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PATTERNS OF GROWTH AND THE ECONOMIC DEVELOPMENT
OF CHINA
THE ROLE OF HUMAN CAPITAL IN DEVELOPMENTAL ECONOMIC THEORY:
LESSONS FROM THE CHINESE CASE, 1842-2015

by

ADAM C. WATSON

A master's thesis submitted to the Graduate Faculty in Liberal Studies in partial fulfillment of
the requirements for the degree of Master of Arts, The City University of New York

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Adam C. Watson

This manuscript has been read and accepted for the Graduate Faculty in Liberal Studies in satisfaction of the thesis requirement for the degree of Master of Arts.

Date

David Gordon
Thesis Advisor

Date

Matthew K. Gold
Executive Officer

ABSTRACT

Patterns of Growth and the Economic Development of China

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Adam C. Watson

Advisor: David Gordon

By looking at the historical rise of modern China, starting with the end of the First Opium War (1842) through to the start of the war with Japan (1937), and then from the beginning of Deng Xiaoping's economic reforms (1979) to the present, this work reveals the striking similarities between the earlier and the later periods of capitalist development. If the country had not been able to draw on the deep-rooted knowledge and skills which originated in Shanghai and the port cities in the mid-nineteenth century, and instead pursued only uninformed free market principles without the training to make these work, the outcome would have been very different.

It is then each country's unique culture and experience that shapes not only its physical, but especially its human capital. It is this which determines its ability to successfully enter the modern industrial and technological world. But it was, and is, not replicable. The country has no universal panacea to offer. It is not possible to create a global theory out of its particular historical circumstances. It is, however, possible to understand from the Chinese experience the importance of developing *individual* strategies for countries based on their unique strengths. Simply put, while it is possible to create practical plans to achieve economic progress, this is best done on a case by case basis.

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Introduction

“In order to understand the international position of China, some facts concerning its nineteenth-century history are indispensable. China was for many ages the supreme empire of the Far East, embracing a vast and fertile area, inhabited by an industrious and civilized people.” –**Bertrand Russell**

Since the Industrial Revolution began over two hundred years ago, the global economy has grown exponentially. The extent of this remarkable transformation in various countries and regions has frequently been determined by geographical and socio-economic factors. Ironically, Western dominance and exploitation of under-developed nations during the early centuries of the industrial age played a vital role in spreading new technology and industrialization.¹ This research, by examining the extent to which socio-economic effects produced growth in some regions, and stagnation in others, contributes to an understanding of the process of economic development.

A.K. Cairncross, in attempting to formulate a universal theory of economic growth, has written that: “we cannot hope to form any satisfactory judgement of the help that might be given to the under-developed countries without some knowledge of their circumstances. Since each country is *unique* (emphasis added) we must limit ourselves to broad generalizations applicable to most of them without dwelling too much on the exceptions, however important”² Cairncross admits to the unique characteristics of every county, while at the same time wishing to identify in global terms those necessary and transcendent factors that result in economic success. Given the continuing growth of global inequality, one can certainly appreciate how such a desire would be

¹For a comprehensive work on the transfer of technology and industrialization, see Daniel R. Headrick, *Tentacles of Progress* (New York: Oxford University Press, 1988), pp. 3-17, 379-384.

²A.K. Cairncross, *Factors in Economic Development* (London: Allen and Unwin, 1962), p. 17.

even more pressing today. Unfortunately, it is impossible to have both. Global pronouncements require the disregarding of those particular national experiences without which any attempt to come to a serious and accurate understanding of economic development becomes hopeless. It is for that reason that this study concentrates on China, and indeed on those provinces that have proven historically to have been engines of modernization.³ Considering the enormous importance of the present day Chinese economy, the emphasis on the particular in this case is pardonable, since China by itself plays such a dominant role in world economic affairs.

The failure of the Arab Spring (sweeping democratic movements across the Arab world that at least temporarily ended a long tradition of unelected dictators) to create any stable and moderate political life, let alone economic prosperity, clearly reveals the difficulty of translating mere political change into lasting economic gains. The failure of post-Soviet experiments with a rapid transition to market economics demonstrates even more forcefully the failure of simplistic solutions in transforming nations. There is no simple way, no universally applicable formula, to achieve either a stable democracy, or a thriving capitalist economy. Each nation must find its own way based on its unique political and economic circumstances which are themselves the product of its own history. It is thus clear that the speed with which successful economic growth and development of a given geographical region occurs is to some degree historically predetermined. By looking at the economic development of China from 1842 to the present, this work will demonstrate that the country's rapid economic success is closely aligned to its' own particular socio-economic traditions, shaped by its unique history. The long term effect of specific factors such as education, so important in China, as well as previous worker participation in factory

³It has been the official policy of the Peoples Republic since 1978 to base rapid economic development on decentralization and an explicitly regional policy. David S.G. Goodman and Gerald Segal, eds., *China Deconstructs: Politics, Trade and Regionalism* (London: Routledge, 1994), p. 1.

industry and entrepreneurial apprenticeship in nascent capitalist industries, while failing to yield dramatic economic results before 1949, were essential in developing the human capital that was so important in determining the long term success of Chinese economy today.

The complex nature of human capital development, which is direct experience in the market place as consumer, entrepreneur or factory worker, as well as the more subtle but vital effects of education, continues to require much more scholarly attention. Thus, Wen-hsin Yeh writes that: “Not much has been done ... to integrate the findings of the socio-economic historians on the one hand and the humanistic scholars on the other” in commenting on the interplay between economic life and culture in post 1911 Republican Shanghai.⁴ Yet nowhere is this task more necessary, or more delicate, than in Shanghai, which to many contemporaries appeared neither eastern or western, but which, sphinx like, seemed to hold the key to China’s future. This, Yeh insists, centered “on the very question of Chinese identity ... against the backdrop of cultural interactions between China and the West.”⁵ Recognizing the important role of Shanghai in China’s emergence into modernity, and at the same time its uniqueness, he is troubled by the inability to come to an understanding that encompasses both the cultural and economic elements of its singular makeup. This work suggests that one possible way to bridge this gap is to concentrate on the role of human capital development, which by its very nature incorporates both worlds.⁶

The global importance of China in the present day cannot be overstated. As well as being the second largest economy in terms of GDP, and the world’s greatest export economy, it is also

⁴Wen-Hsin Yeh, “Shanghai Modernity: Commerce and Culture in a Republican City.” *The China Quarterly*, No. 150. Jun., 1997. p. 377.

⁵Yeh, *Shanghai Modernity*, p. 377.

⁶Human capital is also defined in the Oxford Dictionary as “the skills, knowledge, and experience possessed by an individual or population, viewed in terms of their value or cost to an organization or country”.

the leading destination for raw materials, consuming nearly half the world's commodities.⁷ In light of all this, predictions of China becoming the next great superpower do not seem far-fetched. (Contrarians at the same time make a strong case for an imminent major recession and slowdown, while others go so far as to foresee political and economic collapse.⁸ Considering previous unprecedented growth rates during China's reform period between 1979 and the present, it is not unreasonable to expect some slowing. But as the aim of this work is to provide a more comprehensive and historical understanding of the socio-economic drivers of the Chinese economy, the current vagaries of short term economic trends are of no particular importance.).

By looking at the historical rise of modern China, starting with the end of the First Opium War (1842) through to the start of the war with Japan (1937), and then from the beginning of Deng Xiaoping's economic reforms (1979) to the present, this work will reveal the striking similarities between the earlier and the later periods of capitalist development. While it is certainly true that China today is vastly different from that in 1842, it is equally clear that there are certain patterns that have transcended the tumultuous years from the Second World War and civil war (1937-1949) through the end of Mao's failed policies (1976). These are central to this study in that they support the argument of Chinese economic development being heavily determined by specific socio-economic long-term experiences over the last two centuries.

Once at the forefront of civilization, China had long resolutely rejected almost all European cultural and technological influence. Left behind during the early decades of Western industrialization, the country that had invented gunpowder and was the first to have a meritocratic based bureaucracy found itself in the uncomfortable position of being militarily inferior not only

⁷World Economic Forum. Web (August, 2015).

⁸Foreign Affairs. *When Will China's Government Collapse? A Look at Whether or not the Chinese Party is Doomed.* (March 13, 2015). Chinese experts Ho-fung Hung, Arthur R. Kroeber, Howard W. French and Suisheng Zhao discuss to possibility of a Chinese collapse.

to the colonizing West, but also Japan. Coerced into signing numerous unequal treaties, most importantly the 1842 Treaty of Nanking that imposed what was almost free trade on the nation, China soon found both its international trade and territory dominated by foreign powers, while its cheap labor was exploited first by British, and later by mostly Japanese, industrialists. At the turn of the twentieth century, Shanghai, the most important of the Western controlled treaty ports, was also home to large numbers of English, French, American (and later European Jewish refugee) expatriates who would help create a vibrant melting pot of cultures and ideas.

The city was also the most important center of modern industrial manufacturing in China. The Japanese, who eventually became its largest non-Chinese group, had by the 1920s also become its chief producers of cotton thread and cloth. This provided severe competition for China's own nascent textile industry.⁹ Yet foreign relationships with Chinese, though fraught with racism, mutual contempt and fierce economic competition, were at the same time informed by cooperation in business and education, helping to create an enormous amount of human capital (skilled entrepreneurs and a well-trained factory work force), that would later contribute so much to China's late twentieth century economic resurgence.¹⁰ The strong foreign presence was thus at once both abrasive and symbiotic.

Bringing exploitation, oppression, and colonial injuries (the British especially had brought many bad habits in dealing with non-white populations from India), this era of cohabitation also brought the benefits of modern infrastructure (mostly railroads and steamships), an international market economy made possible by a shift away from a strictly metallic currency towards more

⁹Junji, Banno et al. "The Japanese Informal Empire in China, 1895-1937.", Ed. Peter Duus et al., (Princeton University Press, 1989); Parks M. Coble, *The Shanghai Capitalists and the Nationalist Government, 1927-1937* (Cambridge Mass.: Harvard University Press, 1980), pp. 1, 147-160; Yoshihisa Tak Matsusaka, *The Making of Japanese Manchuria, 1904-1934* (Harvard University Asia Center, 2001), p. 251.

¹⁰Niv Horesh, *Shanghai Past and Present: A Concise Socio-Economic History, 1842-2012* (eBook collection: EBSCOhost: Web, 2014; Parks M. Coble, *The Shanghai Capitalist*, pp. 4, 15.

free-flowing capital, a melting pot of ideas and cultures, a greatly enlarged urban center, and the introduction of technology.¹¹

The city's legacy would be immensely important. This became apparent very soon after the 1949 Communist revolution. Excoriated as a cancer eating at the vitals of China, the Communist leadership realized by the early 1950s that the city was the nation's most productive industrial center. As Christopher Howe observes, "something extraordinary (had been) created in Shanghai which did not die when the foreign connections had been broken, and possibly more important, when much of Shanghai's indigenous capital and its most talented managers fled to Hong Kong where they created the amazing expansion of that city's economy. It is unlikely that scholars will ever agree as to exactly what kind of a social and economic phenomenon Chinese and foreigners jointly created in Shanghai during the Treaty Port era ... (but for some) it will be remembered as the most dynamic commercial and radical intellectual centre in the East."¹² In the thirty years that followed the creation of the Peoples Republic, the city, although deprived of all but two percent of government allocated investment, still managed to achieve a 14 percent growth rate. Its schools also continued to produce the best trained workforce in the country; more than one million workers were sent to other parts of the country from there.¹³ As late as 1964, on the eve of the Cultural Revolution, the government's latest industrialization drive included the slogan "Learn from Shanghai."¹⁴ Clearly there was something remarkable about both Shanghai workers, and its schools. Howe goes on to state that both the Kuomintang and Communist leadership regarded Shanghai as foreign. But, he asks, foreign to what? Certainly, its originality and vitality was foreign to traditional rural China, and also to the Confucian value

¹¹Michael Dillon, *China: A Modern History* (London: I.B. Tauris, 2010), p. 109.

¹²Christopher Howe, ed., *Shanghai: Revolution and Development in an Asian Metropolis* (New York: Cambridge University Press, 1981), p. xii.

¹³Howe, *Shanghai*, p. xiii.

¹⁴Howe, *Shanghai*, p. 30.

system that denigrated the role of merchants.¹⁵ What the leadership, Communist or no, could not recognize in 1949 was that the city was foreign only to the present. That was because it represented the China of the future.

Thus, while at least some of these benefits derived from the Treaty Port era were not intentional, they nonetheless had an enormous positive effect in creating a particular Chinese experience that would prove so beneficial in later years. In this regard the nature of contingency (that is, unintended consequences) demands recognition, as much as the purposeful agency of important actors, in shaping the destiny of nations, and of China in particular.

As the object of this work is to provide the historical background of modern economic development, starting with industrialization, it must therefore begin with an examination of Shanghai and the Yangtze River Delta. But as it also is interested in post 1980 growth, it is equally obliged to concentrate on Hong Kong and its adjacent industrial region.

These two cities, the most important urban agents of China's capitalist renaissance, had very important links from their beginnings, as well as beyond. Firstly, they were both British creations. In addition, Hong Kong would later shelter to many of Shanghai's leading Chinese capitalists after the creation of Mao's dictatorship.¹⁶ When after 1980 Deng Xiaoping called for foreign capital investment in the People's Republic, much of it came from Hong Kong, and the return of old Shanghai industrialists, and their descendants, to their native city contributed to the economic revitalization of the Yangtze River Delta. (Deng's reasons for his initial concentration on the development of the Pearl River Delta, which he hoped to turn into the Asian "fifth tiger," will be discussed at length later.)¹⁷

¹⁵Howe, *Shanghai*, p. 3.

¹⁶Coble, *The Shanghai Capitalist*, p. 7; Horesh, *Shanghai, Past and Present*.

¹⁷Willem Van Kemenade, *China, Hong Kong, Taiwan Inc: The Dynamics of a New Empire* (New York: Knopf, 1997), p. 308.

One can certainly become easily distracted in reading the history of Mao's failed policies - the starvation of tens of millions of people, and the Cultural Revolution that devastated the country in the 1960s and 70s. The horrors of his rule are not only an important part of China's history. They add luster to the brilliant success of China's economy under Deng and his successors. It is tempting therefore to think that post 1980 China has sprung *de novo* out of the designs of modern reformers. This study provides a very different perspective. Through the lens of developmental economics (loosely defined as a branch of economics that focuses on improving the economies of developing countries¹⁸), evidence suggests that the decades of Shanghai's earlier period of growth, and the lessons learned from 1842 through the Second World War, far from being abruptly obliterated by the Communist regime, had merely lain dormant. Thus, rather than creating something totally new, Deng in fact had reached deep into previous Chinese economic experience, drawing in particular on Chinese financial and entrepreneurial skills that had been preserved in Hong Kong (as well as of course in Taiwan and in Chinese overseas communities), as well as a well-trained factor labor force, during the dark years of Mao's reign. Seen in this light, Deng's reforms allowed previous Chinese economic expertise to in effect leapfrog over the dead end of Maoist totalitarianism to reemerge triumphant in the last decades of the twentieth century. The important connectivity between vital currents of development of earlier times and China's present remarkable vitality is thus made clear. It also indicates the importance of both the 1842 Nanking Treaty and Shanghai's long term special position in the economic history of the country.

This work is divided into two parts. The first focuses on the major themes, actors, industries, and political developments that are essential to broader economic development.

¹⁸While developmental economics is a loosely defined term I will be using the following: *Progress in an economy, or the qualitative measure of this. Economic development usually refers to the adoption of new technologies, transition from agriculture-based to industry-based economy, and general improvement in living standards.* Business Dictionary Online.

Part 1: The Economic Development of Shanghai 1842-1937, begins with the historical development of the city's economy. It provides an introduction to the critical economic themes associated with this era, in particular the Nanking Treaty that sparked the beginning of China's industrial period. Specific themes include (1) the importance of education, (2) access to both industrial technology and information, and (3) the appreciation of the importance of economic and political rights, all contributing to the formation of (4) a productive economy and well-functioning capital markets. In this way one can appreciate the formation and interplay of human with physical capital (that is, land, buildings (and) equipment that is owned by a company and used to produce goods or services).¹⁹

Part 2: The Second Reform Period 1979-2015 is approached using the same methodology. It begins with the rise of China following Mao's death. Key themes are firstly, the economic conditions at the start of this period - high poverty rates, inefficient organization of economic activity, low industrial productivity, and then over time increased urbanization and a shift from agriculture, as a larger percentage of GDP begins to be generated by manufacturing and the service sector. Once again, particular attention is given to the importance of human capital. The increase and improvement of human capital includes (1) improved access to (and incentives for) the pursuit of higher education, (2) greater access to information, (3) and increased economic and political rights, leading to (4) a consumer driven economy

¹⁹Cambridge University Press. *Cambridge Business English Dictionary*.

Part 1

Economic Development of Shanghai, 1842-1937

Introduction

*“Shanghai in the pre-war era seemed to have attracted Westerners because it provided easy and secure access to China’s wealthiest provinces, while retaining a distinct laissez-faire environment. Chinese intellectuals and investors for their part appear to have continually converged on Shanghai not because the semi-colonial legal system necessarily protected civil liberties or press freedom, but because its laissez-faire environment probably minimized the perceived risks of Chinese government usurpation.”*²⁰

Much has been written about the economic rise of China. The reforms directed by Deng Xiaoping could not have been more dissimilar from the economic policies of his predecessor. Coming to power in 1978, the new Chairman oversaw the creation of Special Economic Zones (SEZ) that spearheaded experimental pro-market reforms. These special jurisdictions offered a radical change from the Communist Party’s stagnant, centrally planned economy. Largely centered in the Pearl River Delta, due to its proximity to Hong Kong (which was itself a prosperous island of capitalism) and in Shanghai (because of traditional family and business ties to Hong Kong, as well as its traditional role as the nation’s chief industrial manufacturing center), the reforms were designed to attract foreign investment (especially from Hong Kong). Although the results were dramatic and seemingly sudden, implementation of reform was in fact gradual, and was accompanied by heated debate within the Communist Party leadership.²¹ While these reforms

²⁰Horesh, *Shanghai, Past and Present*, p. 8.

²¹Orville Schell, *Mandate of Heaven: A New Generation of Entrepreneurs, Dissidents, Bohemians, and Technocrats Lay Claim to China’s Future* (New York: Simon & Schuster, 1994), p. 30.

captured the attention of many contemporary observers, most failed to recognize the importance of earlier historical developments in offering an in depth explanation for their remarkable success.

Marveling at the abrupt reduction of retrograde Communist policies, foreigners, among them academics, have come to regard this alone as sufficient explanation for economic growth. In fact, Deng's reforms would have looked very different had it not been for the 1842 Nanking Treaty, which, among other things, had transferred ownership of Hong Kong to Britain (as well as the wasteland on which the British built Shanghai). Additional benefits of it and other treaties included uniformity of trade and allowance for expatriate residency at select port cities. This facilitated China's first continuous encounter with Western industrial theory and technology.

While much scholarship has been devoted to understanding the 1980s reform era, there is far less attention given to the long term historical development of human and physical capital that allowed reform to succeed.²² There are of course some authors who have focused on the longer historical narrative. These include *Shanghai, Past and Present: A Concise Socio-Economic History* (2014) by Niv Horesh, Rhodes Murphey's *Shanghai, Key to Modern China* (1953), and Marie-Claire Bergère's *Histoire de Shanghai* (2002).²³ Yet despite these exceptions, the overwhelming mass of scholarship has based explanations for China's success strictly on post-1980 policy changes. This study helps address the relative lack of academic discourse linking early modern Chinese development with more commonly examined contemporary changes by stressing the importance of 1842 and the decades that followed.

There are of course several problems in arbitrarily choosing 1842 as marking the beginning

²²Barry Naughton, *Growing out of the Plan*; Michael Enright et al., *Regional Powerhouse*; Loren Brandt et al., *China's Great Economic Transformation*; Anthony Yeh et al., *China's Pan-Pearl River Delta*; Elizabeth Economy et al., *By all Means Necessary*.

²³Marie-Claire Bergere writes: "Perspectives changed after the reversal of Chinese policy in 1978 and the opening of the country to foreign investment and technology. The ideal of Revolution gave way to "modernization fever." There was a growing feeling that Deng Xiaoping and the reformists were taking up the job that had been left unfinished in 1949. The Republican era was more and more perceived as the starting point of a forceful modernization drive, as a time of economic and cultural innovation and creativity to which contemporaries should turn for inspiration." (Bergere, 1997; 309).

of China's industrial era. First, the influence of Western inventors and thinkers (James Watt, Adam Smith and Richard Arkwright) had already informed the activity of British merchants and the resolve of British authorities for nearly a century.²⁴ This must have come to be at least partially known to Chinese counterparts through decades of merchant interaction before 1842. It could also be argued that the slow rate of economic development in the decades immediately following 1842 points to a later date as the true beginning of industrialization.²⁵ Here, however, one must insist that the extended time required for human capital development would explain the delay in realizing visible results.

Lastly, one must acknowledge that true cohabitation in Shanghai between Chinese and Westerners only began later, between 1853 and 1860-62, as a result of the Small Sword and Taiping rebellions, which drove wealthy Chinese merchants to seek refuge in the British Settlement.²⁶ This created a booming realty market and contributed to greater intermingling. However, the decades immediately following 1842, while certainly important to the larger historical narrative of modern China, are not the primary focus of this research. For the purposes of this relatively brief work, 1842 might therefore serve as well as any other date as the point from which to begin an examination of Western influence on China.

Shanghai 1842-1937

On August 29th 1842 following British victory in the first Opium War (1839-1842), British and Qing delegates met on board HMS *Cornwallis* to sign the Nanking Treaty. There was

²⁴James Watt: Inventor of Watt Steam Engine (improvement to previous engines); Adam Smith: Most important thinker behind the idea of *laissez-faire* economics; Richard Arkwright: Patented the mechanized spinning wheel.

²⁵Brandt and Rawski (2008) and Ma, D. (2005) offer competing narratives as to the rate of growth in Shanghai and greater China during the years from 1842-1937, with *Brandt and Rawski* seeing a more extensive spill-over of Shanghainese economic activity throughout China, and *Ma* arguing that it was more likely only into the surrounding regions. While the vibrancy and cosmopolitanism of Shanghai during this period is impressive, it is evident that the growth was at a more gradual rate than that more recently realized in the Greater Pearl River Delta (1980 to the present).

²⁶Horesh, *Shanghai, Past and Present*. For an example of the importance of these events in leading to greater cohabitation and creating a vibrant realty market in the Shanghai International Settlement.

no way at that moment for contemporaries to predict the significance of this event. In order to better understand its long term importance, this chapter is divided into four areas of focus: (1) increased access to higher education, (2) the development of political and economic rights, (3) greater access to technology and information, all contributing to the creation of (4) well-functioning capital markets. The first three elements deal with the formation of human capital, while the fourth is concerned with the creation of physical plant and finance capital.²⁷

By the beginning of the Second World War (1937), Shanghai had established itself as China's greatest industrial center and most cosmopolitan metropolis. Since 1842 it had developed modern transportation, financial institutions, telecommunication, railroads, as well as an honest and efficient public administration, and as such had become a healthy environment for entrepreneurial activity. In the words of one author, it was the home of a "businesslike bourgeoisie capable of surveying equally attentively the Stock Exchanges of London or New York and the Szechuanese market."²⁸ As such, it was unique.

Economic and Political Rights

The support of economic rights is an essential component of the Nanking Treaty. Not only did the British gain access to Shanghai for the purpose of trade, but they secured the right to create what became the International Settlement.²⁹ While economic rights were not widely respected by the Qing Government, the establishment of foreign autonomous regions created a theater in which the Chinese inhabitants in Shanghai would gain exposure to Western legal principles. That these were supported by an undisguised foreign military presence in the form of warships in the harbor did nothing to make the lesson less appreciated. Shortly after the British gained access to Shanghai,

²⁷Horesh, *Shanghai, Past and Present*, pp. 6-7.

²⁸Howe, *Shanghai*, p. 33.

²⁹*Treaty of Nanjing*, Article 2.

other foreign traders soon followed, further solidifying expatriate land ownership and the important legal foundation of these rights.³⁰ Niv Horesh writes that “once foreigners had been allowed to settle in a mudflat opposite the walled “Native City”, Shanghai developed by leaps and bounds.”³¹ Significantly, he assumes that the study of Shanghai during this period is by no means a model with desirable or realistic application for the present, but rather only as a way to learn from the past.³²

This work argues against this notion; not so much as being foursquare against Horesh, but in attempting to do more than just glean lessons from the past in order to explain modern Shanghai. Through the lens of economic development, it focuses on the development of human capital and how it contributed in later periods to measurable economic growth.

Although economic rights were at first secured only for the foreign population, the creation of the treaty port system played a critical role in creating a safety zone that ultimately benefited a far larger local population.³³ The introduction to Western ideas about property rights, as an extension of more general notions about individual rights, which was a vital part of the process of Western style modernization, ran counter to the Confucius tradition; especially to the idea of Dynastic Mandate from Heaven, which recognized no limit to the power of the emperor. Christopher Howe has called this the “revenge of the minority groups,” for property rights appealed especially to merchants who had long been held in contempt by the Confucian establishment. Ironically, it was this very group that would serve as China’s bridgehead to world civilization. (Howe, page 14)

This contrast of ideologies created conflicts, most notably the First and Second Opium

³⁰Coble, *The Shanghai Capitalists*, pp. 1-4.

³¹Horesh, *Shanghai, Past and Present*, p. 1.

³²Horesh, *Shanghai, Past and Present*, p. 2.

³³Horesh, *Shanghai, Past and Present*, p. 20.

Wars. More importantly, it started a conversation between Eastern and Western philosophical and cultural traditions; specifically about the respect due to the “individual” as opposed to “authority.” The development human capital, in this case a greater appreciation of property rights, without which a modern capitalist economy cannot function, was thus facilitated.

Access to Information and the Transfer of Technology

In *Gutenberg in Shanghai: Chinese Print Capitalism, 1876-1937*, Christopher Reed sets out to fill a gap in the history of Chinese material culture, in particular communications technology, with a study of the introduction of mechanized printing in Shanghai.³⁴ Emphasizing the significance of this, Reed writes:

*“...the Gutenberg revolution eventually expanded to include legions of printers and publishers involved in Chinese print capitalism, most of whom congregated in Shanghai between 1876 and 1937. They themselves contributed in a major way to the modification of Western printing technology by adapting it to the Chinese language and local print commerce, with Shanghai’s Chinese book publishers usually acting in advance of their colleagues in the newspaper and general printing businesses”*³⁵

On Shanghai as an important cultural hub for spreading new technology, Reed points out that:

“Nineteenth-century technological changes not only created the context for the rise of print capitalism, but also transformed the geography of Chinese publishing. To be sure, xylographic printing continued throughout that century and much of the next, but from the late nineteenth century on Shanghai was unquestionably the single most important centre of Chinese publishing, largely because it was the site in which most new printing

³⁴Reed’s title is deceptive. The Gutenberg revolution usually refers to the introduction of movable type in Europe. In fact, the Chinese developed this as early 1045 AD, being in this regard, as in so many, far in advance of the rest of the world. Joseph Needham, *The Shorter Science and Civilisation in China, Volume 4*. (Cambridge University Press, 1994), p. 14.

³⁵Christopher Reed, *Gutenberg in Shanghai: Chinese Print Capitalism* (Hong Kong: Hong Kong University Press, 2005), p. 25.

technology was introduced."³⁶

Adding to its importance as a leading mechanized printing hub, Horesh writes: "newspapers appeared in a host of languages: English, French, German, Yiddish, Russian and Japanese."³⁷ The spread of British ideas about individual rights by means of the new technology would later have a broader effect. By allowing the free dissemination of economic news and theories, it paved the way for Shanghai's development into China's most important financial hub in the 1920s and 30s.

Press freedom was certainly not without limits. The complicated nature of Shanghai's mesh of cultures, combined with the bleak national political climate in which the foreign concessions were planted led to occasional crackdowns. These ambiguities are noted by *Bergere's Histoire de Shanghai*, for while "the foreign-run SMC (Shanghai Municipal Council) partly resisted warlord pressure to (suppress) dissenting Chinese publication", it "on some occasions ... preferred to appease the warlord government in Beijing by bringing Chinese dissidents before the Mixed court on sedition charges."³⁸ Even so, the climate in Shanghai was far freer relative to the rest of China, thus allowing the expression of unique and critical opinions that were the product of the city's cultural diversity. It was also in this atmosphere of freedom and toleration that a remarkable number of high schools and universities grew up.

Print technology was certainly not the only important contribution made by the British. There was also the transfer of *industrial* technology. This provided economic opportunities for foreigners and natives alike, especially in Shanghai.³⁹ Daron Acemoglu writes that:

³⁶Reed, *Gutenberg in Shanghai*, p. 10.

³⁷Horesh, *Shanghai, Past and Present*, p. 6.

³⁸M. C. Bergere, "The Other China: Shanghai from 1919 to 1949" in Howe, C. ed., *Shanghai: Revolution and Development in an Asian Metropolis*, 1-34. (New York: Cambridge University Press, 1981), p. 12.

³⁹Daron Acemoglu et al., *Why Nations Fail*, pp. 271-273, use examples from Africa where the introduction of new technology helped to modernize industries, create new urban cities and fuel economic growth. While his examples center on Africa, the argument is certainly relevant to Shanghai and the importance of the technology transfer.

“Technological change is only one of the engines of prosperity, but it is perhaps the most critical one. The countries that did not take advantage of new technologies did not benefit from the other engines of prosperity, either.”⁴⁰ While print and industrial technology alone were certainly not the only elements in advancing economic growth, they were a fundamental part.

Education

Many of Shanghai’s schools were the creation of Western missionaries. None were more energetic in this regard than the Jesuits, who had first gained entrance to China at the end of the sixteenth century. Having initially attached themselves to the Ming, and later the Qing courts, they had hoped through contact with the emperors to introduce Christianity into China “from the top down.” This did not prevent others from engaging in more popular proselytizing. As a result, by the time of the Nanking Treaty there were almost a quarter of a million Catholics in the country.⁴¹

Jesuits had long understood the effectiveness of religious indoctrination in the context of more general education, and were anxious to create Catholic schools in China. They also understood their advantage because of the importance Chinese placed on instruction. The French government, which saw the spread of the French language as a way of gaining a broader cultural and political influence in the country, encouraged them. The secular French Republic thus took on the official role as defender of the Catholic missions, and the French Concession that neighbored the International Settlement provided the perfect haven for Jesuit activities.⁴² As Paul Rule observes, they “decided to focus on education for Christians and non-Christians who wanted to be equipped for the traditional examinations, but with the addition of some Western science and

⁴⁰Acemoglu et al., *Why Nations Fail*, p. 271.

⁴¹Kenneth Scott Latourette, *A History of Christian Missions in China* (New York: Macmillan, 1929), p. 83.

⁴²Paul Rule, “Restoration or New Creation? The Return of Jesus to China” in *Jesuits Survival and Restoration: A Global History, 1773-1900*, ed. Robert Markyks et al., (Boston: Brill. P., 2015), p. 269.

languages”⁴³

Father Ma Xiangbo was perhaps the most effective Jesuit of them all. Himself educated in Shanghai’s Lycee Saint Ignace, he helped found the city’s Universite L’Aurore in 1903 before moving on to found Fu Dan University two years later. Fu Dan would later become one of the most distinguished schools in the country, renowned for developing applied skills in business, economics, news reporting, education and civil engineering.⁴⁴ (It is currently ranked 96th of the best Global Universities; it is also ranked 8th in Asia and 3rd in China.)⁴⁵ Father Ma would eventually found Peking’s Fu Jen Catholic University in 1925.⁴⁶

French Catholics were of course not the only ones interested in education Shanghai’s Jiao Tong University, although created in 1896 by imperial edit, had originally been inspired by a local mandarin who was in turn influenced by an American Protestant missionary, John Calvin Ferguson. Under the Chinese Republic, it would eventually come to be considered the Chinese MIT.⁴⁷

In nearby Nanking, the University of Nanking was founded as early as 1888 by American Protestants, while the much larger Nanking University, inspired by the example of Westernized Japanese schools, was founded in 1902. By the 1920s it would become a major center for east-west cultural exchange. It is perhaps worthy of note that its School of Commerce eventually saw fit to move to Shanghai (in 1921), while its school of Medicine had originally been founded in that port city in 1927.⁴⁸

⁴³Rule, “Restoration or New Creation”, p. 270.

⁴⁴Fudan University Website.

⁴⁵U.S. News Education, *Best Global Universities*. 2016.

⁴⁶Rule, “Restoration or New Creation”, pp. 270-271. Paul Rule discussed the role of Ma Xianbo (1840-1939) at length; in particular he notes Xianbo’s role founding these universities, and the controversy over his insistence on applying the Chinese dimension to traditional Jesuit education.

⁴⁷“During the last century: Eastern MIT”. Xi’an Jiao Tong University. Archived from the original on 2007-10-16.

⁴⁸China Education Center, *Nanjing University*. Web; Elearning Galaxy, *Nanjing University – The Oldest and Most Prestigious Institutions of Higher Learning in China*. Web.

With this kind of cross-cultural ferment, it is no wonder that Shanghai early became the most important center for western style scientific and technical education, laying the foundation for one of the key elements for economic success, a well-educated population.

The development of Shanghai as a center for western style education would thus continue through the pre-Second War period, and especially during the 1920s, when, as Horesh observes, its “vibrant milieu was enough to attract scores of university teachers and intellectuals to the city during the early-Republican era; they escaped the repression, incompetence and arbitrary violence of warlord-ravaged China for the relative freedom of Shanghai.”⁴⁹ It is because of this that the city developed into a national leader in education, and a center for the dissemination of new ideas.⁵⁰ By the time of the Communist Party takeover in 1949, Shanghai, with only 1.5% of China’s population, boasted no less than 41 of the 205 higher education institutions in China, (that is, twenty percent of the total).⁵¹ (To this day Shanghai boasts one of the nation’s best education systems. A report by the OECD in 2010 found that despite setbacks during the Cultural Revolution, the city ranked among the best globally for higher education.)⁵²

In addition to the creation of human capital, Shanghai was also the leading destination for foreign and domestic capital investment. This was facilitated by Western style governance and a modern banking system.

Capital Markets

The influx of British and later Japanese capital into transportation and factory manufacturing was central to making Shanghai China’s most important industrial center. William Jardine and James Matheson, two enterprising Scots, had first begun trading in opium as

⁴⁹Horesh, *Shanghai, Past and Present*, p. 6.

⁵⁰Horesh, *Shanghai, Past and Present*, p. 6.

⁵¹G.C.L. Mak et al., “Education” In Y.M. Yeung et al. eds. *Shanghai: Transformation and Modernization under China’s Open Door*, 375-398. (Hong Kong: Chinese University Press, 1996), pp. 377-78.

⁵²Organization for Economic Cooperation and Development (2010).

well as other commodities in 1844. Eventually abandoning the drug trade, their immense wealth allowed them to found what would become by the early twentieth century the most important trading firm in Shanghai, Jardine, Matheson & Co. Yet even in their earliest days they were open to all kinds of enterprises. As early as 1845 they had identified railroads as a key element in the development of the Chinese economy.⁵³ Adrian Smith writes that: “Jardines believed that the development of a railway network linking the ports of Shanghai, Canton and Tianjin with the Chinese interior would inevitably lead to development of industry and thus to greatly enhanced domestic and foreign trade.”⁵⁴ The firm, which opened its first office in Shanghai in 1844, later expanding its steamer cargo line, shipping, banking and insurance interests from there.⁵⁵

The British had originally been interested in China only as a market. This had encouraged the development of shipping. As a consequence Jardine Matheson and its rival Butterfield and Swire had begun clipper service along the coast in the 1860s.⁵⁶ Steamer service up the Yangtze as far as Chungking followed. This further facilitated the import of British textiles, and by 1910 China was buying fifty percent of its cotton piece goods from Britain. It was only in 1928, when a new trade treaty raised Chinese tariffs that this trade began to decline dramatically.⁵⁷

The British had also become interested in manufacturing in China. The attraction of cheap labor had proven irresistible, and Jardines’ two cotton mills were the first to be built in Shanghai. By 1930 the British had created a mutually supportive group of industries. British controlled railroads moved the coal produced by British owned mines to British textile mills in Shanghai, and to the P and O, Jardine, and Butterfield fleets that continued to dominate Chinese coastal and river

⁵³Adrian J Smith. *Privatized Infrastructure: The Role of Government* (London: ICE Publishing, 1999), p.45.

⁵⁴Smith, *Privatized Infrastructure*, p. 45.

⁵⁵Jardines, “Company Website”.

⁵⁶Robert Blake, *Jardine Matheson: Traders of the Far East* (London: Weidenfeld &Nicolson, 1999), p. 46.

⁵⁷Stephen Lyon Endicott, *Diplomacy and Enterprise: British China Policy, 1933-1937* (Vancouver: University of British Columbia Press, 1975), pp. 118-119.

steam navigation.⁵⁸

The appearance of two new industrial rivals caused yet another change in British policy. The first was a nascent Chinese textile industry, which, as in Britain, was the engine that began to drive industrialization in other fields. The other was the increasingly aggressive Japanese economic presence.

The Chinese textile market soon became far more important to Japanese cotton goods manufacturers than to the British, and Osaka businessmen had become increasingly interested in it. By the early 1930s, China was buying well over one quarter of all Japanese exported cotton goods; as Japanese low prices and energetic salesmanship began to dramatically reduce the British share of the market. (Japan was soon to supply more than 73% of the market, while Britain's share fell to a little over 12.) Even more ominously, by 1931 more than 95% of Japan's textile machinery exports was also going to China, mostly to Japanese mills. The Japanese furthered their advantage by building more and larger cotton mills in Shanghai than the British or the Chinese. This threatened not only foreign rivals, but also much weaker Chinese competitors.⁵⁹ Japanese coastal and river steamers meanwhile began to give P and O, Jardines and Butterfield's serious competition, while Chinese shippers, always the most poorly capitalized, were even more hard pressed.

Ironically, both the British *and* Japanese presence helped the formation of Chinese human

⁵⁸Albert Feuerwerker, *The Chinese Economy, 1870-1949*. (Ann Arbor: The University of Michigan Press, 1995), pp. 147-156.

⁵⁹While in 1919 most Chinese cotton mills were British owned, by 1932 the British owned less than 4 percent, and the Japanese 40 percent. As early as 1926 Japanese owned more than half the spindles in Shanghai. They also dominated cloth producing; by 1936 they were producing 57.4 percent of the machine made cotton cloth in China, while the Chinese produced 37 percent and the British 5.6 percent. (Ho Ping-yin, *The Foreign Trade of China* (Shanghai, 1935), pp. 171-181.; and (Donald A Jordan, *Chinese Boycotts versus Japanese Bombs: The Failure of China's "Revolutionary Diplomacy"* (Anne Arbor, 1991), pp. 135-155 and p. 335. Goto-Shibata, *Japan and Britain*, p. 32; and Duus, et. al, *The Japanese Informal Empire*, pp. xxvi-xxvii, 30-31, 64-65, 88-89 and 312-313.

capital. Because of changes in the market, British interests came in time to actually foster Chinese industrial growth. Retiring from their earlier role as aggressive importers of foreign goods, or even manufacturers in China, the British increasingly began to sell textile machinery and rails to Chinese cotton firms and railroads, thus supporting China's development.⁶⁰

The largest British companies at the same time began to extend their operations into the interior of China to better integrate into the larger Chinese society. They also began to contemplate taking in Chinese partners, as well as more Chinese employees. Newer British employees were encouraged to learn Chinese, and to have more personal contacts with the Chinese with whom they did business.⁶¹

While the British became facilitators of Chinese industry, the Japanese remained aggressively competitive. When in reaction Chinese firms, in collusion with their government, orchestrated a series of boycotts against Japanese products, Osaka manufacturers persuaded their government to intervene militarily, thus beginning a series of adventures that would eventually escalate into a full blown invasion of China in 1937.⁶² While war would be entirely detrimental to Chinese interests, Japanese economic rivalry had helped hone Chinese industrial competitiveness, thus contributing in its own way to the development of Shanghai's human capital.

By 1937, Shanghai had also become a leading financial as well as manufacturing center, drawing a flood of foreign investment protected by the Shanghai Municipal Council (SMC).⁶³ The

⁶⁰Robert Bickers. *Britain in China: Community, Culture and Colonialism 1900-1949* (New York: Manchester University Press, 1999), pp. 16-17, 134-135, 152-189; Endicott, *Diplomacy and Enterprise*, pp. 118-119; Atkins, *Informal Empire in Crisis: British Diplomacy and the Chinese Customs Succession, 1927-1929* (Ithaca: Cornell, 1995), pp. 6-7; and Edmond S. K. Fung, *Diplomacy of Imperial Retreat: Britain's South China Policy, 1924-1931* (Hong Kong: Oxford University Press, 1991), pp. 118-119.

⁶¹These efforts are discussed by a number of authors, especially Robert Bickers. See: Bickers, *Britain in China*, pp. 16-17, 134-135, 152-189; Endicott, *Diplomacy in China*, pp. 118-119; Atkins, *Informal Empire in Crisis*, pp. 6-7; and Fung, *Diplomacy of Imperial Retreat*, pp. 118-119.

⁶²Donald A. Jordan, *Chinese Boycotts versus Japanese Bombs: The Failure of China's "Revolutionary diplomacy," 1931-32* (Ann Arbor: University of Michigan Press, 1991), pp. 30 and 158-168; Duus et. al, *The Japanese Informal Empire*, p 326.

⁶³Coble, *The Shanghai Capitalists*, pp. 1-3.

Oriental Bank, which had been granted a Royal Charter in 1851, was the first to be established in the city, followed shortly by the Chartered Bank of India Australia and China (CBIAC) in 1853.⁶⁴ The Hong Kong and Shanghai Banking Corporation Limited (HSBC) opened in Hong Kong in March 1865 and in Shanghai in April.⁶⁵ Founded by Thomas Sutherland, another enterprising Scot, it was the first locally managed bank.

The story of Shanghai's economic development is dramatic. It is also remarkably different from Deng's reform of the 1980s and 90s in that so little of it was planned. The British had simply intended to establish the city as an entry port for imported goods. All the other developments - the building of textile mills, first by the British, and later by the Japanese, the building of colleges and universities and the development of a cosmopolitan society - were unforeseen consequences of the Nanking Treaty. It was the unplanned, organic growth of this major industrial, financial and cultural center over decades that allowed it to accumulate a rich variety of skilled workers and entrepreneurs. Because this development was not imposed from above, it was able to sink deep roots into the Yangtze River Delta that survived decades of Maoist rule.

Deng Xiaoping in 1979 came with a carefully conceived plan consciously and narrowly conceived to draw foreign investment for the building of infrastructure and industry. Originally intended to increase domestic goods production, it ultimately laid the foundation for an export driven economy. Yet whatever the aim, his policies could not have flourished had they not been planted in the rich soil of industrial talent developed during the treaty port era. Thus, while the method of development differed between the two periods, they are intimately linked, in that the

⁶⁴Niv Horesh, *Shanghai's Bund and Beyond: British Banks, Banknote Issuance, and Monetary Policy in China, 1842-1937* (New Haven: Yale University Press, 2009), pp. 7-15; Horesh, *Shanghai, Past and Present*. Horesh highlights these developments within the global context, specifically from the British. He articulates the shift from commodity (silver) based monetary currency to that of British bank note style which contributed to the mobility of capital.

⁶⁵HSBC "Company History". Web.

latter drew life from the socio-economic and cultural elements that were formed in the decades before 1949.

Conclusion

The creation of Shanghai's human capital in the period 1842-1937 was complex. It was also long lasting, and would be crucial in providing support for economic growth more than forty years later. The development and widespread access to education, as well as the transfer of technology and information, were all important. Factory manufacturing, railroad construction and the growth of international trade, all being centered in Shanghai, made the city the most dynamic engine of modern economic growth in the country, even under Mao. The growth of Western style banking also had an enormous effect, as did Britain's changing role from aggressive imperialist to partner in China's own economic growth. Even unrelenting Japanese competition, as long as it remained in the economic sphere, was not without value, in that it helped develop Chinese industrial competitiveness. No nation can claim to be truly economically healthy until it can successfully compete with the best. Overall, the city in all its aspects was a national school to teach how to grow and thrive in a modern world capitalist economy.

There is another element in the story of China's post-1980 economic miracle that has nothing to do with foreign influence. That is the more than merely authoritarian role of the Communist Party in restoring capitalism to China. Not only did Shanghai's entrepreneurial activity of the past transcend Mao's decades, but the political traditions of the Republican era likewise seem to have continued where it left off. As Parks M. Coble points out: "In its dealings with Shanghai capitalists, ... the Nanking Government revealed itself as an authoritarian regime determined to control independent social groups."⁶⁶ Ironically, the firm control of the post Mao

⁶⁶Coble, *The Shanghai Capitalists*, p. 269.

Communist Party cannot be attributed solely to its own previous totalitarian traditions. It can also be ascribed to the long, entrenched tradition of Chinese deference to authority, derived from the “Dynastic Mandate of Heaven,” as well as Chiang Kai-shek’s pre-Communist government.⁶⁷

Despite government oppression from all sides, it was Chinese entrepreneurs who in the end were the most important factor in China’s economic success. The role of human capital in the form of entrepreneurship was thus not only an important part, but indeed an indispensable one, in allowing capitalism to once again flourish. In linking the pre-1949 and post-1980 eras, Parks M. Coble asks: “But what of the experience of the Chinese capitalists who had developed enterprises in the modern sector? Were they able to survive as businessmen during the (Sino-Japanese) war?”⁶⁸ Insisting on the importance of this group for subsequent economic development, he notes: “Many of the methods used to survive the war aided Chinese businessmen who chose to leave the People’s Republic (for Hong Kong) in 1949 (when they) faced a new challenge of survival.”⁶⁹ It is largely this group, with their close ties to Shanghai, and the city’s vibrant pre-war entrepreneurial tradition, that would reemerge with Deng’s reforms to begin where they left off, bringing back to life China’s long process of capitalist industrialization. Their story will be told in the next chapter.

⁶⁷State intervention in Chinese and foreign owned industry, begun by the KMT during the war, continued after it. Chiang’s government had begun investing in manufacturing even before the war; and by 1936 it owned 11 percent of industrial capital. The war greatly increased this tendency, and by 1942 the KMT held 70 percent of all industrial capital invested in Nationalist controlled territory. In 1948, following the seizure of Japanese and “collaborationist” property, it owned 90 percent of China’s heavy industry, 60 percent of its light industry and controlled 70 percent of the import-export business. Despite promises to sell off most of these businesses, only a few had been sold before the Communist victory in 1949. Cochran, “Businesses, Governments, and War in China,” in Iriye and Cohen, *American, Chinese and Japanese Perspectives*, pp. 136-137.)

⁶⁸Coble, *Chinese Capitalists in Japan’s New Order: The Occupied Lower Yangzi, 1937-1945* (Berkeley: University of California Press, 2003), p. 3.

⁶⁹Coble, *Chinese Capitalists in Japan’s New Order*, p. 7.

Part 2

Deng Xiaoping's Reforms: 1979

Introduction

Since initiating market reforms in 1979, China has shifted from a centrally planned to a market based economy and experienced rapid economic and social development. GDP growth averaging about 10 percent a year has lifted more than 500 million people out of poverty. All Millennium Development Goals have been reached or are within reach. – World Bank (2006)⁷⁰

In 1999 Shamsul Haque observed that: “After decades of struggle for development, it is increasingly apparent that there has not been any considerable socioeconomic progress in many Third World countries, which continue to suffer from adverse human condition such as economic poverty, social inequality, political instability, and external dependence.”⁷¹ In opposition to the rapid privatization model, Haque argues that these policies are perpetuating rather than reducing economic stagnation in most under-developed economies. In *Restructuring Development Theories and Policies*, he argues: “under (a) a pro-market atmosphere created by the so-called structural adjustment programs, there has also been an expansion of socioeconomic inequality, especially in terms of the patterns of income distribution.”⁷² The assumptions of this research sharply contradict Haque’s assessment, for whatever else they are, they certainly cannot be considered universal. While he correctly identifies instances where pro-market policies failed to produce positive results, the Chinese adoption of a gradual transition to a free market economy has been brilliantly successful. The lessons we learn from this are telling. Chinese economic development was the

⁷⁰The World Bank. *Countries: China: Overview*. Web. Last Updated Sept 18, 2015.

⁷¹M. Shamsul Haque, *Restructuring Development Theories and Policies: a Critical Study* (Albany, NY: State University of New York Press, 1999), p. ix.

⁷²Haque, *Restructuring Development Theories and Policies*, p. xi.

result of interplay between human capital acquired in the past and foreign physical capital. The unique characteristics of the country's social, cultural and economic experience show that this process took many years before yielding measurable results. Additionally, it was the entrepreneurial ability learned in pre-war Shanghai, which, when given free play again in the 1980s, drove China's growth. The Chinese example reveals the flaws of Haque's broad generalization.

There are two dominant schools of thought in development economics. One is that markets operate in close relationship with private ownership and incentives, and so inherently and automatically adjust to shifts in supply and demand. This assumes maximal efficiency in allocating limited resources to the most productive and efficient areas (and as such is in line with classical Liberal economic theory). This kind of thinking has influenced policies prescribed by the IMF and World Bank, which have called for rapid privatization when shifting away from planned to market economics. The theoretical justification is the belief that a rapid transformation is the most efficient.⁷³ To put it succinctly, a short sharp shock works best.

Opponents of this school point to numerous failures of this policy, using the post-Soviet bloc countries as prime examples. They argue instead that markets are inherently influenced by political, social and cultural factors.⁷⁴ This way of thinking might be styled neo-developmental. It proposes that a gradual approach to economic transformation is best in order to ensure the development of all necessary human capital, as well as the institutions that foster its creation, and that this process requires constant support and guidance from the state.⁷⁵ This approach aligns with the tradition of John Maynard Keynes, who wanted the government to play a greater role in

⁷³Doug Guthrie, *China and Globalization: The Social, Economic, and Political Transformation of Chinese Society* (New York: Routledge, 2006), pp. 11-12.

⁷⁴Joseph E. Stiglitz, *Globalization and its Discontents* (New York: W.W. Norton & Company, 2002); Guthrie, *China and Globalization*, p. 12.

⁷⁵Guthrie, *China and Globalization*, p. 12.

the economy.⁷⁶ The case made here is that economic transition and sustainable development cannot be reduced to the assumption that market incentives and privatization are sufficient in themselves.

Opponents of the neo-developmental economic theory insist on the fundamental laws of classical Liberal economic theory espoused by Adam Smith, Jean-Baptiste Say and David Ricardo. The gradual 'state guided' approach, they argue, fails to sever the bad ties between the state and economic actors. State interference as an inefficient process through which human and physical capital will be misallocated, resulting in both stagnation and corruption.⁷⁷ In this they have certainly been in part correct.

It is important to understand the theoretical distinction between these two schools to appreciate the importance of the Chinese case and the concrete evidence it provides. The Chinese state was successful in maintaining oversight and a closely guided economic policy. This would suggest that neo-developmental economic theory is more successful in explaining economic growth. However, the contributions made by human capital in determining sustainability, and the complex nature of forces at play during a period of change must also be recognized. Further, the role of the state in China's successful transition, rather than being a necessary part of a general theory, can also be understood as a reactionary vestige of the country's centuries' old authoritarian tradition. Either explanation is therefore not sufficient in itself. This work points to the limitations of both approaches.

Shenzhen was selected to host the 2011 World University Games, the second largest multi-sporting event after the Olympics. This choice was a statement in itself, given that just a few

⁷⁶John Maynard Keynes. *The General Theory of Employment, Interest, and Money* (London: Palgrave Macmillan, 1936).

⁷⁷Adam Smith, *The Wealth of Nations* (1776); Jean-Baptiste Say, *A Treatise on Political Economy* (1803); David Ricardo, *Principles of Political Economy and Taxation* (1817).

decades earlier it had been little more than a small town. The ability to create the required infrastructure - the housing for nearly 15,000 athletes and a stadiums - was testament to the efficiency and wealth of the new Chinese economy.⁷⁸

How did Shenzhen, a small city with a population of just over 30,000 become one of China's leading manufacturing centers with a population of over 10 million?⁷⁹ Shenzhen's story is in some ways the story of China. Its transformation is illustrative of the country's economic miracle. It was Deng Xiaoping who chose it to be among the first Special Economic Zones (SEZ). Its success would later be replicated throughout much of China.⁸⁰ Because the story of Shenzhen is intimately related to neighboring Hong Kong, which provided both the capital and industrial know how for its development, it is also closely tied to the earlier economic evolution of Shanghai. It was refugee Shanghai capitalists coming to the Crown Colony in 1949 who really breathed life into its economy, laying the foundation for its brilliant economic success that later spread to the north.

This experience raises broader questions. How does the interplay between human capital and physical capital contribute to a greater understanding about theories of development economics?⁸¹ Most importantly, how do the patterns of development that began with China's entrance into the industrial era, and the seemingly unique combination of firm government control and market forces affect our understanding of China's *future*?

At the conclusion of the Games the facilities were transformed into a new university. In doing this the government demonstrated its understanding of the importance of education, as well

⁷⁸Costs were more than 180 billion RMB, including 75 billion RMB for new subway lines and 4.1 billion for the 60,000-seat stadium. This was derived from *Wikipedia* (2016), *The Shenzhen Post* (June 15, 2011), and my own analysis of information collected while attending the *World Universiade* in Shenzhen.

⁷⁹World Factbook. *East & Southeast Asia: China. Major urban areas – Shenzhen*. (2015). Cia.Gov. Web.

⁸⁰The other Guangdong Zones were centered on Zhuhai, Guangzhou, Zhongshan, Shunde and Dongguan. See: Goodman and Segal, *China Deconstructs*, p. 11.

⁸¹Oxford University Press. *Oxford Dictionaries*. Web; Cambridge University Press. *Cambridge Business English Dictionary*. Web.

as its determination to face the challenges of a rapidly changing global economy. Its actions demonstrated the need for physical investment (infrastructure) as well as the development of human capital (education).

This level of efficiency and understanding was something new in China. Under Mao, the backwardness of the Chinese economy was catastrophic. Even the reported minimal growth in overall GDP during this period was an overestimation.⁸² Not only were 'official' figures based on the misreporting of regional Communist Party officials who feared punishment for their failures, but a significant portion of even this was the product of investment in useless areas like poor grade steel production rather than in productive (and necessary) areas such as agriculture and infrastructure. Throughout the period China remained saddled with a hopelessly inefficient economy that widely misallocated its' human and physical capital.

Because of the previous accumulation of human and physical capital before 1949 in a city like Shanghai all of the deficiencies under Mao would eventually be overcome. However, the archaic and inefficient infrastructure and factories there and in other manufacturing centers would take years to modernize and improve.⁸³ Because Hong Kong had escaped Communist rule, it faced no such problems, it was able to provide the capital and entrepreneurial skill that allowed Shenzhen, as well as much of the Pearl River Delta, to grow by leaps and bounds in the 1980s.⁸⁴ Shanghai, despite its own long and resilient industrial tradition, would not really ready to contribute China's capitalist revolution until the mid-1990s.⁸⁵

Under Mao the Communist Party had established control over the country's commercial

⁸²Chinability, in the section: *GDP Growth in China 1952-2014* writes that: "1958-59: So-called "Great Leap Forward" devastated agriculture: result was falling GDP in 1960-62. (Figures for 1958-59 highly suspect, as the statistical network was largely destroyed in the "Leap", when absurdly high increases in output were reported by frightened local officials.)" Chinability: March 2015.

⁸³Naughton, *Growing out of the Plan*, p. 126.

⁸⁴David Goodman and Gerald Segal report that by 1990 Hong Kong had become one of the chief export partners for 23 provinces. See: Goodman and Segal, *China Deconstructs*, p. 164.

⁸⁵Naughton, *Growing out of the Plan*, p. 126.

organization. This seemed an insurmountable obstacle to economic growth until Deng Xiaoping's experimentation with capital investment coming from Hong Kong. It was this, combined with the skills of the city's capitalist entrepreneurs, that provided the means for efficient manufacturing, against which the lackluster performance of state run enterprises could not stand. Yet even at this point the reforms, although drawing on extensive historical precedent, were not assured of succeed. As Meier and Rauch note: "it was as much by luck as by design, (...) that China stumbled on a strategy that has proved remarkably successful in moving the economy from a Soviet-style command system to what by the early 1990s was an economy governed in large part by market forces, however distorted some of those ... may have been."⁸⁶

One of China's greatest advantages was the preservation of its entrepreneurial elites in Hong Kong. Many of the Shanghai magnates who had made fortunes running textile mills and other industrial plants had poured into the city in 1949, bringing with them over a half billion dollars in gold and foreign securities. Textile factories, as well as plastic and leather goods plants, soon began to grow up all around the colony, and by 1978 80 percent of Hong Kong's cotton spinning mills were owned by Shanghai capitalists.⁸⁷ They also began to diversify into electronics.⁸⁸ This gave the colony's economy a great boost, for British investors had previously largely ignored it in favor of Shanghai (In 1931 130 million pounds had been invested in Shanghai, but only 35 million in Hong Kong.)⁸⁹ Ironically, it was Chinese manufacturers, and not British, to whom the colony owed its post-war prosperity.

The 1979 Economic Starting Point

Simon Kuznets has observed that: "In the course of modern economic growth, high rates

⁸⁶Gerald M. Meier & James E. Rauch, *Leading Issues in Economic Development*. 7th Ed. (New York: Oxford University Press, 2000), p. 48.

⁸⁷Coble, *Chinese Capitalists*, p. 215.

⁸⁸Philip Snow, *The Fall of Hong Kong: Britain, China and the Japanese Occupation* (Yale, 2004), pp. 329-332.

⁸⁹Snow, *The Fall of Hong Kong*, p. 2.

of increase in population and product have been associated with market shifts in the shares of various industries—in total outputs and in total productive resources used.”⁹⁰ He points out that “if population grows, its ratio to land and other natural resources changes, with different consequences for different industries; if total and per capita product grow as a result of technological change, capital investment, and improvements in the quality of productive resources, the impact on different industries is not likely to be the same.” (Kuznets, 1966; 86). Nowhere was this more true than in China. With increases in productivity, population growth and urbanization, and the changing demands that are associated with this, the effect on different sectors varied significantly. In China’s case, the result was a widespread shift from agriculture to industry and the service sector.⁹¹

Once reforms began, the change was dramatic. The statistics are revealing. In terms of overall GDP, agriculture declined from 31.6% in 1981 to just 9.2% by 2014.⁹² The rise of the service industry between 1981 and 2014 is equally remarkable. Its share increased from 22.6% to 48.1% (50% is typical of developed economies).⁹³ The two major factors changing the Chinese economy were, first, population shift and second, the rate of industrial productivity.⁹⁴ This was made possible by massive amounts of direct investment coming mostly from Hong Kong). Each of these changes - urbanization, increase in Total Factor Productivity (in economics, total-factor productivity (TFP), also called multi-factor productivity, is a variable which accounts for effects in total output growth relative to the growth in traditionally measured inputs of labor and capital) and direct investment, will be analyzed in the following sections. Each can be seen as rising out of

⁹⁰Simon Kuznets. *Modern Economic Growth: Rate, Structure, and Spread* (Clinton Mass., The Colonial Press, 1966), p. 86.

⁹¹Kuznets, *Modern Economic Growth*, pp. 98-99.

⁹²WorldBank Data (2016).

⁹³WorldBank Data (2016).

⁹⁴Xiaodong Zhu. “Understanding China’s Growth: Past, Present, and Future.” *Journal of Economic Perspectives* (Fall 2012) 26.4. pp. 103-124.

the four overarching themes central to this study, as represented in terms of human and physical capital.

Deng's reforms encouraged a domestic entrepreneurial renaissance in the new capital investment zones that curiously mimicked conditions in the earlier treaty ports, where private enterprise had been protected from the depredations of Chinese officialdom. There was also a concerted attempt to develop quality education on all levels, something that had played such an important role in previous economic advancement. Only the free flow of information, another vital element for the proper allocation of resources, continued to be severely restricted.

Total Factor Productivity

China started in 1979 near the bottom of the productivity index.⁹⁵ In *Understanding China's Growth*, Xiaodong Zhu writes that the country's "rapid growth over the last three decades (1979-2008) have been driven by productivity growth rather than by capital investment."⁹⁶ He goes on to write that: "overall, gradual and persistent institutional change and policy reforms that have reduced distortions and improved economic incentives. (These) are the main reasons for productivity growth."⁹⁷ Zhu identifies two key developments: the gradual nature of the transition, and the willingness to promote an *incentive based economic system* both for workers, and for the entrepreneurs without whose guidance labor cannot be efficiently allocated. These changes were key in that they solidified the reorientation of China's economic policy. Simply put, the human capacity to work, leading directly to increased productivity, was mobilized by allowing those on the shop floor who were most efficient to be rewarded. Capitalist managers, who alone possessed the capacity to direct labor into areas there it would be most productive, were also encouraged.

⁹⁵The effectiveness of productive effort, especially in industry, as measured in terms of the rate of output per unit of input, Oxford Dictionary: "Productivity".

⁹⁶Zhu, *Understanding China's Growth*.

⁹⁷Zhu, *Understanding China's Growth*, pp. 1-2.

According to Zhu, the average annual GDP growth rate between 1952 and 1978 was 2.97%. Between 1978 and 2007 it had increased to 8.12%. At the same time, the Total Factor Productivity (TFP) rate, which had decreased between 1952 and 1978 by an average of -1.07%, grew between 1978 and 2007 at an annual rate of 3.16%.⁹⁸ What is so striking is that even when China's GDP was supposedly growing prior to Deng's reforms, Total Factor Productivity showed a different story. This divergence can be explained by a decline in education (schools were closed for a decade during the Cultural Revolution) combined with inefficient government led industrialization, while the sustainable period of growth following the reforms can be correlated (at least partially) to steady advances in TFP.

Urbanization

Total Factor Productivity was not the only force driving China's economy. Urbanization also supported growth. Rural inhabitants, for the first time allowed to move freely, flocked to the new urban centers for jobs. This provided the necessary labor for sustained growth in manufacturing and overall production capability (especially in the new designated Special Economic Zones). China's urban population increased more than threefold, from 18% in 1978 to 55.6% by 2015.⁹⁹ As early as 2004, when there were already more than 114 million people on the move, the *New York Times* was calling it the largest migration in human history.¹⁰⁰ The annual rate of urbanization in China between 2010 and 2015 was 3.05%.¹⁰¹ The expectation is that the influx of rural inhabitants into urban centers is likely to continue in the coming years.

Guangdong Province north of Hong Kong eventually developed one of the highest ratio of

⁹⁸In identifying productivity as a leading driver of economic growth during these decades, Zhu uses three sources to justify his conclusion: data constructed by *Madison* (2007), the purchasing power parity from *Penn World Table* (PWT7.0), and the data series he had constructed for a co-authored work, *Brandt and Zhu* (2010). In a separate breakdown, Zhu points out that per capita GDP growth showed a loss of 72.03 in the earlier period, and an increase of 77.89 in the latter. Zhu, *Understanding China's Growth*, p. 108.

⁹⁹World Bank. *China Profile*. Web.

¹⁰⁰“In a Tidal Wave, China's Masses Pour From Farm to City,” *The New York Times*, November 12, 2004.

¹⁰¹World Bank. *China Profile*. Web.

urban dwellers in China.¹⁰² Greater Shanghai is naturally another.¹⁰³ On the importance of a steady stream of people moving into urban areas, Enright writes: “there will be enormous gains in terms of ability to provide high-level services, efficiency of transportation, and specialization of urban districts. All should add substantially to the region’s developmental potential.” (Enright et al., 2005; 142). Writing in 2005, he could not have been more prescient. Since its inclusion in Deng’s reforms, Shanghai, like the SEZs, has become one of the fastest developing cities in China, and indeed the world. It has experienced double-digit growth nearly every year since 1992 (the exception being during the global recession of 2008-2009).¹⁰⁴ It was here that old and new China are most closely commingled by the reforms, as many new industrial workers with little manufacturing experience joined with the country’s oldest and most seasoned factory workforce to further develop what had for more than a century been China’s chief center of modern factory industry.

The Effect of Economic Reform on Poverty

The dramatic fall of the poverty rate provides one of the most vivid proofs of the success of the current Chinese economy. According to World Bank estimates, the population living below the poverty line fell to 12% in 2010 from 84% in 1981.¹⁰⁵ More recent data from 2013 suggests that it is now at 6.1%, showing a 75.9% decline.¹⁰⁶ This is unprecedented in history.

Remarkably, there was very little *overall* planning in producing these startling results. Reforms were introduced piecemeal. Government strategy and directives, rather than operating above the market place, themselves began to operate in response to market forces. It was this that made them so effective. Thus, although the original decision to move to a market economy

¹⁰²Enright et al., *Regional Powerhouse*, p. 141.

¹⁰³World Population Review. *Shanghai Population 2016*. Web.

¹⁰⁴World Population Review, “Shanghai Population 2016.” Web.

¹⁰⁵World Bank, “Poverty Data.” Web.

¹⁰⁶World Bank. “Factbook.” Web.

was a purely political one, once that decision was made, and economic forces brought into play, these in turn forced further political changes. Rather than being a shift from one kind of totalitarian system to another, there was a real reduction in government power, at least in the economy. Deng's creation of a free market eventually demonstrated that even the Party must submit to economic forces not under its control. This realization, and his decision to continue to act on it, was his greatest (and most audacious) achievement, and the real cause of his success. As Barry Naughton observes: "a Chinese strategy of economic reform (is a term that) should be used with caution. Strategy implies conscious design of the sequence of reforms, or at least that certain principles about how to respond to contingencies that could have been described in advance. This was not true in China."¹⁰⁷ This distinction between policies based on rigid adherence to pre-determined policies aiming at specific outcomes, and one that adapts frequently to economic changes created by entrepreneurship operating in freedom, is important. In the first case the government is the leader. In the other, like the rest of the nation, it is led. Naughton goes on to say: "Only through this evolving process did the goal of a market economy gradually emerge as the generally agreed upon objective ... By the later stages of the transition, there were clearly leaders who saw and embraced it as a strategy, but this should not be taken to mean that it was seen as such at the onset." Deng in this regard not only transformed the nation, but the Communist Party itself. He forced it to be responsive to the genuine economic needs of the nation, as expressed in the market place.¹⁰⁸ It is clear that, because of these evolutionary development, China's success cannot be attributed to any one unchanging theoretical doctrine.

As Susan Shirk observes in *Political Logic of Economic Reform*: "Political institutions are not static. Economic reforms in communist states often are accompanied by some reform of the

¹⁰⁷Naughton, *Growing Out of the Plan*, p. 7.

¹⁰⁸Naughton, *Growing Out of the Plan*, p. 7.

political system.”¹⁰⁹ Of course, the transition to a free market can never be complete as long as the dictatorship, operating outside of the rule of law, continues to exist. As Shirk notes in her conclusion: “The decision of China’s leaders to retain existing political institutions and introduce a market through a Communist bureaucracy prolonged the period of transition. It is easy to find fault with the Chinese strategy of gradualism, especially if one focuses on the continuing low efficiency of state-owned industry.”¹¹⁰

Writing in 1993 (just over one decade into the reforms) Shirk placed emphasis on the gradual nature of China’s reform. Often criticized as being too slow to achieve political restructuring and democratization, subsequent experience has provided far greater weight in favor of a gradual process in fostering a sustainable and *adaptable* process for development.

Even so, more than three decades after Deng’s first implementation of reform, problems remain concerning China’s authoritarian political system. To this day, basic legal protection of human rights, taken for granted in most developed nations, is absent. From the purely economic point of view, the fatal combination of an authoritarian political system and a booming capitalist economy has led to massive instances of graft and corruption by officials up to the highest ranks of government. Party leaders could yield to economic forces, but never to a total abolition of their power and privileges. Many accepted changes in the hope of profiting inordinately from them. Quite a few have. Their depredations have been great enough to cause serious distortions in banking and real estate. It is the retrograde, and indeed reactionary, elements of one party rule that more than anything else has cast a shadow on China’s continuing economic success.

¹⁰⁹Susan L. Shirk, *The Political Logic of Economic Reform in China* (Berkeley, California: University of California Press, 1993), p. 11.

¹¹⁰Shirk, *The Political Logic of Economic Reform in China*, p.341.

Economic and Political Rights

The Tiananmen Square incident in 1989, which would later become the focus of much native and foreign criticism of the Communist Party demonstrated how violent and absolutist the Communist leadership could still be. Vivid accounts gathered by political activist Liu Xiaobo in *No Enemies, No Hatred*, revealed the cruelty with which military force was used by the Party to both retain and demonstrate its monopoly of violence.¹¹¹ Yet there is hope even here. In *Globalization and Citizenship*, Hans Schattle observes that until the rise of new technology and the internet, individuals such as Liu had limited opportunity to reach large groups of like-minded citizens.¹¹² His vivid accounts, for which he was awarded the Nobel Peace Prize in 2010, demonstrates the truth of Schattle's observation about increased opportunities for advocacy.

The current Constitution of the People's Republic does include some protection of economic, environmental and political rights. It acknowledges in its 1982 version the right to inherit property, and the protection due foreigners' lawful rights and interests.¹¹³ It also promises protection of the environment. While it has become painfully evident that this last is entirely without content, the protection of property rights remains significant, suggesting how the market has *forced* this concession from the Party in clear violation of one of its most dearly cherished beliefs. Even China's terrible pollution problems, though occasionally life threatening, is testimony to its unrelenting (and unfortunately over exuberant) commitment to industrial manufacturing.

Assessing the broader effect of Deng's economic reforms, and in particular the likelihood of a democratic transition in China, Doug Guthrie writes: "China has been gradually developing

¹¹¹Liu Xiaobo, *No Enemies, No Hatred: Selected Essays and Poems* (Cambridge Mass.: Belknap Press of Harvard University Press, 2012), pp. 3-12.

¹¹²Hans Schattle, *Globalization and Citizenship* (Lanham Md.: Rowman & Littlefield Publishers, 2012).

¹¹³Chinese Constitution, Article 26, 13 and 32.

the institutions of democracy. The ideological war between reformers and hard-liners has forced the former group to transform China's institutions without labeling them as a transition to democracy.¹¹⁴ While economic rights and the liberalization of economic control were fundamental in 1979, the development of political rights and democratic institutions remains more complicated. Yet the subtle forces emanating from the free market economy will certainly shape in no small way the movement towards greater political reform. It might be expected that as these new 'silent' influences become more widespread and entrenched they will influence the shaping of the country's eventual political transformation.

Capital Markets

The mobilization of capital, and more generally the formation of capital markets, were central to reform. As mentioned previously, the close proximity to Hong Kong made Shenzhen and the Greater Pearl River Delta an ideal location for the initial experiment with the free market. As Michael Enright points out in *Regional Powerhouse: The Greater Pearl River Delta*: "One of the most salient features of the development of the Pearl River Delta region has been its links with Hong Kong."¹¹⁵ In addition to supplying capital, the city also provided the most up to date technology and manufacturing techniques. Finally, Enright notes "many of Hong Kong's residents or their families originally came from Guangdong Province. As a result, numerous ties of family and friendship have always existed between Hong Kong and the Pearl River Delta region."¹¹⁶ Moreover, Guangdong's large population and cheap wages created the perfect conditions for an export oriented manufacturing center. Hong Kong manufacturers immediately took advantage of this opportunity. In short, Britain's Crown Colony provided not only capital, but also the

¹¹⁴Guthrie, *China and Globalization*, pp. 9-10.

¹¹⁵Enright et al., *Regional Powerhouse*, p. 12.

¹¹⁶Enright et al., *Regional Powerhouse*, p. 12.

business skills and manufacturing techniques that would eventually be absorbed by their mainland counterparts in neighboring Guangdong Province.

Hong Kong thus proved the ‘cornerstone’ of Deng’s reform. This was in part due to the enormous amounts of capital at its disposal. As Enright reminds us: “Despite its small size, Hong Kong is one of the world’s leading sources of foreign direct investment. It was sixth in the world in 2000, accounting for outflows of more than US\$59 billion, surpassed only by the United Kingdom, France, the United States, Luxembourg, and the Netherlands.”¹¹⁷ He goes on to point out that: “China has been the dominant destination for Hong Kong investment and such investment has been extremely important in China.”¹¹⁸ (In fact, while most of this has been concentrated in the Pearl River Delta, the city has also been the leading investor in virtually every other mainland province.)¹¹⁹ Even more importantly, it was the entrepreneurial skills developed in pre-war Shanghai that would have the most powerful transformative effect on the rest of China. Having migrated from the lower Yangtze region to Hong Kong (where they caused that economy to flourish), the Shanghai business elite in exile was able years later to direct the transformation of the entire Pearl River Delta. Their beneficial influence would eventually spread to much of the country. Nowhere was this more evident than in their old home town. Having returned to Shanghai, they were able by the 1990s to again make it the leading manufacturing center in the country. They also made the city China’s leading financial hub, surpassing even Hong Kong.¹²⁰

The relaxation of oversight of economic activity and the development of a modern banking system were also especially important in strengthening ties with Hong Kong. The latest data from the World Bank reveals the size of ongoing

¹¹⁷Enright et al., *Regional Powerhouse*, p. 21.

¹¹⁸Enright et al., *Regional Powerhouse*, p. 21.

¹¹⁹Enright et al., *Regional Powerhouse*, p. 21.

¹²⁰Kemenade, *China, Hong Kong, Taiwan Inc.*, p. 304.

foreign direct investment (FDI). (This term is problematical in the Chinese case, since Hong Kong investment is counted as foreign. While the city is indeed a conduit for investment from other places, much of it also came from Chinese capitalists living in the city. This can be considered foreign in only the most technical sense.) In 2015 FDI was US\$28Billion, whereas in 1982 the figure was just US\$430Million.¹²¹ (It declined modestly in 2015 from the previous year, when it was US\$290Billion).¹²² **Figure 1** (below) illustrates the increase from 1982-2015, with a remarkable spike in the later decades. This played a major role in increasing Chinese productivity.

Figure 1. Foreign Direct Investment, net inflows (BoP, current US\$)

	1982	1990	1998	2006	2014
FDI in Millions – China	\$430	\$3,487	\$43,751	\$133,272	\$290,928

Source: World Bank, World Development Indicators. April 2016.

Education

The *China Education Center* has reported that “(The country) has increased the proportion of its college-age population in higher education to over 20 percent (in 2015) from 1.4 percent in 1978. At the same time, it is improving the quality of education through a major effort at school curriculum reform.”¹²³ On this point, John Bryan Starr adds: “Expanding the availability of China’s postsecondary education has been a priority since the economic reforms began.”¹²⁴ Reaffirming this, the *Education Statistics Yearbook of China* reports that the number of the

¹²¹World Bank Data (2015).

¹²²World Bank Data (2015).

¹²³China Education Center (2015). Web.

¹²⁴John Bryan Starr, *Understanding China: a Guide to China’s Economy, History, and Political Structure* (New York: Hill and Wang, 1997), p. 224.

colleges and universities rose from 1,075 to 2,491 between 1990 and 2013, while, more importantly, the number of enrolled students increased from about 2 million in 1990 to over 9 million.¹²⁵ This indeed is a remarkable investment in human capital.

In looking at education in Shanghai in particular, and its relation to regional social and economic development, Stephen Hills and Belton M. Fleisher find that:

“Government policy was clearly supportive of rapid modernization and economic growth. When compared with thirteen Asian countries, Shanghai’s large educational investment and corresponding high level of economic growth ... make its experience comparable to Singapore, South Korea, Taiwan and Hong Kong. When compared with Indonesia, the Philippines, and Thailand, Shanghai is clearly in the lead in overall literacy rates and in enrolment rates in primary and secondary school. These achievements have supported the change from an economy based on agriculture to one based on industry.”¹²⁶

Even taking into account a reduction in educational investment by Chinese authorities that took place briefly in the mid-1990s, Hills and Fleisher support the data that suggests widespread investment to increase access to education, as well as to improve its overall quality.

Barry Naughton highlights two points about the importance of higher education in the shift to a market economy. Writing in *The Chinese Economy: Transitions and Growth*, he observes: “The socialist system did a fairly good job of providing basic education to the population as a whole. (...) But ... (it) did a very poor job of rewarding individuals who had attained higher levels of skill or education.”¹²⁷ People will often decide whether to pursue advanced education based on anticipated economic return. For the economy as a whole, well-educated human capital is

¹²⁵Education Statistics Yearbook of China. Web.

¹²⁶Stephen Hills & Belton M. Fleisher, “Education and Regional Economic Development in China: The Case of Shanghai” in *Comparative Economic Studies*. 39, no. 3-4, (1997): 25. p. 46.

¹²⁷Barry Naughton, *The China Circle: Economics and Electronics in the PRC, Taiwan, and Hong Kong* (Washington, D.C.: Brookings Institution Press, 1997), p. 192.

absolutely essential to support high rates of economic growth. It was therefore very important that, as Naughton observes, “during the 1990s market forces were allowed to reshape the way workers were rewarded. Not only were more incentives available to those who performed more productively, but structural changes in the demand for labor changed the determinants of income.”¹²⁸ This highlights the fundamental fact that the free market both encouraged and demanded more highly educated participants. As it employed and rewarded the more highly educated, it encouraged still more people to go to school, and to stay there longer. As this also reinforced traditional Chinese beliefs in the value of education, the result was a massive increase in school enrollments, and an abundance of skilled labor for the burgeoning economy.

As it relates to developmental economic theory, the forces active during the reform period required extensive investment in human capital alongside physical capital. There was a vital need to transform the workforce from one accustomed to agricultural labor to one better suited for the industrial and service sectors.¹²⁹ Education and urbanization greatly facilitated this transformation. These socio-economic factors were as essential as drivers of sustainable economic development as was the capital investment that is usually credited with China’s success.

In identifying the importance of education, transcendent patterns begin to emerge from the history of post 1842 Shanghai. Similar to the socio-economic factors then prevalent, the city’s educational system produced the best industrial workers in the country even during Mao’s rule. The results produced by the systematic investment in education throughout the 1980s were even more spectacular, further strengthening the case for education as a key driver in successful developmental economics.

¹²⁸Naughton, *The China Circle*, p. 195.

¹²⁹On the discussion of the “duel economy”, the importance of the transition from agriculture to the modern sector, industry and cities, see Acemoglu, et al., *Why Nations Fail*, pp. 258-260.

Access to Technology and Information

Economic reforms have done little up to the present day to change the severe limits on political rights, especially freedom of speech. Doug Guthrie observes that “in any society, access to information has a significant impact on general perceptions of the social and political world. In a one-party system such as China’s, where an authoritarian party-state kept strict control over the media, information did not flow freely.”¹³⁰ But then, as new technology such as the internet and other alternate sources of information were introduced, they began to spread exponentially. These factors stimulated heterodox political opinions that proved increasingly difficult to control or shape.¹³¹ As Frank Ching points out that “China has traditionally used its control of information to keep its people in check. However, the advance of technology is making this more difficult. True, the government is attempting to keep up with the times with the introduction of cyber-policemen, but it is a losing battle.”¹³²

The introduction of new sources for information remain an important factor in how successfully human rights will continue to develop. It remains to be seen how well the Party will be able to control and regulate these new channels of information.

In 2001, two decades after the reforms were first implemented (and just over ten years following the Tiananmen Square incident), John Bryan Starr noted that “despite occasional conservative rumblings that are largely ignored, the country is enjoying greater intellectual freedom than at any time since the May Fourth Movement of 1919.”¹³³ Yet even in light of this progress, the deep-rooted authoritarian traditions, based on the acceptance and respect for authority, persists.

¹³⁰Guthrie, *China and Globalization*, p. 273.

¹³¹Guthrie, *China and Globalization*.

¹³²Frank Ching, *China: The Truth about its Human Rights Record* (London: Rider, 2008), p. 80.

¹³³Starr, *Understanding China*, p. 233.

In addition to its firm control of national media, the Communist Party has historically used strong arm tactics to crush all forms of political dissidence. The idea of a loyal opposition is unknown in Chinese politics. For the government, opposition means only the power to sabotage. Although Article 35 of the Chinese Constitution guarantees freedom of the press along with other rights, this has been so hemmed in by laws and regulations as to make it virtually meaningless.¹³⁴ Frank Ching suggests that any real freedom of the press would almost immediately ensure a significant increase of political rights.¹³⁵ On the question of regulatory oversight, he writes: “The Communist Party maintains control of news media primarily through its Propaganda Department, now cynically renamed the Publicity Department in English, although the Chinese name remains unchanged.¹³⁶ This situation has proven largely resistant to change, despite the obvious pressure for reform coming from the vibrant economic sector.

The historical repression of freedom of speech and any criticism of the government is a vestige of Maoist rule, and an endemic problem that has produced significant distortions in the economy. Ill-conceived real estate developments abetted by corrupt bankers and officials, and industrial concerns operating in complete disregard to the environment, can continue unchecked because the absence of press criticism of anything that might touch on the interests of Party officials or their children. Harassment of people who stand up for human rights, internet repression, disregard of workers’ rights, and the targeting and persecution of minorities are among the many problems that continue to plague the nation.

Conclusion

Writing about the lasting importance of developmental economics, H.W. Singer observes:

¹³⁴Kemenade, *China, Hong Kong, Taiwan Inc.*, p. 389; and Ching (2008).

¹³⁵Ching, *Understanding China*, pp.70-86.

¹³⁶Ching, *Understanding China*, p.72.

“The development problem has certainly not disappeared. On the contrary, the economic gap dividing rich and poor countries has widened; there are more poor people in the world today than ever before; the problem of Africa’s marginalization is becoming increasingly urgent; and many developing countries are racked by civil wars and tribal conflicts that are setting back the cause of development”¹³⁷ Nor has the importance of rethinking our understanding of economic development been a recent trend. In 1995, David H. Lempert argued for a development plan that gave as much importance to people and their cultural values as investments. He warned against those plans “written by bankers and economists, or by Western-educated technicians from developed countries and the most privileged sectors of developing countries; these are specialists whose particular skills have been perfected but whose overall view of development has often been limited.”¹³⁸ One must then take into account additional factors in a country’s path to economic growth, apart from purely economic fundamentals. We must look to the social, cultural and human element, especially human capital.

Each country’s unique history (in the case of China its’ socio-political and economic experiences in places like pre-war Shanghai) must be taken into account when explaining economic success. While the virtue of free market capitalism is widely regarded as the primary driving force and best hope for the advancement of underdeveloped countries, the method and the direction are not nearly as straight forward as has sometimes been imagined. In China’s case, a deeply entrenched authoritarian tradition, combined with contradictory memories of an economic *laissez-faire* environment that had flourished for some decades in post 1842 Shanghai, both contributed to pulling the country out of the morass in which Mao had left it.

¹³⁷H.W. Singer, *Is Development Economics Still Relevant?* (Washington, D.C.: Inter-American Development Bank, 1997), p. 507.

¹³⁸David H. Lempert et al., *A Model Development Plan: New Strategies and Perspectives* (Westport, Connecticut: Praeger, 1995), p. xi.

One must, then, understand that market capitalism was a necessary force behind the success of Deng's reform, while simultaneously recognizing the role of political guidance in the reform process. But just as China's success has been the product of a combination of factors, the free market forces that played a key role were themselves created by a complex combination of circumstances. It is easy, indeed facile, to speak about the free market as though its' successful operation was a given. This is a mistake. There was a unique history of free market industrialization, trade and investment, as well as a process of learning and training that created a rich source of human capital, that together contributed to China's current success. If the country had not been able to draw on the deep-rooted knowledge and skills which originated in Shanghai and the port cities in the mid-nineteenth century, and instead pursued only uninformed free market principles without the training to make these work, the outcome would have been very different. It is then each country's unique culture and experience that shapes not only its physical, but especially its human capital. It is this which determines its ability to successfully enter the modern industrial and technological world.

Conclusion

“To understand China is not necessarily to love it, but understanding China is a prerequisite of dealing with it effectively in the years ahead.”¹³⁹

The Chinese experience can teach us a great deal about the process of economic transformation. It also challenges our understanding (and application) of developmental economics theory. The resiliency of Communist Party’s political dominance, existing in tandem with a free market economy, demonstrates how curious the transformation of a command economy can be. So much of it is influenced by a nation’s history.

Writing about China’s authoritarian traditions, Parks M. Coble observes that “in its dealings with the (pre-war) Shanghai capitalists, the Nanking government revealed itself as an authoritarian regime determined to control independent social groups.”¹⁴⁰ Thus, even in its desire to exert control, the post-Mao Communist Party continued to be influenced not only by its own past, but also that of the Chiang Kai-shek regime. In this as in so many ways the pre-1949 era has continued to inform Chinese life.

As a result, the country also continues to be plagued by some of the problems of the past. Orville Schell points out that “while Deng seemed to believe that he could radically transform China’s economic system without fundamentally altering its political structure ... his critics insisted that unless complementary political change was forthcoming, economic reforms would sooner or later founder.”¹⁴¹ Almost all precedents in Chinese history seemed to support Deng’s desire to maintain authoritarian rule. And yet, the predictions of his critics eventually proved to be

¹³⁹Starr, *Understanding China*, p. 323.

¹⁴⁰Coble, *The Shanghai Capitalists*, p. 269.

¹⁴¹Schnell, *Mandate of Heaven*, p. 30.

correct, for if the Chinese economy has not foundered, it has certainly become heavily encumbered by endemic corruption, areas of inefficiency and misallocation of resources, due in part to the interference of non-elected, grafting officials whose power continues to derive from Communist dictatorship.

The shaping, but also corroding, influence of the Party remains ubiquitous. What is missing is the foreign presence that in the past was able to shelter the free market in the pre-war treaty ports, away from warlords and Chiang Kai-shek's predatory regime. In this regard, the only genuinely (and relatively) safe place for the free market is Hong Kong. It is for reasons of economic viability as much as for political rights that attempts to extend greater Party control into the former Crown Colony are so fiercely opposed in some quarters.

This is not to defend either the old treaty port system, or authoritarian political controls. It is only to emphasize the *unique* process by which each country must embark on its own economic transition in its own way.

China succeeded economically because it was able to draw on a rich supply of human capital. This consisted of skilled entrepreneurs trained in free markets in Shanghai and Hong Kong, and also of a well trained work force prepared through good schooling. Capital investment by itself is simply not enough to achieve sustainable economic growth. In fact, both social and economic elements are prerequisites for a successful economic outcome. Some would argue that even an abundance of human capital is insufficient to ensure a country's successful economic transition. In *Introduction to Modern Economic Growth*, Daron Acemoglu claims that: "focusing only on physical and human capital is not sufficient. Both to understand the process of sustained economic growth and to account for large cross-country differences in income, we also need to understand why societies differ in the *efficiency* (emphasis added) with which they use their

physical and human capital.”¹⁴² However, since Acemoglu defines human capital only in terms of a factory workforce, his analysis is flawed.

Inspired entrepreneurship and managerial talent is the only way to assure the efficient allocation of resources. That in itself is only another form of human capital, which in China’s case was created in Shanghai before 1949 and afterwards nurtured in Hong Kong. It grew up in two cities of foreign origin that seemed to so many a world apart from traditional China. They were. That is because like the entrepreneurial elites they harbored, they were not entirely of their own time. Rather, they were harbingers of the future, preparing to lead the country into a world of unimagined prosperity.

This was China’s true economic treasure, created by its *unique* historical experience. It was China’s secret of success. But it was, and is, not replicable. The country has no universal panacea to offer. It is not possible to create a global theory out of its particular historical circumstances. It is, however, possible to understand from the Chinese experience the importance of developing *individual* strategies for countries based on their unique strengths. Simply put, while it is possible to create practical plans to achieve economic progress, this is best done on a case by case basis.

¹⁴²Acemoglu, *Introduction to Modern Economic Growth* (Princeton: Princeton University Press, 2009), p. 19.

End Notes:

1. For a comprehensive work on the transfer of technology and industrialization, see Daniel R. Headrick, *Tentacles of Progress* (New York: Oxford University Press, 1988), pp. 3-17, 379-384.
2. A.K. Cairncross, *Factors in Economic Development* (London: Allen and Unwin, 1962), p. 17.
3. It has been the official policy of the Peoples Republic since 1978 to base rapid economic development on decentralization and an explicitly regional policy. David S.G. Goodman and Gerald Segal, eds., *China Deconstructs: Politics, Trade and Regionalism* (London: Routledge, 1994), p. 1.
4. Wen-Hsin Yeh, "Shanghai Modernity: Commerce and Culture in a Republican City." *The China Quarterly*, No. 150. Jun., 1997. p. 377.
5. Yeh, *Shanghai Modernity*, p. 377.
6. Human capital is also defined in the Oxford Dictionary as "the skills, knowledge, and experience possessed by an individual or population, viewed in terms of their value or cost to an organization or country".
7. World Economic Forum. Web (August, 2015).
8. Foreign Affairs. *When Will China's Government Collapse? A Look at Whether or not the Chinese Party is Doomed*. (March 13, 2015). Chinese experts Ho-fung Hung, Arthur R. Kroeber, Howard W. French and Suisheng Zhao discuss to possibility of a Chinese collapse.
9. Junji, Banno et al. "The Japanese Informal Empire in China, 1895-1937.", Ed. Peter Duus et al., (Princeton University Press, 1989); Parks M. Coble, *The Shanghai Capitalists and the Nationalist Government, 1927-1937* (Cambridge Mass.: Harvard University Press, 1980), pp. 1, 147-160; Yoshihisa Tak Matsusaka, *The Making of Japanese Manchuria, 1904-1934* (Harvard University Asia Center, 2001), p. 251.
10. Niv Horesh, *Shanghai Past and Present: A Concise Socio-Economic History, 1842-2012* (eBook collection: EBSCOhost: Web, 2014); Parks M. Coble, *The Shanghai Capitalist*, pp. 4, 15.
11. Michael Dillon, *China: A Modern History* (London: I.B. Tauris, 2010), p. 109.
12. Christopher Howe, ed., *Shanghai: Revolution and Development in an Asian Metropolis* (New York: Cambridge University Press, 1981), p. xii.
13. Howe, *Shanghai*, p. xiii.
14. Howe, *Shanghai*, p. 30.
15. Howe, *Shanghai*, p. 3.
16. Coble, *The Shanghai Capitalist*, p. 7; Horesh, *Shanghai, Past and Present*.
17. Willem Van Kemenade, *China, Hong Kong, Taiwan Inc: The Dynamics of a New Empire* (New York: Knopf, 1997), p. 308.
18. While developmental economics is a loosely defined term I will be using the following: *Progress in an economy, or the qualitative measure of this. Economic development usually refers to the adoption of new technologies, transition from agriculture-based to industry-based economy, and general improvement in living standards*. Business Dictionary Online.
19. Cambridge University Press. *Cambridge Business English Dictionary*.
20. Horesh, *Shanghai, Past and Present*, p. 8.
21. Orville Schell, *Mandate of Heaven: A New Generation of Entrepreneurs, Dissidents, Bohemians, and Technocrats Lays Claim to China's Future* (New York: Simon & Schuster, 1994), p. 30.
22. Barry Naughton, *Growing out of the Plan*; Michael Enright et al., *Regional Powerhouse*; Loren Brandt et al., *China's Great Economic Transformation*; Anthony Yeh et al., *China's Pan-Pearl River Delta*; Elizabeth Economy et al., *By all Means Necessary*.
23. Marie-Claire Bergere writes: "Perspectives changed after the reversal of Chinese policy in 1978 and the opening of the country

to foreign investment and technology. The ideal of Revolution gave way to “modernization fever.” There was a growing feeling that Deng Xiaoping and the reformists were taking up the job that had been left unfinished in 1949. The Republican era was more and more perceived as the starting point of a forceful modernization drive, as a time of economic and cultural innovation and creativity to which contemporaries should turn for inspiration.” (Bergere, 1997; 309).

24. James Watt: Inventor of Watt Steam Engine (improvement to previous engines); Adam Smith: Most important thinker behind the idea of *laissez-faire* economics; Richard Arkwright: Patented the mechanized spinning wheel.

25. Brandt and Rawski (2008) and Ma, D. (2005) offer competing narratives as to the rate of growth in Shanghai and greater China during the years from 1842-1937, with *Brandt and Rawski* seeing a more extensive spill-over of Shanghainese economic activity throughout China, and *Ma* arguing that it was more likely only into the surrounding regions. While the vibrancy and cosmopolitanism of Shanghai during this period is impressive, it is evident that the growth was at a more gradual rate than that more recently realized in the Greater Pearl River Delta (1980 to the present).

26. Horesh, *Shanghai, Past and Present*. For an example of the importance of these events in leading to greater cohabitation and creating a vibrant realty market in the Shanghai International Settlement.

27. Horesh, *Shanghai, Past and Present*, pp. 6-7.

28. Howe, *Shanghai*, p. 33.

29. *Treaty of Nanjing*, Article 2.

30. Coble, *The Shanghai Capitalists*, pp. 1-4.

31. Horesh, *Shanghai, Past and Present*, p. 1.

32. Horesh, *Shanghai, Past and Present*, p. 2.

33. Horesh, *Shanghai, Past and Present*, p. 20.

34. Reed’s title is deceptive. The Gutenberg revolution usually refers to the introduction of movable type in Europe. In fact, the Chinese developed this as early 1045 AD, being in this regard, as in so many, far in advance of the rest of the world. Joseph Needham, *The Shorter Science and Civilisation in China, Volume 4* (Cambridge University Press, 1994), p. 14.

35. Christopher Reed, *Gutenberg in Shanghai: Chinese Print Capitalism* (Hong Kong: Hong Kong University Press, 2005), p. 25.

36. Reed, *Gutenberg in Shanghai*, p. 10.

37. Horesh, *Shanghai, Past and Present*, p. 6.

38. M. C. Bergere, “The Other China: Shanghai from 1919 to 1949” in Howe, C. ed., *Shanghai: Revolution and Development in an Asian Metropolis*, 1-34. (New York: Cambridge University Press, 1981), p. 12.

39. Daron Acemoglu et al., *Why Nations Fail*, pp. 271-273, use examples from Africa where the introduction of new technology helped to modernize industries, create new urban cities and fuel economic growth. While his examples center on Africa, the argument is certainly relevant to Shanghai and the importance of the technology transfer.

40. Acemoglu et al., *Why Nations Fail*, p. 271.

41. Kenneth Scott Latourette, *A History of Christian Missions in China* (New York: Macmillan, 1929), p. 83.

42. Paul Rule, “Restoration or New Creation? The Return of Jesus to China” in *Jesuits Survival and Restoration: A Global History, 1773-1900*, ed. Robert Markyks et al., (Boston: Brill. P., 2015), p. 269.

43. Rule, “Restoration or New Creation”, p. 270.

44. Fudan University Website.

45. U.S. News Education, “Best Global Universities.” 2016.

46. Rule, “Restoration or New Creation”, pp. 270-271. Paul Rule discussed the role of Ma Xianbo (1840-1939) at length; in particular he notes Xianbo’s role founding these universities, and the controversy over his insistence on applying the Chinese dimension to traditional Jesuit education.

47. "During the last century: Eastern MIT". Xi'an Jiao Tong University. Archived from the original on 2007-10-16.
48. China Education Center, *Nanjing University*. Web.; Elearning Galaxy, *Nanjing University – The Oldest and Most Prestigious Institutions of Higher Learning in China*. Web.
49. Horesh, *Shanghai, Past and Present*, p. 6.
50. Horesh, *Shanghai, Past and Present*, p. 6.
51. G.C.L. Mak et al., "Education" In Y.M. Yeung et al. eds. *Shanghai: Transformation and Modernization under China's Open Door*, 375-398. (Hong Kong: Chinese University Press, 1996), pp. 377-78.
52. Organization for Economic Cooperation and Development (2010).
53. Adrian J Smith. *Privatized Infrastructure: The Role of Government* (London: ICE Publishing, 1999), p.45.
54. Smith, *Privatized Infrastructure*, p. 45.
55. Jardines Company Website.
56. Robert Blake, *Jardine Matheson: Traders of the Far East* (London: Weidenfeld & Nicolson, 1999), p. 46.
57. Stephen Lyon Endicott, *Diplomacy and Enterprise: British China Policy, 1933-1937* (Vancouver: University of British Columbia Press, 1975), pp. 118-119.
58. Albert Feuerwerker, *The Chinese Economy, 1870-1949*. (Ann Arbor: The University of Michigan Press, 1995), pp. 147-156.
59. While in 1919 most Chinese cotton mills were British owned, by 1932 the British owned less than 4 percent, and the Japanese 40 percent. As early as 1926 Japanese owned more than half the spindles in Shanghai. They also dominated cloth producing; by 1936 they were producing 57.4 percent of the machine made cotton cloth in China, while the Chinese produced 37 percent and the British 5.6 percent. (Ho Ping-yin, *The Foreign Trade of China* (Shanghai, 1935), pp. 171-181.; and (Donald A Jordan, *Chinese Boycotts versus Japanese Bombs: The Failure of China's "Revolutionary Diplomacy"* (Ann Arbor, 1991), pp. 135-155 and p. 335. Goto-Shibata, *Japan and Britain*, p. 32; and Duus, et. al, *The Japanese Informal Empire*, pp. xxvi-xxvii, 30-31, 64-65, 88-89 and 312-313.
60. Robert Bickers. *Britain in China: Community, Culture and Colonialism 1900-1949* (New York: Manchester University Press, 1999), pp. 16-17, 134-135, 152-189; Endicott, *Diplomacy and Enterprise*, pp. 118-119; Atkins, *Informal Empire in Crisis: British Diplomacy and the Chinese Customs Succession, 1927-1929* (Ithaca: Cornell, 1995), pp. 6-7; and Edmond S. K. Fung, *Diplomacy of Imperial Retreat: Britain's South China Policy, 1924-1931* (Hong Kong: Oxford University Press, 1991), pp. 118-119.
61. These efforts are discussed by a number of authors, especially Robert Bickers. See: Bickers, *Britain in China*, pp. 16-17, 134-135, 152-189; Endicott, *Diplomacy in China*, pp. 118-119; Atkins, *Informal Empire in Crisis*, pp. 6-7; and Fung, *Diplomacy of Imperial Retreat*, pp. 118-119.
62. Donald A. Jordan, *Chinese Boycotts versus Japanese Bombs: The Failure of China's "Revolutionary diplomacy," 1931-32* (Ann Arbor: University of Michigan Press, 1991), pp. 30 and 158-168; Duus et. al, *The Japanese Informal Empire*, p 326.
63. Coble, *The Shanghai Capitalists*, pp. 1-3.
64. Niv Horesh, *Shanghai's Bund and Beyond: British Banks, Banknote Issuance, and Monetary Policy in China, 1842-1937* (New Haven: Yale University Press, 2009), pp. 7-15; Horesh, *Shanghai, Past and Present*. Horesh highlights these developments within the global context, specifically from the British. He articulates the shift from commodity (silver) based monetary currency to that of British bank note style which contributed to the mobility of capital.
65. HSBC Company History.
66. Coble, *The Shanghai Capitalists*, p. 269.
67. State intervention in Chinese and foreign owned industry, begun by the KMT during the war, continued after it. Chiang's government had begun investing in manufacturing even before the war; and by 1936 it owned 11 percent of industrial capital. The war greatly increased this tendency, and by 1942 the KMT held 70 percent of all industrial capital invested in Nationalist controlled territory. In 1948, following the seizure of Japanese and "collaborationist" property, it owned 90 percent of China's heavy

industry, 60 percent of its light industry and controlled 70 percent of the import-export business. Despite promises to sell off most of these businesses, only a few had been sold before the Communist victory in 1949. Cochran, "Businesses, Governments, and War in China," in Iriye and Cohen, *American, Chinese and Japanese Perspectives*, pp. 136-137.)

68. Coble, *Chinese Capitalists in Japan's New Order: The Occupied Lower Yangzi, 1937-1945* (Berkeley: University of California Press, 2003), p. 3.
69. Coble, *Chinese Capitalists in Japan's New Order*, p. 7.
70. The World Bank. *Countries: China: Overview*. Web.
71. M. Shamsul Haque, *Restructuring Development Theories and Policies: a Critical Study* (Albany, NY: State University of New York Press, 1999), p. ix.
72. Haque, *Restructuring Development Theories and Policies*, p. xi.
73. Doug Guthrie, *China and Globalization: The Social, Economic, and Political Transformation of Chinese Society* (New York: Routledge, 2006), pp. 11-12.
74. Joseph E. Stiglitz, *Globalization and its Discontents* (New York: W.W. Norton & Company, 2002); Guthrie, *China and Globalization*, p. 12.
75. Guthrie, *China and Globalization*, p. 12.
76. John Maynard Keynes. *The General Theory of Employment, Interest, and Money* (London: Palgrave Macmillan, 1936).
77. Adam Smith, *The Wealth of Nations* (1776); Jean-Baptiste Say, *A Treatise on Political Economy* (1803); David Ricardo, *Principles of Political Economy and Taxation* (1817).
78. Costs were more than 180 billion RMB, including 75 billion RMB for new subway lines and 4.1 billion for the 60,000-seat stadium. This was derived from Wikipedia (2016), *The Shenzhen Post* (June 15, 2011), and my own analysis of information collected while attending the *World Universiade* in Shenzhen.
79. World Factbook. *East & Southeast Asia: China. Major urban areas – Shenzhen*. (2015). Cia.Gov. Web
80. The other Guangdong Zones were centered on Zhuhai, Guangzhou, Zhongshan, Shunde and Dongguan. See: Goodman and Segal, *China Deconstructs*, p. 11.
81. Oxford University Press. *Oxford Dictionary*; Cambridge University Press. *Cambridge Business English Dictionary*.
82. Chinability, in the section: *GDP Growth in China 1952-2014* writes that: "1958-59: So-called "Great Leap Forward" devastated agriculture: result was falling GDP in 1960-62. (Figures for 1958-59 highly suspect, as the statistical network was largely destroyed in the "Leap", when absurdly high increases in output were reported by frightened local officials.)" Chinability: March 2015.
83. Naughton, *Growing out of the Plan*, p. 126.
84. David Goodman and Gerald Segal report that by 1990 Hong Kong had become one of the chief export partners for 23 provinces. See: Goodman and Segal, *China Deconstructs*, p. 164.
85. Naughton, *Growing out of the Plan*, p. 126.
86. Gerald M. Meier & James E. Rauch, *Leading Issues in Economic Development*. 7th Ed. (New York: Oxford University Press, 2000), p. 48.
87. Coble, *Chinese Capitalists*, p. 215.
88. Philip Snow, *The Fall of Hong Kong: Britain, China and the Japanese Occupation* (Yale, 2004), pp. 329-332.
89. Snow, *The Fall of Hong Kong*, p. 2.
90. Simon Kuznets. *Modern Economic Growth: Rate, Structure, and Spread* (Clinton Mass., The Colonial Press, 1966), p. 86.
91. Kuznets, *Modern Economic Growth*, pp. 98-99.
92. WorldBank Data (2016).
93. WorldBank Data (2016).
94. Xiaodong Zhu. "Understanding China's Growth: Past, Present, and Future." *Journal of Economic Perspectives* (Fall 2012)

26.4. pp. 103-124.

95. The effectiveness of productive effort, especially in industry, as measured in terms of the rate of output per unit of input, *Oxford Dictionary: Productivity*.

96. Zhu, *Understanding China's Growth*.

97. Zhu, *Understanding China's Growth*, pp. 1-2.

98. In identifying productivity as a leading driver of economic growth during these decades, Zhu uses three sources to justify his conclusion: data constructed by *Madison* (2007), the purchasing power parity from *Penn World Table* (PWT7.0), and the data series he had constructed for a co-authored work, *Brandt and Zhu* (2010). In a separate breakdown, Zhu points out that per capita GDP growth showed a loss of 72.03 in the earlier period, and an increase of 77.89 in the latter. Zhu, *Understanding China's Growth*, p. 108.

99. World Bank. *China Profile*. Web.

100. "In a Tidal Wave, China's Masses Pour From Farm to City," *The New York Times*, November 12, 2004.

101. World Bank. *China Profile*. Web.

102. Enright et al., *Regional Powerhouse*, p. 141.

103. World Population Review. *Shanghai Population 2016*. Web.

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109. Susan L. Shirk, *The Political Logic of Economic Reform in China* (Berkeley, California: University of California Press, 1993), p. 11.

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114. Guthrie, *China and Globalization*, pp. 9-10.

115. Enright et al., *Regional Powerhouse*, p. 12.

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120. Kemenade, *China, Hong Kong, Taiwan Inc.*, p. 304.

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127. Barry Naughton, *The China Circle: Economics and Electronics in the PRC, Taiwan, and Hong Kong* (Washington, D.C.: Brookings Institution Press, 1997), p. 192.
128. Naughton, *The China Circle*, p. 195.
129. On the discussion of the “duel economy”, the importance of the transition from agriculture to the modern sector, industry and cities, see Acemoglu, et al., *Why Nations Fail*, pp. 258-260.
130. Guthrie, *China and Globalization*, p. 273.
131. Guthrie, *China and Globalization*. .
132. Frank Ching, *China: The Truth about its Human Rights Record* (London: Rider, 2008), p. 80.
133. Starr, *Understanding China*, p. 233.
134. Kemenade, *China, Hong Kong, Taiwan Inc.*, p. 389; and Ching (2008).
135. Ching, *Understanding China*, pp. 70-86.
136. Ching, *Understanding China*, p. 72.
137. H.W. Singer, *Is Development Economics Still Relevant?* (Washington, D.C.: Inter-American Development Bank, 1997), p. 507.
138. David H. Lempert et al., *A Model Development Plan: New Strategies and Perspectives* (Westport, Connecticut: Praeger, 1995), p. xi.
139. Starr, *Understanding China*, p. 323.
140. Coble, *The Shanghai Capitalists*, p. 269.
141. Schnell, *Mandate of Heaven*, p. 30.
142. Acemoglu, *Introduction to Modern Economic Growth* (Princeton: Princeton University Press, 2009), p. 19.

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