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journal homepage: www.elsevier.com/locate/seps



Entrepreneurial talent and economic development in China

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ARTICLE INFO

Article history: Available online 24 April 2010

Keywords: Entrepreneurial talent Economic development Position-based rights Property rights system Strategy China

ABSTRACT

In this paper, we argue that the economic miracle of China in the past three decades can be attributed to the reallocation of entrepreneurial talent from the government/state and agricultural sectors to business activities. This change is unprecedented in the past two thousand years of Chinese history. When entrepreneurial talent was moved more to business activities, it created wealth, and the economy boomed. Three dominant groups of entrepreneurs are identified: (1) Peasants-turned entrepreneurs, (2) officials-turned entrepreneurs, and (3) overseas-returned, and engineers-turned, entrepreneurs. They have emerged sequentially, and successively led three decades of economic growth. The success of the Chinese economy arises from a gradual replacement of position-based rights with property-based rights that has triggered this reallocation of entrepreneurial talent. We also argue that when position-based and property-based rights coexist, value-creating and rent-seeking can be complementary. Therefore, one should not be puzzled by the coexistence of rapid economic growth and pervasive corruption in China. In order to improve the *efficiency* of allocation of entrepreneurial talent and efforts, it is important to further reduce the domain of position-based rights, and build a better-defined and more effectively-protected property rights system.

Published by Elsevier Ltd.

1. Introduction

When China began its economic transition, it was unimaginable that an 'economic miracle' would occur within a period as short as thirty years. Indeed, when Deng Xiaoping set the target that, by the year 2000, China's total national income would quadruple that of 1980, many people, including government officials and economists, thought that Deng was being too ambitious, if not unrealistic. However, development of the Chinese economy has been even more rapid than Deng's forecast. In the past three decades, China's per capita GDP doubled in less than every 10 years, reaching US\$ 2500 by 2007. China rose to be the fourth largest economy in the world by 2005, from 10th in 1978, and the third largest international trade country by 2004, from 27th in 1978.

In 2006, China surpassed Japan and became the largest foreign currency holder and, while in 2007, five of the 10 largest companies listed in terms of market value were from China. On a related note,

debate about the Chinese currency's exchange rate has become an international political and economic issue.

Many outside observers have queried: How could the Chinese

economy have been so successful, given that large percentages of key resources are under government control, while property rights are vaguely defined? Importantly, the rapid economic development of China has resulted from a gradual introduction of markets, and the replacement of position-based rights with property-based rights (to be defined in detail, below). History has shown that the market mechanism is the best engine for economic growth, and can create economic miracles like China. In fact, there is no fundamental difference from examples of similar economic developments in Western-developed countries, such as Great Britain during the industrial revolution, and the United States in the late nineteenth and early twentieth centuries, as well as some East Asian countries such as Japan and South Korea after the Second World War. Once market forces are introduced, and appropriate incentives are in place for people to pursue wealth, growth surely follows, sooner or later. We thus suggest that the best way to understand China's economic development is to understand how markets operate.

What is a market economy? A widely-accepted, yet simple definition is that a market economy is equal to freely established

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¹ China Statistical Yearhook 2007

prices plus entrepreneurship. Freely set prices provide signals as well as incentives for resource allocations; while entrepreneurs may act in advance of known prices and make judgmental decisions on what to produce and how to produce it under uncertainty [1].

Entrepreneurs are price-takers as well as price-makers. In fact, in an uncertain world, as is always the case in a market economy, the most important decision is "discovering the relevant prices" [2]; that is, foreseeing the price and the products or services that customers are willing to pay for, as well as the costs of production. Profit-pursuit and survival pressure drive entrepreneurs to organize enterprises efficiently, and to innovate new products, new production technologies, new business models and new organizations. It is through entrepreneurial initiatives that an economy grows and thrives [3].

This definition provides guidance for understanding China's transition from a planned to a market economy. The key to the success of Chinese economic reform has been liberalization of prices through a dual-track system, and the rise of entrepreneurs through the (1) development of non-state sectors, and (2) privatization of the state sector. Under the previous planning-only regime, prices were set by the government and played little role in developing new resources allocations. Both production and investment decisions were made by officials according to their "social goals," rather than by entrepreneurs for purposes of profit. Since the beginning of the reform period, prices have been gradually freed and thus become major signals for redirecting allocations of resources. At the same time, entrepreneurs have gradually replaced bureaucrats in making economic decisions—although the government still holds considerable control rights, even today.

The importance of liberalizing prices is shown by history. Looking globally, we find that the *wealth gap* between countries is, in general, very different from the *resource gap*. In fact, many developed countries, using liberalized pricing systems, are relatively poor in their natural resources, while many under-developed countries are relatively resource rich.

"Entrepreneurial talents" are considered one of the most important factors of economic development.² There are two basic facts about the distribution of such talents. First, while entrepreneurs are a phenomenon of the market economy, entrepreneurial *talents* have always existed. However, in the long history prior to China's industrial revolution, those talents were engaged mainly in military activities, political struggles, and government services, rather than in productive activities, as they are in Western countries today. Regarding the latter, marketing has, in particular, led to the efficient allocation of entrepreneurial talent [4].

Further, although everyone may have some degree of decision-making ability, only a relatively few can be said to be entrepreneurial. Entrepreneurial talents are thus considered a scarce resource in virtually any national society.

While endowments of these talents are important for economic development, even more important is their allocation across various uses, especially the efficient matching of entrepreneurial talents and production technologies [5]. As Bianchi [5] and Baumol [6] have argued, while the supply of entrepreneurial talent varies amongst societies, the productive contribution of a society's entrepreneurial activities varies much more because of their participation in activities such as innovation, in contrast to selected unproductive (even destructive) activities.³

Baumol's proposition provides a powerful explanation for the astonishing economic growth of China in the past three decades [6]. Of the many resulting changes, perhaps the most important is the movement of entrepreneurial talents from the government and agriculture, to the business and industrial sectors. This change is unprecedented in 2000 years of Chinese history. Many more entrepreneurial individuals thus now create value rather than simply (re)distributing income and resources. Many suggest that this is the principal reason for the rapid growth of both wealth and income in the country.

Underlying the rise of entrepreneurship is a change in property rights, where we define such rights as an incentive and accountability system to link one's action to his (or her) expectations of return [7]. When property rights are well defined and protected by law and social norms, everyone should, by definition, be fully accountable and responsible for his (or her) own behavior. When property rights are not well defined, both prices and incentives may become distorted, wherein entrepreneurs might be less than fully productive.⁴

Of course, in reality, property rights are generally vaguely defined. However, the nature and level of such vagueness varies from country to country, and from time to time. The distribution of property rights is less a dichotomy than a continuum between complete vagueness and complete clarity. Generally, the validity of price signals and incentives of entrepreneurs are positively correlated with the clarity of property rights, with the former converging as the latter rises. An economy can thus grow as long as the vagueness of its property rights is decreasing.

This point is crucial for understanding the growth of the Chinese economy in the past three decades. This success provides neither conflict with property rights theory (e.g. [2,8–10]) nor does it require support of free ownership theory. In China, property rights remain ill-defined and protected, while firm ownership is still vague compared to most developed economies. Nevertheless, China's economic development is occurring, at least in part, because the country has been moving increasingly to a private property-based economy from a more position-based rights economy.

To be sure, property rights have become less vague and better protected in the past 30 years. The success of rural reform in the late 1970s and early 1980s, for example, has its source in the contracting-out of land properties to rural households. The resulting property rights are now much better defined under the new household-contract system than under the earlier collective commune system.

In urban settings, under the planned economy, almost all economic rights were position-based, and non-public businesses were considered illegal. During reform, however, the government has taken several steps to grant legal status to the private sector. Self-employed businesses were legalized in 1982. Privately owned enterprises eventually obtained legal status in 1988, but only after long debate. Protection of private property rights was explicitly written into the new Constitution in 2004. By end of the 1990s,

² By "entrepreneurial talent," we refer to individuals in the population who have a relatively strong ability to foresee the future in an uncertain world, and innovate new products or services, and modes of production.

³ A similar argument is also made by Murphy et al. [11].

⁴ In a market economy, the firm is one form of exchange (Coase [8]). When property rights can be freely exchanged, firms will emerge. Ownership of the firm is a contractual arrangement among different participants (Alchian and Demsetz [9]). While, theoretically, ownership of a firm may be equally shared by all participants, the contractual arrangement is typically asymmetric: Some become the owners (employers) with assignment of residual claim (profits and rents) and control rights, while others become employees by taking contractual income from an agreement to obey the authority of employers (within limits). This "profit system" can be understood as an accountability system (Zhang [12]). In most industries, and in most cases, such a system provides the best incentive for entrepreneurs to make efficient decisions.

most township and village enterprises (TVEs), as well as small and middle-sized state enterprises were fully, or at least partially, privatized.

Without these legal steps for implementing private property rights, entrepreneurs would likely have not emerged, and been such a force in China's recent economic development. Indeed, the Chinese economy was virtually stagnant from 1989 to 1990 after the government cracked down on the private sector following the June 4th protests at Tiananmen Square in 1989.

Of course, China still has some ways to go in building a well-defined property rights system for sustainable economic development in the future. Nevertheless, Western-developed property rights theory remains a powerful tool for better understanding ongoing Chinese economic development.

We thus find an iterative process wherein the rise of entrepreneurs has promoted economic development, which has subsequently provided further business opportunities and attracted yet more entrepreneurial talent, and so on.

2. Allocation of entrepreneurial talent: importance

When we look at an economy, one of the entrepreneurially important questions we must ask is: What do the most talented people do? In particular, do they work for the government, or run their own commercial businesses?

As Murphy et al. [11] argue, persons with general talents can become one of the best in many occupations, such as entrepreneurs, government officials, lawyers, speculators, clerics, and so on. The ablest people generally choose occupations that will exhibit the greatest (or, most promising) returns to their ability. Both entrepreneurs and government officials are occupations in which having marginally greater talent leads to a higher payoff.⁵ Thus, these two sectors compete for the same entrepreneurial talent in the population. At the same time, countries differ in their occupational allocations of entrepreneurial talent.

In developed countries, such as the United States, Great Britain and Germany, the best entrepreneurial people tend to move towards the business sector, while in under-developed countries, such as most of Latin American and African countries, the best entrepreneurial people tend to work in the government or military sector. Over time, when more entrepreneurial individuals move to the commercial side, economies tend to expand; and, vice versa. Thus, we may conclude that the allocation of entrepreneurial talent between government and business is one of the most important determinants of the development of an economy.

From where does this effect arise? Basically, when entrepreneurial individuals enter business, they create economic value and wealth through productive activities such as more efficient use of resources, cost reduction, and technological innovation. In contrast, when in government, they are mainly engaged in redistributing income and, in the worst case, perhaps reducing existing economic wealth and production through largely unproductive means.⁶

This difference is rooted in fundamental differences between the ways government and business enterprises collect revenues. The former exists principally to provide public services which may hopefully be of value to society. For example, without government protection of property rights and provision of public infrastructure, it would be nearly impossible for private entrepreneurs to conduct productive activities. However, the nature of public services requires that the government charge for its services through taxes, not through pricing, as do business firms.

Taxes are, by definition, legally compulsory rather than voluntary payments. This means that government is able to collect revenues without actually producing anything of value for society. In fact, once the government has obtained the legitimacy to charge taxes, its officials may have incentives to oversupply selected services much beyond the social optimal level, while undersupplying others, e.g. when this serves its interests. Typically, citizens must "buy" or utilize some services. In doing so, they may be over-charged since the expansion of government is in the interest of its officials; the reason being their power, and perhaps compensation, may be enhanced accordingly [13].

Interestingly, talented people in government may create/innovate new ways to impose services and charge taxes. Thus, when entrepreneurial individuals are in key government positions, society may be more at risk than when 'ordinary' people are in such positions. Further, when politicians compete for power, they may consume social resources without providing compensating social benefits.

In contrast, business entrepreneurs seek revenues from buyers through pricing, where price is voluntary payment. No buyer would be willing to pay a price for a good or service that is more than its value for him. Even customers of a monopolist firm will not pay more for its goods and services than its value to them. In an open market, competition between firms creates consumer surplus (equal to the total value of a good or service to the individual consumer minus the price paid), with those providing the largest such surplus performing best. In summary, then, when entrepreneurial talent is imbedded in business, it creates value and wealth for that served society.

The allocation of entrepreneurial talent also has an impact on the productivity of other production factors, particularly, labor and capital. Their productivity is, to a large extent, dependent upon the entrepreneur's abilities since workers generally produce more when they are employed by a high vs. low ability entrepreneur. It is therefore understandable, as implied above, that total factor productivity tends to be lower in countries where talented people work more in government than they do in business.

Furthermore, given that the wage of a production worker is determined by his marginal productivity, labor income will generally be lower in the former countries than the latter. When talented people run businesses, households are more likely to have meaningful investment opportunities and thus have higher incentives to save for such investments. In other words, the allocation of entrepreneurial talent also affects income distribution and capital accumulation. Less developed countries are often short of capital, at least partly because percentages of their entrepreneurial talent are (mis)allocated into the government sector.

The allocation of such talent between government and business also affects the *size distribution* of firms. The size of a firm tends to increase with ability of the entrepreneur and the average richness of the nation [15]. As the structure changes, high ability entrepreneurs tend to run larger firms, while lower ability entrepreneurs tend to run smaller firms [16]. At a country level, and not

⁵ See Rosen [14]. In the case of government, return includes not only pecuniary compensation but, more importantly, political power, and social privilege.

⁶ We are here referring to national rather than local governments. In transitional China, local governments often run their economies in competition with other such governments, while government officials also appear entrepreneurial and conduct productive activities. China's story (as well as those of other countries) shows that cross-regional competition may make government officials more productivity-oriented than otherwise. See Cheung [10]. In fact, globalization has made government officials all over the world more productive in the sense that each government tries to improve its efficiency. Nevertheless, overall, business people are more value-creative than government officials for reasons to be explained in the next paragraph. Thus, reallocation of entrepreneurial talent from government to private business is generally efficiency-enhancing.

 $^{^{7}}$ In a Chinese saying: When a soldier is weak, only he himself is weak; when a general is weak, all soldiers under him are weak.

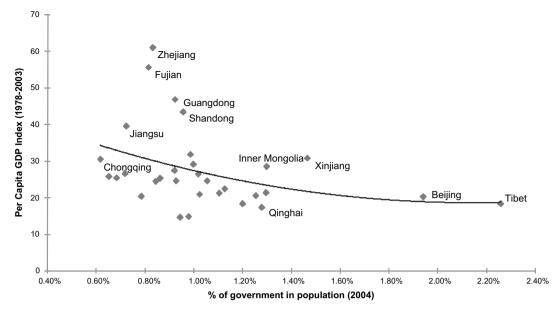


Fig. 1. Percentage of government in population vs. GDP index. Source: China Statistical Yearbook (2004).

surprisingly, the average size of businesses will generally be smaller in those countries where the ablest people run the government, leaving relatively lower ability individuals to run the business sector [16].

While the link between allocation of entrepreneurial talent and level of economic growth is logical, several studies have provided evidence that rent-seeking activities may have a negative effect on growth. See, for example, Barro [17]; Magee et al. [18]; and Shleifer and Vishny [19]. Importantly, however, the evidence tends to be indirect. On the other hand, cross-regional variations in talent allocation in China serve as direct evidence in supporting the link. In Fig. 1, the *X* axis measures the percentage of government officials in the population of each province, while the *Y* axis measures GDP growth. Note that the trend is downward: GDP has grown more slowly for those provinces with greater percentages of government officials.

3. Incentive changes in China: from position-based to property-based rights

There are many determinants of the relative reward of government officials and entrepreneurs, including the property rights system, regulation of commerce, the size and discretionary power of government, and the size of markets (e.g. [6,11]). Of these, the protection of private property rights can be among the most important. Being an entrepreneur is clearly more attractive when private property rights are well defined and protected, and a government cannot easily confiscate property and/or profits. Conversely, being a government official is more attractive when the government holds considerable discretionary power, and commerce is heavily constrained by regulations so that, for example, rent-seeking opportunities are large. If the size of government is larger relative to the size of markets, private entrepreneurship is thus less attractive.

Ancient China was characterized by the fact that the central government was open while the market was restricted.⁸ The overall

incentive system was strongly biased against business and in favor of the government sector. Through imperial examinations, it was possible, at least theoretically, for anyone to become a government official with wealth, power and prestige. In contrast, business activities were generally discouraged by both legal institutions and social norms, and business people ranked low in social status. As a result, the most talented people were often attracted to government for rent-seeking activities, rather than value-creation in business. This (mis)allocation of talent is emphasized under planned economic regimes. However, even during these times, some entrepreneurial talent was located in rural areas of the country because of urban citizenship control.

In China, the reallocation of entrepreneurial talent to the business/commercial sectors from the governmental and agricultural sectors has been ongoing from the start of its reforms. With gradual liberalization of price, and decontrol of the economy, the relative attractiveness to talent has increasingly favored business. A fundamental issue is the distribution of control rights over resources, wealth, products, people and actions. Rights can be distributed in the population by law, administration, contracts and social norms as well as other factors such as private information and personal relations.

3.1. Key distinctions

One important distinction between property-based and position-based rights is that the former can be more easily defined than the latter. Property-based rights are thus normally clearly defined and protected by law and social norms, and have relatively strict boundaries. Disputes over such rights can be addressed through legal processes. In contrast, position-based rights are generally only loosely defined and subjected to frequent administrative changes. A holder of position-based rights often has discretionary power to change the boundary of those rights, and even create new positions. When a dispute occurs, in most cases, the only approach is an administrative process which is, itself, part of the rights. Rentseeking activities are thus contained within position-based rights.

Another of their characteristics is that they are term-limited and not marketable. They can be used by the rights-holders only while in office, and cannot be legally sold when they leave office. The incumbent holder therefore has a short-horizon. Unlike a property

⁸ This statement is robust across the history of China, although the business environment varied from dynasty to dynasty. Even during the Song Dynasty, in which the economy was more commercialized, government was more attractive than business.

owner, a position-holder tends to maximize personal value for the rights of his/her office term rather than the discounted present value of long term flows. Like property, a position may, from time to time, also be transferred from one person to another. The difference is that while the transfer of property is governed by contracts and voluntarily conducted, the transfer of a position is governed by administration and is not necessarily voluntary; the loser of a position thus cannot receive market-based compensation from the position gainer.

The third difference is that the number of positions is more limited than property in the following sense⁹: In most cases, the total number of positions with particular rights tends to be fixed, so, when a person 'wins' a position, another person 'loses' this position; or when a new position is created, the rights attached to other positions or properties may be diluted. In contrast, properties can increase through production and innovation almost without limit. For example, the production of a new car does not mean loss of value by another property. In fact, in a society where property rights are well protected, the best approach to have new property is to create it, or create another property for exchange. For these reasons, competition for property-based rights is value-creative, while competition for positions is often value-redistributive. This conceptualization of position-based and property-based rights is critical to understand the nature of a state-owned economy. ¹⁰

3.2. Some historical perspective

In a public economy like pre-reform China, all means of production are owned by the state/government.¹¹ The economy is organized and operated through a mega-administrative system. This system is hierarchically structured with many positions at a variety of levels. All positions are top-down ranked, with the central agent at the top. The rights attached to a position determine its occupier's decision authority as well as his personal income, perks, control benefits, and prestige. For example, the following personal benefits are position-dependent: Whether an official can use a car, and if so, what type; whether a telephone is installed in his home or office, etc. Under such a system, one's bureaucratic position is widely taken as the standard for virtually everything.¹²

In pre-reform China, individuals owned no property with the exception of some basic living materials which, in most cases, were also derived from a particular position.¹³ Given that no rights were based on property, the only way one could acquire rights over property, and thus improve his living standard, was to enter the government, or a quasi-government agency, and become a 'bureaucrat'.¹⁴

Those who had no opportunity to work for the government/ state sector, such as rural peasants and the urban jobless, could live only at survival/subsistence levels. State-owned enterprises were positioned lower, and with fewer rights than were central government departments of the same administrative rank. Hence, it was more attractive to work for a government department than for a state enterprise. Bureaucratic careers were therefore a 'best choice' for most individuals including, of course, those with entrepreneurial talent. This was a key contributor to the extraordinary size of the Chinese Government.

Given their value, government positions in China can indeed be very competitive. As one might expect, even in government, more able individuals are generally more successful than those who are less able. They move 'up the ladder' faster, and reach higher positions. However, in most cases, they did so less because they created more value and wealth to society with their greater abilities than being more skillful at 'political games.'

Competition for entering the government sector, and for subsequent promotion can be very intense. The difference is that in a competitive market, success is determined by standard metrics such as productivity, while in the government, success is more dependent on political performance, personal connections, and, even "damage-ability" to others. 15 'Trouble-makers' often perform better than value-makers. When many compete for few higher positions, often, the most effective approach is to pull rivals down. The game of promotion then becomes one of damaging another. Thus, much human talent, time and energy are used in unproductive, and even destructive ways. One way to restrict such power struggles is to use seniority-based systems in promotion so that no one has an incentive to harm others and manipulate information. However, at the same time, such systems may create situations in which no one has an incentive to do anything good. The reason: The most secure way to be promoted is to make no mistakes, rather than performing better.

Given that promotion decisions of a subordinate are made by his/her superior, and the superior's utility is not related to the subordinate's Economic Performance, it is crucial for the subordinate to have good relations (*guanxi*) with the superior, rather than good performance. Since an official may move from one position to another, the *guanxi* must be networked. Yet, maintaining such networks over time can be socially costly.

In China, the government is and/or feels less constrained by formal rules of law. Government officials thus often create new positions and expand the boundary of rights for rent-seeking as some may erect more tollbooths on a roadway [19]. Also, quite often, position-based rights are duplicated and overlap across departments, while different departments may compete for such rights. Understandably, these activities can be very resource-consuming, if not value-destructive.

As noted earlier, the rural areas of China pioneered the reintroduction of property-based rights. When the household-contract responsibility system was implemented in these areas, the peasants were allowed to have rights to assigned land, and to own rights to both their products, and means of production such as livestock and tractors. They were also allowed to sell their products in markets. In other words, they were able to improve their lives through their own productivity, even though they had little or no opportunity to

 $^{^{9}\,}$ We owe this point to Professor Yushi Mao.

¹⁰ This concept of position-based rights is similar to Steven Cheung's "comraderanking system" (or, "rights in terms of hierarchical ranking"). See Steven Cheung [10]. However, we disagree with him when he treats the comrade-ranking system as a form of contracts.

¹¹ Although the rights within a firm in a private economy are also position-based, ownership of a private firm is a contractual arrangement between different participating owners of production factors (property).

¹² This phenomenon can be called *guanbenwei* in Chinese, meaning that everyone is measured by his or her position in the government.

¹³ The ten years of the Cultural Revolution of China killed almost all property-based rights. By its end, almost everything in the urban sector was under the control of the government. The state became the only 'rice bowl' for the population. Even agriculture was controlled by the government through the commune system so that one could not survive for long after leaving it.

¹⁴ The state-owned enterprise was also a quasi-governmental entity and managed by officials.

¹⁵ By "damage-ability," we mean the ability to hurt rivals, even superiors, in ways such as the use of blackmail or undermining a rival's performance, or, even personal threats. In the past few years, the media have occasionally reported cases in which some officials have murdered their rivals. However, for Economic Performance, it was difficult to evaluate in China, particularly for government officials (for which we refer to their Socio-Economic Performance). Fortunately, Adler et al. [28] developed a framework to deal with this issue by measuring the relative performance of developing countries.

enter government. Agricultural reform also promoted the development of non-state industries (see discussion in Section 4).

In urban areas, property-based rights were reintroduced mainly under the pressure of unemployment. When 17 million "educated youths" returned from rural areas after the Cultural Revolution, it was impossible for the government to provide them all with jobs in the state sector. With implicit, and even explicit encouragement, of some government leaders at both the local and central levels, self-employed businesses spontaneously emerged in 1978. The ideological and legal controversies over self-employment businesses were settled in June 1981 by the 6th Plenary Session of the 11th Congress of the Chinese Communist Party, which stated that "the self-employment economy within a certain extent is a necessary supplement to the public economy."

According to a 1985 survey by the Economic System Reform Institute of China, self-employed people were ranked in the top ten occupations in terms of economic (wealth) status, although their social status was ranked only eighth. In contrast, government officials were ranked, respectively, seventh and first (wherein 'university student' was not considered an occupation). ¹⁶

The establishment of a property-based rights system in China has thus involved an extensive, evolutionary process, with some temporary reversals. But, surely China is not an exception in this regard. Even the constitutional adoption of the protection of private property rights is not an end-point of this process. Legalization of these rights is necessary but not sufficient. What is actually more important is how the state implements the laws, and whether/to what degree the population will respect them.

Property rights generally require support by both culture and social norms. In the case of China, an established, well-protected property rights system will require a substantial additional time and effort. However, one must recognize the progress already made.

While position-based rights are still pervasive in today's China, the gradual emergence of property-based rights in the past three decades has, as noted above, dramatically changed incentive systems, particularly for those with valuable talents. Entering the government is no longer the only way for one to control their own rights and to enjoy a full life. In fact, many entrepreneurs now live better than do corresponding officials. Such situations have, in turn, given rise to a new array of emotions such as jealousy and greed.

The occupational choice of university graduates may be a good indirect indicator of the relative attractiveness of businesses vs. government. Fig. 2 shows the trend of job placement of undergraduates at Peking University between the government and business sectors. Post-1997, the percentage of students entering the latter surpassed the percentage of those placed in both the government and academic institutions.

The educational background of private entrepreneurs can also serve as an indicator of changes in the relative attractiveness of government and business sectors over the past two decades. Fig. 3 shows changes in the percentage of entrepreneurs with an education of high school and below, and that of college and above, respectively. Note that the percentage of entrepreneurs with the latter type education has increased from 17.1% in 1993 to 49.3% in 2006. Given that those with higher education can find a position in the government and state sectors more easily than can less educated individuals, Fig. 3 shows that competition for entrepreneurial talent between the businesses and government sectors has increasingly favored the former.

4. Three dominant groups of entrepreneurs in China

The rise of business entrepreneurs in the past three decades has been one of the most important changes brought about by Chinese economic reform. A most useful metric of this phenomenon can be through identification of three dominant types of entrepreneurs that have emerged, sequentially, as the reform has progressed.

The first generation (1978—1988) can be referred to as the *peasant-turned entrepreneurs*, resulting from rural reform of the late 1970s and the early 1980s. The second generation (1989—1999) is more *bureaucrat-turned entrepreneurs*. Ironically, the birth of this group was triggered by the well-known political events of Tiananmen Square, Beijing in June 1989, and by the 'rush' put on Deng Xiaoping's South Visit Speech in 1992. The third generation (2000—2009) may be classified as *overseas-returning and engineer-turned entrepreneurs*, which emerged near the turn of the 21st century.

These three generations of entrepreneurs generally differ in their educational backgrounds, the businesses they begin, by firm ownership and governance, financing and, in particular, their connections to government. Despite these differences, they appear to now be merging into more of a joint growth force.

Interestingly, the sectors driving economic development in China over the past 30 years have differed from one decade to another. Roughly speaking, growth of the first decade was driven mainly by manufacturing; that of the second decade by the financial, real estate, and other service sectors [20]; and that of the third decade principally by the high-tech industry [21].

4.1. The rise of the peasants-turned entrepreneurs in the first decade of growth

As noted earlier, when China first began its economic transition, the government was the place of choice for talented people under the planned economy scenario. How, then, could significant entrepreneurial talent have been clustered in rural areas? The answer lies in the fact that China had implemented a strict urban citizenship control system ("Hukou zhidu") since the late 1950s. Under this system, both the government and the state sector itself were closed to rural inhabitants. Those who were born in rural sectors were identified as 'rural citizens outside the state sector,' and had to stay in those sectors as commune peasants for a lifetime, regardless of their talent. (This is somewhat akin to 'untouchables' in India.)

Given that neither the option for business nor the government/ state sector was available to them, the best that talented rural individuals could do was become leaders of their home villages—with somewhat more privileges than their fellow peasants. Those who had no such opportunity might then involve themselves in some kind of black or grey market business. They, in turn, faced the risk of being punished for such illegal activities and, indeed, some have been jailed.

4.1.1. Township and village enterprises (TVEs)

As the household-contract responsibility system was implemented, and rural markets were gradually liberalized, peasants obtained some freedoms to do business. At the same time, however, village leaders lost at least part of their traditional control rights over villagers. As a result, many entrepreneurial village leaders chose to start so-called "township and village enterprises" (TVEs).

In near unison with these developments, many of those with entrepreneurial talent who were once suppressed, or even jailed, began to (re)start their activities either through their own businesses or by being appointed to lead TVEs. Given the rural population's immense size, the supply of entrepreneurial talent was

The survey included "college students" as an occupation category. For information on how college students were ranked, see *Social Psychology During the Reform: Changes and Choices* (Social Department of the Economic System Reform Institute of China, Beijing).

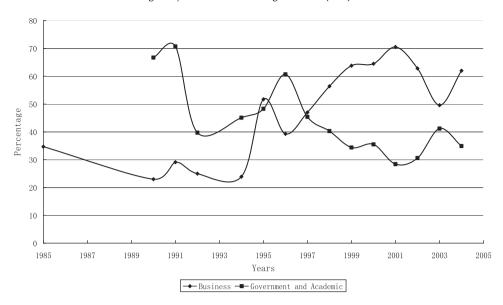


Fig. 2. Job placement of Peking University Students. Source: Students' Office of Peking University, Beijing, PRC.

also very large. It was therefore natural that TVEs and rural private enterprises developed quickly and widely (see Fig. 4).

By 1985, the total number of TVEs had reached 12,225,000—up 700% from 1978. By 1990, there were 17,502,000, more than 10 times that in 1984; and the total number of TVE employees was in excess of 88 million. The TVEs and rural private enterprises were generally engaged in manufacturing, transportation and commerce, and, as such, were the driving force for China's economic growth in the 1980s. Development of the TVEs also helped to commercialize the larger economy since they functioned outside the state planning regime.

It should be noted that, during the 1980s, entrepreneurship was ranked very low in terms of both social and political status, whereas government remained the most attractive occupation for most individuals. Further, doing private business continued to be politically risky. However, given that government positions were generally not accessible to rural populations, becoming an

entrepreneur was the clear choice in rural areas for those with the necessary talent.

TVEs were the dominant form of non-state sector ownership in the 1980s. Since most were legally owned by towns and villages, their property rights were thus vaguely defined. Some economists attempted to reconcile the performance of TVEs with standard property rights theory by introducing a cultural dimension of cooperation [22], while others used the success of TVEs to defend public ownership. However, there is no contradiction between the success of TVEs and the theory of property rights. There are at least two conditions supporting this claim.

First, although TVEs were publicly owned, their legal owners were many fewer than those of typical state-owned enterprises (SOEs). Given that few private firms existed prior to the late 1980s, this was clearly the most efficient of all forms of public ownership. See Zhang [23,24], who predicted that, once private ownership was legal, TVEs would lose their competitiveness unless they were privatized.

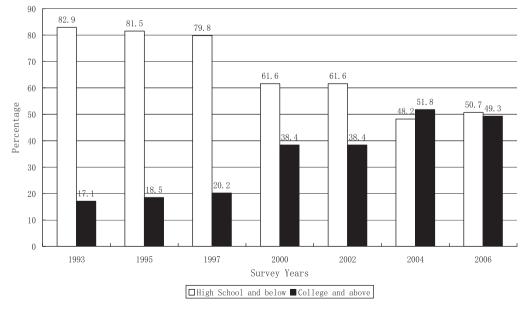


Fig. 3. Educational backgrounds of private owners. Source: All-China Federation of Industry and Commerce Associations (ed.), The Large-Scale Survey on Private Enterprises in China (1993–2006), China Industry & Commerce Associated Press, 2007.

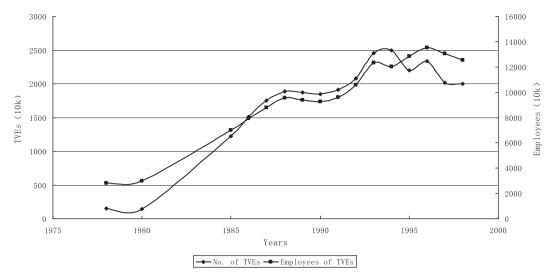


Fig. 4. Development of township and village enterprises. Source: China Statistical Yearbook (1999).

Second, while TVEs were legally owned by the local public, many were actually founded and controlled by entrepreneurs or bureaucrat-entrepreneurs (mainly village heads), so-called "red-cap" firms. They were registered as local public firms mainly because private firms were illegal, or discriminated against, in government policy as well as ideologically, at least early on.¹⁷ Perhaps more importantly, many of their founder-managers had high expectations of buying out their thus-founded firms at some point in the future. After all, property rights are little more than a kind of expectation for controlling, using, and transferring property for private benefit.

Observation suggests that Chinese practitioners indeed followed the standard property rights theory—although not consciously. After private firms obtained legal status in 1988, and, particularly after Deng Xiaoping's Southern Visit in 1992, the development of private firms soon overshadowed TVEs. Many local governments thus began to privatize their TVEs in various forms, such as removing 'red caps," creating joint-stock corporatizations, or simply selling them off.

4.1.1.1. Examples. For example, in Zibo City of Shandong Province, private shareholders owned 30% of the TVEs by 1992, which rose to 70% by 1995. By 1996, approx. a third of the TVEs had been privatized in Nanhai City of Guangdong Province. By the first half of 1997, more than 60% of the township enterprises in Shenyang, the capital of Liaoning Province, became joint-stock companies or cooperatives. By the end of 1997, one half or more TVEs had been privatized in such provinces as Guangdong, Shandong, Zhejiang, and even Liaoning, a relatively low economic and politically conservative region [25].

The TVEs of Southern Jiangsu were once widely recognized as role models of local public ownership—so-called "sunan models"—which was taken by some outside observers as the best

example to challenge the theory of property rights. Ironically, for these outside observers, by the first half of 1997, 90% of the township and village enterprises with assets fewer than 5 million yuan had been privatized in Jiangsu (South China Morning Post June, 1997). (In 2000, the China Statistical Yearbook published data on the numbers of TVEs.)

Although there were no longitudinal statistics, both casual observation and careful case studies show that most TVEs were privatized into the hands of their founder-managers (in some cases, with small shares owned by their employees). This was true for Jiangsu Province where, by 2001, it was ranked first among all 31 provincial regions in terms of number of registered private firms.¹⁸

Lu Guanqiu and his Wanxiang Company might be a typical example to demonstrate how a peasant-turned entrepreneur founded a township enterprise that was eventually privatized back to him.

19 Lu was born in 1945 into a peasant family in Xiao Shan County, Zhejiang Province. In 1969, he started an "Agricultural Machine Repair Factory" with 4000 yuan (US\$ 500 in today's prices). Although he raised the start-up capital, the factory was registered as a firm owned by a town (then called "the commune"). In 1983, when policies became more flexible, he signed a four-year management contract with the town government. He used, as collateral, 20,000 yuan worth of trees that were on his land but under the household responsibility system. The facility was renamed the "Wanxiang Factory," and producing car and truck components.

In the first year, he over-fulfilled the contracted target by a wide margin. According to the contract, he was supposed to receive a bonus of 87,000 yuan. However, after someone reported the situation to the State Council, he took just 10% of the bonus, and returned the remainder to the factory. In the following three years, he overfulfilled the target each year. In 1988, when private firms were granted legal status, he turned half the factory's net assets over to the town government, and privatized the facility back to himself through a management buyout. Thus, Wanxiang was transferred from a township enterprise to a private firm. Lu is now widely recognized as one of the most successful peasant-turned entrepreneurs in China. Under his leadership, Wanxiang Company has grown to be one of the largest private companies in China with investments in a series of diversified industries. Currently, the company is managed by Lu's son, who graduated from an American university.

¹⁷ Zhejiang Province was best known for its pioneering development of private firms. However, even in this province, private firms were illegal and often faced crackdowns from time to time in the early 1980s. For example, at the end of 1981, The Party Committee of Zhejiang Province investigated eight of the most famous private firms of Wenzhou City—so-called 8 "big kings"—for their leading roles in their respective sectors. In April 1982, the central government made a decision to crack down on "economic criminals." The Zhejiang Government immediately filed eight cases against these 'criminals.' Seven entrepreneurs were arrested and jailed, and one escaped. In 1984, when the political climate changed to favor reform, the Wenzhou City Government cleared the name of these eight entrepreneurs and claimed that they were heroes of the developing economy (see Ma, Licheng [29]).

¹⁸ Mengfu, Huan and Deping, Hu (ed.) [30].

¹⁹ See Ma, Licheng [29].

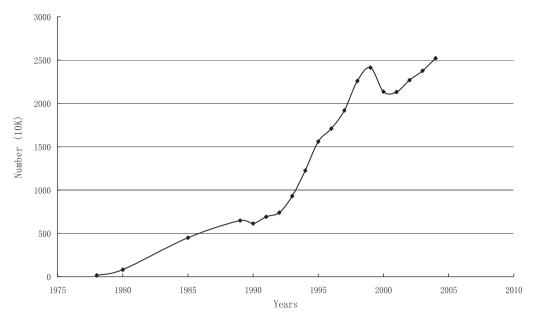


Fig. 5. Number of self-employed individuals in urban areas. Source: China Statistical Yearbook, 2005, p. 121.

4.1.2. Perspective

When we talk of the rise of entrepreneurship in the first decade of reform, we should also mention the millions of self-employed business people in urban areas of the country. The reason(s) these individuals chose self-employment were quite similar to those of the peasant-turned entrepreneurs. They began the process as a result of few job opportunities in the government and the state sectors; they thus needed to create their own "rice bowls." They also generally had little if any higher education. For these reasons, they might also be classified as "peasant-turned entrepreneurs" although they held urban citizenships. Some self-employed businesses were *de facto* private firms without registration, ²⁰ where a few grew to be very large firms indeed. Fig. 5 shows the rapid increase in the number of self-employed individuals in urban areas during the period 1978–2004.

4.2. The officials-turned entrepreneurs in the second decade of growth

In the 1980s, while millions of entrepreneurial peasants began their businesses, very few government officials, even those with entrepreneurial talent, chose to do so. After private firms were legalized in 1988, however, the situation changed. Some low-ranking officials, e.g. at local levels, began to investigate the option of having a private business. The boom of officials-turned entrepreneurs, particularly those who held positions in country-level governments, was further enhanced by two important events, as noted earlier: Tiananmen Square, Beijing in 1989; and Deng Xiaoping's South Visit in 1992.

During the former, many promising young officials were quite sympathetic to the demonstrating students, with some even engaged in the movement. Because of this, they lost their political future, while some were indeed arrested following the event. Even those who made few if any serious 'political mistakes' during the event, began to lose interest in politics and subsequently considered business as an alternative.

It was at this time that Deng Xiaoping paid a visit to South China during which he criticized the anti-reform conservatives and argued that a socialist country could also have a market economy. Deng's speech suddenly reversed the post-June 4th political climate and restarted the economic reform process. Soon, "building a socialist market economy" was officially accepted as the legitimate goal of reform by the 14th Congress of the CPC (October 1992). Various liberalization policies followed in an effort to promote private or, more generally, non-state economic activities; the registration of private firms thus became easier.

At this point, it became quite clear that a switch to private business was now the alternative of choice for politically depressed entrepreneurial officials (so-called "xia hai"). According to the Ministry of Personnel, in 1992 alone, 120,000 officials quit the government and began private businesses. In addition, approx. 10 million officials and quasi-officials took unpaid leave to begin businesses; while thousands of professors, college students and engineers joined them. ²¹ The success of their businesses induced even more entrepreneurial bureaucrats into private enterprise. ²²

In contrast to the peasants-turned entrepreneurs and selfemployed business people in urban settings, the officials-turned entrepreneurs were generally all well-educated, with university degrees. They had very broad perspectives on economic issues and a good sense of what China needed most at the time. Some of them visited abroad during their bureaucratic careers and, so, had knowledge of capitalist economies, and how they operated. They also had a better understanding of modern corporations and governance structure than did the other groups.

²⁰ Mr. Nian Guanjiu of Wuhu City of Anhui Province is an example. He succeeded to his father's grocery business in the 1950s and was sentenced to one year in jail for doing private business in the 1960s. After release from jail, he restarted his private business by selling cooked melon seeds. The quality of his melon seeds was so good that his market expanded very rapidly. By 1983, he hired more than 140 workers, with monthly sales revenue of more than half million yuan. According to policy at that time, businesses with more than 7 employees were defined as exploitive capitalist firms, not self-employed businesses. His case became controversial. The controversy was reported to Deng Xiaoping. The case was settled after Deng made a statement on November 22, 1984: "Don't touch him. Don't worry about exploitation. Let us wait for a while."

²¹ See Ma, Licheng [29], p. 201.

²² One widely circulated story is that, in 2003, there were three vice-mayors of Wenzhou City, named Huang Weifeng, Wu Minyi and Lin Peiyun, who sequentially quit their government positions and joined private businesses. See Ma, Licheng [29].

More importantly, when they started their businesses, private firms were legally acceptable, which gave them a clear and significant advantage relative to the peasants-turned entrepreneurs. Their industries tended to be high value-added, such as financial services, real estate, consultancy, and even high-tech. These sectors were, at the time, very under-developed and, if run well could become quite profitable. In just a few years, many in this group thus accumulated significant wealth at levels that would require decades for others to accumulate.

Feng Lun and his partners are an example of how a typical official-turned entrepreneur did business. His political ambition was revealed even during his undergraduate years. He applied to become a Communist Party member immediately after entering the university. After graduation, he continued his master's degree studies at the Central Party School, which provided the ideological trainings for rising senior government officials. After graduation from the party school, he joined the State Commission for Economic Restructuring and was soon appointed to found a reform institute for the Hainan Provincial Government. After the events of 1989, he lost his government position and found a daily-paid temporary job in a private company named Nande Group (founded by Mr. Mu Qizhong, who was once jailed during the 1980s for doing private business, and jailed again in the late 1990s for 'fraud').

In 1992, encouraged by Deng's South Visit speech, Feng, together with five close friends from different government organs, founded a private company named "Vantone" in Hainan Province. They made their first financial 'killing' by doing residential land trading. By 1994, Vantone had investments in several regions, including Beijing, Xi'an, Nanning and Shenzhen. Its businesses were also diversified into several industries, including finance, retail, and pharmacy, apart from its core business in real estate. He then developed the Vantone Center in Beijing, the highest priced commercial office building at the time, and pioneered this type of high-priced real estate.

In 1995, three of Feng's partners left Vantone and founded their own companies.²³ Vantone survived under Feng's leadership, and has continued its development through several restructurings. Now, it is one of the dominant players in China's real estate market, and listed on the Hong Kong Stock Exchange. Recently, Vantone joined in development of the new Twin Towers in New York to replace those destroyed in the Sept. 11, 2001 terrorist attack.

Feng Lun is now widely recognized as one of the most influential thought leaders in the Chinese business community, while his newly published book "Growing with Wildness" is a best seller.

Recalling that the rise of rural TVEs in the first decade of reform was due mainly to peasants-turned entrepreneurs, the development of urban private sectors in the second decade was driven largely by officials-turned entrepreneurs. Fig. 6 plots the changes in employment in urban private enterprises during the thirty years of reform-generated growth. Note, in particular, the dramatic 1750% rise, from 570,000 to 10,530,000, during the ten-year period 1990–1999. It increased even more rapidly thereafter.

4.2.1. New sectors

The officials-turned entrepreneurs played a crucial role in creating new sectors. They capitalized then 'dead' assets, such as urban land, and securitized many other assets, such as the fixed assets of SOEs. Once urban land became tradable, it was more efficiently allocated. Housing markets flourished, and the auto industry and service sectors followed. As the Chinese economy expanded, local government budgets sharply increased, while

infrastructure and, particularly transportation, improved dramatically.²⁴ It is no exaggeration to say that bureaucrats-turned entrepreneurs were the driving force underlying the high economic growth of the 1990s, despite their relatively minor role in manufacturing.

Many managers of formerly state-owned enterprises transformed themselves into private or quasi-private entrepreneurs. Under state ownership, managers were identified as 'government officials.' During the privatization process, many small and middle-sized SOEs were bought out by incumbent managers. According to a 2002 survey by the All-China Federation of Industry and Commerce Associations, 25.7% (837) of a sample of 3257 private firms were privatized state-owned and collectively-owned enterprises; and, among them, 60.6% were direct management-buyouts. ²⁵

4.3. The overseas-returned, and engineer-turned entrepreneurs in the third decade of growth

By the end of the 20th century, private enterprises had emerged as the dominant form of ownership of newly established firms in China. For example, from 2000 to 2001, the number of private firms increased by 15.1% from 1,761,769 to 2,028,548. However, during the same period, the total number of firms of all ownership types dropped by 4.1%, to 7,063,000 from 7,316,000. Importantly, virtually the entire decrease was due to downsizing in the state- and collective-owned economies. By 2005, the number of private firms reached 4,300,916, accounting for 53.4% of all businesses; indeed, it outnumbered the combination of state-owned and foreign direct investment (FDI) firms.²⁶

Unlike the 1980s, and most of the 1990s, the most influential, newly established private enterprises post-2000 were founded by overseas-returned Chinese scholars and engineers-turned entrepreneurs. The rise of both groups was initially stimulated by two major factors: (1) The rise of the Internet, and (2) China's joining the World Trade Organization (WTO) in 2001.

In this regard, during the period 1978–1998, more than 300,000 young Chinese traveled to more than 100 foreign countries—84% for continuing education, and 10% for employment.²⁷ Prior to 1998, less than one third returned to China. However, since 1998, the Internet boom has helped to globalize the world's economies. Following China's entrance to the WTO, additional overseas Chinese students have returned home. For example, from 1999 to 2003, nearly 80,000 overseas students returned, while in 2000 alone, 15,000 returned just from the United States. (These newly returned Chinese have been nicknamed "sea turtles.")

4.3.1. Selected examples

A considerable number of these students were attracted back to China in order to start up their own businesses, particularly in hightech industries. From the late 1990s, many local governments adopted special business-favorable policies on taxation, finance, and land use, thus establishing 'incubators' to attract overseas-returned students. Beijing, Shanghai, Guangzhou, and Shenzhen were the four major regions for such initiatives. For example, in the Zhongguancun Science Park of Beijing, which is often referred to as

²³ The famous Soho Company, which is listed on the Hong Kong Stock Exchange, was founded in 1995 and is still owned by Feng's former partner, Pan Shiyi.

 $^{^{24}\,}$ In 1990, China had only a 500 km of expressway. This had risen to 16,300 km by 2000, and to 45,200 km by 2006 (China Statistical Yearbook, 2007).

²⁵ All-China Federation of Industry and Commerce Associations (ed.), *The Large-Scale Survey on Private Enterprises in China* (1993–2006), China Industry & Commerce Associated Press, 2007, p. 146.

²⁶ Huan Mengfu and Hu Deping (ed.) [30].

 $^{^{27}}$ This might be an underestimate. For more detailed discussion, see Wang, Huiyao [26].

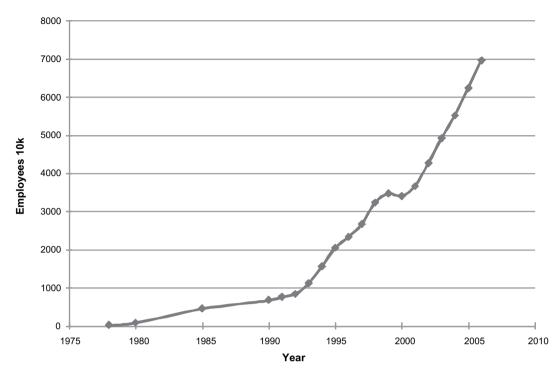


Fig. 6. Number of employees of urban private enterprises. Source: China Statistical Yearbook, 2005, p. 121.

'China's Silicon Valley,' the number of high-tech firms founded by overseas-returned students rose from only 251 in 1999 to 1838 by 2003, accounting for 15% of all firms in the Park.

These overseas-returned entrepreneurs had strong technical backgrounds in their chosen industries—38% with Ph.D. degrees, 45% with master's degrees and 57% with patents. Many had work experience in the U.S.'s Silicon Valley. In Shanghai, by November 2003, there were more than 2700 firms founded by this newest group of entrepreneurs. According to a Chinese Government survey in 2003, in Shenzhen alone, nearly 500 of a total of 3000 overseas-returned students founded their own companies [26].

As suggested above, the Internet boom attracted not only overseas-returned entrepreneurs, but also many domestic entrepreneurial engineers. This latter group had a strong educational background in technology, and was generally innovative with a good sense of market conditions. The first wave of this group emerged as early as the mid-1980s in the Zhongguancun area of Beijing, while the next decade represented their 'golden age.'²⁸

It is reasonable to claim that it was both the overseas-returned and engineers-turned entrepreneurs who brought the Internet to China, and, more generally, bolstered the new economy of China. The leading Internet and high-tech companies, such as Baidu ('Chinese Google'), Sina (the leading online media company), Sohu (the second leading portal website), Easenet (the third leading portal website), Tencent (the leading Internet service portal), Shanda (the leading interactive entertainment media company), Asiainfo (the first to bring the Internet to China), Dandan (the 'Chinese Amazon'), Vimicro (CPU producer), and Neusoft (the

leading software producer) were all founded by members of one of these two groups. Further, the leading consulting companies, such as Horizon Consultancy and Sinotrust-Adfaith, the leading film maker, HY Brother, and the leading private equity and venture capital companies, such as Hina Group and Softbank China, were all founded by overseas-returned entrepreneurs.

Unlike the peasants-turned entrepreneurs, who began with few financial resources and the officials-turned entrepreneurs, who started businesses with some bank loans, the overseas-returned and engineers-turned entrepreneurs of the past decade generally created their businesses with foreign venture capital funds. Thus, many were not particularly cash-constrained. Their property rights were also clearly defined right from the beginning. Finally, many of the resulting companies were due to be listed on domestic and/or overseas stock exchanges.

Li Yanhong might be a classic, successful overseas-returned entrepreneur. He received his bachelor's degree in information management from Peking University in 1991. He then went to the State University of New York at Buffalo where he received a master's degree in computer science. Afterwards, Li worked as a consultant with Dow Jones, as a financial information system designer for the Wall Street Journal, and as a senior engineer with INFOSEEK, for a total of eight years. During this period, he invented ESP technology and the Go.Com search engine. Li was subsequently granted a patent for a quality-based page-ranking technology.

Based on his work experience, Li even published a book (in Chinese) *Business War at the Silicon Valley* in 1998. In it, he asked whether the time had passed to start a business, but convinced himself that there was no time to waste; and, so, returned to China. In late 1999, he founded Baidu in Beijing, together with his friend Li Yong, with an investment of 1.2 million dollars from an American venture capitalist. Soon, Baidu developed a Chinese search engine, and began its marketing.

In October 2000, Baidu got a second venture capital infusion of 10 million dollars from four investors including DFJ, IDG, Integrity Partners and Peninsula Capital. In 2004, Baidu overtook Yahoo! and Google, and became the largest search engine in China. In August

²⁸ Zhongguancun was clustered with more than 30 universities and 130 research institutes. When the local government implemented policies in the 1980s to encourage commercialization of research products, thousands of research scientists and engineers started businesses, although their enterprises were registered as collective-owned or even state-owned. For example, Levono, now the third largest computer supplier in the world, was founded by Liu Chuanzhi and his fellow engineers who all used to work with the computer institute of the Academy of Sciences of China. See Ma, Licheng [29].

Table 1Background of the top 200 richest Chinese individuals.

Founding years	Peasants and self- employed	Governments and state sectors	Overseas- returned, and engineers	Residents of Hong Kong, Macau, Singapore, and Australia	Total
1978-1987 1988-1997 1998-2007	14 (15.7%)	` ,	0 (0.0%) 5 (5.6%) 5 (55.6%)	13 (17.1%) 6 (6.7%) 0 (0.0%)	76 (100%) 89 (100%) 9 (100%)

Source: Rugert Hoogewerf. http://www.hurun.net.

2005, Baidu offered an initial public offering (IPO) on NASDAQ, with its market share rising to 66% by the following year. By year's end, Li was selected as one of the top ten 'leaders of the year' in the Chinese economy by Chinese television (CCTV), listed amongst the most notable global business leaders by *Business Week*.

4.3.2. Some perspective

Thus far, we have described the sequential emergence of the three dominant categories of entrepreneur in China during its post-reform growth period. However, some notable overlaps did exist. For example, even in the early 1980s, there were a few talented individuals who quit the state sector and founded their own businesses. ²⁹ Overall, the basic pattern of entrepreneurship emergence was as described above.

Supporting our argument is the listing of the top 500 wealthiest individuals in China by Rugert Hoogewerf (2004).³⁰ The first 200 are summarized in Table 1.³¹ Note that we categorize these individuals as: (1) Peasants and self-employed; (2) government and state-sector employees; (3) overseas-returned students and engineers; and (4) residents of Hong Kong, Macau, Singapore and Australia. Note, further, that the second category includes both those who worked in government and state-owned enterprises, as well as those who had lifetime employment status in quasi-governmental institutes such as universities, schools, and state-run research institutes.

This approach can be justified since, under the earlier planned economy regime, all such individuals held "iron bowls," were officially identified as "public service people," and thus paid by the government according to their respective positions. They were indeed privileged compared to peasants and the employees of non-state sectors. It should also be noted that many in category (4) had peasant backgrounds. They thus obtained citizenship in Hong Kong, Macau, Singapore and/or Australia through either illegal or legal immigration.

Note that Table 1 also shows, by decade, the distribution of firms founded by the groups under study here.

Another data set of relevance to the current study is the Large-Scale Survey on Private Enterprises by the All-China Federation of Industry and Commerce Associations (*Quan Guo Gong Shang Lian*). This survey has been conducted biennially since 1993. The latest available study was done in 2006.³² The total sample consisted of

Table 2Occupational backgrounds of private owners prior to founding firms.

		Founding years of businesses			
		Pre- 1991	1992-1	995 1996–200	0 Post- 2001
Occupations before	Peasant, worker and low-level staff	30.2	26.7	24.7	26.1
founding	Self-employed	24.2	20.0	18.2	21.3
firms	Government official and village cadre	5.9	10.6	12.3	9.7
	Manager and contractors of SOE and COE	22.0	18.8	23.9	22.3
	Marketing and sales, engineers of SOE and COE	12.3	18.0	15.1	13.6
	Military army and others	3.4	4.0	3.7	3.6
	Laid-off and jobless	2.1	1.9	2.1	3.5
	Total	100	100	100	100

Note: SOE = state-owned enterprises, and COE = collectively-owned enterprises. Unit of measurement is '%.'Source: All-China Federation of Industry and Commerce Associations (ed.), *The Large-Scale Survey on Private Enterprises in China* (1993–2006), China Industry & Commerce Associated Press, 2007.

3837 private firms, from which Table 2 provides information of occupational backgrounds immediately prior to founding time. The table shows that the percentage of occupational backgrounds varies with founding time of the surveyed firms. The general trend is clear up to year 2000. Roughly speaking, the percentage of peasants, workers, low-level staff and self-employed individuals prior to founding their firms had a declining trend (from 54.4% (=30.2% + 24.2%) pre-1991 to 42.9% (24.7% + 18.2%) between 1996 and 2000), while the percentage of government officials and cadres had a rising trend (from 5.9% pre-1991 to 12.3% between 1996 and 2000).

The rise of private entrepreneurs (plus foreign-invested firms, which are not discussed in this paper) has fundamentally changed the ownership structure of the Chinese economy (see Figs. 7 and 8). As shown in Fig. 7, the state sector proportion (including state-owned and state-controlled enterprises) in terms of total industrial output value declined from 80.7% in 1978 to 28.2% in 1999; while, in the same period, the non-state sector rose from 19.3% to 71.8%. Even if small-size non-state firms are excluded, the proportion of the state sector dropped to 31.2% in 2006, while the non-state sector rose to 68.8%. 33

In terms of urban employment (Fig. 8), the state sector declined from 78.3% in 1978 to 22.7% in 2006; while, in the same period, the non-state sector increased from 21.7% to 77.3%. Overall, then, China has transformed itself, in merely 30 years, from a state-owned economy to one that is now dominated by non-state owned enterprises.

²⁹ The four Liu brothers of Sichuan Province are an example. In 1982, they all quit their jobs in the state sector and co-founded businesses. Two of them (Liu Yongxing and Liu Yonghao) are now ranked among the wealthiest individuals in China.

³⁰ In 2004, Mr. Rugert Hoogewerf, a British man (Chinese name, Hu Run) began to rank the richest people in China. The list has been done annually and is very influential. His ranking has been controversial, however, since wealthy people in China normally fear being exposed (see http://www.hurun.net).

 $^{^{31}}$ The founding years and (/or) backgrounds of 26 of them are not available.

³² See All-China Federation of Industry and Commerce Associations (ed.), *The Large-Scale Survey on Private Enterprises in China* (1993–2006), China Industry & Commerce Associated Press, 2007.

³³ The China Statistical Yearbook after 2000 provides only data of the output value of all state enterprises and non-state-owned enterprises "above designated size" (those with annual sale revenue over 5 million yuan), rather than total industrial output of all firms. Since many non-state firms are below the designated size, the statistical figures after 2000 underestimate the importance of the non-state sector. For example, in 1999, total output of all industrial firms was 12,611.1 billion yuan, while the industrial output of the state sector and non-state-owned enterprises "above designated size" was only 7270.7 billion yuan, or 57.6% of total industrial output of all firms. If all non-state firms were included, the state sector share might have dropped below 20% for 2006. In terms of value added by all state sector and non-state-owned enterprises "above designated size," the state sector accounted for 35.8% in 2006, 4.6 percentage points higher than its output value. The reason is that state-owned enterprises have a monopoly position in high value-added sectors such as oil, gas, electricity, telecommunication, and some core heavy industries.

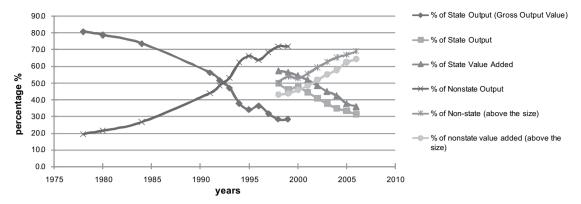


Fig. 7. Proportions of state and non-state sectors of industrial output and value added. Note: "above the size" denotes above designated size (with annual sales revenue over 5 million yuan). Data for gross output value of all firms are available for 1978—1999. For 2000—2006, only data on (all) state-owned and state-controlled enterprises, and non-state firms above designated size are available. Source: China Statistical Yearbook, 1996, 2000, 2005, 2007. All data were updated to reflect the latest available versions of the Yearbook.

5. Concluding remarks

History has shown that the economic development of a nation depends more on the *efficient allocation* of entrepreneurial talent than on simply the *endowment* of such talent [4–6,11]. (Not surprisingly, this same principal holds within any given organization, especially in light of today's climate of globalization [31].) Talented people can thus work well either with government or business. In the latter case, they generally create value for society, while in the former they are mainly engaged in redistributive, or possibly less productive, activities.

In the long history of China, talented individuals were generally concentrated in the government. However, the 'economic miracle' of China in the past three decades has been due largely to a real-location of entrepreneurial talent from the government/state and agricultural sectors to business activities. This change is unprecedented in 2000 years of Chinese history.

This reallocation was triggered, and subsequently accelerated, by the evolutionary transition from position-based to property-based rights. Under the planned economic regime, all rights were of the former type, wherein obtaining a government position was the

best choice for entrepreneurial talent. When property-based rights were introduced and expanded, the incentive system changed radically in favor of private business activity. As the talented pool, which is essentially middle class, began a move to more productive activity, China realized its economic boom. While viewed as a 'miracle,' the events discussed here are surely consistent with history in that the middle class is the primary and vital source for any nation's entrepreneurial pool [32].

A key element of our analysis was the identification of three dominant groups of Chinese entrepreneurs that have risen, roughly sequentially, as market-oriented reforms have unfolded: Peasants-turned entrepreneurs, officials-turned entrepreneurs, and overseas-returned and engineer-turned entrepreneurs. These groups differ in their educational backgrounds, the businesses they start, and their forms of ownership/governance, and in methods of financing. Although they became the leading actors in China's economic growth in a definable sequence, they are now merging into a more unified force for growth.

During the 30-year period of Chinese economic reform, position- and property-based rights have essentially coexisted. Nevertheless, economic activity has been, and remains, heavily regulated

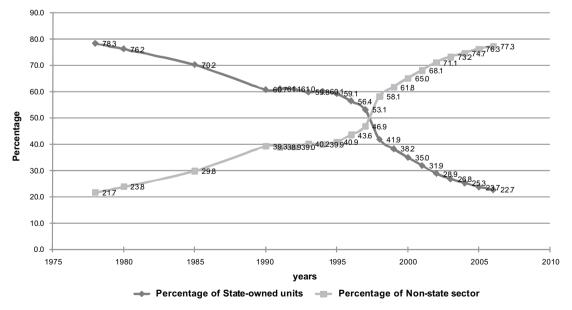


Fig. 8. Changes in proportions of state- and non-state sectors in urban employment. Source: China Statistical Yearbook, 1996, 2000, 2005, 2007. All data were updated to reflect the latest available versions of the Yearbook.

by the State. Thus, doing business in/with China must inevitably, and somehow, involve the government. Good relations with the government sector are thus essential for business success. Because of this rather unusual mix, entrepreneurial activity in China has involved a combination of value-creation and rent-seeking efforts.

The above analysis has very important policy implications. To improve the efficiency of the allocation of entrepreneurial talent and efforts, perhaps the most important objective should be to further reduce the domain of position-based rights, and build a better-defined and protected property rights system. If the Chinese Government is willing to further share, or even relinquish, its control over large resources, privatize the state sector further, and continue its deregulation of the business sector, the productivity of Chinese entrepreneurs will almost surely be further improved. For this to occur, however, substantial political reform is needed. Hopefully, this will occur in the future, allowing for a greater shift from rent-seeking to value-creating activity.

In conclusion, we note selected issues for further research. In particular, one should study if, and to what degree, these trends will continue in the future, and how has the current global recession has, or will, affect them?

In this regard, we note that China has responded to the present recession with a 4 trillion RMB (approx. US\$ 600 billion) stimulus plan. (See the article by James Fallows ([27]) who conducted an onsite series of interviews and found that persons in the groups we have been discussing regard the present global recession as 'an opportunity to expand and thereby take advantage of weaker competition from elsewhere in the world.')

This leads us to conclude that the trends discussed herein will likely continue, and perhaps even accelerate, into the foreseeable future.

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