# The Success of Market Reforms in China: Competing Paradigms of Information Economics and Neoclassical Economics

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*The transition from centrally planned to market-based economies is a crucial experiment highlighting the relative merits of different economic schools of thought. This manuscript is the first one of two interconnected research papers examining this transition in different contexts: China and Russia. In the current paper, we evaluate the success of the new information paradigm applied in China. We argue that markets cannot be efficient without a role for the government, and pitting market against government is an outdated dichotomy. Public administration, government regulations and intervention, and social institutions are all impacting the efficiency of economic markets. The new information economics is important for the future of public administration.*

## INTRODUCTION

In the early 1980s, Dwight Waldo, the fundamental thinker in American public administration wrote about the interconnection between economics and public administration:

> *The impact of economic schools and theories – welfare economics, Keynesianism, monetarism, and public choice can be instanced – is both massive and subtle. For better or worse, the criteria of action in public administration are intimately entwined with the enterprise of economics. . . . But as you know, in the past decade Economics has suffered considerable frustration and embarrassment (1980, p. 175; 1984, p. XI).*

However, his criticism of public choice theory did not offer much in the way of a positive heuristic. In the interview with his students Waldo said that "[his] own point of view has been, and is, that the Public Choice writers had some true and important things to say to us, but not nearly as true and important as they presumed. As I see it, there is little gain in replacing the 'dogmas of centralization' with those of devolution, privatization, and private enterprise. I am perennially in the middle, or perhaps in a muddle, and I seek a path between the two extremes" (Brown & Stillman, 1986, p. 105).

Neoclassical economics suggests the superiority of markets without government intervention ("free markets"). The discourse debating the relative merits of the market against those of the government had been important in economics and public administration for decades. The complementary approach of *sharing power* – coined by Donald Kettl (1993) – emerged in American public administration only in the 1990s; it was based on case study methodology. The development of a new information school in economics more rigorously proved that markets cannot be efficient without a role for the government[1]. This progress in economics was associated with the market reforms undergone in China and Russia and remains largely unnoticed in public administration. This paper attempts to address this gap.

There is a popular view that economic science was not prepared for the problems associated with the transition from centrally planned economies. In the words of Joseph Van Brabant: "One of the most banal, and distressing, platitudes of the rapidly expanding inventory of discourses on transformation has been that economists, and other interested observers, know how a market, a centrally planned, or an administered economy functions, and how the transition from a market to a planned economy was accomplished; but they know next to nothing about undoing the planning environment …" (1998, p. 130). Gerard Roland also wrote about the "unpreparedness of the economics profession for the task of transition" after the fall of the Berlin Wall (2000, pp. xxi, 1, 12). His work was perhaps the most comprehensive attempt to explore the interconnection between economics and transition. It was largely based on the "stylized fact that transition policies have delivered unexpected successes (China being the best example) as well as unexpected failures (Russia being one of the most spectacular ones)" (Roland, 2000, p. xviii). These statements raise some questions. Were the results totally unexpected? Did all economists "know next to nothing"? Was the entire economics community really unprepared? The answer to each of these questions is no. As will be demonstrated, the new information economics was able to provide (and the China case did provide) a novel and successful strategy for transition no later than December 1980.

The new information economics went beyond many of the simplistic, idealized assumptions about modern markets associated with traditional neoclassical economics. The new information economics incorporates some more complex features true to real life. For instance, important economic information is conveyed not by price alone; prices convey information not just related to scarcity, but also related to quality; markets cannot be simultaneously "complete" and "perfectly competitive;" buyers' and sellers' information is not always symmetric; and information is not perfect, fixed, or unchanging. The "information" assumptions are of particular importance to many key results in neoclassical economics. If you relax them, it is impossible to prove that the "free market" is the most efficient instrument for allocating resources. Moreover, as the Greenwald-Stiglitz, or "visible hand", theorem has demonstrated, markets cannot be efficient without a role for government regulations and interventions. In the context of transition and development, framing the traditional government-versus-market debate as a dichotomous choice was misguided. The truly pertinent question was the following: what is the appropriate scope for each sector?

## CHINESE PARADOX

During the decade beginning in 1989, Russia's GDP contracted by one-half, while China's GDP nearly doubled. At the beginning of this period, Russia's GDP was more than twice that of China; at the end of the decade, it was one-third the size. This change was not just due to chance, Chinese folk wisdom, more favorable initial conditions, or statistical tricks. Chinese economic science was not inherently superior to Soviet economic science. What was behind the Chinese economic wonder or, put differently, the Chinese paradox? According to neoclassical economics, China's controlling government should have been doomed to fail in its attempts at market reform; however, the results were quite the opposite and paradoxical in light of traditional mainstream economics.

Andrei Illarionov, who served as the Economic Policy Advisor to the Russian President from 2000 to 2005, attempted to determine the reason behind China's success in his article *The Secret of the Chinese Economic "Miracle"* (Illarionov, 1998). We believe that Illarionov failed to uncover that secret and that he was unfamiliar with the political and economic realities of China, and of the most recent results in the field of economics. Vilya Gelbras, one of Russia's leading Sinologists, also failed to solve the Chinese paradox. Gelbras simply avoided providing an answer: "... indeed, there was no miracle whatsoever.

Nobody bestowed China with economic growth; its achievements were through its own gigantic effort and foreign investment inflows" (Gelbras, 2009, p.76). Gelbras rightly noted that the state's policies and leading positions in all economic areas were key factors in China's growth (Gelbras, 2007). However, these were exactly the factors that he cited as the cause for failures of the "Great Leap Forward" and the ten years of the Cultural Revolution.

As with all paradoxes, the key to understanding the Chinese miracle is simple. In December 1980, at a meeting sponsored by the American National Academy of Sciences and the Chinese Academy of Social Sciences in Wingspread, Wisconsin, two leading American economists (Kenneth Arrow and Joseph Stiglitz) and a group of Sinologists discussed strategies for reform with Chinese economists and social scientists. By then, it was clear that the "trial and error" approach to reform in China had profoundly failed, and various economic experiments had produced contested results. The new economic strategy was based largely on insights from the new information economics, also known as the "information-theoretical approach to economics" or the "information paradigm" (Stiglitz, 1994, p. 5). It preserved a leading role for the state, which set the economic development strategy and controlled key development sectors. The strategy was aimed at creating a middle-level, affluent society in China and transforming the nation into a competitive and economically powerful global power.

Our research clearly indicates the central intellectual role of Stiglitz in the direction taken by China. In the incentive system of the agricultural reform that began in China in 1978, we see the influence of information economics and Stiglitz. He is the author of "Incentives and Risk Sharing in Sharecropping," published in *Review of Economic Studies* in 1974. This groundbreaking article made Stiglitz the leading theorist in agricultural reform. He was also the most active participant in the December 1980 meeting in Wingspread, Wisconsin. At that meeting, he presented an early version of what would become Chapter 13 ("Asking the Right Questions: Theory and Evidence") of his book *Whither Socialism?* The following summer he visited Beijing. The Ministry of Finance of the People's Republic of China was one of the sponsors of his research on the problems associated with the transition.

It was Stiglitz who recommended the dual-track price liberalization of Chinese industry in the early 1980s that, according to Roland and many other economists, was central to the success of Chinese reforms (Roland, 2000). Stiglitz recalled:

> *In the very early days of the reform, I participated in discussions with economists from China who were concerned about how one could figure out what the equilibrium prices were. They knew that the prices they had were wrong, but solving the requisite computable general equilibrium model was not viewed to be feasible, and the information that it might yield, given all the strong assumptions that go into such a model, would probably be of limited value (1994, p. 305).*

The dual-track system was implemented in the oil sector starting in 1981 and in all industries in 1984. Stiglitz originally called it a two-tier system. The economic institution of two-tier pricing ensured that economic incentives – even incentives for corruption that arose as bureaucrats tried to move goods from a planned to a market tier – worked in the direction of economic development via the steady growth of the market share of the economy.

We also believe that Stiglitz's original idea of using the banking system as a flexible "second budget" for the tasks of transition and development was of no less importance than the dual-track price system. The pre-reform state mono-banking system was largely kept intact for several years. It was only in 1993 that a reform program was drafted that provided for the commercialization of lending; however, the reform was not initiated until 1997. Even today, one of the tasks of the People's Bank of China is to support "the right balance between encouraging economic growth and economic restructuring" (Sokolov, 2010). Stiglitz has played a principal intellectual role in the reorganization of the Chinese financial and banking system. For instance, during a July 1999 visit to China, Stiglitz met with China's State Council Chairman and discussed medium-term strategies and their significance for reforms and macroeconomic management. Stiglitz also met with the finance minister and had a wide-ranging discussion of all issues concerning the minister. Additionally, he held a roundtable for senior officials and led a seminar on bank reorganization. The overall purpose of that visit (July 21-25, 1999) was to analyze the results of the second phase of reforms in China and develop the third phase.

The use of phases and gradualism or incrementalism in the Chinese reforms also demonstrates the influence of information economics, which advocates flexibility in the speed of reforms (Stiglitz, 1994, pp. 263-265). It is important that the transition from one phase to another is contingent on the completion of specific tasks and not simply based on the passage of time.

Stiglitz was known as a leading theorist of the market economy, but he has also had a long interest in the problems of socialism and market socialism. When Stiglitz was a graduate student, he visited the Central School of Statistics in Warsaw to talk with Oskar Lange and Michal Kalecki and their intellectual disciples. As a result, he gained many insights into the theory and practice of socialism. Over the years, Stiglitz made a number of visits to Hungary, Czechoslovakia, Romania, the Soviet Union/Russia, and China. His intellectual contribution to the East European transition process began in April 1990 when he presented his vision of a transition strategy at the *Wicksel Lectures* at the Stockholm School of Economics. These lectures were followed by seminars in Prague, Rome, and Budapest (the Hungarian government provided financial support for Stiglitz's research on transition). These materials were not published for general readers until 1994, in the previously mentioned *Whither Socialism?*

Marshall Goldman, the former long-time associate director of the Davis Center for Russian Studies at Harvard University and professor of economics at Wellesley College, was one of the world's most-respected Sovietologists (Russianologist is now the more appropriate term). He was also very knowledgeable about the Chinese institutional landscape and economy. Endeavoring to write a definitive history of how China had moved away from the Stalinist model, Goldman failed to mention the Sino-American meeting in December 1980 and Stiglitz's subsequent role as an adviser to Chinese economists and government officials. Goldman writes:

> *Deng Xiaoping's return in July 1977 and assumption of power in late 1978 was a critical precondition to the reform. . . . Many aspects of the reform developed quite independently from one another. . . . Experiments in one part of the country often duplicated, but sometimes contradicted experiments being carried out in the other parts of it. ...Given Deng Xiaoping's pragmatic methods, it is unlikely that he was responding to any theoretical analysis or following any specific blueprint when implementing his urban [industrial] reform. In all probability, Deng and his protégés did what seemed logical to them and were not affected by the ideas of "some academic scribbler a few years back"[2] (1987, pp. 181, 182, 203).*

Goldman found that it became a requirement to minimize any foreign influence on Chinese economic thought. His story regarding the nearly "simultaneous discoveries" by Soviet economist Evsei Liberman (in 1956) and the head of the Chinese Institute of Economics Sun Yefang, who had studied in the Soviet Union in the early 1960s, is an illustrative example. Liberman and Sun both called for reducing the distortion created by the *valovoi* product or the gross output index and increasing reliance on profits and individual incentives.

Sun was criticized extensively in the mid-1960s and became subject to attack, intellectually and otherwise. However, beginning in 1977, he regained his standing and began to write and lecture again. At his speech in Sichuan Province on the need for a better incentive system, one member of the audience was Zhao Ziyang, then the head of Sichuan Province and later the prime minister of the country, and then the General Secretary of the Communist Party. In October 1978, Zhao began to implement a series of industrial reforms in Sichuan that closely resembled some of Sun's proposals (Goldman, 1987). These reforms were characterized by administrative decentralization and the devolution of decision-making power to the enterprises. This power included the right to retain part of the profits, engage in production outside the state plan, market excess output, issue bonuses, and hire and fire workers. Because the initial results were positive, in 1979, this experiment was extended from the original six enterprises to one hundred enterprises in Sichuan. By April 1980, the experiment had expanded nationwide to 16% of enterprises, which accounted for 60% of China's industrial output value and 70% of industrial profit (Zhang, 2000, pp. 39-40).

However, the events of the end of 1980 were far more important for our research. As Wei-Wei Zhang (who worked as an English interpreter for China's leaders from 1983 to early 1988) wrote in his book *Transforming China*, *Excessive bonus and 'investment fever' soon spurred greater intra-sectoral imbalances that reached a crisis proportion. This alarmed many Chinese leaders, including Chen Yun*[3]*. In December 1980, Chen called for 're-centralizing' the economy and putting 'readjustment' before 'reform' and virtually stopped Zhao's experiment. Deng* [4] *had to acquiesce [to] Chen's authority in the economic field, as neither Deng nor his associates such as Zhao were then able to offer credible policy alternatives that could immediately stop the crisis" (Zhang, 2000, p. 40).*

Was it only by coincidence that the Wingspread meeting occurred in December 1980? The "trial and error" approach to economic reforms had resulted in a deep crisis, which could have dramatically changed the future development of China. We believe that neither neoclassical nor Marxist economics could have provided adequate answers to the Chinese leadership at that time. The new information economics, as personified by Joseph Stiglitz, provided these answers.

Goldman stated that Sun Yefang's (and Liberman's) ideas were not the only intellectual source of China's reforms. The Chinese were interested in learning about reforms that had occurred in Yugoslavia, Hungary, and Poland. Some Chinese specialists were sent to Eastern Europe. China also invited specialists from Eastern Europe such as Włodzimierz Brus, who had been involved in economic planning in Poland, and his student Cyril Lam. According to Goldman, both individuals had a major impact on thinking in China, and "ironically, the Chinese seemed to have implemented many of the East European ideas better than East Europeans had been able to do" (1987, p. 204).

We disagree with Goldman on this point. The critical reform ideas and the strategies for their implementation in China were primarily of American origin. Of course, this raises the question of whether economics has a nationality. We could not find any mention of Stiglitz's role in the reform policies in publications featuring Chinese and other economists (Li, Brodsgaard, & Jacobsen, 2009). One explanation for this omission could be, as Goldman discovered, a directive to minimize any foreign influence on Chinese economic and political thought. This directive is particularly evident in the case of Stiglitz's influence. It was logical for Stiglitz to minimize the intellectual and consulting roles he played in the Chinese reforms: he performed these roles not only as an American professor, but also during his tenures as the chairman of the Council of Economic Advisers to the U.S. President and the World Bank's chief economist, and senior vice president for development policy. In general, we agree with the analysis of John Pomfret, a former Beijing bureau chief for The Washington Post; he posited that no nation has been more important to China's modernization than the United States — a fact that no Chinese official has ever acknowledged (Pomfret, 2011).

Today, China is the second-largest economy in the world. It provides more loans to developing countries than the World Bank. Among the world's largest countries, China was least affected by the most recent global economic crisis. China's economic growth rates - 9.2% in 2009, 10.4% in 2010, and 9.3 % in 2011, and 7.7% in 2012, 7.8 % in 2013, 7.3% in 2014, 6.9% in 2017 ((ADO, 2014, pp.xxi; 2018, p.179) - were the highest among all major countries of the world. In 1989, in his famous End of History essay, Francis Fukuyama rejected the possibility of market socialism; he was sure that there was no other path to human development than Western-style free market democracy (Fukuyama, 1989). By 2011, after observing that China was able to develop without such a system in place, he had reversed his opinion: "US democracy has little to teach China," he wrote (Fukuyama, 2011).

## ENDNOTES

1. Stiglitz sums up the matter in his article "The contribution of the economics of information to twentieth century economics" (2000, p. 1468).
2. Goldman referred to the well-known citation from J. M. Keynes's *The General Theory of Employment, Interest and Money*.
3. Chen Yun was a leading Chinese economist who took part in cleaning up the catastrophic consequences of the Great Leap Forward and the Cultural Revolution. He was a member of the Secretariat of the Chinese Communist Party's Central Committee, vice premier of the State Administrative Council, vice premier of the State Council, and chairman of the Central Financial and Economic Commission.
4. Deng Xiaoping was a leader of the Communist Party of China, a skillful politician, and the prime mover behind the reforms instituted after the death of Chairman Mao Zedong. Deng never held the supreme leadership position, but was China's paramount leader from the late 1970s until his death in February 1997. Having inherited China in a state of economic devastation and social and political shock after the Cultural Revolution, Deng became the ideologist of new thinking, and initiated the concept of 'socialism with Chinese characteristics' and the second phase of reforms in China. He is known for the following aphorism: it does not matter 'if the cat is black or white, what matters is if it catches mice'.

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