astronomers, 180 physicians and pharmacologists, and two protocol experts, the sophistication of Zheng He's expeditions was unmatched.

Chinese settled in Indonesia, the Philippines, and Malaysia and centuries later would still command elevated social and economic status in these non-native lands. Looking westward, it is said Zheng He could have continued on around Africa's Cape of Good Hope and on to Europe, but China did not think Europe had much to offer. The “ivory, medicine, spices, exotic woods...and African wildlife” were more appealing.²⁶ Records show Zheng He brought back to China a number of giraffes given him by African kings. Indeed, legend has it that one of his ships broke up on the rocks off the coast of Kenya near the island of Pate. It was later noted by a curious Portuguese priest that Pate, but no other place in the region, “had a flourishing silk-making industry.”²⁷ (Sericulture had of course originated in the south of China, which to this day retains a 90 percent share in the production of raw silk.) Even today many of the inhabitants of the island of Pate have light skin and narrow eyes, and drums often are played in a style more Chinese than African.

China, with its exploration, commerce, and technology, and India, with its early mastery of math and science, were the richest civilizations on earth, accounting for more than two-thirds of world economic output. Yet just as Europe stepped onto the world stage at the midpoint of the millennium, China inexplicably withdrew. A longstanding feud between the scholars and the eunuchs, it seems, flared into a bureaucratic war. “The scholars destroyed Zheng He's sailing records,” Kristof notes, “and with the backing of the new emperor they dismantled China's navy.”²⁸ Building boats with more than two masts was outlawed around 1500, and in 1525 the emperor ordered the destruction of the fleet. “The greatest navy in history, which a century earlier had had 3,500 ships (by comparison the U.S. Navy now has 324), had been extinguished, and China's scholars had decisively steered a course that would lead to

²⁴ Ibid. p. 28.

²⁵ Ibid. p. 28.

²⁶ Ibid. p. 34.

²⁷ Ibid. pp. 36-37.

²⁸ Ibid. p. 37.

poverty, defeat, and backwardness.”²⁹ China had exited the world stage through the trap-door of economic history.

FOUR CENTURIES OF MEDIOCRITY and outright humiliation ensued. The closing of China had stopped the rapid acquisition of new knowledge that had once been its hallmark. The weakness and anti-commercial bias of the Manchurian Qing rulers invited exploitation and attack. In the tradition of Zheng He, the British and Portuguese, among others, were now the world’s great explorers. In the early nineteenth century, English sailors and merchants came to China looking to buy tea and silk, but they were largely rebuffed. The English, however, were persistent salesmen with irresistible products like opium. Seeking to prevent a flood of British narcotics, China went to war in 1840. It lost badly. In 1842, the Treaty of Nanking was signed, ending the Opium War and ceding to Britain the port of Hong Kong and navigation rights on rivers deep into Chinese territory. Similar “unequal treaties” were signed with Germany, France, and Japan. Portugal had already settled on Macau hundreds of years before. The Boxer Rebellion of 1900 failed to chase away the Westerners but not before killing many of them, and inviting their wrath and a new invasion of eight foreign powers.

In 1911, Sun Yat-sen and his Nationalist Kuomintang revolutionaries ended the Qing dynasty and established the Republic of China. But they were never able to consolidate power. In the nineteen-twenties, the Kuomintang, now under Chiang Kai-shek, attempted to unify the nation under a partnership with Zhou Enlai and the Chinese Communists. But this, too, was unstable, and in the nineteen-thirties the Japanese, sensing continuing weakness, took much of Manchuria. Even as the Kuomintang and Communists were fighting each other, the war with Japan became official in 1937, and Japan proceeded to take much of coastal China. After Japan was defeated by the U.S. and Allied Powers in the Second World War, China was free. But there was not yet peace. Once again, civil war broke out. Four years later, in 1949, Mao Zedong finally drove Chiang to Taiwan and became the first unified leader in four decades.

It would take something bold to turn China around. Amazingly, per capita incomes had fallen to a level not seen since the year 1280.³⁰ Mao's charismatic Marxism was bold enough.³¹

Between 1949 and 1952, all land was redistributed. To accomplish this, notes economist Gregory Chow of Princeton University, “the landlords as a class were brutally extinguished.”³² In 1952, the border with Hong Kong was closed and in 1953 the first Five Year Plan was introduced. Not satisfied with the economic progress, Mao announced the Great Leap Forward in 1958. The Communist bureaucracy was

²⁹ Ibid. p. 37.

³⁰ Ibid. p. 41.

³¹ For a bracing and relentless account of Mao’s political and economic horrors, and sheer incompetence, see Chang, Jung, and Jon Halliday. *Mao: The Unknown Story*. New York: Alfred A. Knopf, 2005.

³² Chow, Gregory C. *China's Economic Transformation*. Malden, Massachusetts: Blackwell Publishers, 2002. p. 26.

expanded. Communes, already established, were made even more formal, and they were given grossly unrealistic output targets. Farmers were ordered to build furnaces in their backyards to produce steel. To meet the output targets, finished metal products of all sorts were thrown into the fires. Fifty years later, Nicholas Kristof would speak to one old man in Nanjing, the town where Zheng He the explorer was buried. Kristof asked the old man what had happened to the grave, now in disrepair. The old man remembered how they had “smashed” the famous Ming Tablet at Zheng He’s tomb for building materials. “Beside the tablet,” the old man continued, “there used to be a turtle-shell tomb protecting the grave....But in the Great Leap Forward, we all set up backyard furnaces to make steel....China was going to make more steel than England....we all made little furnaces and threw our cooking pots and shovels inside....So then they told us that we had to have a road so the trucks could come and collect the steel....The only thing we could do was smash up the old Zheng He tomb. We broke it up into little pieces and put it on the dirt trail....” The old man summed up, “But of course we never did make enough steel for a truck to come and get it.”³³

As Chow dryly observes, “Mao did not understand economics and was extremely skillful in mobilizing the masses.”³⁴ He thought economic goals could be achieved simply by “rallying mass support....The end result was an economic disaster.”³⁵ Between 1958 and 1962, at least 25 million Chinese – some say more than 50 million – died of starvation.

In December 1964, Premier Zhou Enlai announced the four modernizations – of industry, agriculture, defense, and science and technology. But the modernization never came, as Mao’s Cultural Revolution came crashing down in 1966. Just when the economy had climbed back to reach the level of output of 1958, Mao’s Red Guards began a new wave of economic and political terror. Books were burned. Art was destroyed. Intellectuals and bureaucrats were purged indiscriminately. Education effectively ceased. University enrollment dropped from a peak of 962,000 students in 1960 to just 48,000 in 1970. Enrollment at specialized secondary schools plunged from 2.2 million to just 38,000 in 1969. Universities would not regain their 1960 level of enrollment until 1979.³⁶

Princeton’s Chow simulated the path of the Chinese economy without the Great Leap Forward and Cultural Revolution and found that absent these two defining political events, the Chinese economy in 1993 would have been almost three times as large.³⁷

In the early nineteen-seventies, President Richard Nixon, sensing China’s enormous potential, announced his wish to visit. In preparation, the U.S. sent its ping-

³³ Kristof. p. 34.

³⁴ Chow. p. 27.

³⁵ Ibid. p. 27.

³⁶ Ibid. p. 204.

³⁷ Ibid. p. 104.

pong team, ended travel restrictions, and ended its long-standing trade embargo against China, and in 1972, Nixon made his famous trip.³⁸

Nixon's vision would help set the stage for the dramatic events of the next few years. On January 8, 1976, Premier Zhou Enlai succumbed to cancer, and later that year, on September 9, Mao Zedong, "who had been mostly bedridden for the past two years, his ankles and legs swollen, his sight gone," died.³⁹ Less than a month later, on October 6, Mao's wife and her Gang of Four, who had taken control of the Communist Central Committee back in 1973, were quickly deposed. The Gang of Four had had a power-base in Shanghai, and they had devastated the city economically. A fourteen-member committee was assigned to purge the Shanghai reactionaries. One committee member, a seemingly nondescript 50-year old named Jiang Zemin, was assigned to restore the city's transportation system and revive Shanghai's industrial base, which he did successfully. The picture of Chinese leadership, however, would remain cloudy for two years. Hua Guofeng, Mao's chosen successor as Party Chairman, was looking back to the glory of the Cultural Revolution, but for most of Beijing's political class, mere memories of Mao were quite sufficient.⁴⁰

In July 1977, a once-exiled farmer named Deng Xiaoping returned to Beijing and won back his Party posts. Ten years earlier, in 1967, Deng had been named the "number two enemy" of the Party and confined to his home.⁴¹ Again, in early 1976, Deng had been banished by a barely sentient Mao. But by December 1978, with Mao and the Gang of Four gone, Deng achieved the most transformational political victory of the century, maneuvering the Party conference "to jettison 'class struggle' as the Party's main objective and replace it with economic development, termed 'socialist modernization.'"⁴²

No one, not even Deng, knew just how far-reaching and ingenious his strategy was, but in the space of some twenty years, one of the most oppressive economies in the world was to become in many respects one of the freest.

Many observers will say that the worldwide supply-side tax-cut revolution began in 1981 with the passage of Ronald Reagan's Economic Recovery Act, which was based on a bill sponsored by Congressman Jack Kemp and Senator Bill Roth and which had been in circulation since 1976. Others say it began in 1978 with the passage of Congressman Bill Steiger's capital gains tax cut or with California's substantial reduction

³⁸ For a detailed and fascinating account of the preparations and China trip itself, see MacMillan, Margaret. *Nixon and Mao: The Week That Changed the World*. New York: Random House, 2007.

³⁹ Gilley, Bruce. *Tiger on the Brink: Jiang Zemin and China's New Elite*. Berkeley, California: University of California Press, 1998. p. 63.

⁴⁰ Richard W. Fisher, now president and CEO of the Federal Reserve Bank of Dallas, has vivid recollections of meeting the "hapless" Hua Goufeng when Fisher and his U.S. Treasury colleagues travelled to China in 1979 to officially normalize relations between the two nations. "A Perspective on China: Remarks Delivered to a Working Dinner Sponsored by the Progress & Freedom Foundation." Aspen, Colorado. August 18, 2008. <http://dallasfed.org/news/speeches/fisher/2008/fs080818.cfm>

⁴¹ Gilley. p. 55.

⁴² Ibid. p. 65.

in property tax rates, known as Proposition 13, in the same year. Others still, with Margaret Thatcher's economic reforms in Great Britain. But by far the largest and boldest supply-side tax-cut of the era, and maybe of all time, occurred in Communist China.

For several years during the seventies, with poverty intensifying and the leadership in Beijing wandering aimlessly, some farmers had quietly moved away from the formal collective system. One commentator called it a "surreptitious grass-roots land reform."⁴³ One of Deng's very first acts in 1978 was to encourage this trend, allowing farmers to raise pigs, chickens, and ducks, simple activities that nevertheless had been banned during the Cultural Revolution. Then in September 1979, at the Fourth Plenum of the Eleventh Central Committee of the Communist Party, Deng cut tax rates on China's 600 million farmers. Dubbed the "household responsibility system," Deng's plan decollectivized the farms. Farmers could now lease their land from the local government for a fixed annual price. They were free to produce the crops they wanted. They were free to sell them at the market. The choice of work or leisure was also now theirs. All profits above the lease payment – in essence a lump-sum tax – were theirs to keep. The marginal tax rate paid by 16 percent of the world's population had been cut from 100 percent to zero.

At first land leases were short-term, but soon the leases were lengthened, even made permanent, and land became transferable. "Hence," Chow writes, "the difference between this right to use and ownership [was] moot."⁴⁴ Between 1978 and 1984, total grain output rose by one-third, to over 400 million tons, and the real incomes of farmers increased 18 percent annually.⁴⁵ Suddenly, the weather, which always seemed to bring famine in the fifties and sixties, improved, and by the mid-eighties China had a surplus of grain. Whether one attributed China's newfound fertility to beneficent global warming or supply-side economics, the results would have surpassed any of Mao's fantastical "output objectives." Today, more than 99 percent of all agricultural output comes from private farms,⁴⁶ and China produces more cotton, more wheat, and more total grains than the U.S.⁴⁷

Although agriculture employs hundreds of millions of workers and provides a strong export base for China's economy, it is not the source of its emerging power. In the late seventies Deng knew the world was passing China by. China had mostly missed the Industrial Revolution and the next several centuries of innovation and learning. The most recent influx of technology had come through the cooperative exchange programs of the nineteen-fifties in which Soviet engineers and bureaucrats trained their Chinese counterparts. Most of the factories and machines built under Mao were based on Soviet blueprints. Chinese citizens gained a few modern skills, but

⁴³ Zhou, Kate Zhou. *How the Farmers Changed China*. 1996.

⁴⁴ Chow. p. 48.

⁴⁵ Gilley. p. 65.

⁴⁶ Chow. p. 48.

⁴⁷ "World Agricultural Production." Circular Series, February 2003. U.S. Department of Agriculture.
<http://www.fas.usda.gov/wap/circular/2003/03-02/Wap%2002-03.pdf>

Soviet techniques and industrial organization were far from the leading edge. Even this Soviet “expertise” stopped flowing when Sino-Russo relations went cold in 1960 and the Russian industrial tutors went home. Continuing the five-hundred-year trend, China had once again severed its few links with the outside world. In 1978, foreign investment inflows were less than a billion dollars,⁴⁸ and the sum of China's imports and exports was just 7 percent of its national income.⁴⁹

Above all, Deng Xiaoping was a realist. When he stood tall and honest and looked toward the South China Sea, he saw not the imperious and exploitive might of the capitalist machine but a “fragrant harbor” of freedom and prosperity. He saw tiny Hong Kong rising above the giant Chinese nation, not to crush it but to point the way. Across the Yellow Sea to the east he saw the dark cloud hovering to the north of the thirty-eighth parallel and the sun shining on the south. Across the Taiwan Strait, his own countrymen, banished as he had once been, were creating a new China, recalling the days of invention and innovation that had defined most of China's history. In brutal contrast with China's jingonomics, Hong Kong exports totaled more than 100 percent of its GDP. This could be so because its policies were so favorable to economic activity that even goods produced elsewhere were purposely funneled through the Hong Kong port on their way to the rest of the world. South Korea and Taiwan were following this path as well, and Japan had already proved the fastest growing economy in the post-war period.

Deng saw what China could be. But if the destination seemed clear, the route was less obvious. The relatively tiny, fast-growing nations seemingly surrounding China on all sides had had a special advantage on their paths to prosperity: they weren't China. None had a billion people to educate, clothe, and feed. None had a Marxist pedigree, with its attendant poverty of mind and materiel. None had an entrenched bureaucracy, a xenophobic zeitgeist, or a powerful and paranoid Red Army, sure to resist change.

As with all bloodless revolutions, and most successful business decisions, Deng sought not to solve his problems but to transcend them. In August of 1979, two new commissions were established to administer foreign trade and investment. The commissions were charged with finding the most effective ways to advance Deng's new policy of “Opening and Reform.” The two vice-chairs of the commissions were men named Wang Daohan and Zhou Jiannan. As it happened Wang was a longtime patron of Jiang Zemin, who had helped calm Shanghai in the wake of the Gang of Four's arrest. Likewise, Zhou was a native of Jiang's home province of Jiangsu. Jiang Zemin seemed an obvious choice for the outwardly-oriented commissions given his close relationship with the vice-chairs and especially his previous experience traveling to Moscow, Romania, and Hong Kong.

At Deng's direction, the first challenge for the commissions was to establish four “Special Economic Zones,” or SEZs, on the isolated, relatively unpopulated, and sleepy

⁴⁸ Chow. p. 53.

⁴⁹ Ibid. p. 53.

southern coast of China. As early as February 1979, one such zone, dubbed an “export commodities production base,” was already being tested in the Baoan district in the city of Shenzhen, a “weed-infested wasteland”⁵⁰ just inland from Hong Kong. Less than a year after joining the commissions, vice-chair Wang Daohan was promoted to mayor of Shanghai, and he recommended that Jiang replace him. By mid-1980, the plans for the SEZs were rapidly evolving, and Jiang headed a nine-member delegation to visit similar development projects in a dozen countries.

Over a period of seven weeks, Jiang and company visited Sri Lanka, Malaysia, Singapore, the Philippines, Hong Kong, Japan, the U.S., Mexico, Ireland, the U.K., and finally Geneva, for a United Nations briefing. “Many members of our delegation were going abroad for the first time,” recalled Jiang. “Everything was new to them.”⁵¹ The most impressive visits for Jiang were to the Shannon Airport free-trade zone in Ireland, an experiment that would later become a model for economic reform in that nation, and to the Jurong industrial estate in Singapore.

The UN officials in Geneva doubted the efficacy of the SEZ approach, but Jiang and his group returned home more committed than ever to Deng's plan. They crafted a paper for the Politburo in which they advocated vesting substantial authority in local governments to grant private land leases, determine tax rates, and approve foreign investment. Foreign investors, Jiang believed, should even be allowed to hire and fire employees at will.

The Beijing bureaucracy was less than enthusiastic. Their powers of central authority were being challenged, as were the state-owned domestic industries. But Jiang and his commissioners were resolute.⁵² “‘Stones from other hills can be used to polish the jade on this one,’ they argued in allegory. Adopting the methods used by capitalist countries, they meant, would not undermine socialism in China, but would help strengthen it.”⁵³ In November 1981, Jiang went before the National People's Congress to explain and advocate his SEZ proposals, and “[a]fter a long debate, a divided standing committee finally gave its grudging approval.”⁵⁴

In addition to Shenzhen, the cities of Zhuhai and Shantao, also in Guangdong province bordering Hong Kong, and the city of Xiamen in Fujian province, just to the northeast and across the strait from Taiwan, were the spearhead of Deng's reform experiment. The four zones were just that, experiments, undertaken in an out-of-sight area of China – meant to demonstrate over time the efficacy of trade and technology without alarming Beijing's conservatives and Peoples Liberation Army hardliners. The foreign reaction to the zones was immediate, and massive. Between 1979 and 1983, foreign capital poured in, totaling some \$14.4 billion.⁵⁵

⁵⁰ Hou, Ruili. “Where the Sun Rises: Shenzhen – China's First SEZ.” *China Today*. January 2003. p. 16.

⁵¹ Gilley. p. 67.

⁵² *Ibid.* p. 68.

⁵³ *Ibid.* p. 68.

⁵⁴ *Ibid.* p. 68.

⁵⁵ Chow. p. 307.

The special zones represented the second large tax-cut of the Deng era. Investors who located new plant, equipment, and technology in the zones were not taxed on the profits earned in the first two years of profitability. The next three years worth of profits were taxed at a rate of just 7.5 percent. Only after five years of profitability did the "standard" but still low SEZ tax rate of 15 percent take effect. Most new enterprises took the form of Joint Ventures (JVs) between outside investors and Chinese interests. But unlike the rest of China, these were real businesses with the ability to hire and fire and to offer flexible salaries. Workers were allowed to contract for their labor. Both parties were better off. These new entities were outside the socialist industrial regime, and much of the regulatory and bureaucratic apparatus simply did not apply. Local leaders were given great freedom to develop the zones as they saw fit. Because of the very inexpensive price of labor in China, merely opening the nation to investment would have yielded substantial investment and growth. But Deng and Jiang's powerful tax incentives greatly compounded this comparative advantage.

In a somewhat surprising development, investment from within China exploded, too. "Like vacuums," noted David Zweig in his detailed study of China's opening, "SEZs, which needed enormous infrastructure investments and were the first localities given preferential policies, sucked in domestic capital from all over China."⁵⁶ Between 1983 and 1985, investment in fixed assets in the SEZs increased fourfold in real terms and doubled as a share of national investment.⁵⁷ Between 1980 and 1985 three out of China's four top cities in terms of infrastructure investment were SEZs – Shenzhen, Zhuhai, and Xiamen – and the fourth was the city of Haikou, capital of Hainan Island, soon to become the fifth SEZ. Shenzhen received 89 percent of its loans from domestic financiers,⁵⁸ and "[i]n less than a decade...developed from a piece of farmland to a modern city"⁵⁹ to rival Hong Kong which just years before had towered over it.

In March of 1982, shortly after Jiang had helped to start the SEZ ball rolling, the commissions handling foreign investment and trade were combined into a more formal body, the Ministry of Foreign Economic Relations and Trade, or MOFERT. Jiang's commission posts were eliminated. But Jiang's work had been noticed and he was quickly promoted. The administrative reorganization had also produced a new Ministry of Electronics Industry, where Jiang became vice-minister.

Jiang had been trained as an engineer and in his recent time abroad concluded that China had a big technology problem. He estimated – probably underestimated – that China was 15 years behind the West in electronics.⁶⁰ "The output, quality, and reliability of products is low, and most of the sector loses money," he said upon taking office.⁶¹ "The factories are scattered, and the research is backward."

⁵⁶ Zweig, David. *Internationalizing China: Domestic Interests and Global Linkages*. Ithaca, New York: Cornell University Press, 2002. p. 67.

⁵⁷ *Ibid.* p. 67.

⁵⁸ *Ibid.* p. 67.

⁵⁹ Chow. p. 53.

⁶⁰ Gilley. p. 70.

⁶¹ *Ibid.* p. 70.

Jiang knew all about backward technology. But from an early age he also understood its importance. He had excelled in science in middle school and went on to study in the industrial technology and electrical machinery program at Nanjing's Central University, enrolling in 1943. He came from a family of art and politics, but later he would recall that he "wanted to do something more practical to save the country. So I decided to learn a scientific skill."⁶² After two years at Nanjing, the campus merged with Shanghai's Jiaotong University where he was the youngest in a class of sixty-eight and where for once the labs were fully equipped.⁶³ English was the language of all lectures, texts, and exams. It was post-war, pre-Mao China, and Jiang recalled it as the "bourgeois" stage of his education. "I received a lot of education in capitalism and Western culture."⁶⁴ He also studied furnaces but was only a middling engineering student.

In June of 1946, Jiang joined the Communist Party, but "[h]e was no ideologue: freedom and democracy were his bywords, and the Western 'bourgeois' notion that science was the savior of the nation was his working model."⁶⁵ He graduated from Jiaotong in 1947 and "was assigned to watch two 300-horsepower diesel engines as an engineer in the power-supply department of the U.S.-owned Hai Ning Company's factory" in Shanghai.⁶⁶ The top products were canned foods and Pretty Lady popsicles.

About this time, a 43-year old army commander named Deng Xiaoping was leading 200,000 Communist troops through Jiang's native Jiangsu province, just to the northwest of Shanghai, to take on the Kuomintang Nationalists. Some two years later, in April of 1949, the Communist forces were massed around Shanghai, and within months the Kuomintang fled their besieged stronghold to Taiwan. When the Communists annexed the Hai Ning facility and renamed it the Yimin Foodstuffs Factory, Jiang, the only Communist on staff, was made chief of administration.⁶⁷ With promotion came marriage – to his high school sweetheart, Wang Yeping, in December 1949.

A year later, in 1951, Jiang was recruited to become deputy director at Shanghai's China Soap Factory. There he met 36-year old Wang Daohan, who would later elevate Jiang to head the SEZ commissions. Wang immediately claimed Jiang as his own, and when Wang was made vice-minister of Mao's new First Machine-Building Ministry in Beijing in 1952, he tapped Jiang to lead a new electrical power equipment department at the ministry's Number Two Design Bureau in Shanghai.⁶⁸ Two years later, Jiang was called to Beijing to help draw the blueprint for the future of the Machine-Building Ministry, and by April of 1955, he was on his way to Moscow to learn about power-supplies used in automobile factories. Starting in 1954, some 400,000 Soviet technicians had come to China to help with Mao's modernization, and about 10,000

⁶² Ibid. p. 20.

⁶³ Ibid. p. 21.

⁶⁴ Ibid. p. 23.

⁶⁵ Ibid. p. 24.

⁶⁶ Ibid. p. 30.

⁶⁷ Ibid. p. 33.

⁶⁸ Ibid. p. 35.

Chinese traveled to study in the USSR. The Sino-Russo exchanges were the extent of the new generation's contact with the outside world. Jiang was 28, and his trip to Moscow was his first outside China. In the previous generation, ambitious young people were known to visit foreign lands, as Deng Xiaoping did when in 1920 at the age of sixteen he left for a work-study program in Marseilles, France. He planned to stay for a year but ended up staying six.

In 1956, after a year in Moscow, Jiang returned to China and his new post at the Number One Vehicle Plant in Changchun. Number One made not only trucks but also the steel that went into them. Soon, Mao's Great Leap would impose unrealistic output goals on the nation's industrial base. Number One Vehicle was to quadruple its annual production of trucks to 40,000 and increase the number of models to seventy-three. Electricity was one of the most important inputs, and Jiang continually pushed his power plant to the limits, one day reaching a record output of 112 tons of steel. But there was never enough steel for the cars, and there were never enough cars for Mao. The steel, moreover, was of poor quality. One of Jiang's colleagues, Li Shizheng, remembered that it was "useless for making cars."⁶⁹ They constructed air pumps of wood and car bodies of bamboo. "By the end of [1958] steel output had soared to 11 million tons," recounted Bruce Gilley. "But more than three-quarters of it was substandard."⁷⁰

Fuel was also in short supply. The Changchun factory ran on refined oil and coal, which were scarce, and by 1961 Beijing ordered Number One to convert its power plants to heavy crude oil, a process none of the Chinese understood. The Soviet experts were now gone, and it fell to Jiang to figure out a new system in just two months. Jiang's deputy director of technology, Zhou Huaifei, understood enough to know using a new fuel source could be dangerous. "This is crazy! We might cause a serious accident," he warned.⁷¹ But Jiang was determined. "Don't let the pressure get to you," he replied. "If we show some determination, even the most unfamiliar technologies can be mastered."⁷² Using only partially helpful manuals the Russians had left behind, Jiang and his starving workers worked around the clock, and the project was completed in three-and-a-half months. Jiang ate and slept little and was left with an acute stomach problem that persists to this day.

Nineteen sixty-two brought a promotion to do research in electrical equipment back in Shanghai. The three years Jiang spent there are said to have been "quiet," but it may have been because he was working on radar and communications projects for the military. It is known that in 1965, he visited Hong Kong, which was the key place China acquired sensitive technology from the outside world. Just as the Cultural Revolution was being inaugurated in 1966, Jiang moved to the Thermal Power Machinery Research Institute in Wuhan. China was targeting nuclear power, and Jiang would dive into volumes on nuclear reactors, but Mao's purges were bringing most productive

⁶⁹ Ibid. p. 44.

⁷⁰ Ibid. p. 44.

⁷¹ Ibid. p. 46.

⁷² Ibid. p. 46.

activities to a halt, including those at the Thermal Institute.⁷³ China would not fire up its first nuclear reactor until 1991.

These Chinese technology failures would inform Jiang's commitment to Deng's economic strategy. Jiang's stint as head of the Electronics Ministry starting in 1982 lasted three years, and some biographers call it a failure because exports of electronic products did not meet expectations in these years,⁷⁴ but in 1984 China did launch its first geostationary communications satellite under Jiang's leadership. Jiang also toured the U.S. and after a visit to the Massachusetts Institute of Technology commented that he would have liked to pursue his doctorate there. During this time, he also met Carver Mead, Silicon Valley's leading physicist, the fifth employee at Intel, chief researcher of Moore's law, and the key inventor of numerous semiconductor technologies. Jiang came to understand the unique economic power of the silicon chip, and he was successful in transmitting his enthusiasm for electronics up the chain of command of Communist Party leaders. "One day in early 1984," recounts Gilley,

Jiang received a call from the office of Chen Yun, a fellow native of Jiangsu province, who was perhaps second only to Deng in the overall hierarchy, asking him to come over for a chat about electronics development. On March 3, Jiang and two colleagues from the ministry stopped by Chen's house as requested, carting along a microscope, a microprocessor, and some integrated circuit boards. When they arrived, a *People's Daily* reporter and another from the Xinhua News Agency were already on hand to record the proceedings. Realizing the import of the moment, Jiang adopted a more formal mien, buttoning up his dark blue Mao tunic and adjusting his pen so that it was visible in the left breast pocket, the accepted symbol of a diligent grassroots worker. Chen sat in his comfortable chair and peered through the ancient microscope at the densely printed circuit board as the cameras flashed. Jiang commented on what the hoary elder was seeing, while his assistant stood at the ready with a magnifying glass. "This is a real eye-opener," Chen said at last, sitting up from the microscope. "I think our government cadres have no idea about the urgency of learning this new technology."⁷⁵

Later in the spring of 1984, Premier Zhao Ziyang, another economic reformer, used a visit by Deng to the Special Economic Zones to push through the next round of zone exemptions. This time fourteen Open Coastal City (OCC) designations were awarded. Beijing had originally planned to open just five cities, but pressure from eager local leaders led to an expansion of the project.⁷⁶ It was a phenomenon that would only intensify. Even though some Beijing conservatives were worried at the apparent

⁷³ Ibid. p. 53.

⁷⁴ Both Gilley and Willy Wo-Lap Lam (*The Era of Jiang Zemin*, 1999) say the consensus view is that Jiang's stint at Electronics was less than impressive. In my view, these assertions are not thoroughly backed with evidence.

⁷⁵ Gilley. pp. 72-73.

⁷⁶ Zweig. p. 56.

success of democratic pressure, such enthusiasm for Deng's reforms was seen at the highest levels as entirely positive. During his visits to the SEZs in Guangdong and Fujian provinces in the south, Deng had "stressed that the guiding thought behind openness and the SEZs was not to 'rein in' (*shou*) but to 'let things go' (*fang*)."⁷⁷ As their name implied, the OCCs were open to foreign trade, and twelve of the fourteen were also granted Economic and Technical Development Zones (ETDZs), inferring even greater local freedom to deregulate and attract investment.

Many of the policy preferences offered to foreign investors also were extended to domestic entities. In the ETDZ in Nantong, native enterprises paid income tax of just 15 percent, compared to the nationwide 55 percent rate. In Qingdao, a city north of Shanghai with another ETDZ, the corporate income tax rate on domestic firms was 16.5 percent. In other cases, enterprise managers "were given the flexibility to keep money in their own hands by setting up legal *xiao jingku* (small coffers)."⁷⁸ This enabled the entrepreneurs who founded and ran businesses to engage in the most crucial process in all of capitalism – the reinvestment of profits in new endeavors. State-owned enterprises and local and regional enterprises from all over China moved out of their own jurisdictions into the zones. By mid-1986, Shenzhen had attracted some 2,300 cooperative enterprises established by twenty-seven *outside* ministries and twenty-seven *outside* provinces.⁷⁹

February of 1985 saw the opening of the rivers. In an effort to slowly bring zone economics inland, the Yangtze River delta, the Min and Li Rivers in Fujian, and the entire Pearl River delta were opened. Rural areas along these waterways began to see significant investment. In 1988, the fifth SEZ was created on the island of Hainan, and the Open Coastal experiment was greatly expanded to more communities in Jiangsu, Shandong, Hebei, Fujian, and Zhejiang provinces, to Tianjin Municipality, and to border regions in Liaoning and Guizhou provinces. "The result," wrote David Zweig, "was a much closer link between coastal rural China and the international economy, both in exports and in JV formation."⁸⁰ Also in 1988, zone economics finally came home to Beijing with the establishment of Haidian High-Tech Development Zone (HTDZ) in the northwestern part of the city.

Local leaders took seriously Deng's admonition to "let things go." In Tianjin, many factories outside the official geography of the zone were simply registered in the zone, without moving their physical assets, and thereby remitted a far smaller proportion of their profits to the regional and national ministries. State-sponsored Foreign Trade Companies (FTCs) also moved into the zones and greatly increased their intake of foreign exchange; outside the zones they had to turn over a substantial quota to MOFERT. Often companies in the zones simply ignored many national regulations. "The pattern of development under China's open policy," noted Zweig, "depended greatly on the entrepreneurship of local bureaucrats or leaders of organizations and

⁷⁷ Ibid. p. 59.

⁷⁸ Ibid. p. 63.

⁷⁹ Ibid. p. 88.

⁸⁰ Ibid. p. 57.

their ability to manipulate or evade centrally erected barriers to global transactions."⁸¹ The success of domestic firms operating in the zones, however, was not dependent on foreign trade alone. Many zone-based domestic firms were focused on their native market. Zweig concluded that "the zone's low tax rates and the ease of doing business in its deregulated environment, more than its function as a global linkage, was probably the key attraction."⁸² Although China officially retained many obstacles to doing business, so much of the economy had shifted to the zones that the real environment was one of *laissez-faire*.

Strikingly, the once-great metropolis of Shanghai had failed to keep up with the rest of coastal China. "In the days before the Third Field Army marched into Shanghai and declared it part of the Communist in 1949," wrote Gilley, "the sprawling city at the mouth of the Yangtze River was among the most cosmopolitan in Asia. But incompetent and corrupt rule by the Nationalists during the civil war, followed by three decades of communist-style industrialization, had left it impoverished and ugly."⁸³ When Wang Daohan left the SEZ commissions in 1981 to become mayor of Shanghai, many hoped he would help return Shanghai to its glorious past. But Wang was largely unsuccessful. By the start of 1984, just twenty-three foreign investment projects with a total pledged value of \$220 million had come to Shanghai. That year it was declared an Open City along with thirteen others, but it was slow off the mark, and by 1985, its share of national exports, which had totaled 24 percent in 1980, had fallen to just 12 percent.⁸⁴ Deng would later regret he had not immediately given Shanghai SEZ status. In 1985, however, Wang turned 70 years old, giving Beijing a convenient excuse to replace him. By December 1984, the leadership had already made its choice of succession, and in mid-1985, Wang's protégé Jiang Zemin was brought in from the Electronics Ministry to revive the city as Shanghai's new mayor and Party chief.

Jiang's first objective was to modernize the city's infrastructure, and over the next five years he would spend \$8 billion for a new train station, subway, telephone network, airport extension, and a bridge across the Huangpu River. But almost immediately upon taking the reins, before he could begin rebuilding the city, Jiang was confronted with a mini-crisis: China's first bout with inflation.

In 1984, Beijing had put prices on a dual track. Consistent with its gradual, decentralized approach to opening up the economy, Deng and the Party leaders knew that abandoning the socialist "price system" all at once could have unpredictable and possibly disastrous consequences. Even though a market economy was emerging in the early and mid-eighties, state-owned enterprises, with their own centrally directed system of "prices," still accounted for most economic activity. The new dual track price system kept the old system for the SOEs and created a new system of market-based prices for the new economy. Even SOEs, however, were allowed to use the new market prices after they had met their various quotas using the old system. They could

⁸¹ Ibid. p. 17.

⁸² Ibid. p. 88.

⁸³ Gilley. p. 74.

⁸⁴ Ibid. p. 74.

purchase extra, or marginal, inputs from the market and sell the corresponding outputs on the market. Because it is *marginal* costs and *marginal* revenue that determine firm behavior, the two-tier system encouraged the SOEs to start making optimal decisions for the very first time.⁸⁵

The dual track was a stroke of genius, for the most part smoothing the transition from a command to a market economy. Later, several other nations that made the switch all at once experienced hyper-inflation. China avoided such a catastrophe, but after experiencing inflation of just 2 percent in 1984, retail prices in Shanghai rose by 17 percent in 1985. The Shanghainese – also known as "Shanghai people" – grew restless. There were student marches. Many, including elders like Chen Yun, called for price controls to tame the inflation. Premier Zhao Ziyang, the liberal reformer and architect of the market price transition, even granted big-city mayors like Jiang some leeway to impose controls. But Jiang was steadfast in his support of the market. He made speeches to the students and to the people of Shanghai, and he acknowledged their concerns. He believed, however, that the key to stabilizing prices was *to increase the supply of goods*, not to impose artificial controls that would only foster greater distortions. Controlled prices are not prices at all. Unless prices are achieved through voluntary exchange, they lose all their power as the crucial conveyors of information in a capitalist economy. The Chinese economy, Jiang understood, was undergoing a dynamic shift toward the market, and attempts to interfere with the natural, if sometimes uncomfortable, process, could jeopardize the whole capitalist experiment. Jiang was not an economist, but his intuition – that increased economic activity combats inflation, rather than fuels it – was a central insight, one that many of the West's best economists still do not fully understand. Jiang recommitted to economic growth in Shanghai, and soon inflation was subdued.

Shanghai's fortunes were to improve further in December of 1987, when Beijing sent a dynamic and blunt economic expert named Zhu Rongji to be Jiang's second-in-command. Zhu would be mayor, with responsibility for day-to-day management. Jiang would drop his mayoral title but retain his role as party chief, the strategic head and public face of the city. Just two months earlier, Jiang had been elevated to the 15-member Politburo, the sanctum sanctorum of Chinese government. Despite what many observers viewed as his rather ordinary abilities, Jiang was climbing the Party hierarchy with great speed, and it was apparent Deng was grooming him for a future senior leadership post. Over the next fifteen years, Jiang and Zhu, together, would transform Shanghai, consolidate and extend Deng's economic revolution, and lead China into the twenty-first century.

Their effort to restore Shanghai's glory would begin where Deng and Jiang had inaugurated their Special Zone reforms a decade before – in Guangdong province. In January 1988, barely a month after Zhu became mayor, the two led an 11-member Shanghai delegation to the Pearl River Delta to see how the region had become China's fastest growing and richest. What they saw was not dissimilar to the great economic feats Jiang had once seen in Singapore, Japan, and Ireland, the very success stories

⁸⁵ Chow. p. 51.

that had inspired his efforts to install the SEZs. Now China's own Guangdong was the example for Shanghai. Upon returning from the trip, Jiang biographer Gilley notes, "Jiang held a meeting for 10,000 cadres, at which he said they must 'learn humbly' from Guangdong. 'We should no longer be blind or self-content.' Jiang said. 'Everyone from the top down has to adapt to the needs of the commodity economy.'"⁸⁶

Jiang and Zhu's first act was to push through a substantial reduction in the red tape that had been discouraging foreign investment. The problem was highlighted in March of 1988, when the *Economic Daily* exposed the ridiculous run-around entrepreneurs and foreign companies had to endure to set up a new business. The article told the story of one young company whose managers had given up after a fifteen-month wild goose chase among nineteen different government bureaus and fourteen government commissions, which yielded 126 official approvals, but still not enough to get their start-up off the ground.⁸⁷

The story proved both an embarrassment to Jiang and a helpful lever to push through business-friendly reforms. "I felt deeply ashamed when I was told about this case," Jiang had admitted. "When I visited Dongguan [Guangdong province] in January, they told me they approve these contracts in an hour. How can we expect foreigners to put up with all this red tape?"⁸⁸

Jiang soon held his famous "denounce red tape" meeting, and Zhu designed and won approval for a new one-stop shop investment center in Shanghai. Beijing agreed to hand over all authority to Shanghai's Foreign Investment Commission to approve investments of up to \$30 million. One commission instead of 33. One approval instead of 126. Shanghai was finally on a path to regain its prominence as one of the world's great cities.

DENG XIAOPING HAD FREED THE PEASANTS to farm and opened the coast to trade with the world. But he was completely surprised by the quieter revolution occurring in most every town and village in the country. In the wake of Deng's initial 1978 reforms, agricultural productivity was increasing so rapidly that by the mid-eighties there was not only a surplus of food but also a surplus of farmers. Many rural Chinese, whether displaced or ambitious, were heading for the booming cities on the coast. Even so, towns and villages were left with an excess of agricultural workers, a dearth of non-farm jobs, and declining tax revenues.

From the earliest days, Deng's motto for economic reform was that "some must be able to get rich before others." He understood that economic egalitarianism breeds uniform poverty. Implicit was an embrace of change, renewal, and even, one might say, creative destruction. He would say, "The temple is not big enough for too many gods.

⁸⁶ Gilley. p. 102.

⁸⁷ Ibid. p. 102.

⁸⁸ Ibid. p. 102.

Unless the old withdraw, there will be no room for the young."⁸⁹ The towns and villages, suffering from Deng's policy to let the coast "get rich before" the rural areas, could have resented Deng and resisted his disruptive move toward capitalism. Instead, they embraced it.

Through the nineteen-eighties, hundreds of thousands of township and village enterprises – or TVEs – emerged. These small, local start-up businesses were largely the creations of local government and military leaders, bureaucrats, and entrepreneurs. They were not without precedent – such collective businesses had been known in pre-Mao China – but they were an unorthodox manifestation of the Western style firm, and their success confounds many Western economists to this day.

The TVEs produced agricultural and manufactured goods, and even crude services, and sold them in the competitive marketplace. Even though they were "collective" in the sense that they were often owned by the local citizens, the TVEs were the antithesis of the old state-owned enterprises. TVEs were not subsidized. The local governments were hurting and did not have the revenue to subsidize them. The very aim of the TVEs was to create jobs and replace lost tax revenue. Unlike SOEs, the TVEs were not set up to "make products" that some bureaucrat deemed desirable. They were set up to "make money" – to be profitable. They were not arranged to utilize national resources "efficiently," as the SOEs had been. They were risky and entrepreneurial creations designed to tap the vast unused potential of the Chinese people and to serve their widely unmet needs.

Though nominally "collective," the business incentives and structure of the Chinese TVE were little different from the Western firm. Like private firms, TVEs hired the best people and paid them what they were worth. Layoffs were also a reality. A small village could not levy high taxes on its own TVE lest the TVE be rendered uncompetitive and die. Instead, fixed lump-sum taxes were levied. Sometimes a town would contract with the TVE to be paid a fixed return on capital. Either way, TVEs usually faced very low marginal tax rates or none at all. The overwhelming percentage of profits was thus available for reinvestment in people and capital and new products.

The relationship with the local government helped protect the TVEs in an environment when business law was only starting to evolve. The public-private relationship also protected the TVEs from predation by the national government. The fact that the employees and managers of the TVEs were local citizens fostered a sense of trust, and it was very difficult for any manager to loot his enterprise. Later, when certain TVEs became quite financially successful, some townships and villages did attempt to raise taxes on their own firms, and in some cases the rate of growth of the TVEs in question slowed. But the incentives of the locality and the TVE were largely aligned, and the local governments for the most part fought for the financial and regulatory independence of the businesses they had founded.

⁸⁹ Ibid. p. 66.

Until the mid-eighties, MOFERT – the foreign trade ministry – and the state-sanctioned Foreign Trade Companies (FTCs) effectively blocked the TVEs' access to international markets. The FTCs were really official conduits through which any imports or exports were supposed to flow. Without the right licenses, a TVE's only hope of reaching the outside world was to cozy up to one of the FTCs. Otherwise, export regulations and levies, as well as restrictions on the import of technology and capital, rendered the TVEs thoroughly domestic businesses. MOFERT and the FTCs were also known to delay payments to the TVEs for more than a year or give them bad deals on foreign currency exchange.⁹⁰

Starting in 1985 and continuing through the late-eighties, these restrictions were gradually, but consistently, peeled away. In 1985, the "foreign trade responsibility system" was initiated. Like the household responsibility system that had cut taxes on farmers, the new trade regime ended the compulsory production of certain crops and goods, freed some but not all export and import prices, cut the amount of foreign exchange extracted by MOFERT through the imposition of a quota rather than a rate of tax, and generally reduced the ministry's influence.⁹¹

The next reform, in 1987-88, was to open to foreign investment the counties surrounding the fourteen Open Coastal Cities, including the entire Liaodong and Shandong peninsulas, Hangzhou, and most of Jiangsu province. Exporting TVEs in these regions were granted the right to use all foreign exchange earnings to import technology, equipment, and raw materials. TVE export earnings jumped to \$8 billion in 1988 from \$5.1 billion the previous year, and by 1989 TVE export earnings were \$10.1 billion and accounted for 19.1 percent of the nation's export profits.⁹² By 1996, the rural TVEs would employ some 130 million workers and account for one-third of rural output. Urban collectives, including the urban SOEs under local control, would employ 115 million and account for one-third of urban output. Together, collective businesses of all sorts would employ 245 million Chinese, about 35 percent of the nation's labor force.⁹³

The success of the township and village enterprises was a pleasant surprise, but it was also a threat to existing Chinese industry. Even though some reforms of the state-owned sector had begun as early as 1980, most SOEs were still bloated and unproductive. By June of 1980, 6,600 SOEs were involved in an experiment that enabled them to make internal decisions on production and marketing and offered some autonomy in investment decisions through partial profit retention.⁹⁴ Some 80 percent of the nation's SOEs were involved in the experiment by the end of 1981. Broader reforms introduced at the Twelfth Central Committee meeting in 1984 further reduced central command of the SOEs and introduced some market prices, but the large SOEs were in general slower to change than the agile TVEs, and Beijing was becoming concerned that the TVEs were encroaching too far onto state-owned territory and taking market

⁹⁰ Zweig. p. 113.

⁹¹ Ibid. p. 114.

⁹² Ibid. Table 3.4, p. 118.

⁹³ Chow. p. 271.

⁹⁴ Ibid. p. 49.

share in major industries. The TVE trend allowed Beijing reformers to push through even bigger changes for the state-owned operations, and in 1987 the "responsibility" theme was extended to the reorganization of the SOEs. Under the new "contract responsibility system," SOEs signed contracts with the government to pay a fixed annual tax and in return were allowed to retain all remaining profits.⁹⁵ Following similar reforms for the nation's farms, SEZ enterprises, and TVEs, the state-owned contract system was China's fourth major elimination of marginal taxes in less than a decade.

The SOE contract system was a major improvement, but it was not to have quite the impact as the other reforms. As Chow has shown, many of the largest SOEs proved impervious to the profit motive, if for no other reason than the possibility of ever achieving real profits was so remote.⁹⁶ Many of these organizations employed hundreds of thousands of workers and were so large they not only operated in their primary market – for example, automobiles, steel, or electrical appliances – but were also in the business of providing food, shelter, education, and any number of goods and services to their employees. Steel companies were baking bread and running kindergartens. The contract responsibility system provided dramatic incentives for managers of small and medium-sized SOEs to reform their ways, but many of the larger state companies were so sprawling and unwieldy that they would never become truly competitive businesses.

THE FIRST DECADE OF ECONOMIC REFORM under Deng was an unprecedented success. By 1987, barely nine years after the first reforms began, per capita income had doubled.⁹⁷ International trade, which totaled just \$20.6 billion in 1978, had by 1988 quintupled to \$102.8 billion.⁹⁸ The new international links extended beyond commerce. Following Deng's example from some sixty years before, Chinese students were for the first time in a long time leaving for universities around the world. As of 1989, some 26,000 graduate students and a similar number of "visiting scholars" had studied abroad,⁹⁹ and by 2002 the number of foreign-trained Chinese students would reach 580,000.¹⁰⁰ Such large changes over so short a period of time do not happen without sending social ripples across the population. The economic and intellectual awakenings taking place in Deng's new China were fueling political rumblings as well.

The scene was Tiananmen Square, a 121-acre "concrete desert"¹⁰¹ just to the south of the Forbidden City, the seat of Chinese government, where the Gate of Heavenly Peace had stood since 1651, and where tens of thousands of students had gathered in the spring of 1989. The famous incident began innocently enough, when elder Hu Yaobang suffered a heart attack and fell to the floor during a Politburo meeting

⁹⁵ Ibid. p. 50.

⁹⁶ Ibid. pp. 50-51.

⁹⁷ Yergin, Daniel, and Joseph Stanislaw. *The Commanding Heights: The Battle for the World Economy*. New York: Touchstone, 2002. [1998] p. 204.

⁹⁸ Chow. Table 17.1, p. 282.

⁹⁹ Zweig. Table 4.2. pp. 176-177.

¹⁰⁰ Kaufman, Jonathan. "China Reforms Bring Back Executives Schooled in U.S." *The Wall Street Journal*. March 6, 2003.

¹⁰¹ Gilley. p. 114.

on April 8. Jiang Zemin had rushed to administer the nitroglycerin pills Hu's wife had entrusted to him, and with the assistance of one Song Ping, helped to revive the 74-year old Hu. A week later, however, on April 15, Hu suffered another heart attack and died. The next day, students bearing a flower wreath converged on Tiananmen, which had also been the site of mourning for Zhou Enlai in 1976. Hu had been Party general secretary under a title-less Deng until he was perceived to go easy on a student uprising in Shanghai in December of 1986. In January of 1987, Hu was relieved and replaced with Zhao Ziyang, like Deng and Jiang a liberal economic reformer but political conservative. Hu Yaobang, like Zhou Enlai, was considered a hero of liberal political reform, but Hu's official biography was tarnished by his demotion, and the students' sorrow quickly turned into demands that the Party reevaluate his record.

As the gatherings continued day after day, the focus on Hu's posthumous reputation morphed into general complaints of corruption and new calls for democracy. The gatherings spread quickly to other cities. Students of the East China Normal University marched on the streets of Shanghai as early as April 17. By Hu's funeral on April 22 there were tens of thousands camping in Tiananmen Square and some 10,000 soldiers guarding the Great Hall of the People. Through April and May, the students and activists kept assembling. Jiang would become embroiled in a censorship dispute over how Shanghai's *World Economic Herald* was reporting the protests, which only led to further consternation and ferment in the streets. In a city of 13 million people, the Shanghai marches of five or ten thousand people were small, but they were consistent. A long-planned visit by Soviet leader Mikhail Gorbachev on May 15 went off, but not with the fanfare expected, as Gorbachev skirted the protestors on his way to visit an elevator factory. The Shanghai protests were less contentious than Beijing's, but observers credited Jiang and Zhu for keeping them that way. As the protests entered their second month, on May 20, with Zhu Rongji at his side, Jiang came to the Bund to address the students. Bullhorn in hand, Jiang spoke: "Your patriotism and aspirations are admirable....Your views have a positive significance for the improvement of our work and for speeding up reforms and economic development."¹⁰² He agreed to continue meeting with the students, something he had been doing for years, and the citizens were more or less mollified.

Not so in Beijing, where top Party leaders were only making matters worse by declaring martial law and ordering 100,000 troops into Beijing. Party general secretary Zhao Ziyang had lost a debate to Li Peng and other hardliners, and the result was the more confrontational tone that would lead to the violence of early June. Even before the violence, however, Deng Xiaoping could see the changes sweeping the nation and seized the moment to make his own changes, changes it is now believed he had already been contemplating for some six months.

In the Chinese equivalent of a no-confidence vote, Zhao had been overruled and was out. That much was clear. The hardliners, meanwhile, regardless of the outcome of the Tiananmen protests, and no matter how much Deng the social conservative believed in their course of action, would be resented. On May 22, Jiang was secretly

¹⁰² Ibid. p. 127.

brought to Beijing, but for what reason, he did not know. Jiang was therefore surprised when, the next day at the Western Hills Villas outside of Beijing, Deng offered him the job as China's new paramount leader. If Jiang was surprised, so were his comrades and international onlookers. The feeling at the time was that Jiang would be a transitional figure. But soon enough, Deng would make it clear to the inner circle that China could not tolerate another failed or mediocre tenure, like that of Hu or Zhao. It was time for Deng to install the "core" of leadership that would carry on after his passing.

"Tiananmen Square," the incident, had not yet occurred. Yet a new, even more liberal direction for the nation had already been set. Jiang was an economic reformer but a social conservative. An experienced Party chief but not an insider. He had close ties to elders like Wang Daohan and Chen Pixian, and he had even worked with senior leaders Li Peng and Chen Yun, whom he could count on for support. But his associations with the rulers responsible for the tragic and brutal Tiananmen events of June 3 and 4, 1989, where several hundred or even a thousand protestors were killed (the numbers are still debated), were distant enough that his hands could rightly be seen as clean.

This is not to say Jiang, who officially took office on June 24, did not support the actions. He would later ask what would happen if even the most democratic of nations were faced with Beijing's predicament. Tiananmen represented the capital of the country, and the student camps were disrupting commercial and government work, he said. "For nearly two months, it was occupied by students....If only a tenth of the number of student camps had been sitting in front of the White House, [No. 10] Downing Street or the Elysée Palace, no sovereign government would have tolerated it for long."¹⁰³ Nevertheless, the Chinese postmortem of the event would conclude that it was a terrible mistake to call in the army, instead of relying on the police. China would rightly endure several years of official condemnation and reprimand from foreign capitals. Each year until 2000, when China achieved "permanent normal trade relations" with the U.S., Congress would threaten to revoke China's "most favored nation" trade status, usually citing Tiananmen as a prime culprit. But Jiang's deft handling of the aftermath would minimize the long-term damage to foreign relationships, offer both conservative and liberal factions a place at the domestic table, and lay the groundwork for the second great decade of the rising Chinese phoenix.

THE STRIATED RUBY SPHERES, hovering like Jupiters, are pierced by a fifteen hundred foot silver needle rising from the river. It could be Manhattan. But it is bigger. It could be Las Vegas. But it is brighter. It could be a Steven Spielberg celluloid mindscape. But it is real. Beneath the Oriental Pearl needle, and across the Huangpu river, on and beyond the Bund, are eight of the world's tallest skyscrapers and smaller but even more elegant British and French creations from the turn of the twentieth century. It is the cosmopolis of Shanghai, the old pearl of the orient, once the romantic Asian capital of seedy nightlife and swashbuckling tycoons, later the birthplace of the Chinese Communist party and the departure point for Chiang Kai-shek, then the late-

¹⁰³ U.S. News and World Report. March 12, 1990. pp. 50-54.

twentieth century city of dirt gray decline, and now the neon capital of global high-technology.

The bulbous needle announces Pudong district, the 500 square kilometer high-technology and financial zone established in early 1990, less than a year after Jiang's ascension from Shanghai to Beijing. Nearby is Jin Mao tower, at 1,380 feet the fourth tallest building in the world, housing among other businesses the earth's highest hotel, the Grand Hyatt Shanghai. Below and around are China's main stock market, the Shanghai Securities Exchange, founded in November of 1990, the research centers of IBM, General Electric, and Intel, and the manufacturing operations of China's two largest native microchip manufacturers, Semiconductor Manufacturing International Corporation (SMIC) and Grace Semiconductor (GSMC). In the center of Pudong district is the 25 square kilometer Zhangjiang Hi-Tech Park, home to Case Software, CELSTAR Bic-Pharmaceuticals, Dikang Pharmaceuticals, Dong Hua Virtual Technology, East China Future Network Systems, and Fudan Kingstar Computer, among others. Pudong office buildings were raised so quickly that well into the nineties occupancy rates were said to hover embarrassingly at 20 percent, but more recently those on the ground say commercial space in Pudong is 80 percent full, and it is becoming a popular and relatively inexpensive residential area as well.

Shanghai, with Beijing, is a key hub of Chinese education. Pudong district alone now has 13 institutions of higher learning, including the Chinese University of Science and Technology's R&D center, Fudan University's Microelectronic Institute, and Jiaotong University's Information Engineering Institute.

Shanghai contains one percent of China's population but produces more than 5 percent of its economic output. Shanghai's Pudong has grown so fast that investors increasingly look outside the city where manufacturing costs are as much as 40 percent lower. Fifty miles to the west is Suzhou Industrial Park, a "New & Hi-Tech Development Zone" established in 1994, where National Semiconductor, Philips, Fairchild Semiconductor, and United Microelectronics Corp. of Taiwan, one of the world's largest independent silicon foundries, are investing some \$3 billion in new manufacturing, packaging, and assembly plants. In the fall of 2003, Samsung of Korea turned up a flat-panel display assembly factory, where it expects eventually to assemble one-third of its high resolution desktop and laptop computer screens. Advanced Micro Devices, Solectron, and Renesas Semiconductor, a joint project of Hitachi and Mitsubishi, are longstanding investors, and twenty-one of the park's tenants are Fortune 500 companies. By the end of 2002, some 993 distinct Suzhou projects had yielded a total foreign investment of \$16 billion. International trade into and out of the park in 2002 totaled \$5.5 billion.

Pudong and Suzhou were a continuation of the zone strategy that by the early nineties had transformed the nation's first SEZ, Shenzhen, from a backwater into China's richest city in terms of per capita income. Shenzhen's per capita performance was made all the more impressive given its population surge, which saw the number of Shenzhen inhabitants grow 114-fold between 1981 and 1996. Between 1980 and 1993,

Shenzhen's economic output grew at a compound annual rate of 40 percent, and by 1993, Shenzhen had overtaken Shanghai as the nation's number one exporter. In the next decade, the decade of the nineties, it would be the Pudongs and Suzhous that experienced Shenzhen-like hypergrowth, and by 2003, the mayor of Shenzhen, citing competition from within and without China, was lobbying Beijing for the authority to conduct further "experiments" in the nation's key economic "laboratory."

The genius of Deng and Jiang's approach was that it exalted competition not only among firms and individuals but also among government jurisdictions. Inevitably, not every entrenched cadre or army general was happy with the rapid expansion of a separate and free Chinese economy. As Jiang quietly and gradually courted the nation's elites in the early nineties, seeking to establish himself as more than the "transitional figure" many assumed he was, Deng was out front protecting his new charge. Deng engaged in "ferocious attacks"¹⁰⁴ on the conservatives who questioned either the pace of economic development or Jiang's authority as the "core" of the new generation of Chinese leaders. Many conservatives were also alarmed at the recent collapse of the Soviet Union and feared further moves toward capitalism would yield a similar fate for the Chinese Communist Party and the PLA.

Seeking to put an end to the minor conservative counterinsurgency and to launch a second decade of even greater economic reform, Deng in January of 1992 boarded a train in Beijing and headed south. Eleven hundred miles away, his destination was Shenzhen, the place where it all began, a place Deng had not visited since 1984. "I don't even recognize the place now," Deng is said to have commented on arrival.¹⁰⁵ For ten days, Deng toured Shenzhen and the two nearby SEZs of Shekou and Zhuhai, promoting the Shanghai and Shenzhen stock exchanges, encouraging the continuation of the policies that had built these new metropolises out of nothing, and offering what would become the key political motto of his trip: "China should maintain vigilance against the right, but we should mainly guard against the left."¹⁰⁶

Back in Beijing, Jiang was offering coordinated encouragement to his ally in Shanghai, Mayor Zhu Rongji. Officials under Zhu should "accelerate reform and opening to the outside world," Jiang announced, reinforcing Zhu's aggressive economic stance.¹⁰⁷ While still in the south, Deng would read Jiang's words in the news and echo them exactly. But Deng's trip and numerous appearances were not known to most Chinese at the time. The state propaganda machine was still controlled by conservatives, and it was reluctant to cover what it knew to be a defining event. Instead of confronting the skeptical Xinhua News Agency not yet under his control, Jiang would go around them. In a New Year's address, he quoted from Deng's speeches, telling the nation's cadres and officials to "make bold explorations" and "accelerate reforms."¹⁰⁸ Two months after Deng's southern tour, his words finally became real. As Gilley writes,

¹⁰⁴ Gilley. p. 183.

¹⁰⁵ Ibid. p. 184.

¹⁰⁶ Ibid. p. 185.

¹⁰⁷ Ibid. p. 185.

¹⁰⁸ Ibid. p. 186.

"When the belated Xinhua report was issued on 11 March, it was the end of the long propaganda struggle. Millions of Chinese woke up to a single sentence that began the next morning's radio broadcast: 'We should be more daring in opening and reform.' Deng's springtime story was official."¹⁰⁹

Nineteen ninety-two, the year of Deng's southern tour, also brought major structural transformation to the township and village enterprises. From their inception in the mid-eighties, the TVEs had been collectively owned. This label, however, was somewhat deceiving because unlike most socialist enterprises, the TVEs were self-contained entities that internalized all of their income, meaning product and employment and reinvestment decisions were theirs alone. They also faced what is known as a "hard budget constraint" – they could not appeal to an outside authority for "free" funds or non-market loans to make up for financial losses; they were for-profit (or loss) businesses through and through. Like the "company towns" of the West, they were "town companies." They were more or less owned by the workers, although informally so. Nevertheless, in 1992, Beijing sought to remove this ambiguous socialist status by allowing TVEs to remake themselves as joint stock companies, where ownership by the managers, workers, and local governments was formalized and liquefied.

Whether they knew it or not when they inaugurated the zone economy in 1980, Deng and Jiang had chosen the perfect path of economic liberalization. They would not replace command and control communism with command and control capitalism. Instead of forcing capitalism on suspicious bureaucrats and an unworldly populace, Deng and Jiang set up a system in which citizens would soon be demanding capitalism. By decentralizing the decision-making process to the managers of zones and TVEs, they were in effect setting up a federalist system where not every battle would be fought in Beijing but would be worked out by entrepreneurs and officials at the local level. By gradually empowering local leaders economically, political power was devolving as well. When Deng and Jiang made their statements about "accelerating reforms," these were not decrees from the emperor, they were echoes of the populist mood. Deng and Jiang were transcending their hardline opponents and continually sowing the seeds of an ongoing grass-roots revolution.

If freedom is contagious, China offered the best proof yet. First there were four Special Economic Zones. Then there were fourteen Open Coastal Cities. Then the High Tech Development Zones. Next the counties around the Open Coastal Cities were opened for business. After Deng's celebration of the zones during his southern tour of 1992, "zone fever" swept the country. As more and more Chinese witnessed life in the zones, with their rising living standards and opportunities to pursue new types of work and entrepreneurial endeavors, they clamored for their own zone status or other special tax and regulatory exemptions from Beijing. By the summer of 1993 there were some 8,000 development zones across the country, and the geographies of existing zones were expanding in size by a factor of ten or twenty.¹¹⁰ Nantong and Yantai's zones grew

¹⁰⁹ Ibid. p. 187.

¹¹⁰ Zweig. p. 93.

from 4 square kilometers to 45.¹¹¹ Qingdao's zone ballooned from 15 square kilometers to 152.¹¹² By 1994, three hundred eleven cities had been opened¹¹³ and development zones grew to cover some 20,000 square kilometers.¹¹⁴

Unlike the outbreak of the SARS virus in the spring of 2003, this fever was entirely positive, an almost euphoric cascade of economic freedom. By allowing an entrepreneurial economy to develop around the edges, China could avoid shocking all of its citizens and state-owned enterprises with the unknown rigors and potential disappointments of competitive capitalism. It would create a growing population of entrepreneurs and businessmen and new ventures that could sustain the country when many of the old-line SOEs inevitably failed. It would create a transitional span of time in which the most ambitious Chinese could undertake new and risky projects, learning the new ways of the world, while the more skeptical and entrenched dawdled in the old economy.

Another helpful way to view China's transition is to contrast it with that of post-Soviet Russia in the nineteen-nineties. Yegor Gaidar and Anatoly Chubais were supposedly enthusiastic followers of libertarian idols F. A. Hayek and Milton Friedman. They were going to quickly embrace private property and the market. But with their keen focus on privatizing the state-owned enterprises – all the existing manufacturers, natural resource extractors, food processors, transporters, and big media companies – the new Russian economy in the most important ways resembled the old Soviet one. True, the “shock therapists” had followed the “libertarian” path: They had switched the sign on the door from “Bolshevik Biscuits, Property of CCCP” to “Bolshevik Biscuits, Inc.” But what really had changed?

As Alvin Rabushka and Michael Bernstam have shown in a dense but pathbreaking work, Russia's privatization turned a vast socialist apparatus of Communist enterprises into a vast socialist network of private firms.¹¹⁵ By continuing to operate in much the same manner they had under Communism, but now without a central planning authority, the network of private firms took from the government the power to tax and to print money. The privatized firms would collect sales and income taxes but not remit them to Moscow. They could not afford to. Or, in exchange for remitting taxes to desperate officials in Moscow, they could extort credits – that is, newly created money – from the Central Bank. The retained taxes and bank credits were substitutes for the previously unlimited and “free” government funds that had always magically made up for any financial losses. And were there losses! This concept of Moscow or Beijing, or any central authority, making up the difference is known as the “soft budget constraint.” Because the same basic economic infrastructure existed before and after the “market” economy was introduced, the soft budget constraint remained a

¹¹¹ Ibid. p. 93.

¹¹² Ibid. p. 93.

¹¹³ Ibid. p. 49.

¹¹⁴ Ibid. p. 94.

¹¹⁵ Rabushka, Alvin, and Michael S. Bernstam. *From Predation to Prosperity: Breaking Up Enterprise Network Socialism in Russia*. The Hoover Institution, 2000.
<http://www.russianeconomy.org/predation.html>.

part of the culture. Clearly, however, it was just as untenable in a market economy as a Communist one.

The result was that well into the nineties, some 80 percent of revenues in Russia were still socialized in a never ending loop of transfer payments among the tens of thousands of “privatized” nodes of the socialist network.¹¹⁶ Invoices were padded and would pile up for months at a time until the arrival of a payment from someone else in the network or the next batch of funny money from the Central Bank. There were no real earnings. There was no real investment. The tax code was so punitive that all the incentives for real productivity and growth were just as absent as they had been in the USSR. Any real value that had existed in the firms had been sucked out and wired to Geneva. As China had demonstrated in dramatic fashion, the important distinction was not between government (bad) and market (good) – these definitions proved meaningless in post-Soviet Russia – but between socialized income, or “common income,” and internalized income, or “private income.”

The source of China’s newfound wealth and its smooth transition to capitalism is its enshrinement of private income. Though the township and village enterprises were nominally “government” entities, they internalize virtually all of their income. In fact, although some portion of a TVE’s profits is turned over to the municipality, because the municipality depends wholly on the competitive success of the TVE, and because the workers and managers, who are also the town residents, are in a sense shareholders rather than just citizens of the municipality, the government portion of the TVE ends up being more of a services bureau than an unwieldy and wasteful bureaucracy. The incomes of both the TVE and its government partner are internalized, keeping all spending and reinvestment decisions as close to the most knowledgeable decision-makers as possible. It is a sort of financial federalism that would make James Madison proud.

In addition to the TVEs, which were a surprise development, Deng and Jiang had begun the transition not by privatizing the state-owned enterprises, as Gaidar and Chubais did, but by allowing a totally separate coastal entrepreneurial economy and distinct price system to build for many years before serious SOE reform was introduced. The importance of China’s own network of socialist institutions was thus greatly devalued relative to the rest of the economy growing all around it. Not until 1997 were the SOEs transformed into shareholding companies, but by then fully 80 percent of Chinese income was private, or internalized.¹¹⁷ Although China was nominally more “socialist” than Russia, the proportions of the nations’ income that was private were mirror opposites.

The distinction between private and common income seems to explain most of the variance in performance of all the post-Communist nations. China, Myanmar, Vietnam, Laos, and Mozambique, for example, were the nations with the most developed entrepreneurial economies between 1990 and 1999, all with more than 65

¹¹⁶ Ibid.

¹¹⁷ Ibid.

percent of income defined as private. They were also the five fastest growing post-Communist economies in the time period, ranging from 80 percent aggregate growth for Myanmar and Mozambique to more than 150 percent growth for China.¹¹⁸ Turkmenistan and Tajikistan, meanwhile, the two nations with the lowest percentage of private income, at just 5 percent, were two of the worst performing economies, having contracted 50 and 60 percent respectively. Russia, also in the lower left hand corner, and the rest of the 42 post-Communist nations sampled conformed to a statistically significant, though not transcendently determinative, curve, all the way up to China at the top right. In "privatized" Russia, only 20 percent of the income was private. But in "socialist" China, 80 percent of income was private.

Although the influence of the Township and Village Enterprises would wane in the first decade of the twenty-first century, as modern corporations and incorporated small businesses grew, by 2002 the TVEs nonetheless numbered around 20 million, employed some 128 million people, and comprised almost half of Chinese economic output.¹¹⁹ They had been a key bridge from brutal communism to modern capitalism.

BY THE TURN OF THE TWENTY-FIRST CENTURY, more than two hundred million Chinese had migrated from the agricultural interior to the coastal zones and cities.¹²⁰ In Shenzhen, to cite an extreme example, some 98 percent of residents are from outside the city, and the average age is 29.¹²¹ Shenzhen by 2000 had also lured investments from 27,000 foreign companies, many of whom based their Chinese operations and employees there.¹²² This mass migration, surely the largest in history, tends to confirm Adam Smith's thesis that the surest sign of economic vitality is rapid population growth. Although China's one-child policy works to keep population growth moderate for the nation as a whole, the coastal zones and cities, which comprise a truly unique entity that might be termed New China, are the fastest growing spots on earth in terms of both economic output and people.

The coastal migration from within China was mirrored by the homecoming of Chinese nationals studying and living around the world. These *hua gui*, or "overseas returned," had by the fall of 2002 founded 166 companies focusing on microchip and software development in Shanghai alone.¹²³ Taiwanese capital and talent crossed the straight as well, with Taiwanese chip-makers investing \$10.3 billion in the Shanghai area in 2002.¹²⁴

¹¹⁸ Ibid.

¹¹⁹ TVE Yearbook 2003.

¹²⁰ Panitchpakdi, Supachai, and Mark. L. Clifford. *China and the WTO: Changing China, Changing World Trade*. Singapore: John Wiley & Sons (Asia) Pte Ltd, 2002. p. 28.

¹²¹ Hou, Ruili. January 2003.

¹²² Ibid.

¹²³ Liu, Sunray. "Chinese EEs return home with entrepreneurial bend." *EE Times*, Oct 17, 2002.

¹²⁴ Yao, Gang. "China's chip-making focuses on Chinese River Delta." *Semiconductor International*. February 1, 2003.

The largest independent chip foundry in the world, Taiwan Semiconductor Manufacturing Corporation, known as TSMC, finally won approval in late 2002 to build a billion dollar, 8-inch wafer foundry. The company wanted to invest more, but Taiwanese and American politicians stood in the way. Although TSMC is headed by the thoroughly westernized Morris Chang, a former Texas Instruments vice president and today the leading business figure in Taiwan, Western governments in 2003 were still banning the transfer of the most advanced technologies, such as equipment capable of producing 12-inch silicon wafers or chips with transistor line-widths smaller than .25 microns. Eventually the 12-inch wafer machines were allowed in. But many export control issues remained. Politicians in Washington and Taipei, however, have an easy choice to make. They can either allow their own domestic suppliers of advanced capital equipment to sell to the booming Chinese market, or China will within a few short years take over the capital equipment market as well. Capital equipment is one niche where the West still retains a substantial advantage, but if we want our entire high-tech food chain to move to China, we can keep making high-sounding but utterly counterproductive national security arguments. Given that national security is ever more based on our capabilities in electronics, optics, and software, blocking our best companies from the best market in the world only hampers our rate of technological innovation, our economy, and, ultimately, our military superiority.

Confounding all the doomsday predictions of the last several decades, today close to one million Taiwanese work in China, the little island nation has invested as much as \$150 billion on the mainland, and regular cross-Straight flights began operating in mid-2008. Showing once again that it is the politicians who usually catch up with the entrepreneurs, in May 2008, in the first meeting of its kind in 50 years, Chinese president Hu Jintao and newly elected Taiwanese president Ma Ying-jeou met at the annual Boao Forum on Hainan Island. Contrary to the widespread worries of the West, Taiwan had effectively consummated its ideological conquest of mainland China.

Emblematic was the repatriation of the eminent Taiwan-born Princeton computer science professor Andrew Yao, who moved to Beijing in 2004 to build a world-class department at Tsinghua University. Haidian District, Tsinghua's home, was booming. Long known as home to the tranquil gardens, lakes, and hills of the Summer Palace, Haidian was now equally known for its Zhongguancun economic zone, the buzzing hub of China's technology industry. By 2006, Haidian boasted 100,000 companies and 15,000 high-tech firms, including Baidu, Sina, and Lenovo. Its top universities – Tsinghua, Beijing, and the Chinese Academy of Sciences – were educating some 300,000 undergraduates, 30,000 graduate students, and 10,000 foreign students. And with just 2.6 million people – about two-tenths of one percent of the nation's population – it produced 2.6 percent of the nation's tax revenue. Indeed, despite the special zone's very low tax rates – or, more likely, *because* of them – Haidian tax receipts had grown by 20 percent per year for the past 20 years. Not satisfied with the Summer Palace or its status as China's Silicon Valley, Haidian is now prime host for the 2008 Summer Games.

JIANG ZEMIN STOOD BEHIND A MICROPHONE, and the crowd of 10,000, who had gathered in the Great Hall of the People, along with millions of television viewers around the globe, watched him as he wept. Deng Xiaoping, the man most responsible for the Chinese economic transformation, with its new semiconductor and software enterprises, and the man almost solely responsible for Jiang's rise to power, was dead. Deng had not made a public appearance since the grand opening of the Yangpu bridge in Shanghai in February of 1994, and now, three years later, on February 19, 1997, his long battle with Parkinson's disease had come to an end. Deng, who frowned on Mao's cult of personality, had insisted there be no public farewell, only a private funeral, but he could not stop the public memorial service held several days after he was returned to dust. Five times Jiang was moved to tears during his eloquent remembrance of his patron and the nation's hero.

The sorrowful yet sonorous eulogy of Deng signaled a new chapter for Jiang, who was now considered the "only core" of the Chinese leadership. Deng voluntarily had relinquished all influence several years ago, but Chinese tradition calls for reverence to the last. Jiang and Zhu Rongji, who had followed Jiang from Shanghai to Beijing in 1991, when Deng had promoted him to vice-premier, would now carry on his legacy. It is said that Zhu, alone among the "stone-faced" leaders gathered at Deng's cremation ceremony, was an emotional "basket case," that he had fled the room and "cut short conveying his sympathies to the families."¹²⁵

Not so long ago, the death of a Chinese Communist leader would have brought social and perhaps political upheaval. The bobbled transfer of power upon Mao's death was typical, as was Tiananmen Square, which had begun as a demonstration of mourning for Party elder Hu Yaobang. Just a few years before, when Jiang was still thought to be a "transitional leader," Deng's death may have sparked a bureaucratic revolt, but in a measure of just how far Chinese politics had evolved, the transition was smooth.

Deng's passing came just months before one of the most patriotic moments in the nation's history – the return to China of the British protectorate of Hong Kong – and Jiang would quickly turn his attention toward what would become a summer of celebration. The return of Hong Kong, one of the world's freest and most cosmopolitan cities and a prime inspiration for Deng and Jiang's economic reforms, catapulted Jiang and Zhu toward their next economic objective: membership in the World Trade Organization.

OVER THE NEXT SEVERAL YEARS, Zhu would lead China's efforts both in meeting the quantitative requirements of the WTO and in winning the hearts and votes of foreign leaders. Zhu has an outgoing and assertive personality, one that many of his typically cautious and understated fellow politicians did not appreciate as he quickly climbed the political ladder. But in the West it largely served him well by giving a modern, open face to a poorly understood kingdom. In April of 1999, Zhu made a high-profile trip to the

¹²⁵ Gilley. p. 293.

U.S. to secure final approval from Washington for China's WTO accession, or so Zhu hoped. He had laid out a bold bilateral plan that included aggressive schedules for reducing Chinese tariffs and import restrictions and strengthening foreign ownership rights and intellectual property protections for U.S. companies. Most observers thought it was a deal the U.S. could not turn down. President Clinton's foreign affairs team, including the U.S. Trade Representative Charlene Barshefsky were enthusiastic, but the White House economic team vetoed Zhu's proposal at the last moment, citing labor and environmental concerns.

Zhu was stunned, but his tour of America following the White House rebuff was nonetheless a resounding success. After a spontaneous and confident performance at a joint press conference with President Clinton, Zhu showed off his football passing skills at the Denver Broncos' training camp, graciously accepted a 1,500 pound genetically engineered Angus bull in Chicago, and comfortably chatted with an audience of scientists at MIT in Cambridge.¹²⁶

No sooner had Zhu, with his magnanimous performance, laid the foundation for eventual and certain American approval of a WTO deal than a U.S. war plane, on May 7, mistakenly dropped a bomb on the Chinese embassy in Belgrade, killing three. Demonstrations erupted across China. James Sasser, the U.S. ambassador was trapped for several days in the American compound in Beijing as young protestors lobbed rocks and firebombs at the building. Zhu, and to a lesser extent Jiang, were castigated for the pro-Western views. Their trade "concessions" were now said to resemble the humiliating unequal treaties of a century before. Zhu and Jiang, however, pressed on, and by November 15 of the same year, 1999, Barshefsky was in Beijing, side by side with Jiang, signing almost the very same deal Zhu had proposed some eight months before. Zhu and Jiang's vision and commitment to economic reform was enough to overcome the reactionary, yet politically powerful, anti-Western outbursts. China would become a member of the WTO. The annual debates in Washington over whether to extend China "most favored nation" trade status were over. With 1.3 billion people entering the realm of free-trading peoples, globalization was more real than ever.

Zhu's skill in negotiating successfully the WTO process earned high praise and cemented his image as the chief architect of Chinese economic growth in the post-Deng era. But his greatest accomplishment was not free trade. After all, free trade had become standard fare among most economists and politicians on the right as well as the left. Zhu's greatest success came in a far more contentious realm: money and foreign exchange. Zhu had taken the reins as top central banker soon after coming to Beijing earlier in the decade. Later, in 1998, he was elevated to Premier, but in July of 1993 he had inherited a devalued currency, with inflation reaching 20 percent a year in urban areas. Zhu's first move was to honor the Chinese currency at 8.5 yuan to the dollar, rather than the 11 yuan per dollar it had fallen to in June. He also got control of China's state-run bank, which had been spreading loans around without much in the way of collateral, one reason for the rapid 50 percent increase in the money supply in

¹²⁶ Panitchpakdi and Clifford. p. 82.

1992. Zhu called all the top bankers to Beijing and laid down the law, as it were. No more lending to friends and family under the guise of inter-bank loans. No more paying your debts to farmers with IOUs; cash is required. No more false reports to the central bank in Beijing. No more free money. Zhu's handling of China's currency is perhaps his most important – and underappreciated – accomplishment. Along with successive rounds of tax-cuts in the form of agricultural emancipation, autonomous township firms, freer trade, and free enterprise zones, it was chiefly Zhu's commitment to a stable yuan (renminbi) that gave China's economy a rock-solid foundation, and allowed China's jolting boom to continue for so long.

Once again a contrast with Russia is helpful. Writing in the early days of the Russian experiment, in June 1993, economist David Malpass of Bear Stearns had already diagnosed the key to Russian failure when he made the distinction between decentralizing control of the real, entrepreneurial economy, as China had done, and decentralizing control of the nation's currency:

The devaluation of 1991-93 will turn out to be one of the most damaging communist power-grabs since the rise of the Berlin Wall. Whereas the Communist Party under Mr. Gorbachev owned most of the nation's assets before the devaluation, its ownership has increased to nearly 100% as the devaluation runs its course and renders worthless all private ruble savings. Decontrol of Russia's government banks and of the value of the ruble was at the core of Russia's decentralization program, and is now the source of massive instability in the former Soviet republics.¹²⁷

Malpass contrasted Russia's monetary volatility with China's stability, engendered by Zhu Rongji's adoption of the dollar-yuan link: "It is precisely this 'decentralization' of the value of people's money – which concentrated all economic power in Moscow by destroying the value of nonparty ruble assets – that Mr. Zhu has moved to halt in China."¹²⁸

It was this monetary stability that both enabled the dynamic transition within China and also provided robust links to the outside world. It had created a single economic fabric across the Pacific. In the space of just 20 years Chinese exports exploded almost 60-fold, from \$35 billion in the mid-nineteen-eighties to \$981 billion in 2006, "greater than the entire economies of all but eleven other countries."¹²⁹ Globalization indeed.

BUT IF STABLE MONEY AND TRADE WERE VALUED IN CHINA, they were suspect in Washington, D.C. As globalization swept the world – with tax cuts, sound money, trade, and general economic freedom transforming backward societies and adding three

¹²⁷ Malpass, David. "The Man Who's Saving China From Soviet-Style Disaster." *The Wall Street Journal*. July 29, 1993.

¹²⁸ Ibid.

¹²⁹ Shapiro, Robert J. *Futurecast*. New York: St. Martin's Press, 2008. p. 134.

billion people to the global economy – one might have thought the United States would have cheered this triumph of its own ideas and practices. Instead, a series of U.S. Treasury Secretaries, Senators, and Federal Reserve chairmen targeted the trade deficit in general, and China's dollar-yuan link in particular, as the chief threats to American prosperity. Intended to prop up certain sagging U.S. industries and correct "global imbalances," the resulting weak-dollar policy would have just the opposite effects as it roiled world markets for years to come.

The argument, beginning early this decade, went like this: America is stagnating. China is booming. America is losing jobs and its industrial base. The only thing booming in America is its trade deficit. China is building foreign reserves and a trade *surplus*. Everything you see in the stores says: "Made in China."

How could *Communist* China be taking jobs from capitalist America? Answer: It must be cheating.

It is "manipulating" its currency – the yuan, or renminbi (RMB) – to make its goods cheaper and gain an unfair advantage against American producers. By keeping the yuan pegged to the U.S. dollar, the critics said, China was undervaluing its currency by some 40 to 50 percent. The U.S. trade deficit with China was proof that China was unfairly exporting underpriced products. China should revalue the yuan, making its products more expensive on world markets. U.S. manufacturing would rise, and our trade deficit would fall.

Organizing entire World Bank and IMF conferences around this new obsession, Secretary John Snow lamented the "imbalances" of the world economy. In a short *Wall Street Journal* article, he mentioned imbalances 11 times without ever defining them or telling us why they are bad; nevertheless, we had to act decisively to correct them.

A key to this strategy was a stronger Chinese yuan, and thus a weaker U.S. dollar. Snow said his goal was free trade, but his actions had the opposite effect. By charging the Chinese with "currency manipulation," he inflamed the worst misconceptions of American protectionists and reinforced their dangerous anti-trade views. The result was a flurry of anti-China legislation, most famously the 27.5 percent tariff on all Chinese goods proposed by Senators Chuck Schumer and Lindsey Graham. Several times, Snow and Fed chairman Alan Greenspan had to rush to Capitol Hill to talk Schumer and Graham off the protectionist precipice and avert a likely global trade war.

Meanwhile, the Chinese were actually talking economic sense. "All countries, major economies in particular," president Hu Jintao declared, "should keep major currencies reasonably stable and prevent trade protectionism." China's trade policies and practices had of course not always matched Hu's positive free trade rhetoric, but at least they made their stance clear and could be called to account. The U.S., however, damaged its own free trade credibility when it muddied the waters with monetary protectionism and tariff threats. It would only compound the errors when, added to the

earlier disastrous steel tariffs, it blocked three high-profile cross-border investments: Dubai Ports, China CNOOC's proposed acquisition of Unical, and, later, the Bain-Huawei buy-out of 3Com. In combination with irresponsibly loose monetary policy from the Federal Reserve, these actions further weakened the dollar. After all, if you deny global investors the ability to buy dollar-based assets, who will want dollars?

Hank Paulson came to the Treasury in May 2006 with a special appreciation for China. As a long-time Goldman Sachs executive, he had visited China some 70 times and wanted the U.S. to take a more "generational" view of our relationship with the Middle Kingdom. His tenure began well as he inaugurated the semiannual Strategic Economic Dialogue, which emphasized frank and frequent discussion and cooperation rather than confrontation. The strategy appeared for a time to derail, or at least delay, the plans of America's worst protectionist politicians. Paulson, like Snow and Greenspan before, would several times convince Senators Schumer and Graham to drop their draconian 27.5 percent tariff.

Yet for all of his many good instincts on China and free trade, Paulson too could not resist the siren call of "flexible exchange rates" and the idea that the yuan must dramatically strengthen versus the dollar. The U.S. Treasury Secretary thus recommitted to an existing weak dollar policy that would dominate the economic news of President Bush's second term.

A key to the intellectual confusion came from a disappointing source: conservative free-market economists and their followers. Most policymakers were susceptible to an easy mantra from the experts: Let the market decide.

The market, not bureaucrats, should set the value of currencies, they would say over and over. It was a good line. It sounded like something conservative free-market types should believe. So they went with it. Secretaries Snow and Paulson and the White House all bought in. On one of my own visits to the White House in the autumn of 2005, a top official, disputing my argument that currencies aren't like commodities, predictably asked, "Why not let the market decide?" A year later the same official asked me the question again: "Why do you prefer bureaucrats to markets?"

A few days later, in September of 2006, driving through the streets of Beijing, I put the question to Nobel laureate Robert Mundell. "The money supply is controlled by two *monopolies* of central bankers in the two countries," Mundell replied with incredulous amusement. "There's no market in that."¹³⁰

"What do they hope to achieve with an appreciation of the yuan?" Mundell asked. They want to reduce the trade deficit, I informed him. "Don't they know most of the rise in the U.S. trade deficit – from \$400 billion to \$800 billion over the last five years – is due to more costly oil imports?"

¹³⁰ Interview with Robert A. Mundell in Beijing. September 7, 2006.

An inflationary dollar, while boosting some U.S. exports, had an even larger effect on the opposite side of the equation, sending oil and other import prices through the roof. The weak-dollar policy, designed to *reduce* the trade deficit, had exactly backfired.

Moreover, a significant portion of the increasing U.S.-China trade deficit was due to huge numbers of Japanese and Korean goods flowing through China for final assembly and export. The U.S. trade deficits with Japan and Korea were actually shrinking and the overall trade gap with Asia was not growing.

Even more fundamentally erroneous, however, was the entire concept of the trade deficit, and the assumption that it is inherently dangerous. Instead of Warren Buffett's alarming and unsustainable portrait of "Squanderville,"¹³¹ where a profligate U.S. consumes more than it produces, the trade deficit is a function of fundamental growth and demographic differentials. With faster growth and a younger population than most of the world, North America has run a trade deficit for 350 of the last 400 years. The world invests its capital here because it can earn a higher rate of return. Because of our faster growth, we buy more of the world's products than it buys from us. Older people, in Europe and Japan, say, buy safe Treasury bonds, while younger Americans import capital and goods to feed their growing families and entrepreneurial ambitions. As long as America's imports of capital and goods are put to good use – as long as they are used to make profitable investments – we do not ever have to "pay back" any trade deficit. We are merely fueling new growth.

Across the globe, all trade balances. But depending on where the boundaries are drawn, the dismal economist can contrive awful deficits and glorious surpluses. Just imagine the havoc our dismal economist could wreak if he began measuring the surpluses and deficits among the 50 United States. We could construct a fable whereby Connecticut is really quite poor because it buys (imports) lots of cars from Michigan, but does not sell (export) many hedge funds to Michigan. In Buffett's world, Thriftville, Michigan, is better off than Squanderville, Connecticut, right? Wrong.

The Squanderville critique depended heavily on the notion that Americans were not saving money, that they were in fact engaged in dangerous dis-saving. But in fact, the financial net worth of American households had been growing briskly. *Excluding* real estate assets, but including mortgage debt, American households in the spring of 2008 still enjoyed financial net worth, or real savings, of more than \$27 trillion - more than the rest of the world combined.¹³²

What matters is not the volume of trade but the value of profits. The world has a trade surplus with the U.S. But the U.S. has a massive capital and profits surplus with the world.

¹³¹ Buffett, Warren E. "Squanderville Versus Thriftville." *Fortune*. October 2003.

¹³² Flow of Funds Accounts of the United States. Flows and Outstandings, First Quarter 2008.
<http://www.federalreserve.gov/releases/z1/Current/z1.pdf>

Nevertheless, eminent scholars like Martin Feldstein^{133, 134} and John Taylor¹³⁵ argued for a weaker, “more competitive” dollar to fix the trade deficit. Taylor would end up calling the export-boosting effects of the weak dollar the “silver lining” of the subprime mortgage crisis, instead of the *cause* of the crisis that it really was. Feldstein, meanwhile, missed the inflationary impact of a weak dollar by ignoring the time lags of monetary policy and currency changes.

Dartmouth economist Matthew Slaughter, however, simply but powerfully showed why the dollar-yuan exchange rate was not the key factor in the U.S. trade deficit:

[L]ook to Europe. The yuan floats against European currencies such as the euro and the pound. If nominal exchange rates were driving trade flows as commonly alleged, then Chinese exports to the U.S. should have been growing faster than to Europe. The data show something completely different, however. In 1995, monthly Chinese exports to both destinations averaged about \$2 billion. By 2006, monthly Chinese exports to both destinations were still the same, at about \$17 billion. Plotted together over that entire decade, these two series look nearly identical. This is because the same real economic forces – e.g., China's relative abundance of less-skilled labor – have been driving both sets of trade flows.¹³⁶

Slaughter thus reinforced a broader insight of classical and supply-side economics: *you cannot change the terms of trade by changing the unit of account*. A man cannot make himself 12 feet tall by cutting the inch in half.

But even if we could use currency policy or other measures to eliminate the trade deficit, what would we gain? Usually a recession. The U.S. last briefly “achieved” a trade surplus in the glorious recessions of 1990-91 and 1981-82. Consumption and business investment – and therefore imports – all plunged during these bad times, so the trade deficit very temporarily vanished. Unemployment and inflation were way up, and asset values and GDP were way down, but at least we vanquished the trade deficit. Congratulations. When monetary and fiscal policy got back on track and the U.S. economy rebounded after the 1981-82 and 1990-91 recessions, the trade deficit came back, and with a vengeance. When our economic prospects are bright, we import lots of capital – remember, foreign investment in America is a good thing – and when the economy is growing we buy lots of goods and energy, much of it imported. The trade gap is a good reflection of our prosperity gap. The *Far Eastern Economic Review*

¹³³ Feldstein, Martin. "A more competitive dollar is good for America." *Financial Times*. October 14, 2007. <http://www.ft.com/cms/s/0/e682dc5c-7a64-11dc-9bee-0000779fd2ac.html>

¹³⁴ Feldstein, Martin. "The Dollar at Home - and Abroad." *The Wall Street Journal*. April 28, 2006. <http://online.wsj.com/article/SB114619122519938410.html>

¹³⁵ Shultz, George and John Taylor. "The Silver Lining in America's Subprime Cloud." *Financial Times*. November 5, 2007. http://www.ft.com/cms/s/0/033a9c6e-8bbc-11dc-af4d-0000779fd2ac.html?nclick_check=1

¹³⁶ Slaughter, Matthew J. "Yuan Worries." *The Wall Street Journal*. May 22, 2007. <http://online.wsj.com/article/SB117980288989610442.html>

summed up the view of Mundell after his Asia Society address¹³⁷ in May 2007: the U.S. trade deficit is “not only sustainable...it is necessary to the functioning of the global economy.”

Trade happens because each side wants what the other has. I'll trade you the fruit of my labor for the fruit of yours. It's a win-win transaction. I value what you have produced more than what I have produced. *Let's trade*. But if all currencies adjusted to relieve the "imbalances," to unwind the "pressures," to compensate for the differences and "disequilibria," then *there would be no trade at all*. Movements, transactions – *trade* – only happens because there is a disequilibrium in the first place. But if it is the currencies that move, rather than the goods, services, assets, and information changing hands, then the transactions themselves become superfluous. If the value of money adjusts to wipe out the value of the good or asset, then why would I want what you have, and vice-versa? If the value of the transaction – and all the information – is consumed by the change in currency values, then there is no value in the exchange of the original good, service, asset, or idea.

Ignored in the overly formulaic effort to balance the books across contrived national borders is the damaging effect a weak dollar (or any quick change in the value of money) has on the price of every good, service, commodity, and asset across the world economy. And – on every decision of every investor, business, and entrepreneur. The trade-deficit hawks think mechanically. But the economy is about *information* – prices, uncertainty, forward-looking decisions, and surprising news and innovations, or what we call entropy. To achieve a dynamic and growing economy, you need an utterly undynamic, stone-cold unit of money. It is the information-rich creative spikes of entrepreneurship and profit – or economic entropy – that comprise all economic growth. A high-entropy message requires a low-entropy carrier.

Seeking this low-entropy carrier, necessary to conduct business in a global economy, were all the nations of Asia. As Stanford economist Ronald McKinnon showed, during the 1990s all the region's important economies effectively adopted the U.S. currency and thus created an East Asian Dollar Standard.¹³⁸ This standard facilitated trade and led to the large build-ups of dollar reserves that worried so many Americans. But it was merely the felicitous function of the dollar as reserve currency to the world.

In recent years most Asian trade was invoiced in U.S. dollars. For example, as McKinnon detailed, 80 percent of Korea's imports were invoiced in U.S. dollars. It invoiced 87 percent of its own exports in U.S. dollars. Korea's use of the Japanese yen was surprisingly low – just 12 percent of imports and 5 percent of exports.

Even Japan, with its own major world currency, used the dollar more than its own yen: 48 percent of its worldwide exports and 69 percent of its worldwide imports were

¹³⁷ Mundell, Robert A. “Reflections on the International Monetary System.” Asia Society Hong Kong Center. Spring Gala Dinner. May 3, 2007. http://www.asiasociety.org/speeches/07hk_mundell.html

¹³⁸ McKinnon, Ronald I. *Exchange Rates Under the East Asian Dollar Standard*. Cambridge, Massachusetts: MIT Press, 2005.

invoiced in dollars. By comparison, just 38 percent of Japan's world exports and 25 percent of Japan's world imports were invoiced in yen. The dollar is not just used in Japan's worldwide trade but also in its trade with close neighbors: 45 percent of exports to Asia and 77 percent of imports from Asia were denominated in dollars, with 53 percent and 28 percent, respectively, denominated in yen.

This pattern is similar for most of Asia. Asia has been an effective dollar area, an informal currency zone. This is yet another reason Asian central banks use the dollar as a reserve currency. We should have been flattered that these dynamic and fast growing nations wanted to use the dollar and integrate themselves with us. Instead we pushed them away.

Asia's intense use of the dollar was the key factor the Federal Reserve missed in the late 1990s. The Fed's failure to understand the truly global nature of the economy and its own global role led to its deflationary mistakes. Asia's thirst for dollars dramatically expanded the total worldwide demand for U.S. currency, but because the Fed concentrates on domestic data like national PCE and CPI, or even the stock market, real estate market, or unemployment rate, it totally missed the crucial Asian signal. Thus in the late 90s, the Fed did not match the worldwide surge in dollar demand with a commensurate supply of dollars. The result was a super-strong dollar and thus the Asian crisis of 1997-98, the Russian collapse of 1998, the Argentine and Turkish bankruptcies, and finally the U.S. crash of 2000.

Back in the financial district of Beijing in September 2006, Mundell continued his economic history lesson¹³⁹:

"China has nothing to do with the U.S. trade deficit...."

"Japan's chronic surpluses are due to lifecycle intergenerational issues – an aging population...."

"It's risky for policymakers to attempt to fix 'imbalances' when they are not well understood...."

"The supply-side revolution of the 1980s made the dollar the world's reserve currency...."

"Total foreign exchange reserves in the 1960s were \$40 to \$50 billion. The theory was flexible exchange rates would eliminate forex reserves. Pure poppycock. Foreign reserves are now some \$4 trillion...."

"After the forced appreciation of the yen at the Plaza in 1985, the dollar fell from 239 yen to 78 yen. It did not correct Japan's trade surplus, but it did scuttle Japan's economy. It led to deflation and non-performing loans...."

¹³⁹ Mundell, Robert A. "Currency Issues in the World Economy." Fu Kai Plaza Center. Beijing. September 7, 2006.

China was not dumb. It knew the Japan story well. The massive yen appreciation of the late 80s and 90s crushed Japan's economy for some 14 years. Recovery only came in the mid-2000s. A large appreciation of the Chinese yuan could have similar effects in China, which would be even more devastating given China's ongoing economic and demographic transitions and fragile financial institutions.

But just because a dramatic currency change might not be good for China, shouldn't the U.S. pursue its own national interest? Surely, but if flexible exchange rates are always good and surplus nations need to appreciate to relieve those famous imbalances, then why did the China critics not hector other nations, too? Economist Michael Darda exposed the supposedly high-minded concept of flexible exchange rates and the charge of currency manipulation for the protectionism they really were:

It is telling that the anti-China crowd in Congress has not taken aim at other dollar-linked or dollarized countries with destructive tariff proposals or charges of currency manipulation. Where are the tariff threats or cries of currency manipulation against Ecuador, El Salvador, East Timor, Panama, Lebanon, Hong Kong, Saudi Arabia, Kuwait, or Malaysia, all of which either use the dollar as legal tender, fix their currencies to it, or manage them in a tight band against it?

This often obscure nexus of trade, currencies, and monetary policy would quietly drive the economic history of the 2000s. Writing in 2003, economist David Malpass was prescient. He predicted the exact course of the following five years:

The...risk is that the rising trade deficit will stampede Washington into a sure-to-fail policy of weakening the dollar. As currencies weaken, the losses outweigh other investment considerations, forcing capital flight. Rather than produce an "improvement in competitiveness," as some claim, a weak-dollar trend would more likely slow U.S. investment and economic growth. The trade deficit might improve as imports sag, but jobs and living standards would decline.¹⁴⁰

This is exactly what happened. The U.S. weak-dollar policy artificially juiced oil and home prices, leading to both today's energy "crisis" and the financial industry's broad boom-bust mortgage and credit troubles.

Through its inflationary effects, the weak-dollar policy severely cut into the real wages of American workers, imperiled American auto companies and fuel-hungry U.S. airlines, spawned thousands of misguided energy schemes and boondoggles, pushed capital out of the U.S., inflamed protectionism around the globe, and may have been the deciding blow against the Doha global free trade agreement. As *Business Week* explained upon Doha's collapse:

¹⁴⁰ Malpass, David. "Trade Deficit? So What?" *Forbes*. December 8, 2003.
<http://www.forbes.com/forbes/2003/1208/048.html>

Part of the reason for India's firm stand on protection for its farm sector is the crippling food-price inflation the country is facing. The cost of basic cereals, beans, and lentils has risen 25% in the past three years.

Maintaining some kind of stability in its agricultural sector is key to helping tame the nearly 11% annual inflation rate that threatens not only the current government, but also decades of meager income and nutritional gains among India's poor, says Karkade Nagraj, an agricultural expert at the Madras Institute for Development Studies. "You can't isolate what happens to Indian farmers because of WTO policies from what is happening in the world economy," he says. "With the crisis on the financial market, a huge amount of money moves to the commodity markets, leading to a commodity bubble. In a condition such as that, if you open up agriculture, then the farmers could gain, but that's not going to sustain anything for a long while."¹⁴¹

By focusing their wrath on the benign trade deficit and the specious charge of currency manipulation, American politicians distracted themselves from real issues that drive the real economy: better behavior from China on intellectual property, the opening of both China's capital account and its markets to foreign firms in finance and communications, and, most crucially, more competitive U.S. economic policies at home.

It is probable that with the U.S. taking our dollars and going home, so to speak, Asia in the coming years will create its own currency area like the Eurozone, with China the top dog.

As usual, Malpass summed it up best:

Selling our economy short may be causing even more damage to our international economic policy. In one of the ironies of economics the U.S. apologizes profusely for the global trade imbalance. We accept blame for growing our economy and population faster than our trading partners (which draws in imports) and providing more attractive investments (which brings in foreign capital). Rather, the primary burden should be on the trade-surplus, capital-outflow countries to enhance their economic climes, not on us to diminish ours.

Cowed by trade-deficit phobia, we require minutely negotiated trade agreements. These are a far cry from the sweeping liberalization that would bring the most benefits to the U.S., the biggest trading nation by far. Trade-policy paralysis insists on agribusiness subsidies and blocks even small reductions in our stiff quotas and duties on the importation of sugar,

¹⁴¹ Einhorn, Bruce, and Mehul Srivastava. "WTO: Why India and China Said No To U.S." *Business Week*. July 30, 2008. http://www.businessweek.com/globalbiz/content/jul2008/gb20080730_027680.htm

peanuts, orange juice and ethanol, even though these policies damage the environment and impede growth in developing countries.

Despite the rich global environment for economic progress, the U.S. – low on self-esteem – has focused on China's yuan as the 21st century's economic scourge. U.S. exports (and global growth) would get a much bigger boost if more countries joined China in growth-promoting currency stability than if China joins them in currency instability. Pleading with China to add to the yuan's value at the dollar's expense parades our weak image and enhances China's strength. At the same time, Latin America seems to have decided the U.S. is one of the weak links in the global economy. It is reaching out to Europe and China for investment and free-trade agreements, with the view that those are the economic relationships of the future. This global misreading of the U.S.' deficits is weakening our friendships and blocking our economic vision, even as our economy enjoys its third decade of robust expansion.¹⁴²

FURIOUS TO REACQUIRE THE LEADING TECHNOLOGIES and modern amenities it had mostly shunned for the last five centuries, China embarked on a global search for modern capital equipment, Western entertainment, and cutting edge thinking and thinkers. Its ambitions and curiosities led to massive theft of both copyrighted creative work and also patented Western hardware, software, designs, and ideas – even entire automobiles. Tourists from across the globe flocked to China to buy “Louis Vuitton” handbags and “Callaway” golf clubs in back alley warehouses, and along the way could pick up “Hugo Boss” dress socks, “Microsoft” software, and Hollywood DVDs on any street corner for pennies on the dollar. Western companies estimated losses of many tens of billions of dollars, though losses in their own home markets were even greater.

China, however, is no longer just an importer, consumer, exploiter, or usurper, of Western technology. It is increasingly a producer of world-leading innovations. In 2006, Huawei, who Cisco famously sued for IP theft in 2003, filed 595 patent applications under the World Intellectual Property Organization's Patent Cooperation Treaty (PCT). That was good for number 13 in the world, a ranking it will likely surpass in 2007. China as a whole in 2006 boosted its PCT patent filings 56% and rose to number 8 worldwide.¹⁴³ Many of us have long believed that as China developed a native technology economy, its appreciation of IP would grow. Indeed, although China's practices do not yet match its impressive new laws, some American China experts confirm that within the last year there has been a “sea change” in China's embrace of IP. Indeed, property of all types. In 2007, after 14 years of trying, China adopted a broad property rights law, extending the breakthrough Constitutional amendment of 2004, which stated: “The lawful private property of citizens is inviolable.”

¹⁴² Malpass, David. “The Triple Deficit Paralyzes Policy Vision.” *Forbes*. January 29, 2007. <http://www.forbes.com/columnists/forbes/2007/0129/027.html>

¹⁴³ WIPO. “Record Year for International Patent Filings with Significant Growth from Northeast Asia.” February 8, 2007. http://www.wipo.int/pressroom/en/articles/2007/article_0008.html

Beyond the intrinsic importance of property rights to any successful society and economy, the new Constitutional property right was interesting in another way. A number of leaders and factions in China had been seeking the law for some 14 years, but because of internal wrangling and disagreement from the old guard, it did not pass. This delay was unfortunate. But it did offer another stark and important example of the multi-layered, multi-factional, three-dimensional, competitive governing structure so different from the one-dimensional cartoon of the “autocratic,” “fascist” Chinese government.

THE CHIEF CRITICISMS OF CHINA from Western foreign affairs experts can be summarized thus: the West and China’s own people are threatened by a domineering, imperious, top-down, all-powerful, mercantilist, hyper-nationalist government in Beijing. In Kagan’s words, China is “autocratic.” In Ledeen’s, “fascist.” Gordon Chang¹⁴⁴, Ethan Gutmann¹⁴⁵, Willie Wo-Lap Lam, and a host of China critics assert that China’s “authoritarian,” “crony,” “corrupt” economy would lead to a “crash.” Thus the key threat, according to most critics, is one of unchecked *centralized* power.

This analysis is wrong. But the view of China as a centrally-directed economy does derive from two real phenomena. First, after a century in which China was one of two large Communist totalitarian rivals that dominated all our geopolitical reference points, it is understandably difficult for many to adapt their worldview. It is all they have known. And second, even after Mao’s Communism drifted into the past and it was obvious some new economy was emerging, it was admittedly true: there was still too much state-directed lending. Too much state-directed real estate investment. Too much centrally repressed speech. Too much state usurpation of private property to make way for massive infrastructure projects. Too many central controls on foreign investment in strategic industries like finance and telecommunications. Too much support for “national champion” firms. And on and on. All true.

Yet is it not also true that Western democratic governments and successful Asian capitalist outposts like Singapore engage in practices not so dissimilar? Don’t we also direct investment toward frivolous favored projects (see, Fannie Mae, Freddie Mac, ethanol, etc.); invest massively in infrastructure (much of it highly useful); and even on occasion seize property (see, *Kelo v. City of New London*)? The United States federal government spends \$3 trillion per year, almost as much as the entire Chinese economy. As in China, much of this federal spending is useful, much of it wasted.

None of China’s central controls, corruptions, investments, favors, intrusions, directives, subsidies, or champions, however counterproductive or even malign, could overwhelm the chief source of Chinese success: its bottom-up entrepreneurial explosion of new products, services, ideas, businesses, migrations, personal hopes, micro-cultures, electronic connections, global linkages, and even entire cities. An economy

¹⁴⁴ Chang, Gordon. *The Coming Collapse of China*. New York: Random House, 2001.

¹⁴⁵ Gutmann, Ethan. *Losing the New China*. San Francisco: Encounter Books, 2004.

can often survive large, bloated central government *so long as it substantially maintains the free flow of entrepreneurial information.*

Far from centralized and planned, most Chinese growth has been dispersed and even chaotic. In *Mr. China*, Tim Clissold famously recounted his many wild goose chases across a dynamic and unpredictable business landscape full not of Party automatons and rigidly organized SOEs but of scrappy local businessmen, powerful but flexible provincial officials, and small firms hustling for a buck in the bustling New China.¹⁴⁶

John Naisbitt, author of *Megatrends* and now a faculty member at China's Nanjing University, summarized the model of decentralization: "In China today, Beijing pretends to rule, and the provinces pretend to be ruled. The old saying that in China 'the periphery is the center' is more true than ever."¹⁴⁷

In 2006 and 2007, the nation's number one television program was "Win in China," a reality show in which entrepreneurs pitched business plans against one another in a competition for venture capital funding. Some of China's top businessmen judged the competitors. Anna Wang Lifan, the show's creator, told American economist John Rutledge that "Entrepreneurs are the heroes of our peaceful times....They make employment and pay taxes. Our country can only be rich if we have a lot of entrepreneurs."¹⁴⁸ Perhaps "Win in China" is a transparent attempt to propagandize "innovation and entrepreneurship," but if so, there are much worse messages to send. At last count in March 2008, *Forbes* listed 42 billionaires in China, twice the number (20) listed in 2007.¹⁴⁹

Almost every year for the last two decades, the China skeptics have predicted imminent cataclysmic crashes of China's economy. If China had been built upon a Beijing-dominated model of centralized direction and cronyism, these predictions likely would have come true. But it was not, and so each year these tedious alarms came and went, and China's growth kept compounding at 10 percent. No doubt, China's economy will someday slow dramatically, and given the scope, scale, and pace of its ongoing transition, a crash is even quite possible. No nation is immune from internal policy mistakes or external shocks, and China's young stock markets have been wildly volatile. But there is a reason for the 30 years of uninterrupted 10-percent growth. It was not Communist good luck. It was capitalist dynamism.

SURELY THERE IS MORE TO LIFE THAN MONEY, and almost no policy has inflamed more widespread Western criticism than Beijing's Internet intrusions. From bans on Falun Gong communications to blocked blogs mentioning Tiananmen Square, few

¹⁴⁶ Clissold, Tim. *Mr. China*. New York: HarperCollins, 2005.

¹⁴⁷ Naisbitt, John. *Mind Set!*. New York: HarperCollins, 2006. p. 193.

¹⁴⁸ Rutledge, John. "Win in China." *The Wall Street Journal Asia*. October 5, 2006.

¹⁴⁹ Kroll, Luisa. Ed. "Special Report: The World's Billionaires." *Forbes*. March 5, 2008.

http://www.forbes.com/2008/03/05/richest-people-billionaires-billionaires08-cx lk_0305billie_land.html

policies more viscerally offend our human sensibilities than obstacles to the free flow of information. Western companies have been criticized for doing business in China, chiefly high-profile search and content providers like Google and Yahoo!. While these companies have acquiesced to some of Beijing's controls, they also have pushed back. Google, for example, is now seeking to include limitations on speech as a non-tariff barrier to free trade and thus unacceptable under China's WTO commitments.

Both James Fallows of *The Atlantic*¹⁵⁰ and Oliver August of *Wired* magazine¹⁵¹ have described Beijing's "Great Firewall" attempt to control and censor the Internet, however, and shown that it is for the most part impotent. Some websites and blogs are blocked, at least temporarily, and some Net activists and journalists have even been unjustly imprisoned. But China decided in the early nineteen-eighties that technology was the future, and in the nineteen-nineties it embraced the Net. The government tries to police some of the behavior it considers most subversive – chiefly pornography – but it also knows it is no match for the sprawling, decentralized, dynamic Web. For all China's heavy handed behavior, the Internet in China is booming.

Jack Ma was an early Internet entrepreneur. And his very business was empowering other entrepreneurs and connecting them to each other and the world. In September 2003, I met with Ma atop the Jin Mao Tower in Shanghai and heard his fascinating tale.¹⁵²

Ma can claim to have introduced China to the Web. In meetings with the *People's Daily* and memoranda to the nation's top leadership, Ma in 1996 jolted the Chinese Net to life. Within a month of first briefing the *People's Daily* on the Net, he had put their newspaper online. He had already founded what was believed to be China's first Internet company – ChinaPages.com – in 1995.

In 1999, with funding from Goldman Sachs, Fidelity, and later Softbank, Ma founded Alibaba, an eBay like service that would connect Chinese companies to each other, and from there to the world. Some government officials had encouraged Ma to pursue a large company strategy, but Ma insisted on focusing on SMEs – small and medium sized enterprises, who he saw as the real strength of the Chinese economy. "We wanted to help SMEs make money," Ma told me.

Ma was in touch with China's entrepreneurial surge. By 2003 Alibaba had connected 1.7 million Chinese companies and 2.4 million companies worldwide in a commercial marketplace, an information exchange among global vendors. In four years, Alibaba had reached 1,200 employees and \$50 million in annual sales. The company's motto was "Global Trade Starts Here."

¹⁵⁰ Fallows, James. "The Connection Has Been Reset." *The Atlantic Monthly*. March 2008.

¹⁵¹ August, Oliver. "The Great Firewall: China's Misguided – and Futile – Attempt to Control What Happens Online." *Wired*. Issue 15.11. October 23, 2007.

¹⁵² On September 19, 2003, George Gilder and I spent three hours interviewing Jack Ma at the Grand Hyatt, Pudong, Shanghai.

In 2005, Yahoo! and Alibaba formed a strategic partnership, with Alibaba taking over the operations of Yahoo! China. To his empire, Ma would quickly add Taobao, a consumer shopping site that now boasts 57 million users; Alipay, China's number one online payment site; Alisoft, a Web-based business management software company for SMEs; and Alimama, an online advertising exchange. By mid-2008, Alibaba sales were approaching \$350 million a year, and its market capitalization topped \$7 billion. It was all possible because of Ma's creativity and insight, and his focus on small businesses and consumers, not the old large companies of the past.

A strong argument can be made that instead of Chinese politics imposing itself and gaining the upper hand on technology, it is technology that is transforming Chinese politics. In a long and thoughtful article in the January/February 2008 issue of *Foreign Affairs*, John Thornton, a former head of Goldman Sachs and now professor at Beijing's Tsinghua University, details the evolution of democracy in China.¹⁵³ Along the way, Thornton describes two striking examples of the way "technologies of freedom" are empowering the individual and expanding pluralism:

In the past several years, the Internet and cell phones have started to challenge traditional media by becoming channels for the expression of citizen outrage, at times forcing the government to take action. One celebrated instance was the "nail house" incident in the sprawling metropolis of Chongqing, in central China. For three years, a middle-class couple stubbornly refused to sell their house to property developers who, with the municipal government's permission, planned to raze the entire area and turn it into a commercial district. The neighbors had long ago moved away. The developer tried to intimidate the couple by digging a three-story canyon around their lone house, but the tactic backfired spectacularly. Photos of their home's precarious situation were posted on the Internet, sparking outrage among Chinese across the country. Within weeks, tens of thousands of messages had been posted lambasting the Chongqing government for letting such a thing happen. Reporters camped out at the site; even official newspapers took up the couple's cause. In the end, the couple settled for a new house and over \$110,000 in compensation. The widely read daily *Beijing News* ran a commentary that would have been inconceivable in a Chinese newspaper a decade ago: "This is an inspiration for the Chinese public in the emerging age of civil rights...Media coverage of this event has been rational and constructive. This is encouraging for the future of citizens defending their rights according to the law."

In another example of the marriage of new technology and citizen action, last May angry residents in the southern coastal city of Xiamen launched a campaign to force the city government to stop the construction of a large chemical plant on the outskirts of the city. Their weapon was the cell

¹⁵³ Thornton, John L. "Long Time Coming: The Prospects for Democracy in China." *Foreign Affairs*. January/February 2008. pp. 16-17.

phone. In a matter of days, hundreds of thousands of text messages opposing the plant were forwarded, spreading like a virus throughout the country. Xiamen authorities, who had ignored popular opposition to the plant before, suddenly announced that construction would be suspended until an environmental impact study could be completed. Dissatisfied with this half measure, citizens again used message networking to organize a march of some 7,000 people to demand a permanent halt to the construction. Although local party newspapers blasted the protest as illegal, it was allowed to proceed without incident, marking one of the largest peaceful demonstrations in China in recent years.

In the end, Walls and Shields – Great, Golden, or otherwise – are mostly impotent against a flood of ethereal bits and bytes. China *tactically* polices the Internet. But *strategically*, it has embraced technology, trade, and the Net, which in every instance so far witnessed leads to both faster economic growth and increased political freedom.

CAPITALISM IS MORE IMPORTANT than democracy. Liberty and voting are not the same thing. Representative democracy is thought to be one of the best ways to guarantee liberty, but we should not confuse the two. Democracy can check the ambitions of despots. But democracy can also offer the illusion of a distribution of power and can in fact lead to a kind of despotism of majority will.

Capitalism, on the other hand, distributes money, technology, resources, ideas, information, and incentives in a dynamic arena. Capitalism means competition and innovation. Capitalism means technology, change, and a positive-sum outlook where people are more interested in the growth of their own lives, families, and businesses than they are in politics. Capitalism inherently is oriented toward the opportunities of the future. Democracy is about solving today's problems. It is too often a zero-sum struggle to divide up existing spoils. Capitalism is about creating new spoils.

China, therefore, can have an undemocratic one-party *political* system, but its unleashed and decentralized capitalism has created numerous power centers, power people (entrepreneurs), and empowered people (average citizens with mobile phones) all around the country. The CCP therefore operates in a constrained environment where disparate factions and decentralized forces impose mostly reasonable consensus decisions at the top of the pyramid.

Conversely, India since 1948 has been a democracy – and it enjoyed important blessings like free speech and religious tolerance – but for most of this time it was a sclerotic, heavily socialist, corrupt, intensely bureaucratic, and desperately poor country. Without capitalism, democracy becomes a zero-sum war in which 51 percent of the people can vote to confiscate or redistribute a nation's fixed or dwindling resources. In yet another typically beneficent by-product of capitalism, China's boom has now forced India to open its economy bit by bit, with positive results. But India's "democracy" still prevents it from undertaking the bold reforms it should.

“We need a much more nuanced conceptual framework for understanding the non-democratic world,” writes Francis Fukuyama, “if we are not to become prisoners of an imagined past.”¹⁵⁴ Many smart political theoreticians fall into this very trap. Robert Kagan, for example, assumes curious criteria in deploying his “autocracy” label. “Autocrats,” writes Kagan, “create state power over which they can exercise a monopoly, like the security forces.”

But are there nations, even liberal democracies, where the government does not exercise monopoly control over its “security forces” like the police and military? What about the dozens of other public functions where even liberal democracies exercise “monopoly” power?

Granted, China does not fit Kagan’s – or anyone’s – template for liberal representative democracy. Although there are millions of Chinese blogs and regular Chinese are more than happy to talk frank politics even within the walls of the Forbidden City, China falls short on key freedoms in the press, assembly, religion, and the rule-of-law. But to call China autocratic in the tradition of Mao or even lesser dictators simply misunderstands the facts on the ground.

In China, there are many factions within the government superstructure. The CCP is essentially composed of a large number of competitive individuals and even “parties” – small p – within *THE PARTY*. There are liberals, hardliners, coastal westernizers, inland populists, intellectuals, entrepreneurs, politicians, technocrats, capitalists, and socialists, among others. What there is very little of any more is broad reverence for Mao and his reign.

The process of how China sorts out its political and policy decisions is still opaque, but one thing is for sure: *it is very competitive*. It is not an autocracy.

China still faces huge challenges. As Thornton's authoritative article makes clear, democracy in China has a very long way to go. One of the largest questions, which may not have an either-or answer, is what model of innovation China deploys going forward. Using the astoundingly crisp and creative, but tightly controlled, Beijing Olympics as a metaphor, some China watchers wonder whether Beijing will try to *plan* innovation. They wonder whether centrally planned innovation can succeed. They rightly doubt it. The other model – the American model – they counter, is to let innovation bubble up from the bottom. This more spontaneous, experimental, entrepreneurial model has emphatically been key to U.S. success.¹⁵⁵ But as we have demonstrated in this paper, the 30-year experiment from Deng’s bold break in 1978 to today’s triumphant Olympic moment was based largely on bottom-up entrepreneurship, with of course heavy doses of Beijing control. Beijing of course planned the Olympics – what nation doesn’t? – but it could not have done so without the tremendous wealth generated by millions of

¹⁵⁴ Fukuyama, Francis. “They Can Only Go So Far.” *Washington Post*. August 24, 2008. p. B01.

¹⁵⁵ For an excellent exposition on the various forms of capitalism, see *Good Capitalism, Bad Capitalism and the Economics of Growth and Prosperity* by William J. Baumol, Robert E. Litan, and Carl J. Schramm. Yale University Press: New Haven, 2007. The book *Billions of Entrepreneurs* by Tarun Khanna also offers good perspective on the unorthodox models of China and India.

entrepreneurs over the last three decades. Whatever we call this model, it provides a common-wisdom-shattering exhibit for economists and political scientists everywhere.

Political openness, religious tolerance, and free speech are crucial. Representative government, especially when paired with constitutional protections of civil and economic rights, is preferable. But capitalism is fundamental.

DENG XIAOPING WILL GO DOWN IN HISTORY as perhaps the most important global figure of the twentieth century. The Churchills, Roosevelts, Reagans, Stalins, Hitlers, Maos, and even Einsteins can make cases in their own ways – some for the good they did, the knowledge they unleashed, the freedom they spread, others for their horrendous malignancy. But Deng freed more people than Churchill and Roosevelt. He began the global supply-side revolution before Reagan, and he began China's break from communism more than a decade before the end of the Cold War. He was both a visionary and a clever politician; a strongman who let the reins go. It is easy to imagine dozens of ways the Chinese story could have turned out so much worse. But it is difficult to envision another path that could have yielded so much prosperity in so little time so relatively peacefully.

Often lost in the story of China's economic ascent was Jiang. He was alternatively portrayed by the West as dangerous and by his Chinese detractors as hapless. A conniving Communist dictator, one crowd asserted. A vainglorious empty suit who was lucky to always be in the right place at the right time, the others said. Jiang's natural gregariousness, self-deprecating humor, corny jokes, spontaneous outbursts of singing, and constant attention to his long swept-back black hair could give this latter sense, to be sure. The former caricature seems to be mostly a hangover from intense Cold War feelings. But in truth Jiang was a man of considerable learning and skill: He could just as easily discuss semiconductor line-widths as Samuel Huntington's *Clash of Civilizations*. With practice, he became a highly effective and commanding public speaker. Unlike his predecessors,

Jiang was neither a peasant nor a soldier. He was an urban intellectual whose speeches were peppered with high-sounding literary references to Song dynasty poetry and Shakespeare rather than the crude earthy analogies favored by Mao and Deng. Both of his predecessors smoked and drank, probably more than was good for them. Jiang got flushed after a single glass of *maotai* liquor and abhorred smoking.¹⁵⁶

He played the piano, the organ, the flute, and the *erhu*, a two-string Chinese violin – often in front of foreign dignitaries both in China and on state visits abroad.

Although Zhu was the more sophisticated economist, it was Jiang's ability to see the big picture that mattered most. He was not overly concerned with the reform of the state-owned enterprises. Instead, he allowed a dynamic entrepreneurial economy to

¹⁵⁶ Gilley. p. 229.

develop all around the SOEs. (Not until 1997 did the process of transforming the SOEs into shareholder companies begin.) Throughout his career, Jiang continually evaded bureaucratic obstacles without fomenting major resentment. He transformed the Communist Party from a Marxist dictatorship into an organization built on consensus, one that now officially reveres entrepreneurial capitalists and recruits them as members. Crucially, Jiang pacified the conservatives in the People's Liberation Army while rendering impotent their efforts to block the real liberation of the Chinese people. He also knew enough to entrust many of the technical economic tasks to his long-time deputy, Zhu.

Even though Jiang was often portrayed as a micromanager, supposedly once getting bogged down in the disposal of watermelon rinds while mayor of Shanghai, the record viewed from afar yields exactly the opposite picture. A nation as large as China, in the midst of epochal social and economic changes, inevitably has many problems with which to deal. But Jiang, as Deng before him, did not focus on solving problems. He instead took the advice of management sage Peter Drucker and constantly pursued opportunities, often transcending the most pressing problems and potential disasters.

Although not without its tensions, the efficient transfer of power between Jiang and Hu Jintao was a crucial step in China's political evolution. Undemocratic, to be sure, but the only transfer of its kind in Chinese history. After stepping down as general secretary in late 2002, with Hu and Premier Wen Jiabao taking the reigns, Jiang retained only one title, that of chairman of the PLA, a title Hu would quickly assume in 2004.

Hu and Wen have managed a series of tactical crises and global objectives with overall success. *How* have they done it? Hu and his 12 top ruling colleagues, all engineers, have continued the practical "whatever works" strategy of Deng and Jiang. From the SARS outbreak of 2003, which was kept quiet for too long, to the tainted food and toy episodes of 2007, to the Chengdu earthquake of 2008, the Chinese government appears to be increasingly responsive to its citizens, and, at its own deliberate pace, open to the world. Hu's mantra of "harmonious development" is meant to lift inland China to better match the success of the coastal boom while pacifying global rivals with assurances of the nation's peaceful intentions. At the strategic level, China has burst onto the world scene during Hu's reign, and he has mostly handled the inevitable critiques and foreign fears of this emerging great power with pragmatism and calm. China's ultimate soft-power play, the 2008 Summer Games, was by all accounts and in almost all metrics a spectacular triumph.

To Chinese critics, the overall success is galling because the non-ideological practicality and resulting success of all three post-Mao leaders keeps the CCP in power. To the Chinese people, however, it has provided a mostly peaceful and prosperous path into the modern world.

Where will Hu and Wen go from here? China has now embarked on a campaign of "innovation" and information technology to supplant its heavy reliance on

manufacturing. But going forward, will China choose a mostly decentralized entrepreneurial approach? Or will its innovations be planned from Beijing?

IN THE SUMMER OF 2008, China more than doubled its orders for new nuclear power plants, boosting its previous plan of some 40 new nukes to more than 100 by 2020.¹⁵⁷ By then, Chinese economic output will total some \$12 trillion and could pass the U.S. in absolute terms by 2040. By 2050, the stock markets of the BRICs – Brazil, Russia, India, and China – could be half the world’s market capitalization.¹⁵⁸ In per capita terms, Chinese output will still lag the U.S., but per capita numbers are less important when it comes to the ultimate geostrategic metric – military power. By catching up with the U.S. economy, China will be able to transform its large army into a technologically advanced large army. Its cyber-warfare capabilities will be substantial, and it will reconstitute its navy to meet the standards of the great explorer Zheng He. How China and the U.S. approach the Middle Kingdom’s emerging power will thus be one of the most interesting and important topics of the coming decades.

As stories go, China’s over the last three decades is one of the happiest in human history. Deng Xiaoping and Jiang Zemin, with help from Zhu Rongji, Hu Jintao, and hundreds of millions of their enterprising countrymen, transformed their nation from a brutal and backward bastion of Communism to one of the most vibrant economies on earth. What seems undeniable is that the next hundred years will be a Chinese century. The biggest question for politicians and business leaders in the U.S. is whether, through a recommitment to entrepreneurial capitalism, it will be another American century as well.

¹⁵⁷ “China wants 100 Westinghouse reactors.” June 28, 2008.

http://www.pittsburghlive.com/x/pittsburghtrib/news/mostread/s_575073.html

¹⁵⁸ “BRICs and Beyond.” Goldman Sachs. November 2007.

<http://www2.goldmansachs.com/ideas/brics/index.html>

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