

Great Wall of Numbers: **Business Opportunities & Challenges in China**

By Tim Swanson



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Foreword

“Grey,” Goethe tells us, “is all theory, and green the golden tree of life.” To really understand something, we need more than generalizations and *a priori* arguments. We need “color.”

Unfortunately, most of what is written about China these days falls into the “grey theory” category. Countless pages have been devoted to the China “model,” China’s “rise,” or even its “coming collapse.” But little of this gives us any real feeling of what it’s like to live and work there. Often we can’t see the trees for the forest.

This book is different. It looks not at the “big picture” but at the myriad fascinating details that make it up. We learn not that China will be “number one” but rather that Shanghai is home to the world’s largest skateboard park. Not that China has “a billion consumers” but rather that Chinese college kids love NBA apparel. Not that China is a “locomotive for the world economy” but rather that convenience stores in Bengbu, Anhui Province carry US-made razor blades.

There are less prosaic observations as well. The Chinese are big Angry Birds fans, for example. China now accounts for 25% of worldwide downloads. Recently Rovio, the maker of this popular app, even went so far as to turn Shanghai’s skyscrapers green to help launch a native version of its product.

These are exactly the kinds of details that matter if you are trying to formulate a business plan for the China market. And their relevance goes well beyond the particular industries cited. For the US exporter, for example, the important point isn’t that there’s a market for NBA apparel and razor blades. The takeaway is that in China—a country awash in knockoffs—a “made in USA” label signifies a high quality product.

Indeed this book is full of interesting business ideas. It looks at opportunities in everything from college textbooks to assisted living facilities, from fast food to Android apps. China, it turns out, is not so much the land of a billion consumers as it is the land of unexplored niche markets. The growth of the Chinese economy in general—and that of its middle class in particular—has created many surprising new worlds for entrepreneurs to conquer.

Naturally, there are risks to consider as well. Local partners or employees may expropriate your intellectual property and set up competing businesses. The regulatory environment can be full of nasty surprises, particularly for those lacking the right local connections. Profits may be difficult to repatriate. Again, readers will find a wide range of examples that help to turn China’s “unknown unknowns” into “known unknowns” if not “known knowns.”

As you begin to appreciate all this local color, some fascinating big picture issues come into focus as well. Consider the potential of 3D printing, for example. This new technology makes it possible to produce plastic products directly from a computer file, using special printer heads that deposit multiple layers of plastic to produce a finished product. These machines are now available for as little as \$2,199.

This process will enable many manufacturers to by-pass the supply chain altogether, going directly from idea to inventory in a single step. It's easy to see the advantages for foreign firms seeking to market specialized products in China. The manufacturing could be done anywhere and the production runs kept arbitrarily small.

The implications for the US-China trade balance are even more important. Once this technology is in widespread use, it seems likely that important parts of the Chinese manufacturing machine—e.g. manufacturing toys for export—may either be shut down entirely or have to be converted to serve local markets.

Learning about opportunities in particular sectors leads naturally to an understanding of much larger issues that “big picture” analysts easily miss. Unlike the common practice of looking at China from “a thousand feet up,” a ground-level perspective provides insights into both the idiosyncratic features of specific industries and the overall macroeconomic situation.

Thus, this book will be useful not only to those looking for Chinese markets for particular products and services but also to anyone with a general interest in learning more about the country. Whether you are looking for new worlds to conquer or just curious about the China story, this book will help you move beyond the “grey” plane of theory and abstractions into the verdant realm of economic reality.

Mark DeWeaver is the founder of Quantrarian Capital Management and author of *Animal Spirits with Chinese Characteristics*

Introduction

It has become increasingly difficult to separate hyperbole and exaggeration from the story of China's development over the past three decades. This book was written in part to highlight both the opportunities and challenges facing entrepreneurs, companies and businesspeople wanting to do work in China. I try to be as evenhanded and balanced as I can – this book vilifies neither bulls nor bears. Rather it serves as a guide to those willing to take risks.

In short, this book is a testament to human ingenuity and entrepreneurship. For those looking for a particular bias one way or the other, I point to Voltaire's germane quote, "*Le mieux est l'ennemi du bien*" or in English, the best is the enemy of the good.

There is no shortage of excuses to invest or not invest in any domicile – irrespective of the political climate, level of debt, who won the World Series or astrological sign – yet it is counterproductive to be a fair weather entrepreneur. Or rather, it is incredibly easy to complain and do nothing. Consuming doom, reckoning and gloom, preparing for prophetic collapses that are always around the corner – fear sells and will always be a popular past-times for those wanting a complete reboot, revolution or some Pyrrhic nirvana.

Yet as I try to illustrate in the following pages, you do not have to be born into a family of entrepreneurs to have the desire to start a company and manage it profitably. You just have to be open to new ways of doing business, even if the conditions are not ideal, perfect or "the best."

And despite the eye-catching apocalyptic analysis from those who have been predicting doomsday and eventual collapse – the Chinese, as I explain throughout, are by and large a hard working lot that have endured nearly every conceivable adjective. They are constantly looking to improve their living standards, aspiring to the quality of life in the West by learning to uncover the secrets to American and Western innovative prowess. In short, they are looking to provide a better future for their progeny. Thus opportunities abound for the entrepreneurial spirited.

The book includes dozens of stories, anecdotes and interviews about experiences, opportunities and challenges on the mainland. I should point out that because of the dynamic nature of all the industries I delve into, the data and statistics cited will become quickly outdated. This is not a bad trend itself but rather goes to show you the relative vibrancy and opportunities of the creative destruction process which take place in any open marketplace – even a relatively encumbered one on the mainland.

Throughout the book I mention friends, colleagues, experts, professors, businesspersons, former students and acquaintances. This is not an explicit endorsement of their opinions or services but rather serves as an on-the-ground reference point. Nor by providing me with quotes do they endorse this book or my opinions. Furthermore, in the interest of financial disclosure, I do not currently have any equity positions in the firms or companies discussed throughout.

In addition, as Sagan, Russell and Oppenheimer are all believed to have said, "keep an open mind

– but not so open that your brain falls out.” Or as Dean Stamatis recently reminded me: “figures do not lie, but liars do figure.” In fact, one alternative working title I had considered was “seek truth from facts” (实事求是) a historical expression that dates back to the original Book of Han some two millennia ago. Thus even though I cite hundreds of references, be skeptical of any claims, especially when risk and uncertainty is involved. In short, be sure to do your own due diligence.

And as a close friend once told me when I first moved to the East, for those unfamiliar with Asia and specifically China, it is better to know something than know nothing. That is what this reference guide is for, look a little before you leap into the unknown. To those trying to find business opportunities in the likeliest and unlikeliest of places: *jiayou, jiayou!*

Tim Swanson

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Chapter 1 – Potential market size

Should you and your company come to China?

There is no simple clear-cut answer for everyone. As you will find out, each market segment is different from the next. Each faces a wide variety of domestic competition and regulatory hurdles. Throughout each chapter I attempt to do cursory due diligence by looking at current market statistics and use anecdotal stories to illustrate both the opportunities and challenges of setting up shop on the mainland. Along the way you will hear the experiences and opinions from a number of experts through a variety of tapped and untapped revenue sources.

For example, Jim Chanos, founder of Kynikos Associates, is a New-York based hedge fund manager and short seller. Among other cautionary tales, over the past several years he has repeated one particular story about China. A story of two American men, who spoke Chinese, made the right connections, did their due diligence and yet barely got out of China with their shirts still on.¹

His is a shrewd and important tale – a twist of *caveat venditor*. And despite their acumen this kind of harrowing story can arguably happen anywhere. Moreover just like the US muddled on despite the 2008 financial purges and Ponzi schemes such as Bernie Madoff's, so too will China lumber on irrespective of its booms, busts, frauds and scandals. This is not to say there will not be large purges of misallocated, unproductive assets. As Ludwig von Mises might have said, *a priori* you can never buck market calculation and market corrections.² Yet this is not to say the Chinese industrialization story will collapse or meltdown either.

A potential market for revenue generation

With more than 1.35 billion people, China is the most populous country in the world and will remain so for at least another 15 years.³ Yet just because there is a large potential market does not mean you can magically sell a \$1 cup of coffee to everyone and instantly become *nouveau* rich. Or as one of my sarcastic students told me years ago: in China, if you scam everyone in the country just once, you can become a billionaire. More to the point, as Matt Garner discusses in his forthcoming book on marketing in China, the domestic home shopping industry has been filled with these types of cons and frauds (e.g., buying a gold brick – as seen on TV – yet receiving a flimsy cardboard cut-out in the mail).⁴ And as I discuss later in Chapter 3, consumers are becoming increasingly savvy and vigilant to such get-rich-quick scams.

So how big is the actual market for goods and services? Following Deng Xiaoping's "reform and opening up" in late 1978, GDP has grown from approximately \$10 billion to over \$8 trillion. At the same time, one estimate shows that consumer spending as a percent of GDP has fallen from 50% to just under 35% over the past 15 years; yet a newly revised government report suggests the number may be much higher at 55% and another estimate is even higher at 65%.⁵ Either way, there are still growth opportunities if you know where to look and are willing to take risks. After all, 35% of \$8 trillion is still much larger than 65% of \$1 trillion let alone \$10 billion.

What does this mean for Western companies, your company? The US is the 2nd largest exporter and according to the Economics & Statistics Administration exports reached a record \$2.1 trillion in 2011.⁶ In fact, according to *BusinessWeek* and Bureau of Economic Analysis, September 2012 was another record month for exports, hitting \$187 billion.⁷ Overall exports rose an additional 4.4% in 2012.⁸ Yet despite the fact that as of 2012, roughly 95.5% of all potential customers (e.g., world population sans the US) and 67% of all purchasing power reside outside of the US, relatively few US firms currently export.⁹

Moreover, as I discuss later in Chapter 7 according to the US Department of Commerce, as of 2010 in terms of US Small & Medium Enterprises (SME):¹⁰

- Only 1% of US SMEs export
- And only 10% of those that export, export to China

There are a number of reasons for relatively low participation including nebulous legal frameworks. But it is also surprising because despite the readily accessible markets made available due to standardized shipping container sizes, liberalized trade agreements, ISO certifications resulting in ‘best practices’ and overall streamlining of supply chains, merchants across the globe – and in the US – have never had it easier than today.¹¹ Yet if you are reading this, odds are your company does not export either. In fact, depending on the source, up to 95% of US firms simply do not even have an international market strategy.

More to the point, on top of the approximately 30,000 SMEs that do export to China, typically only the top 500 US firms generate significant sales outside of the US. Why do you and your company not export? As you will find out, your brand is probably considered a step-above locally made goods and services. In fact, as I note later in Chapter 4 and Chapter 11, luxury goods and services are one increasingly large source of income for US firms like Howard Johnson hotels and Coach handbags – both of whom have taken advantage of the local market perception that “foreign” is better quality. Similarly, in Chapter 16 I also discuss how fast-food chains like KFC and Starbucks use a number of logistical and perception strategies and now generate more revenue in China than anywhere outside the US. Can your company do the same?

In December 2012 I spoke with Kirt Greenburg, then-director of the SME center at the American Chamber of Commerce in Shanghai.¹² According to Greenburg, “one of the reasons that there are statistically few SMEs that export is because the US has such a large domestic market capable of sustaining a large pool of local competitors fueled solely by domestic trade thus US SMEs can usually grow quite large just by focusing on North America. And coupled with obstacles such as known regulations and fears of unknown hurdles, this has prevented many SMEs from looking at ways to export. Yet there are enormous opportunities in China as it is still a large growth market.”

There are also a large number of resources and support networks. For instance, “there are several SME centers at other Chambers including the EU and New Zealand that provide open

research, business connections and even resources to aggregate and leverage databases from both governments and NGOs. For example, the SBA program offers a \$10,000 grant to US SMEs to 'go and explore' in China. Yet few people, including myself until recently, even knew this type of program exists. Many SME centers, including ours, also includes both manpower and physical space to help enable entrepreneurs and businesspeople to utilize our knowledge and business connections throughout the day. In fact, our SME center really could be described as a marketplace for 'best practices' and ideas in general." Later in Chapter 15 and 20 I detail some of the other subsidies and perks that some Chinese municipalities and trade zones offer to foreign firms, specifically software and engineering companies.

In terms of why there is a relatively low percentage of SMEs that export, Greenburg noted that, "anecdotally it can be a laborious task to find domestic partners, domestic customers and domestic vendors that you can immediately trust on the mainland. Vetting a partner can take a long time because there is no Better Business Report or D&B report. Yet through the Foreign Commercial Service, this task may become relatively easier in the future. Furthermore, one of the reasons why there may only be 1% of SMEs that export in general is that there are a large amount of SMEs in the US and other countries that do not have an easily exportable service, such as one-on-one consultations at dentist offices, barbershops or music lessons."¹³ This absence of independent business monitoring may present an opportunity for foreign firms that specialize in business forensics and customer reporting to provide similar services on the mainland.

This is not to say that in a role reversal, exporting products to the US is any easier. For example, Greenburg thinks "regulations for foreign firms exporting to the US would probably be just as problematic in some cases as they are in China. Furthermore, most commerce in the US is actually conducted at the state-level, which requires additional legal knowledge just as it does at the provincial level in China. Yet, one of the issues that SMEs – both foreign and domestic – have to take into consideration on the mainland is the grey regulations that vary from city to city. Whereas there is an income tax levied by the federal government on all US citizens regardless of location, in China, municipalities have considerable leeway and flexibility to implement national laws. For example, last year a new social security tax on foreign workers was passed at the national level in Beijing, yet the Shanghai municipality and many others have not begun levying the tax yet." On a national level this specific law went into effect on October 15, 2011; I discuss tax issues later in Chapter 10.¹⁴

Market access

According to the US Department of Commerce, 91% of world GDP (sans the US) is generated by countries with whom the US does not currently have a Free Trade Agreements (FTA) with, yet FTA countries alone represent 41% of total US exports.¹⁵ While there is currently no China-US free trade agreement, there have been numerous bilateral agreements reducing trade duties and restrictions.^{16,17} Furthermore, US firms have invested more FDI into China than any other developing country this decade and the two countries (sometimes referred to as Chimerica or G2), with \$446.7 billion in bilateral trade in 2011, are among each other's largest trading partners.¹⁸

After Canada and Mexico, China is the 3rd largest destination for US exports. In 2011, US exports to China hit a new record of \$105.3 billion. Among the largest products that US firms collectively exported were agricultural, as I discuss later in Chapter 3 (in 2011, China imported \$20 billion in US agricultural products). And due to the domestic demand for safe and reliable products, Chinese consumers are increasingly turning to imported products (also discussed in Chapter 3). Thus even if you have not looked at the market, there are still untapped opportunities on the mainland, including sports consulting (Chapter 8), software development (Chapter 13) and entertainment (Chapter 14).

Big hurdles

Towards the end of the book I describe at length some of the bigger macro hurdles that foreign and domestic firms will face on the mainland. There are specific industries that will be more difficult to operate in than others. For example, at a national level Chinese policy makers consider roughly a dozen areas to be key strategic industries.¹⁹ This includes Energy, Media, Telecommunications, Railways and Finance. As a consequence the national government attempts to foster and nurture domestic firms at the expense of international and foreign competition. All told there are roughly 110,000 to 150,000 state-owned enterprises (SOEs) supported and managed by townships, cities, provinces and nationally within China (down from 1.2 million in 1995).^{20,21} They contribute to roughly 62% of the annual GDP.²² In addition, roughly 100 SOEs such as China Mobile, Xinhua and Sinopec are afforded the equivalent of VIP status, granted financial priorities and regulatory leeway.

Yet even within these government champions are opportunities for outside, international participation. While most Fortune 500 multi-national companies have permanently established a presence on the mainland, there is still ample room for foreign SME's and consulting firms to participate in a bevy of other industries such as education, social media, athletics and even in government procurement. In fact, in 2011, government procurement amounted to about \$179 billion.²³ And following a series of reforms, foreign firms are now permitted to bid on government procurement projects. With that said, China is currently not a signatory to the World Trade Organization (WTO) Agreement on Government Procurement (GPA).²⁴ So if you are a bidder in a procurement project, be cognizant and aware that you will be unable to make a case and petition the WTO in the event that issues arise.²⁵

With a \$8.28 trillion economy, despite a seemingly Byzantine regulatory climate, capturing even a small portion of market share means there may be opportunities and rewards for those creative and enterprising enough to locate them.²⁶ As I note later in Chapter 5 and Chapter 10, policy uncertainties and hurdles will create challenges for both foreign and domestic companies.

For example, China Securities Regulatory Commission (CSRC) – the equivalent of the SEC – routinely compels a dozen or more SOEs to prop up the stock market, to prevent the Shanghai stock index from falling below 2000; which it momentarily did for the first time in four years in November 2012.^{27,28} While this revelation is neither new nor proprietary it creates a dilemma

for investors who are “more concerned with the decisions of regulators than the valuation of companies.”²⁹ This would be akin to refocusing on (and lobbying) referees at a sport event rather than the actual game.

Another requirement for nearly all imported goods is obtaining the CCC or China Compulsory Certificate. This mandatory CCC mark, which typically takes 4-8 months to receive, is administered by the Certificate and Accreditation Administration, which maintains a list of products that are required to meet this certification process.³⁰³¹ Failure to obtain and complete the application ends with a denial of market entry. Another issue is proper labeling and packaging. For example, beginning April 2013, all imported medical devices are required to have packages and labels written in Chinese. Failure to do so will again prevent the manufacturer and sponsor from being able to market their products on the mainland.³²

Taxes and duties are another issue that is sometimes overlooked. The General Administration of Customs (海关总署) periodically revises a list of products and their corresponding tariff rates. For example, as of April 15, 2012, while some goods are taxed at 10% (e.g., food, beverages, leather garments, furniture), others are levied up to 50% (e.g., cosmetics, tobacco, alcoholic beverages) and still others such as luxury goods are charged a 60% tax rate.³³ In some cases if you import goods worth less than 5,000 yuan (\$800) then you may not have to pay a tax on them.³⁴ One personal anecdote involves sending jewelry (gold and diamonds) from the US to China via FedEx in December 2011. The jewelry was held up in customs at Shanghai’s Pudong airport because of import restrictions; I was required to pay a duty tax due to its value exceeding the 5,000 yuan limit. And as I note later in Chapter 11, it is these types of taxes which incentivize Chinese consumers to travel overseas to buy goods which can then be claimed as “personal belongings” upon return, thus removing tax liabilities and saving money. There are also 15 special economic zones (经济特区) also called free-trade zones that are allowed to set their own import regulations and duties and as a consequence are relatively popular for establishing joint-ventures and foreign trade operations.³⁵³⁶ In addition to areas such as Shanghai’s Waigaoqiao and Ningbo’s free trade area, these zones also include the special administrative regions (SAR) of Hong Kong and Macau and are credited for the subsequent economic booms in each of the mainly coastal cities.

Another nebulous challenge which varies from location to location is transaction costs involving government and quasi-governmental support and approval.³⁷ In some industries in order to start-up a business you may not only have to acquire businesses licenses but also directly work with governmental bodies to set up operations. In some instances you may even need to have a government policy and market policy, or in other words, you need to have resources and labor to interface with policy makers as well as with market participants. There is no set generalized rule about these transaction costs and thus discussing these issues with a lawyer is highly recommended since the Foreign Corrupt Practices Act (FCPA) and UK Bribery Act are both actively enforced (see Chapter 10).

Yet despite all of these known hurdles (more of which are discussed in later chapters) and what your due diligence may discover, there still may be a profitable case for doing business on the

mainland. Failure to do so, your firm could follow the unfortunate footsteps of Caterpillar, who recently took a \$580 million write-down at a subsidiary that acquired a Hong Kong listed firm (ERA Mining) off an acquisition price of \$654 million.³⁸³⁹

Yet for perspective, China is the world's largest car market, the largest motorcycle market, the largest smartphone market, the largest art selling market, the largest online game market, the largest population of online shoppers and even the largest gambling market.⁴⁰ How large are these potential markets? For instance, in 2009, China surpassed the US as the largest vehicle market globally and approximately 19.3 million automobiles were sold in China in 2012.⁴¹ By 2015 it is estimated that the Chinese car market will be larger than the US, Japan and Germany combined.⁴²⁴³⁴⁴ And by 2016, *McKinsey & Company* – a global management consulting company – estimates that China will surpass the US as top luxury car market.⁴⁵ There are now 240 million vehicles on the mainland and 20 million more vehicles will be sold this year.⁴⁶ Furthermore, according to Michael Dunne, an Asian-based car market consultant, “[of] the projected 2.3 million American-branded cars Chinese will buy this year [2012], an astonishing 96% will be made in China.”⁴⁷ And this growth rate has largely occurred in less than a decade. For example, in 2004, the market for Land Rover vehicles on the mainland was a mere 1% yet has subsequently surged to 20% of Land Rovers total sales last year.⁴⁸⁴⁹ There have been similar growth rates in other areas. For instance, with 290 million smartphone owners, this market itself is expected to double in size within the next year.⁵⁰ Can you provide goods and services within these segments?

Local fluctuations

One term you may see throughout the book is the yuan (*renminbi* or RMB) which is the name of the currency in China. As of March 2013 approximately 6.22 RMB was equal to \$1 USD. How often does this fluctuate? In the first half of 2012 it depreciated by almost 1.5% but in October 2012 it gained back .75%. While all major currencies in the Post-Bretton Woods monetary system fluctuate relative to one another, the key takeaway is that the RMB itself is not free-floating.⁵¹ It is managed on a band peg set daily by the People's Bank of China (e.g., the central bank pegs the rate each day and the currency can move up to 1% in either direction).⁵²

What are the average annual salaries of Chinese residents? As I noted later in Chapter 15, according to 2011 official figures, the per capita disposable income for rural residents was \$1,100 and their urban counterparts was \$3,430.⁵³⁵⁴⁵⁵ But there is also a significantly large outlier at the top-end, according to Hurun's 2012 list of richest people in China there are now more than a million USD millionaires on the mainland, a number that is estimated to increase to 1.9 million by 2015.⁵⁶⁵⁷ And according to a recent Boston Consulting Group study, the number of affluent Chinese (those with disposable incomes of at least \$20,000 to \$1 million) will double from the current 120 million to 280 million by 2020.⁵⁸ While these numbers will probably fluctuate and may even dip due to fallout from real-estate bubbles, this suggests that there are potential customers at various price points your company is looking to sell at.

I should also point out that I purposefully avoided analyzing most industries that are nationalized

as well as those directly affected by the recent investment business cycle, specifically residential real-estate and commodity exchanges.

Gaining and trading *guanxi*

While I mention it in passing several times, *guanxi* (关系) is a unique cultural phenomenon involving personal connections and trust networks and I think Matt Garner describes the phenomenon most concisely for Western audiences:

[*Guanxi* is] one of the big cultural disconnects I would always see between American and Chinese business people. Americans are results oriented. But Chinese are relationship oriented. When the Americans come they have a specific set of objectives to meet. They come to the table with those goals and hope to meet them in a few days. Asians, on the other hand, typically want to first make the relationship. It's like a marriage arrangement. You want both sides to know and trust each other first. This is especially true in China since contract enforcement mechanisms in most of the country are still developing, thus making trust and mutual respect mission critical. A first round negotiation is more of a meet and greet than anything that gets tangible results.⁵⁹

While building rapport and trust is important for all long-term business relationships in any country, *guanxi* is a unique cultural trait that is established first before any business transaction is carried out. Moreover, such a relationship (*guanxi*) can only be built and reinforced over time through repeated virtuous performance, and not easily given to quick introductions and a handshake (as is the practice in the West). Hence the seemingly endless rounds of elaborate dinners, karaoke nights and mahjong sessions to establish and maintain *guanxi*. For example, Anschutz Entertainment Group (AEG) is an American company that operates the Staples Arena in Los Angeles and the Mercedes-Benz Arena in Pudong, Shanghai. As part of their long-term expansion plan they have hired local salespersons and managers to build *guanxi* and relationships with local suppliers and officials. In doing so, they can cement mutual trust among all stakeholders and provide a communication channel for all future business. In addition it is an expandable resource as whomever you have established *guanxi* with can now introduce you to their own trust networks and connections.

Is this merely the exception rather than the rule? No. For LinkedIn, out of its 200 million global userbase, only 1% comes from China. Why? Professor Wei Wuhui of Jiaotong University opines that, "I don't think the Chinese middle class has the same needs in terms of professional networks as people in the West, because of the concept of *guanxi*. In China people do not want to meet with people they don't know. The Chinese have a culture based on relationships among family members and close friends."⁶⁰ Thus do not necessarily count on using Western networking methods to procure and build contacts – or as the expression goes, when in Rome.

And as Larry Chang, Charles Zeng and other entrepreneurs point out in interviews later on, one of the biggest challenges for any foreign firm is initially building these social connections, these trust

networks that every Chinese businessperson and consumer has. Yet overcoming this cultural challenge is a struggle for anyone even mainland residents. As the saying attributed to Joseph P. Kennedy and Knute Rockne notes, “when the going gets tough, the tough get going.” If becoming a successful entrepreneur was easy, we would all be *fùwēng* (富翁).

Takeaway: With the 2nd largest economy and an increasing demand for foreign-made products and services, China may be a new source for customers and revenue generation. As detailed in the following chapters each industry has differing market access characteristics. Furthermore, there are a variety of ways to sell your products directly to Chinese consumers, even without physically opening an office on the mainland (see ExportNow in Chapter 7). Yet there are any number of policy and domestic hurdles that may present challenges to all foreign companies – challenges that as I repeatedly stress throughout the book require you to do your due diligence before making any substantial investments. Furthermore, how you attract brand awareness, generate leads and manage customer relationships are tactical decisions that will vary according to industry – some of which are detailed in the following chapters.

Chapter 2 - Selling books and content

In the Spring of 2009, a young freshman named Cena asked me a question (as in WWE John Cena – many men in China enjoy the drama of World Wrestling Entertainment).

Cena said, “Mr. Swanson, what do American college students do with their textbooks after the semester is over?”

I replied, “If the class is offered again, we can usually sell them back to bookstores near campus or to online buyers, though sometimes students simply throw them in the recycling bin too.”

Cena thought for a moment and then said, “Why don’t you sell them to China? Our books are sometimes of lower quality and outdated.”

He raises a good point, what are the logistical and legal challenges of gathering and exporting used American textbooks to mainland China? Is there any profitable business model that we can use to compare the potential market opportunity?

Founded in 1972, Half-Price book store is a Dallas-based company that buys and sells used books. Yet despite this seemingly simple business model – buying used books and selling them – the company has grown to operate more than 100 stores in 15 states.

Could you sell used books like Cena suggested? While establishing a brick-and-mortar store front in an increasingly digital age probably may not be financially justified, there are also regulatory hurdles worth considering (e.g., obtaining permission from the former General Administration of Press and Publication now called State Administration of News, Broadcasting, Film and Television).

In fact, there has been an ongoing trade dispute between the US and China regarding China’s barriers that limit the importation of books and other media. In addition to regulating the distribution of foreign material, Chinese policies require that foreign media and books must be channeled through state-owned enterprises (like Xinhua and China Film Group). In 2009 the WTO ruled that China had “violated international rules” by these limitations.⁶¹ After appealing, five months later the WTO appeals board once again ruled that China was “unjustified” in such limitations.⁶²⁶³ While this dispute continues to simmer, despite these challenges the domestic book market has grown. For example, “just 7-8 years ago,” Jo Lusby of Penguin China says that “there wouldn’t have been the market to sustain what we’re doing. Today it’s a challenging business, but it’s commercially as well as literarily worthwhile for us.”⁶⁴⁶⁵

And while there could be a case either way – depending on future import regulations and oil prices for transportation – perhaps you could find a Chinese partner to create the equivalent of Half-Price on mainland China. Perhaps one relatively sanguine route would be to source the used books in areas that are non-political like the STEM subjects: science, technology, engineering and math text books in the US to sell through your joint-venture (JV) partnership.

Or while this trade dispute remains ongoing, perhaps foreign content creators could attempt to ‘go digital’ in the interim. I discuss some other relevant challenges in Chapter’s 10 and 14.

A large demand for content

With 370,000 titles, in 2011 the Chinese domestic book market was valued at \$10 billion, displacing Germany and making it the second largest book publishing market in the world (after the US).⁶⁶⁶⁷ All told, according to the Chinese Academy of Press and Publication “the revenue from publishing, printing and distribution reached 1.46 trillion yuan (US\$228.62 billion), up nearly 18 percent from the year before.”⁶⁸

Furthermore, Chinese readers are becoming as voracious as their Western counterparts. For instance, the academy also found “the average books read by Chinese in the year of 2011 to be 4.35.”⁶⁹⁷⁰

How are they reading these books? According to a 2011 *Publishers Weekly* report, the “preferred platform” for Chinese readers is now the digital ebook, such as those found on smartphones.⁷¹ And despite relatively tight government regulations on all forms of communication and publication, the book publishing industry and in particular the ebook industry continues to grow.

For example, Baidu, China Mobile, Hanvon and Cloudary operate the top ebook platforms and distributors; platforms whose usage rates have grown at double digits each of the past several years. And because Amazon’s Kindle is currently not being sold in China, many other domestic e-readers have gathered large marketshare. Hanvon has roughly 50% of the e-reader marketshare and Shanda’s Bambook has captured 28%.⁷² In fact, Shanda-owned ebook platform Cloudary alone has published 5.2 million titles by mid-2011 whereupon it was spun off into a successful \$200 million February 2012 IPO.⁷³ Shanda is now China’s 5th largest tech company by revenue.⁷⁴

Do you or your company have books or content currently published in the US? Do you create and provide content for science, technology, engineering or math books or periodicals? If so, then mainland companies like CLS Communication (the largest in China), Sinophone, Yuyi and Berlo may be able to provide translations of your material so that you can upload and sell the content on platforms like Cloudary.⁷⁵

Translating your content

If you would prefer to use US-based translation services, there are a number of providers. According to a 2012 report from *Common Sense Advisory*, in terms of revenue, the largest language service providers in the US are: Mission Essential Personnel, Lionbridge Technologies, TransPerfect and ManpowerGroup.⁷⁶ Together they generated more than \$1.5 billion in revenue last year.

Dean Stamatis, author of over fifty books on statistics, quantitative finance and Six Sigma, has been in the process of locating an English-to-Chinese translation service in China for translating his latest 900 page technical book.⁷⁷ In November 2012 he explained to me that on the one hand “you have excellent, yet expensive translation service providers in the US and on the other you have relatively cheaper (though still expensive) translators in China who may be a little more difficult to communicate with across the time zone differences.” Furthermore locating the Chinese providers can be a laborious task at times as well and as a consequence he personally has traveled to China to discuss the services face-to-face. This is something that all businesses should take into consideration.

A content plan of action

In Chapter 12 I discuss the social media industry in China and how foreign firms can build and maintain a brand through the numerous social media sites. Again, while it is important in the long-run to understand the culture and language of your potential customers in China, with a few minutes of Google searches you can start rolling out both your brand and your content to the Chinese public right now, without even knowing any Mandarin.

Just as there was a virtual land rush with the opening of Facebook Pages and other unique domain names in the 1990s, so too is there a land rush for social media positioning in China. And irrespective of whether or not your local competition in the US acquires brand names before you do in these new Chinese platforms, you have another competitor you do not even know about: hundreds of start-up companies in China that are discussed later in Chapter 12.

Thus without needing to hire a strategic consulting firm, you and your company can and should already establish a beachhead in China by registering and creating a QQ and Sina Weibo account (look at Chapter 12 for more details) and by assessing e-tailers like Cloudfare for your digital content.

One last word of warning, if you are looking to get involved with an ebook platform, be sure to study the guidelines and regulations permitted by the former General Administration of Press and Publication (中华人民共和国新闻出版总署).⁷⁸ Amazon China is currently under investigation for possible violations related to obtaining the proper approvals and licenses for its new Kindle Store on the mainland.⁷⁹ In fact, as an aside, despite its 8-year endeavors Amazon China has only captured 1% of the \$196 billion e-commerce market.⁸⁰ While the case is ongoing be sure to consult with an attorney (see Chapter 10) before making any substantial investments first.

Takeaway: Looking around at your existing content, you and your company may find China as a new market for revenue generation. This includes both older and new content ranging from science and technology books to reports your company published in periodicals. China is the 2nd largest book market and has a number of well-funded, well-developed ebook platforms that your company may be able to sell into. There are also a number of well-established industry leaders on both sides of the Pacific capable of translating your English content into Chinese and

vice-versa. This move towards online selling also presents an opportunity to establish a brand through Chinese social media sites such as QQ and Sina Weibo that are discussed at length in Chapter 12. Failure to quickly move into the Chinese market not only presents an opportunity for your domestic US competition but also for your competitors in China with whom you probably are unfamiliar.

Chapter 3 – Food and beverage

There is a famous proverb in Chinese called *min yi shi wei tian* (民以食为天) – eating is as important as the sky.⁸¹ Despite regional differences in dialects, in regulations and in climate, one universal rule on the mainland is that eating is one of the most important activities of the day. While this may sound like a fortune cookie truism (which by the way, do not exist in China – I have yet to see one), with recent memories of plagues and famines in their mind, many Chinese residents pay close attention to what their next meal will be. And how it will be cooked and increasingly, where it was grown.

And while they may have a reputation for spending some of the highest amounts of their annual income on food (28% in China versus 10% in the US, this is called Engel's Law⁸²) and are simultaneously highly elastic (e.g., if food prices increase they will switch over to cheaper substitutes), their perpetual gastronomical vigilance is not unwarranted.⁸³

During the summer of 2008, China was faced with a series of nationwide milk powder scandals in which 300,000 babies and infants were poisoned and six died from a chemical called melamine which local producers had added "to save money."⁸⁴⁸⁵⁸⁶ As a consequence, there was a subsequent surge in the importation of milk powder from abroad including New Zealand and Australia.⁸⁷ All told 80% of imported dairy products were from New Zealand in 2012.⁸⁸ And in Australia, Victorian dairy farms recorded a record \$144 million in exports to China in 2011.⁸⁹ In fact, China is now the largest powder milk importer globally as many families – out of concern of repeat poisoning – currently place higher value on imported brands.⁹⁰⁹¹ As a consequence, Tmall, the largest e-commerce platform on the mainland, has begun importing baby formula from companies such as Nestle and Danone to be sold directly to Chinese customers.⁹² And milk is not the only dairy product that Chinese consumers are importing. For example, despite being a new commodity to the mainland \$139 million worth of cheese was imported in 2011.⁹³

And to "secure" these supply lines according to *Financial Review*, China Investment Corporation (CIC), one of the world's largest sovereign wealth funds, is actively seeking agriculture investment opportunities in Australia and other countries.⁹⁴ In fact, the Beidahun Group, the biggest Chinese agricultural conglomerate recently purchased and is leasing 100,000 hectares in Western Australia and plans to invest up to \$4 billion in Australian agriculture.⁹⁵

In addition to the melamine fatalities above there have been scandals involving "gutter oil," whereby cooking oil is collected and dredged from restaurant drains; clenbuterol and other chemicals are added to meat to "enhance" the taste yet is toxic; arsenic in frozen calamari and even tainted steamed buns crop up throughout the year.⁹⁶ It is not unsurprising then that according to a 2012 survey conducted by Horizon Research Consultancy, a Beijing-based polling company found that 41% of those surveyed said food safety was a major problem, up from 12% in 2008.⁹⁷ One residual ramification from this stark rise in concern comes from a 2012 report from Ipsos, a market research company, which found that due to food scandals "more than 60 percent of people would choose foreign brands more often."⁹⁸⁹⁹

At the same time, in 2010 China exported \$41 billion in agriculture such as garlic and onions, yet even among some of this purportedly screened produce, there have been food safety issues. For example, this past summer a batch of strawberries originally grown in Shandong ended up poisoning thousands of German schoolchildren. While the investigation is ongoing, the initial findings were that some of strawberries may have been contaminated with norovirus.¹⁰⁰

Not quite soylent green

In a bid to protect consumers, an independent, private consumer watch-dog group called Zhichuchuangwai was started in 2011 to chronicle all of the nationwide stories involving food and beverage containments.¹⁰¹ In addition, the world's largest food retailers (hypermarkets) including WalMart, Tesco, Carrefour and Metro have spearheaded an independent non-profit quality assurance consortium called Global Food Safety Initiative to produce food safety guidelines, harmonize food safety standards and create a certification framework for suppliers and distributors.

As China develops and the middle class grows, the demand for higher quality goods – safe goods – has led to an increase in opportunities for foreign brands which are perceived as meeting the highest safety standards. For example, the USDA trade office in Shanghai reported that “the 82 foreign hypermarkets [in Shanghai] accounted for 78.6% of the total hypermarket sales volume in 2008.”¹⁰² These same hypermarkets also contain an increasing amount of food products (60% as of 2009). Collectively the mainland hypermarkets is a \$81 billion industry and growing.¹⁰³ Yet before you decide to jump in and create yet-another-hypermarket, this area is fraught with nebulous legislation. For example, in an effort to “protect” small and medium suppliers, on December 19, 2011 five ministries and committees issued a joint regulatory plan whereby they arbitrarily removed hypermarkets from being able to charge delivery fees, slotting fees, holiday fees and several other fees.¹⁰⁴ This caused a lot of confusion and as a consequence retailers were essentially forced to resign their previous contracts with local suppliers. In addition, these foreign “big box” companies face zoning restrictions that prevent them from competing with domestic retailers like Suning or Gome.¹⁰⁵¹⁰⁶

For perspective in this segment, in 2010 the two largest retailers in China were Vanguard (華潤萬家) and Lianhua (欢迎访问联华网站), both of whom are state owned enterprises (SOEs), and they both generated more than \$10 billion in revenue. For comparison, privately run RT Mart (owned by Sun Art), Carrefour and Walmart generated 25-35% less, yet with a fraction of stores compared with their domestic competition. For instance, Carrefour generated almost \$7 billion in revenue from 182 stores compared with Vanguard, who had 3,155 stores. In addition, not all private companies perform the same. In 2012 Tesco closed several outlets in August and scaled down its expansion plans and Carrefour's same store sales declined 6.1% in Q3 2012 yet RT Mart has thrived and plans to open 105 hypermarkets in 2013.¹⁰⁷

In my own anecdotal observations, these large foreign-owned hypermarkets are continuously filled by Chinese and expats alike, even though some of the products cost significantly more than locally owned supermarkets are charging. For example, as I mention later in Chapter 6, I had a

bad bout with food poisoning while in China during 2011 and as a consequence both my Chinese and American doctors recommended that it is better to be safe than sorry – better to spend more on safer food now than pay for it later as an in-patient. So several times a week I shop at a nearby CityShop.¹⁰⁸ CityShop is an up-and-coming, locally owned and expat managed supermarket with 10 stores in the Shanghai and Beijing areas. More than 80% of their products are imported from the US, Germany, Australia and other developed countries.¹⁰⁹ And like Walmart and Carrefour, CityShop is packed with shoppers – both Chinese and expats – throughout the day.

In March 2013 I spoke with Lawrence D'souza, customer service director for CityShop. He is originally from Goa, India and has spent his career managing a variety of supermarket chains around the globe. For the last three years he has worked on the mainland at his current position and in his view there are a couple of challenges that while not unique to China, can be a hurdle for entrepreneurs.

In D'souza's words, "one of the issues that all grocery stores face when trying to import goods is changes in duties and clearing customs. So for example, recently it has become difficult to import certain products like organic foods which require the CCC stamp from the government yet may not be approved for a variety of unstated reasons. On the other hand, items like organic milk from Australia are typically allowed entry. So supermarket owners need to keep up-to-date otherwise they will have backlogs in their supply chain. Another reason this is important to a grocery store like ours has to do with location. Each of our store locations is placed in a different neighborhood with differing demographics. So for example, one location may cater to a client base that is comprised entirely of mainland Chinese. Another location may have a mix of businesspeople from Japan, Hong Kong and Taiwan. And yet other locations may have 50% of their customers that are expats from the West. As a result, we have to stock each store with different items that the target market wants, thus the consistency and flow of items is different. Which brings us back again to keeping up-to-date with changes in the import rules so that way we can remain flexible to the demands of our diverse customer base." As mentioned in Chapter 1, CCC stands for China Compulsory Certificate and is required in order to import any item. Furthermore, import taxes such as those on wine or breakfast cereal can vary throughout the year and the list of which is maintained by the General Administration of Customs (海关总署). Additionally, all organic foods imported or produced locally needs to be approved by the China Organic Food Certification Center (COFCC).¹¹⁰

At the same time D'souza sees several untapped opportunities in this segment. According to him, "because of the rapid development in the last several decades and scarcity of shelf space, there is a product gap, a lack of certain flavors and tastes as some of the food that supermarkets import on the mainland may not necessarily be of interest to customers from India, Russia or Southeast Asia. For instance, there are between 40 to 50,000 Indian businesspeople and traders that work in Shanghai throughout the year, yet finding specific food like basmati rice can be difficult to locate in the metroplex. One example in our own stores is that based on customer feedback we added avocados and guacamole throughout the year due to the popularity of Mexican food. So other entrepreneurs could likewise satiate demand from ethnic

niches and become successful doing so. On the other extreme is volume and scale: the bigger the store, the more products you can stock. Entrepreneurs and managers could try to emulate big-box stores such as Costco which may be able to keep costs low and process bulk orders to cost conscious buyers – but this also has its own share of inherent challenges.”

Another challenge that D’souza and others that I interviewed raised that is not unique to China is fixed capital costs. Or in other words, leasing real-estate. In busy areas like Raffles City (来福士广场), one of the most popular shopping malls in Shanghai, space may cost 15 RMB per square meter per day. It is significantly higher in the case of supermarkets, 10,000 to 15,000 RMB per square meter or up to 50% of the total operating costs may come solely from rent. Entrepreneurs should also be aware of the gestation period in receiving import permits and licenses. According to several businesspeople that I spoke with, it may take 6 or more months to have all the paperwork processed and approved (photocopied, translated, verified), especially if it is a new type of food or ingredient that has never been sold in China.

However, before you come away thinking that hypermarkets and supermarkets throughout China are filled row-after-row with imported goods, the same USDA report noted that even international retailers “typically carry less than 1% imported SKUs” and that “imports rarely constitute more than 5% of total SKUs” even in high profile stores in large cities like Shanghai and Beijing (an SKU is a stock-keeping unit). One of the reasons why this is the case is that few of the retailers have been able to build out a distribution network (e.g., cold storage) that they already have in Western countries on the scale that KFC has managed to do (as I note in Chapter 16). What this means is that by-and-large, these same retailers typically still source their food from local suppliers. This presents an opportunity to foreign distribution and supply chain management experts – to bridge the wide gulf between an increasingly wealthier consumer that would like to purchase imported products for quality and safety reasons versus the amount of imported goods that retailers are able to continuously stock.

Another opportunity is for cold storage experts as well. For example, PFS (Preferred Freezer Services) is a joint venture between an American company and a Dalian-based company (Yida Group). During the next several years they will spend more than 7 billion RMB (\$1.1 billion) to build out a cold storage network across China, including a 40,000 ton facility in Shanghai.¹¹¹ And according to Li Wanqiu, head of Zhongde which is a cold-storage consultancy, “Beijing alone built over 50,000 square meters worth of new cold storage warehouses in 2011.”¹¹² The reason these are needed is that according to Datamonitor, “China’s frozen food market grew 9.9 percent annually between 2004 and 2009.”¹¹³ One of the reasons for why this marked increase in consumption has occurred is that as an economic develops and urban residents work longer hours, they have less time to cook. So the demand for quick, easy-to-make meals such as TV dinners (e.g., Hungry-Man) increases. Can your firm take advantage of this opportunity?

You don’t need to bet the farm

In Chapter 16 I discuss the failures and successes of foreign owned and operated restaurants (such as KFC and McDonald’s) but even with their entry there is potential for additional

competition. For example, in October 2012 I interviewed Glenn Wilkinson an Australian who has lived in China for the past 25 years. He is a Senior Consultant at Beacon Consulting, a Shanghai-based firm that specializes in corporate training and HR staffing.¹¹⁴ In his mind, one of the biggest opportunities for both foreign and local entrepreneurs is in the “food industry,” a very vibrant and dynamic market.

What he means by food for example, are the restaurants I listed above. One of the reasons this is a vibrant market is that according to the National Bureau of Statistics, the restaurant industry as a whole has been growing 14% annually since 2007 “reaching two trillion Chinese yuan (US \$319 billion) in 2011 to account for 11.3% of all revenue in the consumer products category.”¹¹⁵ The food-service industry (e.g., catering) jumped to \$99 billion in 2011 also up 14% from a year earlier.¹¹⁶ Furthermore, as noted by Wilkinson and others interviewed, there is a high demand for a quality product due in part to safety concerns and in part because of a growing middle class. For comparison, retail sales in China have risen an average of 17% for each of the last five years and the luxury goods market (see Chapter 11) is expected to grow 20% a year for the next decade.¹¹⁷

Yet to be even handed, enthusiasm should be tempered due to policy changes from the top. According to the China Cuisine Association (CCA) that due in large part to Xi Jinping’s (the new President of China) fight to stop waste of public money on extravagant meals, the CCA recently conducted a survey that found, “60 per cent of nearly 100 restaurants saw bookings cancelled recently, with one Beijing-based outlet reporting an 80-per-cent drop in sales.”¹¹⁸ Furthermore, “The survey found that business owners felt pessimistic about the outlook of the industry. They think it’s necessary to readjust their business models to adapt to the new market conditions.” Prior to the new national policy, the average monthly failure rate of restaurants was 15% in mid-2012.¹¹⁹ Thus the risks involved in setting up a new food & beverage establishment arguably have changed and that failure rate may increase in the short and medium term.

While each city has different rules regarding local partnerships and minimum registered capital requirements, the restaurant business is relatively open to market participation (e.g., certain districts in Shanghai require a \$150,000 minimum in registered capital).¹²⁰ While you would need to do your own fact-finding exploration to measure the return-on-investment, based on anecdotal evidence, it appears that mainland Chinese are apt to eat foreign food just as voraciously as they eat domestic food.

For example, in 2002, Element Fresh was founded by two foreigners, Scott Minole and Sheldon Habiger, has since opened 13 stores in Shanghai, Beijing and Guangzhou. While a bit on the expensive side, in my mind the quality of the salads more than make up for the price. In 1999, Bob Boyce from Montana co-founded Blue Frog with his business partner Kathleen Lau.¹²¹ I have visited two of its 9 locations (there are 6 in Shanghai and 3 in Beijing) in part because they have great specials on Monday’s and because the burgers are some of the best in the city. Also in 1999, John Christensen of Denmark founded Wagas, a delicious sandwich shop that I have personally frequented several dozen times. There are now 25 and counting Wagas locations in Shanghai alone and one in Beijing.

One of the reasons these Western-style restaurants are finding success is as I note in Chapter 15, you have several million Chinese residents who have lived, studied and worked overseas and some of them now enjoy Western food. For example, according to one estimate by the government, 186,000 Chinese living abroad moved back to China in 2011.¹²² According to the China Tourism Agency, 70 million Chinese tourists traveled overseas in 2011 and an estimated 82 million traveled overseas in 2012 (who spent \$98 billion).¹²³¹²⁴ *McKinsey & Company* estimates this number will climb to 94 million by 2015.¹²⁵ And by 2020, Boston Consulting Group predicts that “China’s total outbound market [will] likely be three times as big as Japan’s.”¹²⁶ In addition, nearly one million Chinese students now study overseas, including more than 190,000 in the US alone.¹²⁷ Thus, the Chinese middle class is increasingly familiar with Western-flavors and styles. And if my own anecdotal experience is any indication, restaurants like Wagas and Blue Frog, while popular with expats, are also quite popular with locals as well – some nights accounting for 90+% of the customer base. Perhaps you could create a BBQ or Tex-Mex franchise, both of which there are currently few market participants.

Simultaneously, domestic firms whose management understands these dynamic tastes are not sitting idly by. For example, the Alibaba Group, the largest e-commerce internet company in China (owner of Taobao, Tmall and Alibaba.com) is developing a new procurement system to bridge consumer demand with foreign, international suppliers.¹²⁸¹²⁹ According to its founder, Jack Ma, “Tmall will work with the center to build a database of international suppliers that Chinese consumers are most interested in. It would then collect orders to make group purchases.”¹³⁰ The new system is expected to be rolled out within the next two years and part of the domestic plans is to deliver anywhere on the mainland within 24 hours.¹³¹

Tastes and flavors from home

In March 2013 I spoke with Charles Zeng, founder of Piro, a restaurant and bar located in Shanghai near Jing’an Temple. Zeng is originally from New York City and previously worked in the financial industry before moving to Shanghai. After some cursory research he saw an unmet demand: tasty Western food with a normal price tag. Thus two years ago he setup shop, teaching himself how to cook, learning as he went. In his words, “while both of my parents were originally from Shanghai, they moved to the US about 30 years ago. Yet despite this cultural connection, starting up the restaurants was still difficult for me due to a lack of *guanxi* and knowledge of the regulatory climate. The learning curve was steep but based on my research I found that there was not enough American-style food for a price that both expats and locals could afford. And so despite the hurdles I have turned this project into a profitable business venture and definitely think that there are a wide range of opportunities for more competition in this food and beverage area.”

In his view, obtaining the necessary licenses and permits and meeting the food code regulations are an ongoing challenge that all business owners must face. Specific opportunities beyond food that he sees are “niches such as micro brews, craft brews – there are currently not many out here despite the enormous consumption of beer and liquor. More specifically, craft beers that

are higher value, top-shelf products.” In 2011, 50 billion liters of beer were consumed in China compared with 24 billion in the US and 9 billion in Germany.¹³² With \$1 billion in industry profits in 2012, China is the largest beer market by sales and Nomura forecasts that profits will rise to \$9 billion in 2021. Yet according to Accenture, 85% of the domestic beer market is “comprised of low-end domestic beer brands” such as Tsingtao which sells a 330 mL bottle for \$.32 (for comparison, a similarly sized Budweiser costs \$1).¹³³ Thus, Zeng sees this as an opportunity to serve a niche market that will invariably grow as consumers become more familiar with what the market offers. Maybe your local microbrew club could find success, like Carlsberg has attempted to do, as it recently bid to takeover Chongqing Brewery Company for \$461 million.¹³⁴

Yet to temper visions of immediate grandeur, consider champagne and chocolate. In contrast to the large amounts of wine importation (see Chapter 11), the consumption of champagne remains relatively subdued. Only 1.3 million bottles of champagne were sold in China in 2011 compared with 1.3 billion bottles of red wine during the same year.¹³⁵ Similarly sales of other red wines to China from areas such as Germany remained muted because of lack of brand awareness (i.e., Chinese consumers are unfamiliar with German brands).¹³⁶ In other food segments, chocolate consumption also remains low-key on the mainland. The average Chinese consumes a mere 100g of chocolate a year; in comparison the average Japanese eats 11 times as much, an American eats 44 times as much and a German eats 82 times as much.¹³⁷

And if you own a farm

Roughly 2% of all American’s work in the most productive agricultural industry in the world; an industry which not only feeds the 3rd largest populace but also grows and exports significant portions of the world’s caloric intake (up to 20%). In 2011, the US exported a record \$137 billion in agricultural products globally and China imported a record \$20 billion from the US (surpassing Canada).¹³⁸ In fact, due to a variety of reasons, in 2011 China became the largest importer of agriculture.¹³⁹ Among other products, US farms exports soybean, rice, corn, cotton and pork to China.¹⁴⁰ And in part because of a variety of domestic policies in China (discussed in Mark DeWeaver’s new book¹⁴¹), China is essentially dependent on the US for food security and thus is investing in and buying secure supply channels to improve its livestock.

For example, the *New York Times* noted this past spring that the US, “exported a record \$664 million worth of breeding stock and genetic material like semen in 2011.”¹⁴² Who is buying this material? In 2011, Chinese companies “bought \$41 million worth of live breeding animals and genetics.”

Why are they buying this? The *New York Times* quoted, Ronald Lemenager, a professor of animal sciences at Purdue University in Indiana, who said, “[w]hen you have a nation’s diet changing as rapidly as China’s, the most efficient way to build up production is to improve your animal genetics. We have the genetics they want.”

Thus, if you own or operate a farm in the US, not only can you export your products to China, but

you can probably provide services to improve China's knowledge base of breeding and husbandry.¹⁴³

Domestic initiatives in agribusiness

As I detail later in Chapter 14, NetEase is the 2nd largest tech company in China. Its founder is William Ding who is investing a significant portion of his personal multi-billion dollar wealth in agriculture. He along with his company "have set aside \$16 million for agricultural investments" such as an organic piggery stocked with 5,000 pigs "raised and sold under conditions that can satisfy health-conscious consumers spooked by China's many food safety scandals."¹⁴⁴

How large is this organic industry? According to Du Xiangge, chairman of the China Federation of Organic Agricultural Movements (CFOAM), "Only 1.9 million hectares of land are used for growing organic vegetables in the country, less than 1 percent of all farmable land. It is possible that the ratio could reach 5 percent over time."¹⁴⁵ Thus there is ripe potential for investors such as SAIF partners a domestic private equity (PE) fund that finances specialty shops like LohaoCity which sells organic health food in Beijing and Tianjin.

On the other end of the spectrum is Peter Zhang a former-chemical engineer at a large SOE (and an autodidact) who is originally from Heilongjiang in the northeast. Over the past several years he has retrained and retooled to become an English teacher, yet in an effort to hedge against food safety he has retrained yet again, becoming proficient in agribusiness and has leased several dozen hectares in Southeast Anhui province to grow organic produce, primarily fruits and vegetables, for his friends and family. Zhang told me in November 2012 that, "I am concerned about food safety issues and have invested my personal savings into growing quality produce for my family and friends. I belong to the middle class, I should be able to afford the quality of food that previous generations have in the past, yet due to inflation and a number of other macro factors, cannot. So I have invested our savings into a dozen hectares of crops including carrots, rice, pears, cherries, grapes and even free-range chickens. And after you get through the inconvenient paperwork, land is relatively cheap to lease outside of urban areas thus making the whole endeavor worthwhile." He is leasing roughly 80 acres (around 500 *mu* or 亩) for about 30,000 RMB (\$4,800) a year based on a 55-year lease between the government and rural farmers who exchanged the land with him (the typical lease on the mainland is 50-70 years, after which time ownership automatically reverts back to the state).

According to Zhang and others I have spoken to, inflation has pushed the price of chicken past a psychological "100 yuan per pound" line, a price that makes eating high-quality chickens unaffordable to those living, ironically, in larger cities.¹⁴⁶ Why have these prices increased? According to the Ministry of Agriculture, "urban Chinese increased their consumption of chicken 219% per capita from 1983 to 2006."¹⁴⁷ What Zhang is also referring to are consumer price index (CPI) increases which have added transportation and storage costs for farmers that bring poultry and produce from outlying farms due to a nascent supply chain network and cold storage network discussed earlier in the chapter. For example, while CPI increased at a relatively low 1.7% in October 2012, roughly two years ago in January and February of 2011, CPI in China

increased by nearly 5%, led in part by a 10% increase in food costs.¹⁴⁸¹⁴⁹ Similarly, the CPI index rose 3.2% in February 2013, a 10-month high due to a 6% increase in food costs – more specifically, residents in Beijing pay more per pound than their peers in Boston.¹⁵⁰ Yet to give you an idea of how this fluctuates and differs according to category, in mid-February the average prices of 21 different vegetables declined 11.2%.¹⁵¹ And since Chinese consumers spend a significantly larger portion of their disposable incomes on food (28% in China versus 10% in the US¹⁵²), even a relatively small increase in price of staple goods is immediately felt.

Zhang also noted that one of the main reasons he and his family have become increasingly vigilante about what they eat is “because our trust and our faith in domestically owned restaurants has been shattered due to milk powder poisoning, gutter oil, fake honey and even moon cake scandals.” While each region varies, roughly half of all honey currently sold in Shanghai is reportedly fake, comprised of substantially cheaper substitutes made of syrup and gum.¹⁵³ Moon cakes are a traditional dessert made and given as gifts during Midautumn Festival usually held in September. Over the past several years, investigations have uncovered several domestic mooncake producers, who in an effort to reduce costs have reused and resold both filling and entire inventories of mooncakes – made from previous years – to customers believing that they were buying newly made desserts. For example, in 2003 a Shanghai-based company, Guanshengyuan, “was caught making mooncakes with expired and mildewed fillings.”¹⁵⁴

He also mentioned that similar scandals have taken place at grocery stores and restaurants that dyed rotten pork to make it look younger and “leaner,” dyed noodles and even sold fake steamed buns.¹⁵⁵ He is referring to a scandal in 2011 in which 17 noodle manufacturers in Dongguan added ink and paraffin wax “to give their products the look and texture of more expensive varieties.”¹⁵⁶ In addition, while there have been several steam bun scandals, one of the most recent notables cases is the Shanghai Shenglu Food company, which added food coloring to lower costs (e.g., turning corn flour buns into a different color) and repackaged expired buns.¹⁵⁷

This is not to say foreign restaurant chains are scandal free. KFC advertised that its soybean milk was freshly ground, when it was not; and its chicken suppliers in Shandong may have used antibiotics to fatten the chicks faster (same-store sales declined 37% in January 2013 as a result).¹⁵⁸ In fact, to alleviate food safety concerns, in February 2013 KFC announced that it was launching a new quality assurance program and cutting out small farmers due to the difficulty in overseeing them.¹⁵⁹ Ajisen Ramen (a Japanese noodle restaurant) claimed its soup was made from bone-based broth, which upon further investigation turned out to be highly diluted (e.g., “a concentrate”).¹⁶⁰ And a McDonald’s outlet in Shenyang reportedly served laundry detergent instead of a Coca-Cola.¹⁶¹

Yet perhaps by partnering with these entrepreneurs, foreign agriculture companies can establish a foot-hold on the mainland and satiate consumer demand. And as I discuss later in several other chapters (notably 11 & 12), branding, trust and market perception are distinct advantages that foreign firms typically have when entering the mainland market. This is in part because of the immense resources invested in quality control programs (e.g. Six Sigma) by foreign brands in

order to proactively innovate and prevent any potential quality-based scandals from ruining their company images. In contrast, this kind of branding issue is not taken as seriously on the mainland as it is elsewhere which itself creates an opportunity for brand marketing consultants.

Changing times

According to *China Daily*, a substantial portion of businesspeople in Zhejiang have moved away from the low-end, low-margin manufacturing industry to agriculture.¹⁶² In fact according to the Zhejiang Provincial Administration for Industry and Commerce, “the average annual amount of money invested in agriculture by Zhejiang businessmen has exceeded 10 billion yuan over the past five years. The total amount reached 20 billion yuan last year.”¹⁶³ Could your ag firm work with these businessmen in modernizing their farms?

Or maybe foreign companies that build or design automated farming equipment (e.g., robotic fruit pickers) can find demand for products in an industry that is still largely based on manual labor. For example, according to a 2010 statement from China’s Ministry of Agriculture, “in corn production, the mechanization rate for sowing has reached 72.5%, but the mechanization rate for harvesting is only 16.9% and has become the bottleneck for corn production.”¹⁶⁴ In 2012 this figure was updated and the new estimates for the overall mechanization rate for corn harvesting is now 38%.¹⁶⁵ In contrast, in the US both planting and harvesting of corn are fully mechanized. In fact, through the use of mechanization and genetically modified crops, an acre of US farmland “yields twice as much corn as in China or Eastern Europe and four times as much as in India.”¹⁶⁶ Yet mechanization, as shown in the statistics above, is increasing rapidly on the mainland and according to a recent *Reuters* report, “[m]ore than half of China’s ploughing, planting and harvesting is carried out by machines, compared with a third a decade ago.”¹⁶⁷ In fact, the 2011 harvest yields in Heilongjiang province broke nation-wide records, rising 11% over the previous year due to “bigger and better machinery for threshing and plowing.”¹⁶⁸

And according to *Der Spiegel*, one of the reasons German companies purchased the imported strawberries from Shandong in the first place (see the strawberry story at the beginning of the chapter) was because strawberry picking robots capable of washing and cutting are an unknown variable – hence the relatively cheaper labor costs in China provided a cost advantage that neighboring countries did not have (at the time).¹⁶⁹ In fact, because of relatively high labor costs in California, farm companies have begun looking for robotic alternatives such as prototypes from Vision Robotics that while still on the drawing board, have the potential to assist and replace manual human labor.¹⁷⁰ Similarly, German and Californian agribusinesses may even be interested in a project unveiled two years ago: Japanese researchers demonstrated a robotic system that can identify the ripeness of a strawberry which enables the machines to “cut harvesting time from 500 hours to 300 hours.”¹⁷¹ Thus if you and your company build the agribusiness machines or software that powers the machines, you may be able to find new revenue sources in China.

Yet there are two sides to every coin. As one Chinese source recently told me, “the potential for opportunities for foreign firms remains high in the agriculture industry because it is still largely

underdeveloped. Compounding the issue is that much arable land has been seized from farmers for real estate development during the urbanization process, and major labor forces have migrated from the farmlands into the cities, which leads to worries that the current food production capacity may not meet the growing food demand for the populace.”¹⁷²¹⁷³ For example, between 1996 and 2008, arable land decreased from 130 million acres to 121 million acres. Another estimate put the loss at 123 million *mu* (one *mu* is about 1/6 of an acre).¹⁷⁴¹⁷⁵ Thus China must either import food or modernize its agricultural industry to increase production to make up for the food shortage.¹⁷⁶ Simultaneously there are regulatory hurdles that sometimes require technology transfers from foreign agriculture firms to Chinese companies. For example, seed companies like Monsanto must team up with local partners in order to gain market access. Yet, these provisions have not prevented Monsanto from increasing both earnings and market share – and it plans to further boost investment on the mainland.¹⁷⁷

Takeaway: as China develops, its middle class will have more funds and resources to allocate towards food and beverages. US businesses and entrepreneurs are already providing both products and services in the form of agriculture, knowledge and physical storefronts. Yet because of the continued growth, there are still opportunities to start new restaurants or even restructure and train a largely non-mechanized agriculture workforce to the industrial-scale agribusiness that is the envy of emerging markets. Chapter 12 discusses how you can establish a brand in China through its diverse domestic social media networks.

Chapter 4 – Hospitality services

What I should have done when I first flew into Shanghai four years ago was take the high-speed maglev from the airport into the city. Instead I was sweet-talked by a suave salesman outside the arrival gate's entrance into taking a luxury sedan. 500 RMB? No problem, no way is that expensive – after all it is the same rate that other companies nearby were charging. The shiny new black Buick was driven by a young college graduate who had studied international trade in Australia. Throughout the nearly hour long drive along one of the many highways that bisect the metro, Johnny, as he called himself explained what there was to do in each district we were passing through. In crisp English he answered all of my questions and delivered me at the foot of the hotel my travel agent had previously booked. And during my stay, the bellhop and front desk staff greeted me in pleasant hellos and how-do-you-dos. My image of China – my first impression was immediately biased because despite the 300 million English learners in China (see Chapter 9), the stark reality is outside of large metros, English dissipates into the wind.

And this presents an opportunity to any number of educational providers (discussed in Chapter 9) and hospitality training firms. For example, according to the World Tourism Organization, in 2011 there were 57.58 million inbound overnight tourists that spent \$48.5 billion on the mainland.¹⁷⁸ Since 2000, the number of foreign visitors to the country has increased 10 percent annually.¹⁷⁹ Five out of the top six source countries for inbound tourism in China speak native English at home.¹⁸⁰ And in my own anecdotal experience, while cities like Guangzhou and Shanghai are relatively easy to navigate – with their helter skelter smattering of English on highway signs and subway stations – I am still accosted by bewildered tourists wanting to know how to get to Jing'an Temple in Changning, Shanghai. In fact, China is now globally the third largest inbound tourist destination (after France and the US) and as I note later in Chapter 11, it is one of the largest outbound as well (in 2012, 82 million Chinese traveled overseas).

In February 2013 I spoke with Shaun Rein, the author of “The End of Cheap China” and an expert on Chinese consumer behavior.¹⁸¹ According to Rein, “a lot of commentary has been made regarding retail sales, which only grew 14.7% last month [January 2013].¹⁸² This is not to say that Chinese consumption has stopped, rather consumers are moving away from status items. Instead of buying Louis Vuitton bags to show off, they are now buying lifestyle experiences such as trips overseas. In short, they are changing habits which is bad for certain segments such as footwear and apparel brands.”

This kind of lifestyle experience and “genre tourism” caters to those wanting to have first-hand exposure to authentic conditions (e.g., ruggedness, safari) and as *The Wall Street Journal* recently pointed out, is increasingly popular with affluent Chinese in particular. For example, more than 60,000 Chinese nationals visited South Africa in the first half of 2012, “a 68% jump from the same period a year earlier.”¹⁸³ And those that visit these locales are “more likely to get private tours and embrace the safari opportunities.” Consequently, traveling in general is no longer relegated to the top outlier either. For instance, according to Li Yianqin a professor at Minzu University in China, in terms of tourism economic theory, “when a nation's per capita gross domestic product exceeds \$5,000, foreign travel grows rapidly.”¹⁸⁴ And by one estimate from the World Bank,

China's gross national income per capita reached \$4,940 in 2011.

Where do these tourists stay? How can you and your company capitalize on either of these growth trends?

According to the China National Tourism Association in 2009 there were roughly 300,000 hotels on the mainland.¹⁸⁵ The *21st Century Business Herald* estimates that in 2011 there were 2 million hotel rooms on the mainland, a number that is expected to increase to 5 million by 2016.¹⁸⁶ In fact, according to the Boston Consulting Group, "China's combined domestic and international tourism revenue is expected to increase 14% annually for the next nine years."¹⁸⁷ This would create an estimated \$838 billion tourism market. For comparison, as of 2011 there were more than 4.8 million guest rooms at hotels in the US that generated \$137.5 billion in sales.¹⁸⁸¹⁸⁹

While you may think you could squeeze the margins at the low-end in hospitality with relatively cheaper labor, there are already several domestic hostel and motel chains such as Motel168, Home Inn and 7 Days Inn (all three of which I have stayed in and I recommend) that create a highly competitive environment.¹⁹⁰ Rather it is at the top end that has larger margins to work with and is currently comprised of the usual coterie of global hotel chains including Hyatt, Hilton, Marriott and Howard Johnson.¹⁹¹

Howard Johnson is a luxury brand

As I note later in Chapter 11, the management team at Coach handbags has repositioned their products – typically considered mid-level in the US – and through market perception campaigns has moved the handbags towards the higher-end market segment in China. Their efforts have resulted in large sales growth, which in Q1 2012 increased 40% on the mainland.¹⁹² Similarly, Howard Johnson which is considered a mid-level hotel experience in the US is also now repositioned at the top-end of the hotel experience in China (in Chapter 16 I discuss KFC which has benefited from perception marketing as well). Howard Johnson entered the Chinese market in 1999 and has since expanded across the mainland where it now operates 46 hotels in 29 cities.

Is it too late to enter the market? Probably not. In fact, in March 2012, Intercontinental (the biggest hotel company in the world) announced that it would begin rolling out a new brand of hotels in China called Hualuxe to cater to the top-end of the domestic market. And by establishing a Chinese-focused luxury hotel chain on the mainland, Intercontinental hopes to later roll out similar chains in other countries that are popular destinations for Chinese tourists. Their plan, which could certainly be emulated in a variety of service industries (e.g., restaurants in Chapter 6), is to build a reputable, trusted brand at home and use a loyalty program to bring back repeat visitors when they are abroad.¹⁹³¹⁹⁴ Furthermore the new Peninsula Shanghai hotel was named the top 5 global hotel for business in 2012 illustrating that there is still room for potential new entrants in this segment.¹⁹⁵¹⁹⁶

Visa changes and HR challenges

Beginning on January 1, 2013 both Beijing and Shanghai now allow for 72-hour visa free access to their metropolises by tourists connecting to other countries.¹⁹⁷ Beijing usually receives 5 million foreign tourists a year and its international airport (北京首都国际机场) was the 2nd busiest globally in 2012 (behind Atlanta's). Thus because foreigners typically spend twice as much as local at tourist destinations (\$1,000), it is thought that the amount of tourists that are estimated to pass through on this new program will double over the next three years. Yet expectations should be tempered as previous visa free stays (such as Shanghai's 48-hour policy) only netted an additional 3,000 visits in 2010.¹⁹⁸

With these large tourist numbers, what are the potential issues in moving into the hospitality industry? What are some of the challenges in setting up a hotel chain?

As I noted above and discuss later in Chapter 15, staffing sticks out towards the top of issues. For instance, according to a 2008 report by Emmanuel Hemmerle, "there are less than 40 local professionals with proven experience in the Development function within the hotel industry in the whole of China, of which only 10 have over five years experience in the field."¹⁹⁹

You might be thinking that your hospitality company can merely start small and build up slowly from their footholds. This might be possible but could be problematic in this specific industry. For example, while those low numbers – 40 local professionals – have probably changed considerably since the Beijing Olympics another concern that Hemmerle's report touches on is retention. What happens to competent productive managers in the hospitality industry in China? According to Rene Schmitt, president of Kempinski Hotels, "[m]y one greatest, and constant, challenge of operating over the past 15 years in China has been to attract and retain staff. We are constantly building and rebuilding our leadership across all the cities in which we operate. You train them, and then you lose them to other hotels or airlines."²⁰⁰ Kempinski is a German-based luxury hotel company that operates 14 five-star hotels on the mainland.

Yet with these challenges come opportunities to foreign firms that specialize in training hospitality-related services. For example, Les Roches is a Swiss-based hotel management school (one of the largest in the world) that teaches all of its courses exclusively in English. It has teamed up with a local college called Jin Jiang in Shanghai to create a joint international hospitality management training program. Together they are already partnered with many of the hotel chains – both foreign and domestic – across China. Can your company provide similar training services?

Hotels Rising

In January 2013 I spoke with Fred Xu, a native of Shenyang who is completing his MBA at a university in Switzerland. He previously worked for the luxury hotelier, Shangri-La, based in its flagship Shanghai location.²⁰¹ According to him, "the hospitality industry on the mainland still has large swings in seasonal volatility and a lot of traffic actually depends on the location of the

hotel. For example, China has two “Golden Weeks for Tourism” (黄金周) – May 1st and October 1st. These peak seasons unsurprisingly bring a large amount of travelers and tourists from across the country which dramatically affects the occupancy of hotels. In recent years, the gap between slack seasons and peak seasons has diminished. This is largely because China itself has attracted more and more international travelers throughout the year. And as a long term consequence, due to the process of ‘reform and opening up’ and globalization in general, the hospitality industry continues to develop and the trend is now towards catering to both business travelers and tourists alike.”

One of the HR challenges for all hotel management according to Xu is that, “traditionally speaking, Chinese people typically do not think the hospitality industry is an ideal career. Simultaneously, because of the intense competition between graduates and non-graduates alike, people who choose hospitality usually receive a lower salary [e.g., limited supply of positions, large supply of potential employees]. And as a consequence, individuals with less educational background actually prefer to have this job due to its upward promotion mobility despite its initial low salary. The dilemma facing managers however is that they prefer skilled people, especially those with language skills irrespective of educational attainment. In their mind, they think it is a waste of resources to cultivate highly educated yet unskilled employees yet in the long-run this has caused a serious outflow of talent as skilled workers can easily move to competing chains.”

In January 2013 I also spoke with Xuerong Su, a native of Sichuan and six-year veteran who is a manager at Mind Group, a real estate company that builds hotels and luxury apartments.²⁰² Her most recent project is developing the new Mandarin Oriental Hotel in Chengdu. According to Su, “in my opinion, Chengdu is one of the best locations for projects because of its winding mountainous scenery, home of the panda, its incredibly long [2000 years of] history, famous rivers nearby and a well-known culinary culture. And despite the recent governmental policies that place pressure on housing prices [see Chapter 10] many large luxury projects have been largely unaffected thus far, especially those catering to an affluent demographic. As a consequence I think there are continued opportunities to build and manage five-star facilities across the mainland, especially in larger cities inland such as Chengdu.”

One of the challenges that Su thinks others should be cognizant of is that “acquiring the necessary technology to build luxury hotels and apartments can be quite cost prohibitive. Because when you build the tallest building in a city like Chengdu, it will ultimately become a landmark and in fact, most of our projects are landmarks. Thus to maintain our brand and image we buy the best technology from around the world, hire the most experienced consultants around the world (all of them are from some of the most famous companies in the world) and as a consequence this can be very expensive. Yet this is a cost of doing business in our industry and something that customers have come to expect. They want the best and demand it.” However one challenge that should be acknowledged, although perhaps temporary, is the crackdown on government-financed “extravagant” galas and banquets that have taken place at hotels over the past decade. As a consequence many hotels have faced a rash of cancellations due to the austerity and “anti-corruption” policies currently being implemented²⁰³

Real estate and marriage

As I mention later in several other chapters, following the 4 trillion RMB stimulus (扩大内需十项措施) enacted in 2008 by the Central People's Government, there was subsequently a large real-estate bubble that grew across the entire country (*fáng dìchǎn pàomò*). As a consequence policy makers have attempted to cool it down, to create a soft landing.²⁰⁴ While the efficacies of these efforts are debatable, there are still opportunities and demand for firms that specialize in high-end condos and townhouses.

In fact, while I touch on it in Chapter 15, the relatively expensive property is one area that is sometimes ignored when recruiting talent from abroad (e.g., paying for expat lodging). For example, while the residential real-estate bubble is largely considered "plateaued" relative to 2-3 years ago, the most expensive property ever sold in China was recently acquired in Shanghai at a price (\$8,000/ m²) that most locals and expats alike typically could not afford (the average salary in Shanghai is roughly \$9,000 a year). Yet there is still continual demand for domestic investment opportunities due to a close capital account (see Chapter 5).²⁰⁵ Furthermore, land sales in Shanghai and Beijing continue to reach new highs due to this issue. For example, at a recent auction in November 2012, one parcel of land sold for \$5,431/m² in Beijing.²⁰⁶ And this phenomenon is not relegated to houses and apartments on the mainland as Hong Kong is now home to the most expensive parking spot globally which costs \$82,600.²⁰⁷

One of the reasons that these prices may continue to stay at these relatively high levels in larger Tier 1 cities is that migration to these cities continues from around the country side (roughly 48% of the population still lives in rural areas). And in order to get married, many would-be brides (and their families) require that the groom provide fully paid for apartments and homes to live in. As a consequence, the groom and his family pool their savings together to purchase these homes, all in the hopes of marketing their sons as attractive mates (over 60% of home purchases are made with "significant backing from the parents").²⁰⁸²⁰⁹ One reason why this is important is that due to the gender imbalance (approximately 117 males are born for every 100 females) over the coming decade, there will be 40 million men who will be unable to find a mate.²¹⁰ Thus women (and their families) are increasingly picky and unsurprisingly demanding when it comes to finding life partners.

With the largest population it is unsurprising that China is the largest wedding market. According to one estimate 13 million couples got married in 2012 and the wedding industry has grown 10-12% a year over the past three years.²¹¹ At \$9 billion in purchases during 2011, China became the 2nd largest consumer of diamonds (behind the US, overtaking India) and 4 out of 5 couples in Beijing and Shanghai bought engagement rings in 2012.²¹² Simultaneously 200 million RMB (\$32 million) was spent on wedding dresses (4.77 million sets) in 2011.²¹³ As a consequence, as of 2010 the wedding industry was worth \$57 billion and the average wedding now costs 200,000 RMB (\$32,000).²¹⁴ This relatively high price tag relative to annual salaries (the average salary in Tier 1 cities is less than \$9,000 a year) is feasible due again to the pooling of family resources (e.g., since many families only have one child, the parents will only host one wedding and can therefore spend more on it). And it provides opportunities for wedding

planners and photographers, perhaps even your firm.

In addition, Christine Ng of Bartle Bogle Hegarty (BBH) recently noted that some of the new management offices in hotels are positions such as “director of wedding” primarily because nearly all weddings are held in hotels.²¹⁵ This is one additional revenue stream that could be tapped into by the hospitality industry. And with weddings often times comes babies. And as a result there are business opportunities for those in the maternity industry. For example, Gome, one of the largest appliance retailers in China is now investing \$150 million in a new maternity-focused e-commerce site.²¹⁶²¹⁷

Takeaway: As China’s infrastructure and cities develop, more travelers - both domestic and international – will visit and tour regions of the mainland. The hospitality industry, while filled with both local and foreign incumbents, still has potential room for growth and more competition especially at the top-end.

Chapter 5 - Financial services

Since Deng Xiaoping's "Southern tour" in 1992, China has consistently been one of the top recipients of foreign direct investment (FDI), totaling \$85 billion in 2010 and \$574 billion overall. In contrast, up until recently the US still led in both annually received FDI (\$194 billion in 2010) and \$2.58 trillion overall. Even though its full year FDI received fell from the year before – a decline that continued through February 2013 – in the first half of 2012 China actually overtook the US for received FDI (\$59.1 billion versus \$57.4 billion).²¹⁸

And while US firms and institutions currently invest more FDI within China than Chinese firms invest in the US (in 2011, Chinese companies invested \$6.3 billion in the US representing 0.15% of total foreign investment in the US) this will probably change – despite a closed capital account (discussed in Chapter 10).²¹⁹²²⁰²²¹ For example, among other deals, a Chinese firm was recently granted approval in December 2012 to purchase bankrupt Massachusetts-based battery maker A123 Systems for \$256.6 million.²²² As a consequence Chinese outbound investment in 2012 such as mergers and acquisitions reached \$8 billion for the first time in the US, globally increased to \$93.09 billion (compared to \$13.58 billion in 2007) and its outbound direct investment (ODI) is expected to reach \$150 billion by 2015 due to deals such as A123 Systems.²²³²²⁴²²⁵ One example of continued investment is from ENN Group, one of the largest private companies in China. Through a joint venture with CH4, a Utah-based energy company, ENN plans to open a network of 50 natural gas stations across the US this year. Each station costs about \$1 million to build and the joint venture has a goal of building 500 stations altogether.²²⁶ For comparison, the EU collectively receives twice as much FDI from China than the US currently does (due in part to political trepidation).²²⁷

Where are the potential investments that Chinese firms have looked at in the US? For example, during the build-out of the enormous Haynesville natural gas fields in the Texarkana region, one of the investors courted by local energy companies was CNOOC (the 3rd largest oil company in China), which at the time reportedly wanted to invest \$750 billion into the North American energy business.²²⁸ It is unclear as to how much they did end up investing (or if they returned a profit) but several Chinese energy companies have now moved up to Canada and invested \$3 billion in a new pipeline project in the tar sands as well as put together a "\$15.1 billion deal to acquire Nexen."²²⁹²³⁰ In February 2013 the deal closed marking the completion of the largest overseas acquisition by a Chinese company. And depending on regulatory conditions North American energy firms may or may not continue to do business with Chinese firms, yet there is one area that foreign experts can provide inside of China right now.

So what opportunities are there for foreign financial professionals?

While it has become almost cliché to say, finance is one of the industries that is undergoing "reform and opening up." This involves building institutions, physical infrastructure and a legal structure – all of which is thoroughly discussed in both Mark DeWeaver's new book as well as a Brookings Institute report in June 2012.²³¹ Yet reforms in general are always just around the corner.²³²

For example, because of pent up savings due to relatively few investment vehicle choices on the mainland, once larger liberalizations begin, there will be opportunities that can come from not just asset management and private equity (PE) markets but through the large expertise requirements in the relevant fields that currently do not exist (e.g., debt structuring). As part of the once-in-a-decade leadership transition that began in November 2012, one expectation was and is that there will be a “big bang” of reforms in the coming months.²³³²³⁴ One immediate, visible reform was the creation of super-ministries referred throughout this book (e.g., Ministry of Health dissolving to become National Health and Family Planning Commission).²³⁵ Another case in point, on November 19, 2012 the State Administration of Foreign Exchange (SAFE) announced that it “ended 35 foreign-exchange approval rules and simplified others.”²³⁶ By reducing paperwork and shortening approval processes, such liberalizations are done with the intention of attracting FDI. On December 12, 2012 the Shanghai stock index surged to its highest daily gains since October 2009 due to policy changes in the Qualified Foreign Institutional Investor program (QFII 合格境外機構投資者).²³⁷ As a consequence sovereign wealth funds such as Qatar Holdings and central banks are now allowed to raise more than the \$1 billion previously permitted for investing in the securities market.²³⁸

Another instance is on December 17, 2012, where a number of new liberalizations were implemented such as reducing regulatory approval and remittance of profits for foreign-owned companies. Continuing this trend, on February 28, 2013, the government expanded its short-selling program which will now enable select brokerages to borrow shares from preapproved publicly traded companies.²³⁹ And on March 15, the China Securities Regulator Commission announced that effective immediately, brokerages could convert loans and other assets into securities, paving the way for securitized business.²⁴⁰ On a provincial level, financier Harry Ding (see below) explained to me, that pilot regions throughout China are also enacting reforms to make it easier for entrepreneurs to begin operating. Shenzhen and Zhuhai in Guangdong announced that effective March 1st they have streamlined 18 different business licenses, created a new version of business licenses which no longer requires lengthy documentation procedures and removed some of the registered capital restrictions.²⁴¹

Another specific area you and your firm may be able to literally capitalize on shortly is building a local bond market in structured debt. Over the past several years there have been attempts to roll out local government bond markets on the mainland. In November 2011, Shanghai issued China’s first local bond issuance yet eight months later, all of the programs were scrapped.²⁴² Yet a year later, in November 2012, the China Securities Regulatory Commission (CSRC) approved a plan from ICBC (the largest commercial bank in China and in the world) to start a pilot program of selling bonds known as asset-backed securities (ASB) beginning in 6 months.²⁴³ The local market of this local debt, based on several estimates of over 10,000 local-government financing vehicles (entities that were set up to bypass these kinds of bans) is between \$1.7 trillion and perhaps up to \$5.4 trillion, which I discuss later in Chapter 17.²⁴⁴

Foreign firms specializing in managing distressed loans have already capitalized on opportunities on the mainland (with mixed results), including Shoreline Capital Management who raised \$300

million for a new fund last year specifically to invest in distressed Chinese debt.²⁴⁵ DAC Capital is also in the process of raising \$300 million for a new Chinese-focused fund. The gamble is while investors in such debt may receive returns if and when a borrower repays portions of the loan, local government policies and a nebulous court system can make returns lower than they would have otherwise would have been (e.g., transaction costs and opportunity costs).

In October 2012 I spoke with Shawn Mesaros, CEO of Pamria an asset management firm located in the financial district in downtown Shanghai.²⁴⁶ Despite these setbacks above, in his view SOE banks will “eventually become facilitators, that they will offload debt which can then be restructured. As a consequence there will then be a bigger market for sovereign debt.” In addition, even though public capital (through SOEs) is currently cheaper than private capital Mesaros thinks that private equity (PE) is still a relatively good business, “it is not as easy as you think because domestic companies typically would rather not share equity in exchange for your capital.” For perspective, according to the consultancy Bain, “the total value of mainland private equity investments jumped from US\$3.7 billion in 2005 to US\$15.2 billion in 2011.”²⁴⁷ And nearly \$230 billion worth of deals were collectively completed between 2001 and 2012.²⁴⁸

Yet to give you an idea of the soft PE market today in China, according to a recent report from the *Wall Street Journal*, both foreign and domestic PE firms have been struggling over the past two years.²⁴⁹ The value of PE deals in 2012 declined 27% to \$21.9 billion in part because of the domestic stock market performance.²⁵⁰ Between 2010 and 2012 the Shanghai Stock market declined roughly 37%. Fortunes however, may continue to fluctuate in the future as the main benchmark index regained about 9% in the first six weeks of 2013 then lost 7% over the following month through mid-March.²⁵¹ However because many investors cash-out of their positions through the securities exchange, fewer firms have wanted to go public.

Subsequently, private-equity firms which provide this junction have been affected as well. In fact, in 2012 there was a 70% drop in initial public offerings (IPOs) – in the first half of 2012 alone there was a 37% drop in IPOs, from 218 during the same time last year to 138.²⁵² PE deals as a whole “fell an unprecedented” 43% last year.²⁵³ Furthermore, of the 10,000 PE deals conducted between 2001 and 2012, 7,500 remain “unexited” as the firms cannot go public on Chinese exchanges. And whereas PE firms in China raised 75 yuan-denominated funds in 2011 and raised another 52 yuan-denominated funds last year, only 2 new funds have been raised in 2013 (both focused on real-estate investment).²⁵⁴ This is in part because there has been an across the board red light from Chinese regulators since last summer (as of January 31, 2013, a record 873 companies have filed for IPOs in China yet have to wait) and Chinese firms trying to list on American credit markets are essentially *persona non grata* due to regulatory oversight from the SEC and disagreements with Chinese auditing regulators.²⁵⁵²⁵⁶²⁵⁷

However despite these drops, there is still an active set of foreign and domestic PE activity, including Jiuding (the top domestic PE firm) who has averaged an internal rate of return of 30% since 2010 (an IRR is one gauge of how profitable investments are).²⁵⁸ Furthermore, this “softness” in the PE market may have a silver lining as well. For example, according to Peter Plakidis of Deutsche Bank, “[a] softer equities capital market has meant that private equity is not

competing as much with public money, and depressed public valuations have improved the returns for private-equity firms. Hence, private-equity firms now have more companies on their radars as attractive investment opportunities.”²⁵⁹

In addition to PE, according to Mesaros, one large SOE bank on the mainland is already filling an office floor just for fixed-equity investments. And if they are doing it, then perhaps other SOEs are close behind. What this means to Mesaros is that eventually the big spreads “that can roll over price takers will become smaller.” This also means that there is potential for foreign experts in this field to also train and get involved at a variety of levels within the periphery of this investment field.

Human capital

And in both the long and short-term, irrespective of growth trends on the macro side (which I discuss in later chapters), expertise in these two areas is in short supply. At the same time, as noted above one challenge in this type of training is retention. I was told by another American source that a very large US bank (top 3) has trained numerous local financial experts in some of these sub fields (like forfaiting and futures) yet was unable to retain them due to an insatiable demand for such experts at mainland institutions. Or in short, since talented human capital in certain areas is scarce, training may be a risky endeavor.²⁶⁰

Natalia Shuman, the new COO of Kelly Services’ in China recently explained the labor supply issues of financial experts in this region,

[...] the lack of supply and high demand is reflected in compensation. If you look at Shanghai’s market today it’s not only financial analysts. There are multiple positions and multiple functions where salaries are very competitive compared with global. People are getting the same salary, maybe even higher, particularly in Shanghai and Beijing, compared to New York or London nowadays.²⁶¹

And recruiting local talent for financial positions is also a seller’s market in Shuman’s view “Chinese with Western experience who are coming back here; they could easily get more money here than they would get in New York or London.”²⁶² Further human resource constraints including retention issues are discussed later in Chapter 15.

For perspective in December 2012 I spoke with a Chinese financial manager at Fosun International (复星国际有限公司) in its Hong Kong corporate subsidiary. Fosun is the largest privately held company in China, generating 25.73 billion RMB (\$4.12 billion) in the first half of 2012.²⁶³ According to him, “I have colleagues who have a lot of career experience in the financial industry on the mainland but they currently do not have a competitive edge over their international counterparts when applying for finance positions in Hong Kong or elsewhere. Yet simultaneously, if they want to further their career they would prefer working outside the mainland because both the experience gained and the compensation in the international marketplace is significantly higher than anywhere on the mainland. And since the financial infrastructure and investment instruments in Shanghai still have not reached ‘critical mass’ it is

basically more of a regional financial center compared with Hong Kong, which itself is filled with experienced staff in dozens of specialties that do not exist yet on the mainland. Concurrently, because there are more and more banks in China and more and more people that have financial backgrounds and overseas educations they also want to pursue careers in this industry making it very competitive in certain specialties compared with previous years.”²⁶⁴

On the other hand, he still sees opportunities as “the mainland industry needs experts to train local people how to work in all areas in this growing market because there are relatively few providers doing it today. Not just in debt markets, M&A, private equity or IPOs, but also in all forms of international trade such as letter of credit, trade finance, arbitrage and export finance. Since there is a lot of overseas businesses that want to do business in China these banks will continually need to hire people capable of not just fulfilling relatively basic financial services today, but also the more advanced investment instruments and complex transactions in the future. And since nearly all of corporate finance on the mainland still depends on bank loans for credit, banks typically provide most finance and capital for nearly all companies. Thus foreign service providers can potentially bring their knowledge to our young industry for a mutually beneficial exchange.”

What are these salaries like? A recent *Bloomberg* report similarly noted the demand for qualified financial professionals and experts for China, yet also found that managing directors now earn less than they would in the US and roughly “on par with those in Europe and the U.K.”²⁶⁵ For example, managing directors in Beijing and Hong Kong earned between \$900,000 and \$1.3 million in salary, bonus and stock options last year – while their counterparts in the US earned \$1.2 – 2.01 million and their peers in the UK and Europe earned \$850,000 - \$1.77 million.

Wealth management

In November 2012 I spoke with Richard Johnsson who was the President & CEO of Soderberg & Partners in Beijing. Soderberg & Partners is an independent financial advisory targeting high-net worth Chinese citizens since 2007. According to Johnsson, “one of the challenges early-on was to establish a business in a field that didn't exist in China, and few could see the benefits of independent advice. The competition was all about returns, as opposed to for example tax planning; and the commissions were very low. But lately, the industry has expanded very fast. And one of the opportunities is of course that it is highly likely that the tax system and regulatory setup will look more and more like in the West. This will mean complicated tax systems and tax deductions will make planning hard for people, thus driving sales. On the other hand, other parts of government will try to control the industry, driving extensive compliance.”²⁶⁶ But the former will likely come before the latter.” All of the Big Four auditing firms and Big Three management consulting firms have long ago established mainland offices; can your firm provide similar services?

In January 2013 I also spoke with Harry Ding, a native of Guangdong who has worked as a manager in the finance industry on the mainland for the past five years. According to him, “one of the opportunities for activities like day-trading and forex trading is that you do not need to

have a PhD in finance to understand and be successful or even profitable in these segments. As a consequence, the companies I have worked with over the past several years usually involves training new college graduates with finance backgrounds how to use econometric models and computing technology to conduct their trades. While there are licensing and training fees as well as a learning curve, in the long-run their relatively lower labor costs usually acts as a profitable form of arbitrage. That is to say, that because they can effectively trade on exchanges like the Toronto Stock Exchange, they are usually several times cheaper to hire and manage than local talent in Canada.” Forex means ‘foreign exchange’ and typically involves the buying, selling and trading of foreign currencies (e.g., JPY, USD, GBP).

Ding also sees a few challenges in that, “because of the numerous restrictions on the financial industry and because of its overall developmental status, there are not as many investment tools and instruments available and those that exist can be difficult to trade profitably at large volumes. As a result, many individuals and institutions have turned to overseas investment. And by virtue of the fact that much of a firm’s activities are conducted overseas, it normally requires investors to transfer money out of China which oftentimes makes domestic clients feel uncertain as their assets are not physically close by, creating a psychological insecure feeling (e.g., uncertainty) especially in recent years as Western countries have had numerous financial scandals that have shaken investor trust and confidence. In addition, China has a capital transfer restriction that strictly prevents citizens from transferring assets to a broker or investment firm outside the mainland over an annual limit of \$50,000 USD. Thus any amount beyond that requires other legal ways to process and transact it.” These capital restrictions are discussed in Chapter 11. Furthermore, can you or your company utilize local talent like Ding’s firms have?

Ding’s point regarding a dearth of investment instruments was recently echoed by Nick Yim head of Goldman Sachs China Market. According to Boston Consulting Group, the total value of private investible assets in China reached \$12 trillion in 2012 (a 14% increase year over year).²⁶⁷ Where are these assets? According to Yim, most of his high-network clients only have “have 20% to 30% of the funds parked offshore, the rest remains onshore.”²⁶⁸ And because of the global financial crisis and relatively slower domestic growth, these clients “have become more conservative and now behave more like U.S. clients.” This means they are looking for safe, conservative lower yield products. While there are a limited number of investment products and a scarcity for seasoned bankers, which he considers to be the two biggest challenges, Yim sees a lot of growth potential due to improving legal and regulatory frameworks. And ultimately, because China also has a single culture, currency, language and regulator, he thinks that there are a lot of opportunities for Western private banks to provide diversification, risk management and retirement planning services in what may become the world’s largest economy in the next decade.

Takeaway: With more than 57 million inbound tourists that spent \$48 billion last year, the domestic Chinese tourism industries is one of the largest in the world. Training staff and putting together a brand positioning campaign are just two areas of many that foreign expertise can bring to the growing industry (which may grow from 2 million hotels today, to 5 million in the next four years). In addition, financial service companies may be able to find opportunities to

not only to train local financial firms on bond technicalities but also provide ancillary services to fixed-equity investment programs. And in addition to conducting your due diligence it is also recommended that you read through Chapter 10 regarding legal and regulatory risks and uncertainties.

Chapter 6 – Games, health and robotic related services for the elderly

In October 2011 I had a bad bout with food and ended up having to stay in a hospital for a few weeks in provincial China. In contrast to the modern facilities at Huadong hospital in Shanghai (which I have also visited), all three public hospitals in Bengbu, Anhui were at the time, less than sanitary and for residents of the West, a seemingly step-backwards-in-time. During my stay, I befriended one of the surgeons who had studied in Switzerland. Dr. Wang or “Charley” as he affectionately called himself, gave me a tour of the in-patient facilities I was staying and said, “Tim, look around, we can barely cope with medicating and treating these patients – how could we possibly take over the world as some media outlets suggest?”

He raises a visceral point. Despite the abundant growth over the past three decades, one of the industries that has had its share of growing pains is the health care sector (see Chapter 19 for more). While the debate over government versus private ownership and maintenance of the industry continues on in China, there are a number of opportunities that US medical companies can capitalize on. For example, while the pharmaceutical industry is basically tied up with patent and legal proceeding and negotiations on both sides of the Pacific, US-based medical equipment and medical device manufacturers now have a liberalized export channel compared to just a few years ago.

Overlooked yet increasingly important

On a national level, life expectancy in China has grown from 65 in 1976 to 73 in 2010. While its increase may have plateaued, reaching farther back in time illustrates how prolonged life expectancy is a positive spillover effect due to economic growth.²⁶⁹ For instance, according to *Xinhua*, the average life expectancy in Guangdong (the wealthiest province) has risen from 31 in 1949 to 75 in 2008.²⁷⁰²⁷¹²⁷²

Assuming the retirement age is not increased, by 2050, it is estimated that 31% of China’s population will be near the age of retirement.²⁷³ In contrast, today about 14.8% of China’s population is over the age of 60.²⁷⁴²⁷⁵

Yet with these demographic changes come different opportunities as well. According to Zhao Baohua of the Gerontological Society of China, he notes that in terms of entertainment and “toys” for the elderly, “[a]bout 99 percent of Chinese toy factories just produce items for children, but in more-developed economies about 40 percent of toys are designed for older people. It may take China 30 years to catch up with some countries in this area.”²⁷⁶

Here is an area where Western-based toy, games and entertainment companies can export goods and services to a market ripe with potential. For instance, *Amazon.com* has several pages of “toys for the elderly” and “toys and games for senior citizens.” And as described below, there are a number of other made-for-the-elderly products that are currently available in the West but not in China.

This also raises the question, what activities do elderly populations in other countries have access to? One potential answer to that could be the apartment complex where I currently live in Changning, Shanghai which has a small playground that is typically used by both toddlers and the elderly alike. According to a *Reuters* report, “there were over 15,000 pieces of elderly workout equipment parks across Japan.”²⁷⁷ This same report noted that “an elderly playground starts at 8 million yen (\$87,220), including the installation of equipment and instructors' fees.” Thus there is a potential business opportunity for US firms that develop playgrounds to export their products and services to China.

What about demobilizing conditions? In the Netherlands, a village was recently built that “doubles as a nursing home,” serving clients suffering from dementia and Alzheimer’s.²⁷⁸ Similarly in Switzerland, a \$26 million village has been built catering to the elderly afflicted with Alzheimer’s as well.²⁷⁹ In 2007, six million Chinese suffered from Alzheimer’s and that number is expected to grow markedly as the population ages. In fact, one third of all Alzheimer’s sufferers live in China. Shanghai alone has 120,000 residents with Alzheimer’s or dementia.²⁸⁰ While the debate and conversation over how to help treat these patients is still on-going, many Chinese families have now found solace through new treatment centers opening across the country.²⁸¹ And with new centers comes potential markets.

What can foreigner medical experts do on the mainland?

In November 2012 I spoke with J.J. Liu who is originally from Beijing. After completing graduate school he moved to California and worked in the bio-med industry for about 20 years before returning and now is the marketing manager for QIAGEN’s operations in China. QIAGEN is a German biotech firm that builds and designs technologies to diagnose and measure biological specimens (e.g., when you give a blood test, they make the machine that analyses it). Liu mentioned that as China ages the potential to provide services for the elderly increases as well. For example, he noted that because of the economic boom in the 1990s and early 2000s many of the elderly now have more assets and funds to spend on improving their health, including the possibility of residing in assisted living facilities – or as he observed, “villas and hotel-style living that are arguably more culturally acceptable.”

Historically, Liu explains, “in the past the average resident did not have the resources to receive medical treatment – while the medical knowledge and facilities were lacking – families simply did not have the assets and resources to finance medical treatments.” As a consequence, many families simply self-medicated through the purchase and consumption of relatively cheap drugs and TCM (Traditional Chinese Medicine or 中医) at local pharmacies. While this self-medication phenomenon still takes place, Liu and others expect that these consumers will be able to utilize modernized Class 3 hospital facilities (the top flight), many of which are now stocked with the latest medical equipment.

What other opportunities can foreign companies become involved in?

In Chapter 3 I noted that Chinese consumers largely perceive foreign brands as premium quality.

Liu noted that pharmaceutical brands are no different, as “Chinese patients are partial to imported products.” Yet one of the limiting factors has been relatively high prices. And some medicines like insulin for diabetes have few generic substitutes. This price inelasticity means that the 92.3 million diabetes sufferers alone (China is now the “capital of diabetes”) have created an additional \$3.2 billion drug market.²⁸²

Liu also expects that the current health care reforms being implemented by various levels of government via the 12th Five-year Plan will have “wide-ranging effects, most notably in terms of pharmaceutical costs. Previously multinational companies [MNCs] were given a preferential pricing policy that allowed them to charge 100-200% markups on medicines whose patents were already running out in the West. In the next several years this markup will be reduced to a mere 10-20% while simultaneously generic brands are introduced.”

Prior to these reforms, Chinese policies required that in order for MNCs to have access to the market they would need to produce and manufacture the pharmaceuticals on the mainland. In doing this, policy makers expected a knowledge transfer would take place – as in the auto industry, which I briefly discuss later in Chapter 10 – as MNCs would need to train local staff and administrators.

Subsequently, while very little original research and development has taken place on the mainland over the past decade, going forward many MNC pharmaceuticals have opened up regional headquarters in China to take advantage of both the increased resources being placed into the health care industry as well as recruiting from a well-trained local talent pool.

What does this mean for you and your company?

In six years since it was established, QIAGEN’s Asia Pacific sales have grown from zero to accounting for almost 20% of global sales. Simultaneously its Shanghai headquarters has grown from 1 employee to 400. How has it done this? Its double digit growth rates comes from selling medical systems – like those described above – through distributor channels to hospitals and clinical research facilities (QIAGEN as a whole generated \$1.17 billion in 2011). And because of the various reforms being enacted in all cities, counties and provinces, there are substantial areas of growth for medical providers, both domestic and foreign. One other area where Liu sees specific potential opportunities for foreign experts is to help set up and train staff at a wide-array of facilities, including retirement villas. Thus if you and your company already provide health care services you may be able to find new opportunities and revenue streams in China as well.

Lack of products presents opportunities

While services such as LifeCall’s medical alarm (creators of the catchphrase: “Help, I have fallen and I can’t get up”) have been offered to US residents for more than 15 years, there are few equivalents in China at this time. Even though it is debatable whether or not such a service would prove to be popular in China, one possible product that has gone under the radar and

could appeal to elderly Chinese consumers are *e-Pants*, designed by engineers at Virginia Tech.²⁸³ Embedded in the pants are several electronic gyroscopes and accelerometers that communicate to nearby computers via Bluetooth and can detect whether or not a wearer has fallen down. Similarly a team of researchers at the University of Adelaide are using RFIDs and software to detect sensory movement and help monitor the activities of the elderly so that these aged consumers can continue to live both independently and safely at home (e.g., alert emergency providers if an accident occurs).²⁸⁴ Maybe you or your company can integrate LifeCall's functionality with e-Pants. Or perhaps your firm can take a page from Fujitsu who in February 2013 unveiled a "smart" cane called the Stylistic S01.²⁸⁵ Embedded in the handle of the cane is a GPS with LED lights that can help point the user in the correct direction. In addition, built-in sensors can monitor temperature, heart rate and even humidity. Their target market is the elderly as well.

Because of Japan's rapidly aging population (it has the highest average age in the world) its engineers are also at the forefront of innovating and producing both machines and robotic solutions to provide support for the elderly.²⁸⁶ For example, the AGNES suit allows its wearers to feel what it is like to have limitations in physical motility. The Hybrid assistive limb (HAL) is a new robotic exoskeleton developed by Tsukuba University in a bid to help improve the physical capabilities of its users.²⁸⁷ In the UK there is Hector, a mobile "assistive" robot that can follow its owners and take commands via a touchscreen.²⁸⁸ In the US, there are a number of social and domestic cleaning robotic projects such as the PR2 from Willow Garage and the Roomba from iRobot.²⁸⁹ And since China is rapidly aging as well, this presents an opportunity not just for foreign robotics companies but also IT firms to export their solutions to China (see Chapter 13 as well).²⁹⁰

Digital demographic differences

While personal computer ownership in China continues to increase over the past two decades, as the average urban salary is about \$3,430 a year, the typical urbanite usually does not have the funds to pay for one at home.²⁹¹ That serves as a reason why, internet bars or net cafes (*wangba*) are substantially much more popular than their Western equivalent. *Xinhua* estimates that as of 2009 there are more than 138,000 "cybercafés" in China.²⁹² And 70% of the customers are between the ages of 18 and 30.

So where does this leave the aged and elderly?

As I mention later in Chapter 13, both the iOS and Android app marketplace's in the US have a number of simple games that some older audiences have gravitated towards. And as smartphone proliferation continues in China, this presents Western developers and programmers with an opportunity to port and translate their games to a similar demographic across the Pacific.

For example, in 2012 approximately 189 smartphones were sold in China and at the end of November 2012 there were now 1.104 billion phone users on the mainland – 233.4 million were 3G users (3G adoption will increase by 100 million in 2013).²⁹³²⁹⁴ This past summer China

overtaken the US to become the largest smartphone market.²⁹⁵ Flurry now estimates that as of February 2013 there were 246 million smart devices in China compared with 230 million in the US.²⁹⁶ It is thus unsurprising that China is also the fastest growing market for iOS and Android devices.²⁹⁷ Yet in terms of demographics, the vast majority (~90%) of smartphones on the mainland are owned by users who are less than 55 years old.

As I mention later in Chapter 13, in the US, 50% of Solitaire and FreeCell players are senior citizens and 44% of US seniors have played solo games online.^{298,299} Yet a 2012 Flurry Analytics report found that only a mere 3% of US users aged 55 or older, play games on their phones.³⁰⁰ However, in terms of total tablet and smartphone ownership, according to Flurry, in the US this same elderly demographic group (55+) represents 17% of the total tablet and smartphone ownership.

While open market research is relatively scarce on the Chinese side, CNNIC (which is part of the Ministry of Information Industry) estimates that the internet penetration rate for those over 50 is the lowest, at 7% in 2010.³⁰¹ A 2010 IDC report found only 7.1% of those aged 55 or older play computer games in China.³⁰² One estimate from *iiMedia* was that 10.1% of Android users in 2011 were aged 45 and older.³⁰³ *iResearch* estimates that 3.8% of iPhone users in 2011 were 45 and older.³⁰⁴ Similarly, a February 2012 report also from *iResearch* found that approximately 6% of Chinese mobile internet users were 45 and older.³⁰⁵ And *Askci* estimates that only 1.5% of 50+ year olds in China had a smartphone by the end of 2011.³⁰⁶ So in short, smartphone and computer penetration is relatively subdued within older demographic brackets.

Why is there such a disparity between the US and China? Why does it matter?

I posed this question to a number of Chinese students and colleagues and they noted that the vast majority of the elderly in China were born and raised on farms and are unfamiliar with the latest technology (e.g., only 51.3% of the population is currently urbanized).³⁰⁷ Another issue could be illiteracy rates. For example, an older *New York Times* report noted that many of the less developed more rural regions of China have much higher illiteracy rates. In 2001, parts of Tibet had up to 42% illiteracy rates.³⁰⁸ Yet trends could be changing as *We Are Social* estimates that there are at least five million shoppers and increasing over the age of 50 in China.³⁰⁹

Apps that cater to the elderly

One argument against investing resources towards this demographic group is that you do not, with such relatively low market penetration why invest the resources for a risky return on capital? However one unseen opportunity is the 'long tail' – that the simplified game you make could find an audience with other demographic groups such as primary school students at the other end of the population pyramid.

For example, *Brain Age* is a best-selling Japanese puzzle game for the Nintendo DS (a handheld gaming console) that is popular and successful in part due to its simplicity and ease of use for a wide-range of ages. Perhaps Western developers could look to the simplified user experience

design (UXD) in *Brain Age* as they port their games over to Chinese markets.

In my own anecdotal experience I think an overlooked, yet important phenomenon regarding elderly Chinese is that they are incredibly social and often even physically active. On any given night you will see large groups of seniors dancing in plazas, practicing qigong and playing mahjong along the roads. As my students noted above and the CNNIC data illustrated, if a developer could make accessing apps and the internet itself relatively easier elderly customers may find smartphones less imposing and confusing (e.g., tap on a big simple picture of the person you want to talk to).³¹⁰

And in addition to using easy-to-see objects, be sure to modify the games to include Chinese traditions, symbols and cultural tie-ins – or in other words ‘Western video games with Chinese characteristics.’ For example: the color red, number 8, and the Chinese knot (*Zhōngguó jié*) are all considered lucky. In the early 2000s a knock-off of Red Bull completely redesigned their can to fit the Chinese penchant for red and gold.³¹¹ Perhaps creatively integrating these symbols into your game would prove crowd-pleasing.

Also, even though gambling is currently banned on the mainland, this has not prevented small-scale gambling activities from taking place (e.g., in 2007 Macau overtook Las Vegas in gambling revenue).³¹²³¹³³¹⁴ From my observations, a large part of gambling is done in person on pieces of cardboard in the streets or in little game houses (e.g., tea houses and mahjong parlors). This is not an endorsement of these illicit activities. Rather this consumer behavior presents an opportunity for app developers to focus on both simplicity and the social aspect of any app that is created. And since gambling is popular across many demographic groups, perhaps designing a “social” fortune-style game or a non-monetary betting app would find success across the mainland.

Thus while there is viable market potential for game and entertainment developers to create applications for both sides of the Pacific, careful due diligence of age and technology distribution and proliferation is recommended.

Service with a smile

Another possible area for business opportunities is senior care services. In a December 2012 email exchange with Qian Jianchu, a professor at Shanghai Institute of Foreign Trade,³¹⁵ he mentioned to me that “elderly nursing will be the most prosperous industry in China in the next 10-50 years. The market is currently at a relatively low penetration level at present due to the lack of management experiences and promotion. Therefore foreign firms with experience may find many opportunities in this segment.” Why is this the case? Because as noted above, assuming the retirement age is not increased, by 2050 it is estimated that 31% of China’s population will be of retirement age; and within 40 years China “will have nearly 500 million elderly people.”³¹⁶ Yet despite this increasingly larger demographic bracket, “only 8% of elderly Chinese consumers feel that marketers adequately target them with advertising and products.”³¹⁷

There are exceptions such as the US-based hedge fund Fortress Investment Group who is investing in and working with China Senior Care to “provide elderly care and retirement facilities.”³¹⁸

And while assisted living and senior living centers have become increasingly popular in Western countries, aside from several token centers in China, they are virtually non-existent. That is to say, only 1.6% of people over 60 on the mainland (compared with 8% in developed countries) are accommodated in some way by care facilities.³¹⁹ Or rather, all but a few of the affluent do not currently receive services from an assisted living center. Yet according to a report from China’s National Committee on Ageing, about 12 million Chinese over the age of 60 would consider retirement villages an option.³²⁰ This potential is one of the reasons why J.J. Liu recommended the market segment for potential entry by experienced foreign firms. In fact, Fortress is investing \$1 billion over the next several years to build and operate centers in larger cities like Shanghai and Beijing. And the sky may be the limit, as the most expensive 7-star nursing home in Hainan province targeted and tailored at seniors recently opened in Haikou, charging between \$1,283 to \$2,444 per month.³²¹

In contrast, a 2008 study noted that approximately 1.4 million Americans currently live in several thousand assisted living centers and nursing homes.³²² Thus the potential opportunities in China to not only train the staff but also to sell and equip the centers with vital materials provide Western firms and entrepreneurs with new revenue streams in the immediate future.

Some critics may argue that firms like Fortress Capital are getting ahead of themselves, that there may be very little genuine demand – regardless of costs – for assisted living. For example, Shanghai International Medical Zone (SIMZ) had a tough time starting up several years ago. It was initially planned to be a luxury retirement village targeting wealthier retirees. However as part of its marketing push its owners “boasted an investment partnership with Augustinum Group, a leading provider of retirement homes in Germany.”³²³ Yet work on SIMZ actually stalled for a few years and Augustinum said it never made investments on the mainland. SIMZ has since been completed and foreign firms such as Eli Lilly (a large US-based pharmaceutical company) and Parkway (a Singapore-based health care provider) have begun operating in the zone.³²⁴ Thus even though there is potential due to an expanding market driven by a rise in living standards, investors should still be cautious. Another argument notes that one of the three Confucian ideals that children are taught is filial piety (*xiào*): take care of their parents when they grow older.³²⁵ Yet because of cultural dynamics, home healthcare may eventually become an accepted alternative as Liu noted above. Just as generational changes in the West led to outsourcing care of our aged parents, so too may the post-1980s generations (*bālíng hòu*) do in China.

I also spoke with Adam Clemans who echoed similar rationales and prospects. Clemans is an American pharmacist who works at an international hospital in Shanghai. According to him, “while somewhat tangential with the filial piety idea, many Chinese children do not necessarily want to (or cannot afford to) spend enormous amounts of money on their parents, but rather they want to get them things that *seem* like they might be expensive. The simple fact that

something is imported or made by a foreign company makes it *seem* valuable and special. For example, relatively mundane “low-tech” items like slip-proof rugs or handle bars for getting on and off the toilet could be attainable hits. In addition, I think there might be a third market (upper-middle class) for elderly care as well. Not necessarily super-luxury, but with more Western characteristics (like clean floors & privacy). Right now it seems like there seems to only be two options, cheap or extremely expensive.”

With a middle class currently numbering 300 million – and estimated to grow to 600 million by 2020 – these alternative care options could become increasingly possible for consumer and suppliers alike.³²⁶ Yet again it should be pointed out that middle class is defined as those with at least \$3,000 a year in disposable income (e.g., earn between \$10,000 and 60,000 pre-tax).³²⁷³²⁸ So while they have more funds for supporting their elderly relatives, they may not have enough to buy a product like a walk-in bathtub quite yet. In addition, your company may be able to cater to clients from the Greater China region such as elderly Hong Kong pensioners. According to the Guangdong provincial government, 69,000 elderly Hong Kong pensioners now live in retirement homes throughout the Pearl River Delta – the bulk of which (more than 10,000) reside in Guangzhou.³²⁹ One of the main reasons is that the quality of care is purportedly the same as it is in Hong Kong yet the labor costs are significantly lower thus enabling retirees to live more flexible in terms of finances.

Takeaway: The rapid demographic changes within China present health care providers, robotic manufacturers and game developers with opportunities. What products and services can you and your company invent and export to China? These solutions can range from the seemingly obvious, personal movers like the Rascal to something less evident such as old-age proofing doors and cabinets or even simple smartphone games.

Chapter 7 – Exporting manufactured goods

When I was teaching at a college in Bengbu, Anhui there was a small supermarket across from the main campus entrance called Joy Mart (合家福). While a new Carrefour had just been built downtown, most students and faculty still regularly shopped at the nearby Joy Mart due to its physical proximity. While I had originally brought a number of extra spare shaving razors from the US and Korea (where I had worked previously) I eventually ran out and needed to shop for more. During my first trip along the shop aisles, I noticed one razor package that stood out among the rest: “Blades: Made in the USA.” I got a good chuckle out of it because of all things you picture as a US export, razor blades is probably not one of them.

Which brings up a good question: being the world’s 2nd largest exporter, what exactly does the US export? Who does it?

In case you skipped ahead I mentioned in Chapter 1 that, in its August 2012 *SME Viewpoint*, the US Department of Commerce noted that small and medium-sized enterprises:³³⁰

- Only 1% of US 28 million SMEs export to any country
- And only 10% of those that export, export to China

If you are reading this, odds are you do not work for a company that exports products and services to China. There may be any number of reasons why. The same publication notes that legal uncertainties and property rights protection rank among the top reasons preventing US firms from doing business in China.

But what if you are willing to take the risk and attempt to generate revenue through customers in the 2nd largest economy? How would you do it?

ExportNow is a turnkey solution provider founded by Frank Lavine, former U.S. Ambassador and Undersecretary of Commerce for International trade.³³¹ It is a streamlined central sales platform that allows US firms – small and large – to export their products directly from the US all the way through customs into the hands of Chinese customers. There is no need for warehouses or store fronts as *ExportNow* promotes and markets the products through China’s largest online retailer, Taobao (Tmall).³³²³³³³³⁴

Who goes shopping online in China and how much do they spend? Nearly 60% of Taobao’s userbase is between 25-35 years of age.³³⁵ For comparison, according to Quantcast, nearly half of Walmart.com shoppers are under the age of 34 and more than a quarter of Amazon.com’s customer base is 45 years or older.³³⁶ To give you an idea of how large online shopping is in China and how fast it has grown consider that Boston Consulting Group (BCG) published last year noted, “nearly 173 million people in China shop [online], and the e-commerce space is expected to exceed \$118 billion gross merchandise value for last year [2011].”³³⁷ In 2012 that increased further to \$196 billion and 242 million shoppers.³³⁸ The BCG report also estimates that China’s e-commerce market will become the world’s largest in 2015, with 329 million online shoppers

(each spending roughly \$1,000 annually online).³³⁹ In fact, Analysis International projects that China's e-commerce market will hit 2.57 trillion RMB (\$410 billion) by 2015 and \$457.6 billion in 2016.³⁴⁰ And Ali Research Center estimates that if B2B transactions are not included, by 2020 sales of consumer goods via e-commerce on the mainland will reach 10 trillion RMB (\$1.61 trillion).³⁴¹

And if you would prefer to look around for other e-tailers, in addition to Taobao, US firms looking to tap into the Chinese e-marketplace should also consider Yihaodian (an online grocery store), 51buy.com (a subsidiary of Tencent) and 360buy (which specializes in electronics) all three of which have had double digit growth rates over the past several years.³⁴² And these are hardly fly-by-night operations. For example, in February 2012, Walmart increased its ownership stake to 51% in Yihaodian and by December 2012 had over 20 million registered users and 400 supplier partners.³⁴³ And in October 2012, 360buy introduced its native English channel to allow easier access for international buyers and sellers. Furthermore, In February 2013 Saudi Arabia's Kingdom Holding's investment group announced it had paid about \$400 million for a strategic stake in 360buy.³⁴⁴

So the first step is less ambiguous as you now know who you can sell your wares to in China and how you can sell them. Chapter 12 discusses the social media and social marketing aspects of promoting your products and services in China. But what about services and supply chain improvements?

Industrial robots

While most Westerners are under the impression that you cannot compete with China's millions of relatively low-skilled workers, there are still opportunities in the future.

For example, as its economy has developed, wages in China have increased dramatically as well (in economics this is called the Lewis turning point³⁴⁵). According to Ernst & Young, "[t]he average labor cost in China has nearly doubled in the past five years, going to more than 40,000 yuan (\$6,400, 4,900 euros) a year in 2011 from less than 25,000 yuan a year in the beginning of 2007."³⁴⁶ In fact, these higher costs are forcing many Chinese firms to relocate and automation is becoming increasingly popular (see below). According to one Chinese official, nearly one third of manufacturers in provinces like Zhejiang and Guangdong (who produce textiles, shoes and garments) have relocated overseas to neighboring countries in Southeast Asia such as Vietnam and Malaysia in a move that has been called "the great transfer."³⁴⁷³⁴⁸³⁴⁹ This is not to say that manufacturing on the mainland is faltering, in fact for the third year in a row, FDI reached over \$100 billion in 2012 on the mainland spurred in part by firms trying to "move up the value-added chain."³⁵⁰

As a consequence, firms such as Hon Hoi Precision (Foxconn), which make the iPhone and other electronic devices, plan to move inland to provinces where wages are lower and install 1 million robots in their new factories and plants by 2015. For example, in 2011 Foxconn only used 10,000 robots throughout their factories yet planned to have in place 300,000 by the end of

2012.³⁵¹ In fact, following the 2013 Spring Festival (春节), Foxconn announced a hiring freeze on the mainland where it currently employs more than 1 million workers.³⁵² The company will use this time to install robots throughout their factories in Shenzhen and Zhengzhou, replacing manual labor.

In 2011, China as a whole was home to 74,300 robots, up 42% from 2010 due in large part to a collective acquisition of 22,600 robotic units.³⁵³ The number of industrial robots sold on the mainland quadrupled between the five years spanning 2006-2011.³⁵⁴ All told there are approximately 21 robots for every 10,000 workers on the mainland. For comparison, Japan is home to the largest number of industrial robots (more than 250,000) giving it the highest density of robots to manufacturing workers (339 per 10,000).³⁵⁵³⁵⁶ Thus Chinese firms with robots, of which there are next to zero per capita, have a long way to go before such densities are reached. One of the reasons why the robot per capita rate is relatively low is that at 140,000 RMB to 160,000 RMB (\$20,000 to \$25,000) a piece, these robots (or “Foxbots” below) cost more than four times the annual salary of an assembly line worker.³⁵⁷³⁵⁸ On the domestic side, Sun Zhiqiang is the managing director of Risong Group based in Guangzhou, Guangdong. For the past 15 years they have been developing robotic automation systems and their revenue has increased 20-fold since it was founded due in part to firms switching as a result of increased costs of human labor. This means there may be potential long-term opportunities for foreign robotic design firms, especially at lower price points.

While Foxconn plans to use domestically made “Foxbots” for some of the work, this trend towards automation provides possibilities for Western robotic manufacturers, designers and programmers to export their goods and services. All told, 80% of robots currently being used in China are imported from abroad (in 2011 imports increased 62% to 38,000 robots).³⁵⁹ For example, to improve efficiency and reduce prescription errors, many US pharmacies like CVS have rolled out automated robots in pharmacies.³⁶⁰ Similarly, companies like Philips and Tesla Motors have installed robots that help load and unload shipments from trucks, saving time and reducing physical stress.³⁶¹ Thus firms providing robotic solutions in these segments like pharmacies and shipping may find new customers on the mainland.

Do you or does your company currently design, manufacture or maintain robotic systems? Perhaps you can find new clients in Zhejiang and Guangdong. Cities like Yiwu and Dongguan are some of the largest and most developed manufacturing hubs in China and as a consequence are areas where workers wages have also risen. In fact, because wages have doubled since 2007, the return on investment of installing a new robot may outweigh the costs of hiring relatively more expensive human labor.

A distributed decentralized manufacturing process

But what if you have a small business that already manufactures goods on a small scale? How can you compete with large OEMs?

There is a disruptive technology on the horizon and currently moving out of hackerspaces,

garages and hobbyist circles called 3D manufacturing.³⁶² As futuristic and seemingly science-fiction as it sounds (and barring legal hurdles), 3D printers and rapid prototypers have finally begun to mature into economically viable tools.³⁶³

There are a number of ways a 3D printers can work, the most common of which now is ‘additive.’ Much like a printer nozzle lays ink, commonly used 3D printer nozzles add additional plastic layers on top of one another to build the widget.³⁶⁴ For example, using computer-aided design (CAD) software you can design a customized object like a plastic toy for your young nephew. Using relatively inexpensive hobby kits or even professionally manufactured 3D printers, you send the CAD file to the 3D printer. The 3D printer then builds this toy, layer upon layer – right in your home (giving it the nickname of “desktop manufacturing”).³⁶⁵ And as I mention below, several of these 3D printers are now sophisticated and versatile enough to build much more complex objects than your average, everyday coffee mug.

A new report from *SmartPlanet* suggests that 3D printing can “make global supply chains” increasingly unnecessary.³⁶⁶ The report notes that while the technology is still in its germination, maturing phase, the potential to decentralize manufacturing can save on transportation costs by completely removing the costs and time of shipping from China to the US.

For example, US-based manufactures, both small and large can now purchase relatively precise 3D printers from a number of vendors. This includes the highly acclaimed MakerBot, Fab@home and Reprap among many others.³⁶⁷³⁶⁸ The award winning MakerBot allows users to turn CAD files into physical constructions, starting at \$2199 (the top-end model is \$2,799). Thus if you currently own or work for a US-based manufacturer, regardless of size, you have the potential to build and export anything from miniature toy action figures and playable guitars, to goods of all shapes and textures such as automotive parts, football cleat, artificial ears, cell phone faceplates, stainless steel dice, James Bond cars, UAVs, fuselages, microscale figurines, prosthetics, face jugs, robotic dinosaurs, civil engineering dams, houses, life-sized robots, conductive thermoplastic composites (carbomorphs), marine life models, stem cells, lunar structures and even photo booths.³⁶⁹³⁷⁰

This also presents a good opportunity for independent entrepreneurs looking to start-up a part-time project. For example, entrepreneurs do not even need to purchase 3D printers as they can contract the physical manufacturing process to a nearby fabrication owner, allowing the entrepreneur to simply design the product and export it to China or elsewhere. One such US-based company that already provides this content-to-print service is 3D Systems.³⁷¹

Other firms such as US-based Stratays will lease 3D printers and prototyping machines to users at a monthly rate.³⁷² One business opportunity could be renting one of these Stratasys machines and subcontracting and in-sourcing work orders from both international and domestic clients. For example, Staples, the office retailer, will begin to integrate and install 3D printers into its printing facilities beginning in Q1 2013 making subcontracting and decentralizing relatively easier.³⁷³

In terms of legal considerations, in February 2013 I spoke with Stephan Kinsella, an author and intellectual property lawyer specializing in patents.³⁷⁴ According to Kinsella, “3D printers are a disruptive innovation that will probably face substantial legal hurdles depending on the jurisdiction. 49,000 3D printing systems were sold worldwide in 2011 and even in the face of copyright and patent lawsuits I suspect that tens of thousands more will be sold.”³⁷⁵ Furthermore just as bit-torrenting and encryption have enabled file-sharing as means to avoid copyright law, ultimately the prospect of 3D printing may do something similar for patents. And just as the RIAA sued Napster, patent holders will unsurprisingly fight to prevent this innovative process from occurring as *Wired* and the EFF have pointed out.” *Wired* recently showcased 10 patents that could stifle the homegrown 3D printing market and the EFF is a non-profit organization that has chronicled how patents stunt innovative advances.³⁷⁶ For instance, last November 3D Systems (noted above) sued Formlabs for patent infringement.³⁷⁷ Formlabs is a startup that plans to sell a new 3D printer based on a processing technique called stereolithography that 3D Systems claims to have patented.

Despite these legal issues Kinsella still sees business opportunities, noting that “once we have sophisticated 3D printers that can make copies of themselves like the RepRap project aims to do and are capable of printing out objects retrieved on the Internet from sites like Thingiverse via encrypted files, then patent holders will find it much harder to stop 3D printing which will lead to further proliferation and economies of scale as CAD files are distributed and decentralized globally. The traditional manufacturing business model will eventually have to change either way and since two-thirds of all 3D printers are currently made in the US, there are still several ways profit from this disruptive innovation without the need to open a factory in China. For example, any first-mover fashion trend such as designing a creative accessory (e.g., Lady Gaga-inspired purses) and being first to print, ship and sell it to a distribution channel or even to end-customers themselves. Information, which is what CAD files are, will ultimately become “free” – so to futureproof your business model, entrepreneurs should factor in this change sooner rather than later.” RepRap is an open-source 3D printer project with a goal of being able to build an identical copy of itself using everyday material (*in situ*).³⁷⁸ Thingiverse is a site facilitating the sharing and distribution of user-created digital files (CAD).³⁷⁹

Just how large can such the 3D manufacturing process be scaled? On October 19, 2012, New York City mayor, Michael Bloomberg, cut the ribbon to a new Queens-based 3D manufacturing facility that will soon be home to 50 large industrial-scale 3D printers capable of producing millions of customized consumer goods.³⁸⁰ All told, Wohler’s Associates estimates that the 3D printing industry will be a \$3.1 billion market by 2016.³⁸¹³⁸² And the Consumer Electronic Association estimates that printer sales would rise to \$5 billion by 2017 (up from \$1.7 billion in 2011).³⁸³ These goods can in turn be sold domestically, or as illustrated above, sold to Chinese customers through *ExportNow* or a variety of other e-commerce providers.

Would Chinese consumers be interested in buying your 3D printed objects? Perhaps they might, depending on what it is. For example, in 2011 mainland toy sales increased by 18%, generating \$8.58 billion in revenue. As a consequence Toys ‘R’ Us is not only expanding by building smaller brick-and-mortar stores but also stocking them with more education-focused products like toy

microscopes because “[a]bout 35% of sales in existing stores in China are tied to education, compared with 21% in the U.S.”³⁸⁴ In fact, Lego, the plastic build block company, announced in March 2013 that it was building a new factory in China, its first mainland factory to cater exclusively to the Asian market; a market that has seen annual sales growth of Lego’s increase 50% for each of the past several years.³⁸⁵

But remember, even though the Asia-Pacific region is expected to become the world’s largest toy market in 2016 and just because you make a product that is popular in the West, does not mean it will also be popular in China. For example, in 2009 Mattel opened a \$30 million six-story flagship store in Shanghai that included not only the world’s largest collection of Barbie dolls but also other branded goods and services such as customized furniture and even a fashion runway. Yet the store shut down two years later in large part because Chinese consumers prefer the “cuteness” of Hello Kitty over the “sexy” blonde icon.³⁸⁶ Thus, performing market research on consumer behavior is just as important in the East as it is in the West.³⁸⁷

Takeaway: In the US, only 1% of SMEs export and only 10% of these firms export to China. This amounts to roughly 30,000 SMEs. And odds are your company is not one of them. Yet solutions like *ExportNow* make it easy for any American company to export and sell their products directly to Chinese consumers online via Taobao. And because of labor arbitrage, developmental economics (specifically the “Lewis turning point”) and specialization, it is becoming increasingly expensive to own, operate and scale manufacturing plants in hubs like the Pearl River Delta and Yangtze River Delta regions. As a result, US firms specializing in automation (specifically robotics designers and producers) now have potentially new sources from which to generate sales. In addition, US firms specializing in 3D printing also have the ability to disrupt and modify existing supply chains, enabling CAD designers in the US to compete directly with Chinese-made products (specifically just about anything made with plastic today).

Chapter 8 – Sports

In 2011 I was teaching at a college in Zhongshan, Guangdong – a mid-sized city in the Pearl River Delta manufacturing region of southern China. During lunch I would regularly eat at the campus cafeteria. The faculty dining area was in a separate room connected with the main student dining area. Throughout the month of June, the students – typically men but also women – would pack their dining area to catch a glimpse of the NBA playoffs on TV’s hanging from the ceiling (and also because it was one of the few rooms with reliable air conditioning – unfortunately their dormitories only had fans). For nearly an entire month the area was crowded almost shoulder-to-shoulder, even during final exams. And on numerous occasions, my students, including one named Jason Xu from Dongguan, asked me repeatedly to bring back basketball ‘high tops’ whenever I traveled back to the US. This task typically involved looking through Eastbay catalogs with them and listening to their dreams of one day wearing “authentic” NBA apparel.

Is this just an isolated group of NBA fans? No, according to sport consultant Matt Beyer, “the NBA has close to 30 official corporate partnerships specific to China.”³⁸⁸ Thus while you may see Chinese apparel companies advertising in the background during an NBA game – if the student body at the college in Zhongshan is any indication – there is a similarly large potential for US brands to advertise in the Chinese Basketball Association (CBA) as well.

In fact, commissioner David Stern estimated that the NBA’s revenue generated from China will reach \$150 million in 2012 (based on television and digital broadcast rights). And according to Stern, “NBA viewership in China rose 18 percent last year [2011]” and will grow 10% a year for the foreseeable future.³⁸⁹ Furthermore, CCTV 5, a state-owned TV station that focuses on sports recently signed a new agreement with the NBA to increase its live-coverage, programming and analysis based on content “produced exclusively for China.”³⁹⁰ The NBA’s relationship with CCTV 5 dates back to 1987 when the All-Star game was broadcast on the mainland.³⁹¹

What kind of sponsorships takes place in this cultural-sport trade?

For instance, while Yao Ming has a \$10 million contract with Reebok, in 2006, Shaquille O’Neal signed a five-year sponsorship deal worth \$1.25 million with Li-Ning (and later expanded to \$6.2 million and again to \$10 million).³⁹²³⁹³ Li-Ning is one of the largest sports shoe and apparel companies in China, with \$1.4 billion in revenue for 2011.³⁹⁴ Similarly, O’Neal’s teammate, Dwayne Wade recently cancelled his sponsorship with Nike and signed for a percentage of equity stake with Li-Ning.³⁹⁵ Yet for comparison, Nike did more business in China alone in 2011 (\$2.1 billion) than Li-Ning’s total global revenue.³⁹⁶³⁹⁷ And for perspective, according to *Boston Consulting Group*, the apparel market in China is expected to generate \$204 billion by 2020 (triple from 2010).³⁹⁸

How popular is basketball on the mainland? According to Ying Wushanley, a professor at Millersville University:

It is estimated that more than 300 million people play basketball throughout China; NBA

games are watched by more than 30 million viewers per week; retail stores are saturated with NBA merchandise; NBA.com/China has become the most popular single sports website in China; and NBA is consistently the most searched sports term on China's top search engine Baidu.com.³⁹⁹

The Chinese Basketball Association (CBA) is the top professional league in China. It has been around since 1995 but has had its share of growing pains. According to *FORTUNE* magazine, the league incurred a loss of nearly \$17 million in the 2008-2009 season because a significant portion of the expenses go towards recruiting overseas talent.⁴⁰⁰ For example, in October 2012 Tracy McGrady, a seven-time All-Star for the Houston Rockets signed a \$1 million annual contract with the Qingdao Eagles of the CBA.⁴⁰¹ Two weeks later he was greeted at the airport by a huge fanbase, which itself attracted media coverage.⁴⁰² Even non-CBA players are sometimes hot commodities. For example, this past summer, Jeremy Lin (林书豪 of 'Linsanity') signed a two-year sponsorship agreement with KFC, both of whom have huge followings on the mainland (see Chapter 16).⁴⁰³⁴⁰⁴

And while the domestic league continues to grow and recruit global talent (of note, in the 2009-2010 season, 19 of the top 20 scorers were foreigners⁴⁰⁵), this is not the only sport being played on the mainland.⁴⁰⁶⁴⁰⁷

Kicking and skating

While Yao Ming is probably the best known Chinese athlete abroad, the domestic basketball industry – while large (according to both *FORTUNE* and Ying, more than 300 million play it) – is just one of several sport markets. As I discuss below, in addition to soccer and tennis, both badminton and table tennis, while seemingly pedestrian in the West, are each have the potential to become multibillion dollar sports in China.

The Chinese Super League (CSL) is the highest level of professional soccer in China has been around since 2004. While its ticket gate revenue is relatively low, at an estimated \$33 million a year, its 17,651 in average attendance is the highest in Asia.⁴⁰⁸ Soccer, as I note below, is a popular sport played by large portions of the population through pick-up games and several organized leagues (especially in high school and college).

As part of a new 10-year deal with CCTV (the state broadcasting company), in 2012 IMG (one of the largest sports and media firms in the world) was brought in to help market, brand, develop and manage the CSL into a topflight global league.⁴⁰⁹ Similarly, in March 2013, it was announced that David Beckham will be paid several million euros to become the new CSL Ambassador in an effort to bolster the CSL image overseas.⁴¹⁰ Yet despite having a poor national soccer team (plagued by scandals) that has failed to qualify for the World Cup all but once (2002), an estimated 700 million Chinese watched the 2006 World Cup and 24 million Chinese fans watched the 2010 match between Greece and South Korea.⁴¹¹⁴¹² The 2004 Asian Cup final between China and Japan drew 250 million viewers in China, making it the “most watched single sports event in the history of Chinese television.”⁴¹³ Thus US brand awareness

firms on Madison Avenue (such as IMG) have a potentially large audience with which they can position their clients' products.

Sport agents could look at the CSL market as a new venue for their clients. Guangzhou's Evergrande team hired Marcello Lippi of Italy for \$12.5 million, the third highest ever for a coach. And Shanghai's Senghua team signed Nicolas Anelka for \$13.3 million, coincidentally the third highest for a player. All told, "forty three percent of the [league's] revenue goes to foreign players."⁴¹⁴ Similarly if you are a Western trainer or coach, you may find large monetary incentives to train and coach Chinese athletes. China's meteoric rise in the Olympic swimming events is in large part due to Australian coaches who were lured over in part by financial incentives. For example, Ken Wood noted that China pays four times the amount he would get in Australia.⁴¹⁵⁴¹⁶⁴¹⁷

Other non-traditional sports have begun to make inroads as well. Skateboarding, for instance, has begun to spread throughout the larger cities of China and as of 2009, there are between 40-50,000 active skateboarders.⁴¹⁸ At 12,000 square meters, SMP Skatepark in Shanghai is purportedly the largest skate park in the world and home to around 2,000 members.⁴¹⁹⁴²⁰

Playing without nets

My first apartment in China was next to the outdoor basketball courts at the college I was teaching at. During the daytime there were relatively few students on the courts. But after 5pm, all 20 hoops were roughly jam packed with mostly young Chinese men (and sometimes women). Just next to the courts was a soccer field, also filled with several soccer teams comprised of a similar demographic distribution.

Yet despite the popularity of soccer and football, at dusk many students, faculty and families would take to the campus streets and play badminton just like a scene out of *The Sandlot*, sans James Earl Jones. Hours after sunset, up and down these streets the groups continued to play – until the mosquitoes became too much to bear. And they did it all without nets.

With similar enthusiasm, the numerous ping pong tables at the student union and faculty centers were continuously occupied by both young and old alike. None of the equipment was new, or the best – it simply was good enough as Voltaire might say. And nearly identical recreation patterns are found across the entire country. As a consequence Chinese athletes have dominated the medal table at nearly ever badminton and table tennis event over the past decade at the summer Olympics and World Games.

For example, Lin Dan is a household name and the first person to ever win the Super Grand Slam in badminton (winning all 9 major badminton events). His image now graces the cover of numerous marketing campaigns – from Red Bull to Gillette – netting him at least \$1.9 million in sponsorships annually (and ranking him the 33rd "most marketable athlete").⁴²¹

Table tennis (ping pong) is the national sport of China and the Chinese Table Tennis Association

manages the largest professional table tennis league, China Table Tennis Super League (CTTSL).⁴²²⁴²³ Zhang Jike, currently the reigning Olympic and World champion, is sponsored by Coca-Cola (his image actually appears on the cans). Domestically Jike is sponsored by Yanjing Beer Group (netting a \$70,000 bonus for his Olympic win) and State Grid.⁴²⁴

In tennis, Li Na became the first Chinese national to win a grand slam tournament. She won the 2011 French Open and subsequently signed 10 sponsorship deals including those with Hagen-Daz, Rolex and Nike as well as a three-year contract with Mercedes Benz and is on track to be the highest earning female athlete globally.⁴²⁵ And in swimming, Sun Yang broke an Olympic record in London last year and has signed 10 million RMB (\$1.6 million) worth of sponsorship agreements including those with Yili Dairy, 361 Degrees (a sports manufacture) and Coca Cola.⁴²⁶ The 361 Degree deal was purportedly for 1 million RMB (\$157,000).

Thus along with a social media strategy that I outline later in Chapter 12, if you or your company plans to sell goods and services to consumers on the mainland, it is important to look at potential sponsorship deals with popular athletes in leagues across the country. And once again, if you do not, your competitors (both US and Chinese) could very well be looking to sign the next Yao Ming or Lin Dan.⁴²⁷

Professional know-how

What other services could you provide that are not available or are in scarce supply in China?

In his book *Red Flags*, Matt Garner notes that because Westerners – and specifically Americans – are exposed to the best advertising campaigns, the most concerted marketing efforts and the most methodical media plans, Westerners are by-and-large the most sophisticated and savvy consumers on the planet.

How can you use this to your advantage?

Colin Colenso is an Australian businessman who illustrates how Garner's "saviness" can be put into practice. He is the CEO of Human Action Media and with no qualifications or work experience in marketing, media or event managing, within 18 months of pursuing his dream to start a business in Shanghai running billiards events, Colenso's small company – aided by two English speaking Chinese friends – managed the first nationally televised snooker event in China with a western multinational brand as sponsor.⁴²⁸⁴²⁹

In an October 2012 interview I had with Colenso, he noted that "this national snooker event was actually presented to me by the government officials as they hadn't the marketing or public relations skills or resources to sell sponsorship packages to professional westernized companies in China. Such gaps in skills and knowledge in sports and many other aspects of China are numerous, as services and products adapt to a growing and freer market. This market phenomenon occurs everywhere, but the gaps in China's rapid evolution to a market economy have been wider and deeper than in developed countries where such obvious opportunities had

been snatched up long ago.”

So where does this leave a sport marketing expert in the developed world? Is there a way you can translate your experience to the Chinese market? Or is it too late?

I asked Colenso these same questions and he advised that while, “the development of sports business in China has been rapid, particularly in the last decade, so the gaps may be narrower and shallower for beginners. Thus opportunities may not be obvious or easy to discover. But in a market of dozens of cities with millions of residents whom have a growing desire and capacity to procure sports entertainment and products, I have no doubt Chinese sports will be grabbing headlines around the world in years to come, not just in athletic performances, but in business developments related to sports. In fact, sports, as well as other markets are maturing to the point that they are more capable of providing opportunities for experienced professionals and companies from the West. Snooker provides but one example of this, as China has become a key ally in World Snooker’s strategy for international expansion. I’m sure the same is true for golf and various other sports, as the various organizations and companies involved have evolved.”⁴³⁰

And remember, just because you might not know who Lin Dan or Li Na are does not mean that Chinese consumers are equally unaware. For perspective consider that the English Premier League generates almost the same revenue as the NBA (\$3.5 billion versus \$4.3 billion)⁴³¹ yet it would be foolish to ignore the marketing potential of sponsoring teams like Manchester United or players like Wayne Rooney (the League’s highest paid player) just because you did not like the sport. In fact, due in part to its large fan base on the mainland, Manchester United recently signed a 3-year sponsorship deal with China Construction Bank and Wahaha, which is the largest soft drink producer in China.⁴³² Could your firm or clients find similar opportunities?

The Great Outdoors

As I discuss later in Chapter 11, according to the *China Daily*, in 2011 more than 60,000 Chinese children traveled to the US and participated in various summer programs.⁴³³⁴³⁴ While educational attainment is the primary motivation, another reason is that some middle class families have begun looking for outdoor activities for their children. Why? According to a recent survey, “Chinese kids under six spend less than an hour outdoors every day, only a quarter of the global average.”⁴³⁵ Thus in an effort to educate their children about nature, some are opting for day-trips to nature preserves and even summer camps. In fact, according to a *McKinsey & Company* survey, “Chinese consumers who identify “retail-tainment” as a favourite pastime has fallen from more than half a few years ago to about 40 per cent now, and will be less than a third by 2020.”⁴³⁶

This kind of change in consumer behavior could provide an opportunity for both domestic and foreign companies to provide outdoor services and entertainment to children and adults. For example, two years ago Club Med opened its first ski resort near Beijing. During the summer it doubles as a golf course and theme park and was built to accommodate 18,000 customers a

day.⁴³⁷ And according to one estimate from Justin Downes, a ski resort advisor, “there are about five million ski tourists in the country” – a number he estimates could reach 20 million by 2020 once new ski resorts are built.⁴³⁸ There are even ski resorts in relatively remote Urumqi, in the northwest province of Xinjiang.⁴³⁹ All told there are over 400 ski resorts nationwide and companies like Mountain China Resorts are investing several billion RMB to develop and build additional resorts and hotels to cater to a customer base which is now about 70% Chinese.⁴⁴⁰ Thus both foreign and domestic turf experts, course and resort designers, and even ski trainers may find a new revenue source.

Yet one area both foreigners and domestic firms and investors should be cautious of is golf courses. While the ban on golfing was lifted in 1984, construction of new courses has been officially banned since 2004 (e.g., “it is an elitist game” and “uses scarce fertile land”); there has been a cat-and-mouse game of subsequent construction followed by investigations. To get around this ban, new golf courses typically use other names like “health clubs” or “country clubs.”⁴⁴¹ Those that are discovered (typically via satellite imagery) are sometimes dug up. For example, several years ago the Anji King Valley country club (southwest of Shanghai) received a 10-day visit from bulldozers who subsequently redesigned the landscaping (tore up the turf and sprinkler system).⁴⁴² Yet there are others that thrive and generate purportedly large sales; the Qinghe Bay club that opened in 2008 charges 880,000 RMB (\$141,000) for lifetime membership.⁴⁴³

In fact, one estimate is that the Chinese golfing industry generated nearly \$10 billion in revenue in 2008 (from course costs and equipment) and is expected to grow from 700 courses in 2012 to 2,700 in 2015.⁴⁴⁴ Even Mission Hills, the world’s biggest golf resort operator has opened several courses in the face of legal uncertainties. Their largest course is the size of Manhattan and is located in Hainan province which is exempt from the ban. Yet as I mentioned at the beginning: *caveat venditor*. This boom may only be temporary.⁴⁴⁵

Six Minute Abs

As China both ages and develops (see Chapter 6 and 19) the demand for professional recreational facilities may also increase. For example, water aerobics is generally considered a healthy, physically beneficial activity for elderly consumers in the West. Yet aquatic facilities do not exist in China at the level as they do in some foreign countries. And it is not due to a lack of popularity as anyone who has visited a public pool can attest; these facilities can become very crowded.⁴⁴⁶ Similarly, just as all other developing countries go through growing pains, one literal example that is increasingly relevant is physical stress.⁴⁴⁷ Or rather, many segments of the mainland do not feel they have enough time to both work hard at work and exercise afterwards. In fact, according to the World Health Organization, the obesity rate for those 15 years or older in China reached 38.5% in 2010 (up from 25% in 2002) and another study by the General Administration of Sport (国家体育总局) found that “overweight rate among students between the age of 7-22 climbed to a new high.”⁴⁴⁸⁴⁴⁹ And as I mentioned in Chapter 6, in terms of overall numbers China is now the capital of diabetes, with 92.3 million or 9.7% of the population suffering from this affliction compared with 11% in the US.⁴⁵⁰

Part of the predicament leading to this rise in obesity is that quite simply, many students are encouraged and required to study more than in the past. The increased competitiveness in obtaining academic placement (see Chapter 9) has led to many primary, secondary and even tertiary students to typically attend school from 7:30am to 5pm and then spend an additional 3-4 hours doing homework. As a consequence they have little time to play or participate in physical activities.⁴⁵¹ In fact, according to a recent *Global Times* report, “[i]n comparison with data collected in 2005, scores in men's 1,000 meters fell by 3.37 and 3.09 seconds for urban and rural students, while breathing capacity of college students as a general dropped by nearly 10 percent from the 1985 level.”⁴⁵² According to Qiao Xiaoshan a physical education researcher, “[f]rom 2002 to 2010 in China, more than 40 participants in long-distance running events aged 16 and over died suddenly.”⁴⁵³ In 2012 two more college students died from heart exhaustion after participating in a marathon in Guangdong and another student died in Shanghai while playing basketball.⁴⁵⁴ This has led to cancellations of running-based tests and competitions across many cities and provinces. In fact according to Qiao, “more than 30 universities in Xi'an no longer held long-distance races because of the decline in students physical fitness, leading to concerns the students may suffer injury or even death if they took part in intense physical activity.”⁴⁵⁵⁴⁵⁶

In other cases, the consumer may not feel comfortable at existing facilities. For example, in my own anecdotal experience at participating in gyms in China, one common concern I have heard by female patrons is that they would prefer to work out in their own women-only gym so they can receive train in a more supportive, focused environment. Thus foreign, women-oriented firms such as Curves may find opportunities to cater to niche clientele.⁴⁵⁷ Similarly, specialty gyms like CrossFit may be able to capitalize on its status as a non-traditional, unconventional training program that could market itself towards the insatiable demand for *wushu* (e.g., Shaolin kung fu) which similarly involves training in creative ways and carrying, throwing, contorting and kicking unusual apparatus.⁴⁵⁸ However, all told, by one estimate, the penetration rate for fitness facilities is a mere 0.3% on the mainland compared with 16% in the US and 13% in the UK.⁴⁵⁹

For perspective, in 2011, there were 29,365 fitness-related businesses providing 43.6 million gym memberships in the US.⁴⁶⁰ Yet just because there is potential in one country does not mean there is instant success in another. For instance, Bally's Total Fitness has actually reduced its fitness centers in China from 44 in 2008 to less than 30 today. And 24-Hour Fitness sold its centers to a local Chinese group (Ansa) in August 2012. Why? Because according to Walter MacDonald, a wellness management consultant, “[a]ll the ideas that work in the West mostly don't work here. Fitness is not like fast food chains that can easily change the menu according to local taste.”⁴⁶¹ Similarly Theo Hendriks, the CEO of Sports and Leisure Group explains that “[t]he international clubs that have a difficult time in China are franchises, and they just have one concept for their gyms in different countries and cultures.”⁴⁶²

And again for those willing to stick with the mainland, the revenue potential could be rewarding. According to Walter Macdonald, in terms of market size only \$11 billion is spent on fitness in Asia

compared to \$21 to 25 billion in the US.⁴⁶³ For example, Hosa Fitness Clubs is one of the largest on the mainland with more than 500,000 members and plans to increase its centers “from the current 82 to 300 by the end of 2013.”⁴⁶⁴ Thus perhaps if foreign firms can figure out how to localize and cater fitness to specific consumer behavior (e.g., group based activities like tai chi, yoga, cycling) instead of the traditional Western model commonly tried they may be able emulate Hosa’s success.⁴⁶⁵⁴⁶⁶

In my conversation with Kirt Greenburg (see Chapter 1), he also noted that foreign firms should conduct research to specifically discover consumer behavior patterns regarding scheduling preferences at the gym. For example, based on his cursory research he has found that many local gyms do not cater to consumers who prefer to work out in the morning, that gyms are typically only open beginning at 8:00 am. According to him, “because the gym itself and formal fitness culture have not been established in most urban regions, customers and entrepreneurs are still adjusting and learning how to utilize and cater to peak hours. The idea that you can take your work clothes to the gym, workout, shower and then head straight to work is still not fully embraced by urban workforces.” Thus it may take some long-term planning and even education to cater to this new segment of time-conscious customers.

Takeaway: China’s sports base and sport development continue to create world-class athletes. Professional leagues are beginning to mature and have attracted significant fan bases. As a consequence, sponsorship and advertising revenues continue to climb both for sport franchises and athletes. If you plan to sell your products and services in China you should also consider looking for potential athletes and sports – even those seemingly unpopular in the US such as badminton or table tennis – because if you do not take the opportunity to sign them, your competitors (both Chinese and American) very well might.

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Chapter 9 – The education market

Over the past four years I have had a chance to live and work throughout China. This was done in the capacity as an instructor, teacher and professor at a variety of colleges and schools across the country. Along the way I have met numerous fellow travelers, international teachers and businesspersons who have worked across the wide expanse of China's educational systems.

I say systems because there is a cornucopia of private international schools, public schools, specialized Montessori schools and a seemingly infinite amount of training centers called *bǔxíbān* (companies and institutions that typically offer after-school programs such as EFL, GRE, GMAT, art, business and math training). These all exist to meet the demand of an extraordinarily large population that culturally values formalized schooling for educational attainment.

For example, in 2006 there were an estimated 16.7 million students studying at 336,200 elementary schools and 21.2 million students studying at 361,300 junior high schools (the reason for the relative decline and difference in the cohort sizes has to do with the one-child policy).⁴⁶⁷⁴⁶⁸⁴⁶⁹ More than 9 million high school seniors take the national college examination (*gaokao*) each year, the top percentage of which typically then study overseas.⁴⁷⁰ And approximately 8 million college students now graduate each year in China, a rate that has quadrupled since 2002.⁴⁷¹

In addition, as I mention below, there are a number of extra-curricular training centers called *bǔxíbān* that cater to the growing domestic demand for foreign educational services. For instance, in 2011 more than 20,000 Chinese high school students took the SAT as part of their quest to study overseas.⁴⁷²⁴⁷³ With 58,196 test-takers from the mainland, one in five people who took the GMAT in 2011 was from China – a 45% increase from the previous year (and up from 11,000 in 2008).⁴⁷⁴⁴⁷⁵ Both tests are conducted entirely in English. New Oriental Education – among many other training centers – alone trains and tests up to 200,000 students a year in standardized tests like TOEFL and SAT.⁴⁷⁶⁴⁷⁷

EFL market

In January 2009, then-Premier Wen Jiabao stated that there were roughly 300 million English learners in China. For perspective, there are 600 times more Chinese studying English than Americans who study Mandarin.⁴⁷⁸ From primary school through the first two years of college, nearly every student in China is required to take English. One of the subjects tested during the *gaokao*, the annual national college entrance exam, is English. And with great commitment comes great costs. In 2002 the estimated price tag on EFL education was \$1.4 billion and according to a 2009 *McKinsey & Company* report, "China's foreign-language business is worth \$2.1 billion annually."⁴⁷⁹ As I mention below, this is substantially lower (5x) than their peers such as Japan and South Korea.

Who teaches these EFL courses? According to *People's Daily*, approximately 100,000 foreign teachers and experts are recruited each year to work on the mainland.⁴⁸⁰⁴⁸¹ But before jumping

on a plane and starting a new EFL division of your company overseas consider that not only would you need various licenses to start up a new firm, but that the EFL market is already sorting the wheat from the chaff.⁴⁸² For example, a large number of nation-wide EFL providers including: Disney English, Wall Street English and English First (EF) are owned and operated by foreign companies. EF is actually the world's largest EFL company, with 34,000 employees and more than 500,000 paying students globally. New Oriental Education and Ambow Education were both founded by Chinese nationals.⁴⁸³ They rank among the top EFL providers in China and are even traded on the NYSE.

So like all business startups, be sure to do a SWOT (strengths, weaknesses, opportunities, threats) analysis and identify what your company can provide that is not already being serviced. Even with these well-funded incumbents, a case could be made that entrepreneurs (both foreign and domestic) can still create a profitable business model, catering to specific niches (e.g., first-contact health care providers, hospitality managers, financial and securities traders, lawyers and paralegals).⁴⁸⁴

While some have argued that EFL might be bubble activity, there is arguably a lot of organic, bottom-up support for this drive into English. For instance, according to Jun Liu, English professor at the University of Arizona, as of 2007 about "40,000 foreign companies have been set up within China and employ 25 million people."⁴⁸⁵ As a consequence a lot of the day-to-day operations are conducted in English, such as emailing, accounting, finance and sales. And this outward push from within organizations can be illustrated by firms such as Air China – the third largest carrier in China – which has introduced an incentive program for its employees to learn English from a large TEFL provider. Similar incentive programs exist at foreign-owned multinationals such as Eli Lilly, Metro (a large German supermarket chain) and Intel. On a governmental level, in a bid to help tourists and foreigners, one such firm - English First - was even hired to teach taxi drivers and volunteers during the Shanghai 2010 Expo; they were also the official trainers for the 2008 Beijing Olympics.

And with a goal of becoming distinguishable and eventually an international brand, most businesses and large SOEs have adopted English names such as China Unicom, Lenovo, Agricultural Bank of China, China National Petroleum, State Grid and China Railway.⁴⁸⁶⁴⁸⁷ As I mention later in Chapter 12, this push outward presents an opportunity for US companies and institutions to help market and educate Chinese firms looking to do business overseas. On this note, in June 2012, Shaun Rein, the author of "The End of Cheap China," made the case that China will continue to need American education and American educators.⁴⁸⁸ He makes a persuasive call for US-based educational entrepreneurs as well as educational companies and institutions to set up shop on the mainland. And if you do not, someone, perhaps even your competition will.

What you and your firm can do

For perspective, South Korea, which invests more on EFL education than any other country, collectively spends between \$10-\$15 billion a year on EFL education; one 2005 estimate put the

figure even higher, 1.9% of GDP (approximately \$16 billion).⁴⁸⁹ And with a number of domestic programs similar to its neighbors, Japan spends about \$8 billion a year on EFL.⁴⁹⁰ Thus with a population ten times the size of Japan and a GDP six times the size of South Korea, there is a lot of potential room for EFL growth in China, which as noted above, spent \$2.1 billion on EFL in 2009.

How much do these programs at a language center typically cost? I spoke with a high level Chinese manager in charge of operations at a large EFL training center in Pudong, Shanghai who has had 20 years of experience working at Disney English, Wall Street English, EF, Web English and Huapu (the latter two are Chinese-owned and managed). According to her, “ten years ago it was a seller’s market as there were relatively few language centers and as a consequence they could charge enormous tuition fees, upwards of 400,000 RMB [\$64,000] a year primarily because there was and still is a large demand for authentic face-to-face experiences. In return the centers provided one-on-one intensive training with *laowai* – native English speakers – for hours each day. Today, because the market has matured over the past decade, the average high-end language package now costs about 30-40,000 RMB [\$4,800-\$6,400] annually in larger cities like Shanghai and Beijing – which is still a somewhat high amount considering the annual wages for most urban residents is less than \$9000 a year. Yet, there still a number of firms such as RISE and baite (百特英语) that specialize in providing English-only, total immersion environments for their customers – at a substantial cost.”

One of the ongoing issues that any service provider in any country must continuously deal with is figuring out the right price point for attracting potential customers. Online education is one way to create flexible rates; as a consequence several EFL programs are now available at substantially lower costs compared with ten years ago (e.g., 500 RMB per month). Another example is while the value of an EFL package is subjective based on each individual’s preferences, there are ways to make repayment easier.⁴⁹¹ Take for instance, payment plans. At some language centers they are now allowing customers to pay by installment. And according to this same source, even though 10-20,000 RMB [\$1,600-\$3,200] a year is now considered a “reasonable sweet spot” in the mind of the typical middle class worker in a Tier 1 city; some of these consumers still would like flexibility and assistance and thus providing month-to-month billing allows them to achieve a win-win compromise.

Catering to specific clientele

In November 2012 I spoke with Cathy Su, a six-year marketing veteran at English First (EF) and Fujian native, about education-related business opportunities in China. According to Su, “parents will go to great lengths to sacrifice themselves for their child’s educational future. For example, in order to send their children overseas, many are essentially price inelastic. Some are willing to invest and spend substantial amounts in order to help their children get an overseas education. They do this for multiple reasons, yet in every case, the students all need both coaching and training to prepare for standardized tests like the SAT, GMAT and TOEFL in order to matriculate overseas.”

While there are cultural components (such as *li* or 禮) to this seeming inelasticity one of the key issues that Chinese families currently face is as Charles Zhang (the founder of internet giant Sohu) recently explained in an interview,

“I believe the US system is definitely better than the Chinese system. First of all, China just has way too many people. The entire system becomes very competitive and thus opportunities are limited. Education in China is not education; it is selection. Of course, the biggest selection process is the national college entrance exam, the Gaokao. The Chinese system naturally must prepare children to study for this inevitable exam, but the preparation is the complete destruction of creativity.”⁴⁹²

Zhang’s comments were similarly echoed by Paul French, the Chief China Market Strategist at Mintel who recently noted that, “[t]here simply aren’t enough places at enough good universities for all the Little Emperors capable of attending and passing the required exams.”⁴⁹³ Little Emperors (八零後) are single children born and raised under the one-child policy. And due to this confluence of scarcity and demographic pressures, this ultra-competitive labor market has motivated parents to push their only child to accumulate other degrees and certificates (see below). For example, according to a report from Mintel, “three-quarters of middle-class Chinese parents expect their child to earn a postgraduate degree, while only 32% said they would be happy if their child stopped at the undergraduate level.”⁴⁹⁴

This sentiment was similarly noted by Wendy Bao, with whom I also spoke in November 2012. She is originally from Zhejiang and has worked throughout EF over the past 10 years in positions such as a product manager, market analyst and in business intelligence. According to Bao, “Chinese parents care more about education for kids than themselves. Or rather, if there was an investment decision between the two, Chinese parents will invest more in their children’s education and extracurricular activities because they see their progeny as more important than their own personal achievements.”

Such sacrifice is illustrated by the family of Wu Caoying, who now attends a three-year polytechnical school. Growing up in Shaanxi province, she is the only child of her parents. Her father works in a coal mine, earning \$500 a month and her mother earns \$12 a day “tying little plastic bags one at a time around 3,000 young apples on trees, to protect them from insects.”⁴⁹⁵ Together they have scrimped and saved for their daughters education and spend more than 50% of their monthly earnings so that their daughter could attend a boarding school during high school and can now matriculate to the polytech. In return, Caoying is expected to help take care of her parents after they retire.

While part of the education-centric ethic stems from various Confucian teachings (e.g., *xiushen* or 修身) that most Chinese are taught from a young age another reason why foreign degrees are sought is that this highly competitive labor market has led to credentialism (e.g., obtaining a certificate or degree merely to collect it for your resumé and CV).⁴⁹⁶ As a consequence Cathy Su also thinks that because of this education ethic, that in addition to traditional EFL training there is essentially an insatiable demand for niche services such as SAT coaching. This may be especially true since the middle class is expected to grow from 300 million today to an estimated 600

million by 2020.⁴⁹⁷ And as I noted in Chapter 6, with a growing middle class comes growing disposable incomes. Furthermore, wealthier Chinese families are increasingly looking to send their children abroad in part because of the hyper competitive domestic climate and due to the perceived creativity-friendly environment at Western institutions. For example, a 2012 report from *Hurun* regarding high net worth individuals (there are approximately 2.7 million HNWI in China), “85% plan to send their children abroad for education.”⁴⁹⁸⁴⁹⁹

And what do these Chinese students do after completing their degrees? While many of them obtain permanent residency, others return to the mainland (see ‘brain drain’ in Chapter 19) as future innovators and policy makers. For instance, several of the largest internet companies in China were founded by Chinese nationals who attended US institutions for college and graduate school. Charles Zhang (Sohu) graduated from MIT; Robin Li (Baidu) graduated from SUNY Buffalo; Joseph Chen (Renren) graduated from University of Delaware, Stanford and MIT; Gary Wang (Tudou) graduated from Johns Hopkins and the College of Staten Island; James Liang (Ctrip) graduated from Georgia Institute of Technology; Victor Koo (Youku) graduated from Stanford and UC Berkeley; and numerous executives in the management teams at Sina and Tencent attended a US college. In addition many others at Alibaba attended other Western institutions or joint ventures like the China Europe International Business School, the first business school to offer an MBA on the mainland.⁵⁰⁰⁵⁰¹ Harvard has several programs designed specifically to educate and facilitate information exchange with future Chinese policy makers. One of its programs called China’s Leaders in Development brings in “50 to 60 officials each year.”⁵⁰² Its Kennedy School has trained 150 Chinese officials since its program began in 1998. All told about half of the 668 Chinese students in the 2012-2013 school year at Harvard are enrolled in the Graduate School of Arts and Sciences.⁵⁰³

In fact, while the legal issues are still being sorted out, there may be opportunities for both non-profit and for-profit traditional brick-and-mortar schools in larger mainland cities. For example, many Chinese families are faced with a dilemma in terms of educational options on the mainland. On the one hand they can send their children – or usually the only child – to public schools. While some of the public schools are opening special classes for students wanting to study abroad (SAT, AP, A-level prep), public schools are usually considered substandard due to lack of funding and rote memorization learning methods. Another viable choice is for families to try and help send their kin overseas yet this is financially cumbersome to most middle-class families.⁵⁰⁴ A third option is private schools, yet there are currently very few private schools on the mainland, thus the other two options above place many families in an uncomfortable bind (e.g., they would like their children to receive the best education possible but have limited choices).

This may be changing however. Two years ago Wellington School, a 150-year old British school, was replicated in Beijing.⁵⁰⁵ For £15,000 a year (\$23,800), Beijing parents can now send their children to this new school based on the British public school system. Oxford International College (unrelated to Oxford University) charges up to \$41,700 a year in its private schools located on the mainland and also emulate the British education system.⁵⁰⁶ And while it take some time before such imports are more widely accepted, the only other alternative currently is

international schools, though while relatively popular, they are also both very exclusive (you typically need to have a foreign passport to be eligible) and prohibitively expensive (\$10,000-\$35,000 a year).⁵⁰⁷ Yet the trend towards international schools is growing. According to *Reuters*, there are now 338 such schools (up from just 22 twelve years ago) whom collectively enroll 184,073 students.⁵⁰⁸

Or conversely perhaps your firm can help place Chinese students in American schools. For example, according to the Association of Boarding Schools, “about 5,600 students from China [are] enrolled in its 285 member schools in the US this academic year [2012-2013].”⁵⁰⁹ According to the US Department of Homeland Security, in 2010-2011 the amount of Chinese students studying at private schools in the US was 6,725, up from 65 in 2005.⁵¹⁰ In terms of costs, some international programs like Leman Manhattan Preparatory School in Manhattan cost \$68,000 a year (30 out of the 40 international students at Leman are currently from China).⁵¹¹ Other boarding schools in the New York metro area cost an average of \$46,875 a year. As a consequence, the opportunities for foreign experts and entrepreneurs looking to wade into both sides of the market may be viable, even for administrative tasks.

For instance, US institutions and organizations collectively spend \$980 billion annually on education, twice as much as China.⁵¹²⁵¹³ Due to a variety of factors including large spending per capita, US institutions continue to attract foreign talent. For example, there were 765,000 foreign nationals studying in the US in 2011 – including 158,000 Chinese (there are now 194,000 Chinese studying in the US).⁵¹⁴⁵¹⁵ And according to the US Department of Commerce, these foreign students contributed \$22.7 billion to the economy and many stay after graduation (Chinese students alone added \$5 billion to the US economy in 2012).⁵¹⁶ Thus in an effort to improve both the quantity and quality of its graduates as well as raise its standing on league tables and rankings, every level of the Chinese government is implementing plans to invest ever larger sums of funds into education; including recruiting foreigners (for comparison, 24,000 Americans studied in China in 2011).⁵¹⁷

Yet, with the administrative, marketing and teaching prowess gained from over six decades of being at the top of the international educational marketplace, managers and entrepreneurs at US institutions could conceivably capitalize on their skill bases and leverage them in China’s expanding market.⁵¹⁸⁵¹⁹ A year ago, in March 2012, Stanford University opened the doors to a new joint venture, Stanford Center at Peking University making it one of the first permanent higher education facilities to open on a Chinese campus.⁵²⁰ NYU has set up the first Sino-US joint venture university that will award a double bachelor’s degree (from both the local Shanghai branch and NYU in Manhattan). Classes began in the fall of 2012 and students from the mainland will pay 100,000 RMB (\$15,948) a year to attend.⁵²¹ And Julliard, the performing arts conservatory, is building a campus in Tianjin (southeast of Beijing) catering to students aged 8 to 18.⁵²²

At the same time however, enthusiasm should be tempered as a joint Yale University – Peking University undergraduate program “collapsed” this past July due to “high expenses, low enrolment and weaknesses in its [Yale] Chinese-language programme.”⁵²³ Similarly, Duke

University's venture with Wuhan University has run into several major problems. The construction of the new Duke Kunshan joint campus has been delayed five times over the past three years due to "slow" and "shoddy" workmanship.⁵²⁴ Thus success in this segment is not necessarily a foregone conclusion.

Another role that foreign administrators may be able to utilize is that of an agent, or admissions consultant. According to one estimate, "8 out of every 10 Chinese undergraduate students use an agent to file their applications."⁵²⁵ These agents in turn will help candidates fix their admissions essays, find the best references to write recommendation letters and otherwise guide clients through a streamlined process to foreign-based colleges.⁵²⁶ Maybe you and your company can utilize your expertise to work with new clientele.

However, as touched on above, the mainland education industry can also be tricky. For example, in order to be granted a license, certifications have to be recognized by the Ministry of Education.⁵²⁷ Online-awarded degrees and certifications are typically not accredited by the Ministry. As a consequence you may have to set up a physical brick-and-mortar office in order to do business within the Chinese marketplace. In addition, alternative certification programs such as Microsoft's MCSE, Cisco's CCNA, Huawei's HANA and others like Certified Nutritionist are increasingly prevalent – so as long as they are recognized by what the Ministry deems as a legitimate institutional authority.

For instance, what if your company trains and educates workers in an ISO management process in the US? If you wanted to expand into China you may need to reinvent your firm on the mainland by creating a brick-and-mortar office location before you can legally market within China. A consequence for failing to do so would be the trials faced – according to a source at the company – by the University of Phoenix, which despite its 35 years of history, was originally not seen as a legitimate degree awarding institution in China.

National Quality Assurance (NQA) is one of the largest ISO registrars in the world and an Accredited Certification Body (ACB) that coordinates with regional sub organizations to train, audit and certify organizations and companies in ISO 9000 family of quality management certifications. SNQA is the organization in charge of verifying, confirming and auditing ISO 9001, ISO 13485, TL9000, BRC-CP and several other standards on the mainland.⁵²⁸ In January 2013 I spoke with Jason Jia, who is managing the new Wuhan, Hubei office for SNQA. Jia is originally from Anhui but has spent the last 3 years working in sales for SNQA. He noted that, "there are long-term opportunities for foreign ISO experts that can provide to mainland firms such as training and auditing services. However one of the challenges facing these same companies is that communication issues are usually a big problem. In addition, the maintenance and foreign labor overhead expenditures relative to local labor are usually cost prohibitive and as a consequence the daily maintenance fees are typically so high that most Chinese firms cannot afford it. For example, we as a certification organization pay the auditor company a daily training and on-site verification fee and this quickly adds up when taking into account the relatively higher per hour costs charged by foreign companies."

Recruitment

One lively human resource area within the education labor market provides large compensation packages yet has relatively few candidates: if you have internationally recognized awards, Chinese institutions will hire Western superstar teachers to improve their table rankings.⁵²⁹ For example, three years ago Jiao Tong University in Shanghai scored a *coup*, recruiting French virologist Luc Montagnier, who discovered HIV and subsequently received the Nobel Prize in 2008. Another case is, Rao Yi, who grew up in China but spent 22 years at Northwestern University before being lured back to become the dean of Life Sciences at Peking University.⁵³⁰ All told, the Chinese national government in a project dubbed the “1,000 talents program” (see more below in Chapter 15) is offering perks and bonuses up to \$150,000 in an attempt to lure “foreign-educated Chinese scientists, academics, financial experts, and M.B.A.s.”⁵³¹ And according to Wang Huiyao, head of the Center for China and Globalization, approximately 15,000 individuals have come to the mainland through this program.⁵³²

At the same time, if your goal is acting as an intermediary and talent recruiter, expectations should be tempered with a dose of reality. For example, Pat Sullivan, an accountant and chairman of international recruiting at Young Harris College told me in March 2013 that there are a number of obstacles created by current US immigration policies, which put numerous roadblocks in the way of foreign students seeking to study in the United States. According to her, “The paperwork required for US Visas, health certificates, assurances of financial solvency, and other forms are always more time consuming than one would expect. Planning for the arrival of foreign students must begin months in advance and requires the active participation and assistance of the host educational institution.”

Consequently, for those entrepreneurs looking to open up a new seminar or class room system, several questions need to be answered: where will you find customers who are willing and able to pay? How will you build, manage and incentivize a sales force team to convert leads into customers? Who will teach and design the curriculum for the courses? Where will these seminars and courses be held?

In terms of taxes, there is one other challenge for foreign-owned companies that is not entirely unique to the EFL industry, yet should be recognized and addressed. As mentioned above, each province has its own legal requirements for business licenses and certifications.⁵³³ For example, in Shanghai, in addition to a college degree a foreign teacher is required to have at least 2 years of previous teaching experience as well as a TEFL certificate from an authorized institution. On the business end, due to relatively strict capital controls (e.g., individuals are limited to \$50,000 in transfers annually) it can be relatively complex to repatriate your profits and assets from schools as there are also numerous taxes, tariffs and levies that do and do not apply specifically to educational companies. While not explicitly discouraged, creative accounting, subcontracting and the “Hong Kong shuffle” (see Chapter 10) have become increasingly popular tactics by EFL firms to reduce tax liabilities.⁵³⁴⁵³⁵ Thus it is recommended that you speak with an attorney or tax expert before you invest in a new EFL program.

Cloud education

In terms of educational activities irrespective of being indoors or outdoors, according to its September 2012 report, *Distimo* noted that the popularity of English-based apps in China for the iPhone still remains very high.⁵³⁶ It is the 2nd largest installed language for apps overall and thus foreign entrepreneurs – including those in the education industry – may be able to turn this embedded built-in language base to their advantage. Because the userbase is already largely familiar with Romanization, that is one less problem to be concerned with. You might consider creating online virtual EFL classrooms based on apps for smartphones and tablets or rolling out cloud-based video courses that can be viewed by anyone with an internet connection.

In fact, one point Wendy Bao explained to me was that online classes and programs like Khan Academy will be the future of education. Khan Academy is a popular non-profit educational organization that focuses on making micro lessons on a variety of topics and has delivered more than 200 million lessons online.⁵³⁷ In Bao's words, "while online courses may have a slower uptake in China due to a limited – yet growing – telecommunication infrastructure, because of their inherent flexibility for being offered and accessed throughout a wide variety of time slots, this will enfranchise rural and urban students who can now utilize global knowledge databases. These same students – who due to their inland locations and schools lacking the funds would otherwise not have access to experts including foreign instructors whose language skills are highly sought after and could be substantially cheaper via telepresence."

Yet again, one challenge, as Bao mentioned, is that the telecom infrastructure is still relatively limited in bandwidth. For example, as I note later in Chapter 15, according to their Q3 2012 speed survey, ChinaCache, the largest domestic content delivery network (CDN), notes that while the overall speeds are a little slower than previous speed rankings, Shanghai currently leads the country in average speeds at roughly 3.44 Mb/s and Beijing is 10th at around 2.5 Mb/s.⁵³⁸⁵³⁹ Akamai Technologies (a global content delivery network provider) ranked China's average internet-connection speed at 94th globally, at 1.6 Mb/s.⁵⁴⁰ In addition, depending on the regulatory and monitoring issues discussed in Chapter 20 with the Great Firewall, quality of service and bandwidth may decline as you leave the larger Tier 1 cities. Thus entrepreneurs should take these factors into account while making a business plan.

In December 2012 I spoke with Eric Azumi, vice-president of information systems at EF. According to him "the online market is just now beginning to be tapped."⁵⁴¹ There have been limitations that continue to be overcome including computational and bandwidth issues that arise in every country but especially in China. Voice recognition services similar to Siri will probably be the next technology incorporated into this segment and eventually, as the online industry matures, it will be commoditized. What I mean by that is that at some point all competitors will have very similar software stacks in terms of features and functionality, yet there is always room for value-added services – especially as more direct-teacher training is replaced with mobile learning."

Azumi gives as an example, the technical changes over the past 15 years as online classrooms

evolved from text-only, to incorporate audio, then video via telepresence (e.g., webcams) and as he predicts in the near-term, real-time voice recognition. Yet again even with all of these competitive forces with large, well-funded, experienced incumbents he thinks that “because of the relatively low barriers to entry just about anyone can still set up an educational center in China and elsewhere, especially if they cater to niche groups or provide a unique environment such as how coffee shops in Japan have been turned into English conversation centers that provide both relaxed and informal way of improving language skills. And because people by-and-large still insist on face-to-face time, the general acceptance of online education will take time to diffuse here and around the globe. Furthermore even with the advent of on-demand instructional services there are still many opportunities for traditional schools in 2nd & 3rd Tier cities which are still nascent markets that have not been exploited yet.” These technological challenges and opportunities related to cloud computing are further expanded on in Chapter 13.

Yet for those willing to face these technical challenges, the financial rewards could be lucrative. According to one recent estimate, up to 380 million people in China will “need high-quality education and training resources across the country” from 2012 to 2017.⁵⁴² And a large percentage (~30%) of these people are expected to utilize online services and tools, creating a potential market worth an estimated \$11 billion in revenue. However, to temper any get-rich-quick enthusiasm, the amount of investment into Chinese education companies fell to \$46 million in 2012, less than a quarter of the previous year.⁵⁴³ Why? David Chen of AngleVest – a venture capital group focusing on angel rounds – noted that “the timeframe for growing an education business can be drawn-out, and a challenge for fund managers who have to achieve returns by a specific date.”⁵⁴⁴ Thus once again, while there is potential revenue there is also required patience for returns on investment.

Takeaway: The education market in China has the potential to be both large and profitable. However, gone are the days when you could merely jump on an airplane, get off and instantly set-up a market-leading company. The industry has become increasingly competitive with both professionalized workforces and various rules and regulations such as licensing and certification guidelines. But as long as the Chinese economy and population continue to grow, there should be continued opportunities for entrepreneurs and companies who have done their due diligence. This chapter does not discuss *guanxi*, a cultural phenomenon involving personal connections within the hiring and deal making process in all Chinese business transactions. But that is a very complex topic worthy of several copious volumes and touched on in Chapter 10.

Chapter 10 – Legal services

I have been more or less fortunate not to have any problems with government authorities at any level (yet). However whenever you put a group of *laowai* (foreigners) into social setting you will eventually hear a story or two – sometimes embellished – about legal problems. The one personal story that I have involves visa delays. About two months into my most recent teaching position I received a notice from my HR director that my visa was being delayed by the PSB – Public Security Bureau (equivalent to the Immigration Services). They wanted me to come in person for a face-to-face interview at a local police station with an officer. My director said while this was unusual we could prepare for it and analyze what they may inquire about. At around 2pm on a June weekday I went in and met a number of plain-clothes inspectors. One handed me a worn book of immigration laws covering the sections I possibly had violated. After a few questions and three hours of sitting next to their terminals, one of them – Zhang (not his real name) – approached me and after a brief exchange allowed me to leave without any recourse.

Fortunately the paperwork had been merely misplaced and nothing came of it. But what should foreign firms and expats expect when starting a business? Always be prepared.

There are several ways in which you can proactively protect both your physical assets and employees. The first almost goes without saying: hire a legal advisor to analyze and assess any liabilities, risks and loop-holes in your contracts and business model.

For example, Dan Harris is an American attorney at Harris & Moure who frequently travels to China and publishes the popular ChinaLawBlog. In an email exchange in October 2012, he noted “that the most common challenge for US service-oriented SMEs is getting paid. Chinese companies are reluctant and slow to pay for services. Most service companies do not have much IP [intellectual property] so that is not always a big issue for them. And thus I would have to say contracts is their biggest issue, which gets us back to getting paid.”

Dan and his co-blogger Steve Dickinson, who lives and works in China, have written a number of excellent overviews of contract law in China and about protecting your assets, your employees and even your IP.⁵⁴⁵

Why is professional advice such as theirs important?

Ten years ago when China’s Railway Ministry elicited bids for building a nation-wide high-speed network (called the CRH, HSR or 高速铁路), several foreign companies from France and Japan submitted bids. As part of the deal to do business on the mainland, the Ministry required that foreign firms set up joint ventures (JV) with domestic suppliers and provide technology transfers to these firms.⁵⁴⁶⁵⁴⁷ Japanese firms, unfamiliar with the nebulous legal framework in China, ultimately handed over their ‘best practices’ and engineering techniques to the JV. Their Chinese partner (CSR, 中国南车集团) then quickly replicated and reverse-engineered the technology using domestically sourced parts and labor. As a consequence the Japanese

companies were edged out of the Chinese market by the very machinery they had originally designed.⁵⁴⁸

Another example is General Motors which, wanting to gain access to China's car market (now the world's largest), transferred and exchanged technology to their JV partner, SAIC. While GM still operates in China (hitting a record 2.54 million in vehicle sales in 2011), they have found themselves between a rock and hard place with China's new policy regarding electric cars.⁵⁴⁹ This policy mandates that foreign firms provide technology transfers to their JV partners in order to have access to the Chinese electric car market.⁵⁵⁰ Since foreign firms are holding out – not wanting to part with their trade secrets and proprietary information – Chinese firms now have a distinct advantage because the national government is offering nearly a 50% subsidy to consumers for each sale of an electric car in China.⁵⁵¹⁵⁵²

Let's discuss this over dinner

As noted in Chapter 1, *guanxi*, or personal connections, can be a very tricky and hard to fully describe to those who have never lived or worked in China. For example, compared with thirty years ago, contracts are relatively more ironclad in legal disputes – yet the “rule of law” today is not quite the same as it is in Western countries. This presents a challenge to any firm wanting to do business in China and thus building *guanxi*, personal connections with suppliers and even buyers is sometimes just as important as the resources spent in drafting contracts, subpoenas and lawsuits.

While *guanxi* can work for you – you might land a deal with a mere handshake at a KTV (Chinese businessmen typically dine and sing in contrast to discussing business deals on golf courses in the West) – not having enough *guanxi*, or not having *guanxi* with the right people could prevent your company from exporting your goods to consumers outside of China.⁵⁵³

Can you just “grease some palms” and make things happen? Over cocktails with other *laowai* it may be common to hear insinuations various businesses that used bribes to improve their *guanxi*. I should point out that the Foreign Corrupt Practices Act (FCPA) and UK Bribery Act deals specifically with bribery. To better understand this law and its enforcement, it is highly advised that you consult a lawyer because the FCPA is actively enforced and the penalties for violating it are quite stiff. Furthermore, as I mentioned in the first story in Chapter 1, even if you know the right people and make the right connections this does not immediately translate into success.

Legal structures

If you do decide to operate a business in China, what legal structure will you use? Should you try to start up a Wholly Foreign-Owned Enterprise (WFOE), Variable Interest Entity (VIE) or some other joint-venture structure?⁵⁵⁴ Stephen Dickinson, the Beijing-based American attorney above, has written a number of primers on what legal structures foreign businesses should and should not create. Because of Chinese regulations that prevent foreign ownership of companies from being directly involved in “sensitive” areas of the economy (e.g., for national security

reasons), one way to skirt such limitations was to set up a VIE.⁵⁵⁵ Yet due to new regulations issued last year, VIEs are no longer an option and the SEC itself is rumored to be investigating how they operate as well.⁵⁵⁶ While this was not particularly surprising to lawyers and serial entrepreneurs, it may have come as a surprise to the uninformed and those who failed to carry out thorough due diligence.

Similarly, during the summer of 2011 several shareholders of Yahoo were ‘surprised’ when the Alibaba Group (owner of Alibaba, Tmall and Taobao) transferred the ownership of Alipay.⁵⁵⁷ Alipay is an online payment method (similar to Paypal) that is currently the domestic marketshare leader, at 47%.⁵⁵⁸ According to Chinese law, online payment processing companies cannot be owned by foreigners, something that a VIE structure was considered as a means to get around. What resulted was a high-profile, very vocal series of discussions that headlined the business press for several months between May to July of 2011. The lesson here is that, as Dan Harris noted, this was not unprecedented. His law firm “has been involved in probably a dozen similar matters.”⁵⁵⁹ So once again, talk to a legal advisor before you set up any kind of presence in China, even if it is as “simple” as a minority shareholder position.

What kind of opportunities are there for legal professionals?

I asked a couple of Chinese lawyers this question. They both quickly noted that experienced practitioners can find a number of opportunities in areas such as FDI and M&A. For example, in addition to Harris & Moure discussed above, King & Wood Mallesons is an international legal firm with offices in China that specializes in more than a dozen areas of law including, Import/Export Credit Facilities, M&A, FDI and PE deals.⁵⁶⁰ Their foreign expertise allows them to provide services like FDI that local firms – lacking in international experience – sometimes cannot fully provide.

Yet before getting on an airplane with your fresh JD and Bar certifications consider the following challenges. In order to practice on the mainland you need to be licensed in China as well. That means you need to take the National Judicial Exam (国家司法考试) which means you not only need to be fluent in Chinese but because of sovereignty issues, at this time the *only* people legally eligible for sitting for the exam are citizens from the mainland plus Hong Kong, Macau and Taiwan. For comparison, in the US, each state has its own residency and citizenship requirements. Some such as California and New York currently allow foreign nationals to take their bar exams and set-up practices.⁵⁶¹

A frequently asked question from friends overseas is if there are many licensed lawyers in China? Yes. In fact, according to their new 2012 White Paper on judicial reform, the State Council Information Office states that there are nearly 220,000 lawyers and 18,200 law firms in China (this is substantially higher than the 200 lawyers in 1980).⁵⁶²⁵⁶³ These same lawyers acted as counselors for 392,000 clients and handled 2.315 million litigation cases in 2011.

A legal professional I know in New York recently asked me if there is a work-around for this to provide paralegal services instead. Perhaps, but you probably would not be able to access large

portions of information that have restricted access. For example, currently in China only licensed lawyers can look up internal business records (e.g., shareholder meeting minutes, the shareholders list, the composition of the board, the balance sheet and other related financial reports). And there are conditions for even licensed lawyers to access this information. Currently, the authority granted to lawyers must be justified by some “reasonable concerns.” Access is allowed only for the appropriate purposes – for example, if a shareholder wants to exercise his inspection right, his lawyer then could claim the right to see the company records on the shareholder's behalf.⁵⁶⁴ Similarly, doing investment research on the mainland as a WFOE (Wholly Foreign Owned Entity) is not currently legal.⁵⁶⁵

In contrast, in the US just about anyone can look up the full company records of any public company. In addition, the domestic legal profession on the mainland has run into a number of barriers that some have called a “clawback” relative to reforms implemented in the 1980s and 1990s.⁵⁶⁶ Thus the nebulous uncertainty and dynamism for legal professionals is something to consider before establishing a permanent physical presence on the mainland.

Explicit and implicit rules

While many expat companies will set up a Hong Kong office to reduce the tax burden and liability on incomes earned on the mainland (e.g., your workers are paid through the Hong Kong subsidiary and are thus taxed at the lower Hong Kong rates), many Chinese companies also have set up Hong Kong subsidiaries to reduce their tax burden. For example, in the Chinese energy industry, several companies that manufacture hydrocarbon drilling equipment on the mainland will ship and sell (e.g., “export”) their physical products to a Hong Kong controlled subsidiary, and then re-import them. In some cases they can reduce their taxes by up to 20%.⁵⁶⁷

According to Chinese law, the maximum amount of funds that any individual can move out is \$50,000. Thus how to repatriate your assets is another key issue. *The Wall Street Journal* has published several reports this past year about the labyrinthine difficulties that both Chinese and foreigners face when attempting to move funds outside of China.⁵⁶⁸ While not explicitly encouraged, the Hong Kong legal system protects certain activities including money transfer agents who essentially move capital across the border. It is highly recommend that you consult with an attorney or tax expert before attempting to do the “Hong Kong shuffle.”⁵⁶⁹ Failure to do so could result in being (temporarily) arrested, like Yan Suiling – who was accused of money laundering in China (because the process she used is illegal on the mainland) but was later acquitted (because the process she did it by was legal in Hong Kong).⁵⁷⁰

Another example of legal issues and lawful avoidance involves real-estate purchases.⁵⁷¹ In an effort to “cool down” the property market, over the past several years larger cities like Beijing and Shanghai have implemented a number of regulations that place restrictions and “curbs” on individuals purchasing multiple homes.⁵⁷² This move into multi-home ownership was done in part because strict capital controls prevent domestic savers from investing overseas. As a consequence many savers have few places to park their assets. Depending on the region, one of the areas where they can typically invest more freely is real-estate. So in addition to

suppressed (low) interest rates set by the central bank which have incentivized construction projects and capital consumption, many savers in the past decade have had few investment choices and thus have purchased, invested and speculated in real-estate markets.⁵⁷³ And due to a perceived “bubble” in the real-estate market, several cities subsequently enacted laws that make it increasingly prohibitive to buy multiple homes (e.g., by increasing down payments from 20% to 50%). In an attempt to legally circumvent this, some prospective home buyers will pool their resources together and purchase housing units in a “group buy” method (e.g., like GroupOn).

Takeaway: While there are numerous opportunities to do business in China there are also a number of challenges, including legal uncertainties. This includes the legality of contracts, movement of assets, protecting IP and lowering tax liabilities. In addition there is a cultural practice called *guanxi*, or personal connections, which can directly impact many (if not all) business transactions on the mainland. While there may be opportunities for experienced legal professionals to work in niches, before moving to the mainland it is highly recommended that you do your due diligence to find out what specific niches areas are in demand. In addition, all proprietors are encouraged to speak with and perhaps hire a legal counsel that is proficiently versed in both the mainland legal system as well as the culture. Failure to do so may result in being unable to protect your assets and possibly even forfeiting them as well as the market access that your firm had hoped to achieve.

Chapter 11 – Luxury goods, amenities and art

As I mentioned in Chapter 3, an estimated 82 million Chinese tourists traveled overseas in 2012. At \$69 billion in purchases in 2011 (and \$98 billion in 2012), these same tourists collectively now spend the third largest amount while abroad (behind Germany and the US).⁵⁷⁴ Nine of the top 10 travel destinations for Chinese are in Asia (e.g., Hong Kong, South Korea), the exception: the US which was visited by 1.36 million Chinese tourists in 2011.⁵⁷⁵⁵⁷⁶ And in the first half of 2012, "Chinese tourists visiting the US eclipsed that of travelers from other countries."⁵⁷⁷ In fact, Chinese tourists spent an average of \$7,107 in the US in 2011.⁵⁷⁸ According to Shao Qiwei, of the National Tourism Industry, "China and the US are each other's fourth-largest tourism destinations."⁵⁷⁹⁵⁸⁰⁵⁸¹ A 2012 survey conducted by Global Blue, a tax refund tourism company, found that "82 percent of Chinese tourists see shopping as a vital part of their trips overseas."⁵⁸² For comparison, France in 2011 - with 900,000 visitors - was Europe's top destination for Chinese tourists and the UK received about 150,000 tourists from the mainland (who collectively spent \$390 million in the UK).⁵⁸³⁵⁸⁴⁵⁸⁵

So what does this mean for your business? How can you and your company capitalize on the popularity of Chinese traveling to the US and other western countries? And what are they buying?

In a phrase: foreign luxury goods.⁵⁸⁶ Domestic luxury brands purportedly sold well in the 1980s and 1990s but with the entrance of foreign labels they have faced stiff competition. According to the Shanghai Academy of Social Science, "just 10 percent of Shanghai's traditional brands are making a healthy profit. Roughly 70 percent are struggling, with the rest on the verge of bankruptcy."⁵⁸⁷ In contrast, according to recent reports from *McKinsey* and from *Bain* (two of the largest management consulting firms) Chinese consumers are now the biggest luxury buyers globally, consuming primarily foreign brands.⁵⁸⁸⁵⁸⁹ This is not to say that Chinese designers are not creating their own fashion trends worldwide. Last year Haizhen Wang, from Dalian, won the Fashion Fringe Award for young designers and was mentored by Christopher Bailey, creative officer at Burberry.⁵⁹⁰ Similarly Huishan Zhang is another young mainlander who spent a year at Dior and whose first collection sold out within its first month in London. For now however, luxury brands consumed by Chinese consumers are decidedly Western.

Overall *McKinsey* estimates that "purchases by Chinese both at home and abroad account for over one-quarter of the global total" and that by 2015 will account for one third of the luxury market globally.⁵⁹¹ And who are buying these goods? According to research from CLSA, an equity broker based in Hong Kong, men account for 55% of China's luxury goods market (compared with the global average of 40%) because as *Bain* noted in another recent report, businessmen gift the items to significant others and to build *guanxi* with officials, associates and partners.⁵⁹²

On that note, not all is smooth sailing for luxury goods. For example, according to Ren Guoqiang, a partner at Roland Berger Strategy Consultants, "more than 25 percent of the luxury items sold on the Chinese mainland were used as gifts."⁵⁹³ Thus during the recent crackdown

on government corruption currently being carried out nationwide, gift-giving has dropped markedly.⁵⁹⁴ As a consequence, according to a report from the Federation of the Swiss Watch Industry “show[s] that Swiss watch exports to the Chinese mainland dropped 27.5 percent year-on-year in September [2012].”⁵⁹⁵ This is on the back of 40% growth from 2011 noted below. Furthermore, in February 2013, three of the largest global luxury houses including the parent companies of Gucci, Louis Vuitton and Burberry announced that they would be slowing down their expansion in China this year due to softer sales last year.⁵⁹⁶

Yet this may be a temporary bump domestically and a substantial amount of this luxury shopping activity is actually done overseas. Bain estimates “that 60 percent of Chinese purchases are made outside China.”⁵⁹⁷ And according to a recent KPMG study, “71% of China’s middle class made a trip outside of the country” last year of whom 61% of the study respondents purchased cosmetics overseas and 51% had bought luxury watches.⁵⁹⁸ Altogether Chinese tourists on average spend \$14,686 overseas during these shopping trips, according to Global Blue a shopping tourism service company.⁵⁹⁹

Why? One reason has to do with import taxes and duties mentioned in Chapter 1; up to a 60% luxury tax on high-end imported goods. For example, according to the Ministry of Commerce, a Chanel bag in Shanghai costs 72% more than in Paris and the same Tiffany & Co necklace costs 6,900 RMB in the US but 11,000 RMB on the mainland.⁶⁰⁰ In addition, even when a 25% customs duty and 15% VAT are accounted for, luxury goods makers such as Burberry also mark-up their mainland products as part of an ‘elite’ perception pricing strategy (e.g., towards the *nouveau rich*, 暴发户).⁶⁰¹

As a consequence, large amounts of luxury goods are substantially less expensive when purchased abroad relative to the prices on mainland China. And because many consumers travel abroad to purchase these products to circumvent the importation costs, according to Nick Debnam of KPMG, “One brand told us that for every dollar they sell in China, they’ll sell more than \$2 outside of [the country] to Chinese consumers. Brands are realizing it’s a global market. You can’t get fixated on just within the China market.”⁶⁰²⁶⁰³ Furthermore, KPMG estimates that luxury purchases account for 71% of all spending done by Chinese tourists overseas.⁶⁰⁴ Thus if you own or operate a luxury goods store in the US or Europe, you may be able to cater to new potential customers.

In 2011, prior to overtaking the US, the luxury consumer goods market in China was an estimated \$51.7 billion (€40 billion), slightly less than the size as the luxury consumer goods market in the US (\$62.4 billion).⁶⁰⁵ To get this number, overseas sales are included. For example, according to the *Financial Times*, on the mainland the market for these goods in 2011 itself was actually only \$16.77 billion.⁶⁰⁶ This domestic number itself will grow to \$27.39 billion by 2015 (up from \$9.9 billion in 2009).⁶⁰⁷ Yet if you include the shopping done by Chinese consumers in Hong Kong, Macau and Taiwan this rises to \$30.5 billion.⁶⁰⁸ And then add in an estimated \$15.5 to \$19.5 billion spent in 2011 by tourists outside of Asia, this number rises to the \$51.7 billion. So no matter how you shake it, there is a huge demand for foreign luxury products by Chinese consumers. Or as P.T. Barnum might say, at least in the short-run no one ever went broke

underestimating public taste and in this case, Chinese tastes.⁶⁰⁹⁶¹⁰

In fact, Harrods department store in London, to better cater to mainland customers that frequently travel to the UK and shop during the past Christmas holiday brought on board “70 Mandarin-speaking shop assistants” and “has more than 100 UnionPay terminals directly connected to Chinese bank accounts.”⁶¹¹⁶¹² Selfridges, another department store in London, employs “dozens of Mandarin-speaking staff.”⁶¹³ Likewise, the Hippodrome Casino on the West End “has an entire floor dedicated to Chinese gamblers” and the staff speaks Chinese.⁶¹⁴ Burberry has taken it a step further and doubled the amount of Putonghua (Mandarin) speaking staff in Europe this past year.⁶¹⁵ Why? Because according to Patricia Yates, director at VisitBritain noted, “the average Chinese visitors spends about three times as much – 1,600 pound (\$2,600) – as the average visitor to the United Kingdom.”⁶¹⁶ Or more to the point above, Chinese tourists spend five times as much at Herrods than Americans do.⁶¹⁷

Similarly in New York City, to prepare for the tourist rush during the 2013 Spring Festival celebration (春节), Bergdorf Goodman (an upscale woman’s department store) added Mandarin speaking staff and Saks Fifth Avenue installed UnionPay terminals for Chinese nationals. On the other coast, Haiyi Hotels in San Francisco launched a special discount for Chinese groups traveling in large part because Chinese visitors to California (who collectively spent \$1.5 billion in 2011), “is expected to increase 57 percent between 2011 and 2015.”⁶¹⁸ And not to be left out, luxury makers such as Gucci promoted Spring Festival with red accessories personalized with Chinese zodiac symbols and Burberry sold bags with snake-skin prints to kick off the “year of the snake” (each year is represented by a different animal, 2013 is the snake).⁶¹⁹

Are there any other niches that SMEs can find success catering to? In December 2012 I spoke with Adam Remington, founder of Remington Pipes, a Tennessee-based pipemaking company.⁶²⁰ Over the past several years his business has grown to include a customer-base in China which is interested as collectors and consumers of his hand-made tobacco pipes. According to him, “one of our strengths is that we customize each pipe to an individual client. The value-added is that we provide a rare commodity as specialists, as artisans, to a consumer that has an appreciation for our craft. For example, the wood we use for the pipe is briarwood that is imported from Italy because it only grows in the Mediterranean climate. And we use ebonite, a vulcanized type of rubber that is imported from Germany. Then over the course of several days we hand-cut, shape and stain a unique pipe produced to the customer’s specifications.” Finished products start at \$600 and can reach several thousand with a comfortable profit margin.

Remington’s firm is an example of a successful American craft business that can generate revenue from China without a physical presence on the mainland. While they have an expansion plan to open a workshop within the next year in the Yangtze Delta Region, perhaps your craft and specialized trade company (e.g., hatter, haberdasher, cobbler) can find a niche customer base as well; maybe even by producing a product in a 3D printer as described in Chapter 7.

Luxurious conundrums and opportunities

Why are they buying these goods while traveling? As I briefly mentioned in Chapter 8, several of my students wanted to purchase Nike shoes primarily because of the perceived authentic, “higher” quality of the imported shoes. However, unbeknownst to many consumers around the world, numerous “high quality” goods are actually manufactured in China and then exported to other countries, including Nike shoes.⁶²¹ These other countries typically levy import taxes and duties on the manufactured goods. One challenge for foreigners who want to sell sport apparel and luxury goods into markets in China – after receiving the necessary licenses and permits – is how to bring the goods into China (see *ExportNow* in Chapter 7)?

If a retailer on the mainland stocks goods from Chinese manufactures – despite the actual quality – mainland consumers may think that the goods are less authentic and of lower quality. For example, in 2011 a Shanghai-based retailer called Da Vinci furniture was accused and found guilty of lying to customers about importing its products from Italy. Upon investigation it was discovered that the furniture was manufactured in Chinese factories, sent (“exported”) to Shanghai’s Waigaoqiao trade zone and then sent (“imported”) to Da Vinci retail outlets.⁶²² Thus the dilemma: if foreign traders import goods from the US and other countries they will face both import and export taxes.⁶²³

What kind of goods are Chinese consumers now buying? Watches from Citizen and Rolex, bags from Burberry and Coach, wines from Bordeaux and the Napa Valley, art from Christie’s and automobiles from Mercedes Benz and Ferrari. In fact, China is the largest importer of Swiss watches, “accounting for 30 percent of exports of the country’s [Switzerland’s] roughly 200 brands in 2011.”⁶²⁴⁶²⁵ Another example is wine. While France still dominates as the largest wine exporter to Mainland China, the Chinese market is now the 5th largest export market for US wineries (Hong Kong is 3rd).⁶²⁶⁶²⁷⁶²⁸ China is also the largest importer of cognac (by value) and is expected to surpass the US as the largest consumer of the brandy by 2020.⁶²⁹ In fact, Camus, a French cognac producer, sees Chinese consumption as a percentage of global consumption to increase from 35% today to over 50% in the future.⁶³⁰

Hand bags are also very popular. In Q1 2012, Coach, the US bag maker, had mainland sales rise nearly 40%; and by Q2 its profits rose 24% “driven in large measure by a 60% sales gain in China.”⁶³¹ Stimulated by that, Coach is now “pushing for China to become its No. 1 market in the next three years.”⁶³² There are several reasons behind this. And this is where your company can distinguish itself from the competition. What exactly is a luxury good? In addition to institutionalized qualitative management techniques like Six Sigma (which are still not prevalent on the mainland) and because of the food safety issues I mentioned in Chapter 3, more than 60% of Chinese consumers wanted to purchase and import products from foreign countries because they are deemed safer and simply better.⁶³³ A recent survey from *Boston Consulting Group* also found that 61% of Chinese consumers were “willing to pay more for the U.S. made goods — in some cases quite a bit more.”⁶³⁴

Thus while the goods your company manufactures may not necessarily be typically classified as a “luxury” product, with a little rebranding and market positioning, you can turn your well-made widget into a must-have product. Take a page from perception marketing like Coach handbags

did above. In the US, Coach bags are considered mid-level products, yet their management team has tweaked the marketing in China and elevated them to high-end luxury products. And because Chinese consumers already consider and perceive foreign products to usually be of higher quality, why not use this advantage to satiate demand? It can even be as simple as using the 3D printing opportunities in Chapter 7. Perhaps by partnering with a boutique fashion designer in your hometown and some tweaking of CAD files you can be the first to market a widget that is easy enough to replicate in a MakerBot yet novel enough that it has not been produced by others (e.g., the first mover of a trendy purse).⁶³⁵

An American source at the company explained to me that one of the reasons Coach has succeeded despite domestic copycats and knock offs is that it continuously changes its product line, updating it throughout the year (e.g., spring, summer and fall lineups). Because it changes so often, it is hard for copycats to catch-up. In contrast, many of Louis Vuitton's most popular merchandise items are classical designs that do not change as much and are frequently uniform (e.g., same iconic colors). As a consequence, local copycats have relatively more time to clone the fashion house. This is not to say that Coach is immune to counterfeiting as a recent investigation in China during November 2012 found thousands of counterfeit handbags including Louis Vuitton, Hermès and even Coach.⁶³⁶ Yet another difference is that because Coach's price points are targeted as "affordable luxury," it can reach a broader range of demographics. Thus, while their handbags are still relatively expensive (e.g. \$600) they are substantially less compared to a Louis Vuitton equivalent which starts at \$3,000 and increases markedly.

Another challenge for luxury brands is that in the event of a downturn, which can take place even in China, sales can inevitably also take a hit. For example, several European luxury makers including Mulberry issued a profit warning in mid-October 2012. Mulberry noted that its "overseas shipments slumped 4 percent" in the second and third quarter.⁶³⁷⁶³⁸ Another competitor, Burberry, which operates more than 60 stores on the mainland with plans to open 100, issued a profit warning in 2nd half of 2012 due to a macro economic slowdown on the mainland and Europe.⁶³⁹ Another issue that is hard to quantify is gift-giving for *guanxi* as noted above. According to one 2009 estimate, gifts to government officials comprised nearly 50% of all China's luxury sales.⁶⁴⁰ During recent public appearances, a number of political policy makers have come under fire for wearing expensive belts, watches and handbags that their official salaries could not cover.⁶⁴¹ As a consequence there has been some public backlash on social media (like Weibo discussed later in Chapter 13) that has led to investigations and crack-downs on traditional gift-giving. Luxury consumer goods makers and other high-end goods like Moutai's *baijiu* (strong domestic liquor) are purportedly vulnerable to this negative public sentiment.⁶⁴²⁶⁴³ In fact, on March 18th 2013, the Shanghai stock index dropped 1.7% to its lowest point in three months. Leading the downturn were *baijiu* firms because Li Kaqiang, the new Chinese premier, announced that government spending on receptions, hospitality and banquets would be significantly reduced this year.⁶⁴⁴

Another area that US companies can provide services for is summer and winter camps like authentic dude ranch experiences. A number of students I have had over the years have visited camps in the US and come back ecstatic. In fact, each semester at least one student and their

family have visited places like Yellowstone Park, the Grand Canyon or the Grand Tetons.⁶⁴⁵ According to the *China Daily*, in 2011 more than 60,000 Chinese children traveled to the US and participated in various summer programs.⁶⁴⁶ These participation rates, like tourism rates in general, are expected to increase substantially this year (one estimate is 40-50%) due in part to looser visa restrictions placed on Chinese tourists to the US.⁶⁴⁷ What services can you or your company provide to these 'genre' tourists?⁶⁴⁸

Amenities and services

In Chapter 3 I mention an interview with Glenn Wilkinson, a consultant with 25 years of experience in China. In addition to opportunities in the restaurant industry another area that Wilkinson as well as Wendy Bao mentioned is that China's growing middle class is turning to amenities. This includes services like high-quality sports massages, spas and even quality-controlled leisure activities. For example, there is now a large massage chain called Dragonfly Retreat (悠庭), which has grown tremendously over the past decade in large part because its entrepreneurs saw an unmet need: a professional, non-compromising service that was sanitary, reliable and with a consistent quality. As a result, even with its sometimes long wait times, it has received high praise by *CNN* and *About.com* and now operates 17 locations (and counting) on the mainland.⁶⁴⁹

While relatively unpopular in the West, karaoke or KTV is also a multibillion dollar business. For example, Wanda Group is the 5th largest private company in China and operates one of the largest KTV chains (with 30 KTV boxes or "bars") on the mainland.⁶⁵⁰ Wanda is expanding overseas and bought AMC Entertainment (a large US theater chain) for \$2.6 billion in 2012 and plans to invest another \$10 billion in the US theater chain and \$30 billion globally over the next decade.⁶⁵¹ KTV venues operated by Muse, Cashbox and Haoledi chains are also popular in part because they give their customers a sense of privacy in an otherwise physically crowded environment.

In fact, each weekend millions of consumers including many of my students, colleagues and friends visit and patronize KTV venues. KTV is popular with all demographics and strata within China, from teenagers to the elderly and from couples to business associates. How popular? During August 2012 the most popular app on iOS and Android in China was Changba, a portable KTV booth.⁶⁵² In my own anecdotal experience in both KTV and Noraebang's (the Korean equivalent), local customers enjoy it because they have a private outlet to share their emotions and feelings with their friends – something that sometimes is difficult in relatively dense metros. Just like happy hour in Western countries provides rest and relaxation to bar patrons, so to do KTV establishments.

What does this mean for you and your company? What amenities can you provide that may satiate an unmet demand?

Main Event and Dave & Buster's (D&B) are two entertainment and restaurant operators in the US that cater to families and adults. For example, the ten Main Event locations in Texas offer food,

bowling, billiards, video arcade, laser tag, miniature golf and rock climbing under one managed roof. Similarly, D&B manages 60 locations in North America each of which combines a restaurant, video games, shuffle board plus a sports bar. While there are a number of independent sports bars and numerous video game arcades throughout cities in China, there is no managed chain similar to Main Event or D&B. One reason this might be the case is that in China, students in high school and college are expected to focus on studies and scholastic-based extracurricular activities – hanging out with your friends after school – especially in smaller provincial cities is not as prevalent as it is in the West.

In Chapter 6 I mentioned that internet bars or net cafes (*wangba*) are substantially much more popular than their Western equivalents. *Xinhua* estimates that as of 2009 there are more than 138,000 “cybercafés” in China.⁶⁵³ And 70% of the customers are between the ages of 18 and 30. While these demographics might suggest that rest and relaxation at establishments like Main Event may be profitable enterprises, based on my own anecdotal observations and knowledge of cultural norms, Main Event-like proprietors may face consumption behavior that is unlike that of Western teenagers and young adults. Thus like any other investment, potential investors should do their due diligence before cutting the ribbon and breaking ground. And trying to compete for the same demographic group that Wanda, Haoledi, Cashbox, Muse and others currently attract is yet another hurdle that must be confronted.

Art is in the eye of the beholder

While both Sotheby’s and Christie’s have been continuously denied licenses to operate on the mainland, their art house auctions in Hong Kong each generated nearly \$1 billion a year in sales in 2011. According to *The Wall Street Journal*, in 2011, Sotheby’s sold \$960 million of collectibles in Hong Kong and Christie’s sold \$855 million in collectibles also in Hong Kong.⁶⁵⁴ All told, the 2011 art season from the Big Four auction houses in Asia (Sotheby’s Hong Kong, Christie’s Hong Kong, China Guardian and Beijing Poly) pushed the Chinese auction market from the 2nd highest at \$8.2 billion in 2010 to the world’s largest. In fact, with \$4.8 billion in total sales, the Chinese art market “made up 41% of the global total turnover” in 2011.⁶⁵⁵ Yet this is not necessarily an area for get-rich-quick schemes either. To be even handed, the overall art market slumped on the mainland in 2012 (due to a sluggish macro economy). For example, Sotheby’s noted a marked decrease in sales, generating \$258 million in autumn sales (a 37% decline from the previous year).⁶⁵⁶ Overall sales at Sotheby’s dropped from nearly \$1 billion in 2011 to \$592.9 million in 2012.⁶⁵⁷ Likewise, Christie’s reported a 15% drop year-on-year. And both China Guardian and Beijing Poly faced significantly larger drops as well. Altogether auction sales in China dropped 30% in 2012, allowing the US to regain the top position as market leader.⁶⁵⁸

However there are several reasons why the art market in China has grown over the past decade. The first is that China, despite the internal and external conflicts that have resulted in the destruction of its cultural heritage (e.g., Old Summer Palace, 圓明園) still has one of the largest indigenously produced collections of art and calligraphy, a cultural endowment in which collectors around the world are increasingly interested. Another reason is, as I briefly discussed

in the previous chapter, art sales are one way to move capital out of China, bypassing the strict capital controls on the mainland. And one creative corollary to this legal loophole is “elegant bribery,” a phenomenon that Jia Guo of Columbia University methodically detailed last year.⁶⁵⁹

While I certainly would not encourage the risky cat-and-mouse business of bypassing capital controls, Western artists and collectors may find new consumers and clients to whom to sell their paintings, statues and art wares. In fact, skilled artisans in classical realism, impressionism and academic painting may be able to set up art schools and salons on the mainland. This is a region, which despite a cultural appreciation for art and institutionalized support, currently has room for foreign skilled experts. As I noted in Chapter 9, there are a growing number of public and private education venues and projects to satiate consumer demand in scholastic activities, this includes art and sculpting. According to Nigel Carrington, rector for the University of the Arts London, UAL is looking to set up art foundation courses in part because “the Chinese are “furiously building” art and design schools in a bid to stem the flow of young talent to the west.”⁶⁶⁰

Do you have to move to China to sell art or services?

Not always. Ken Yeh, chairman of Christie's in Hong Kong, after observing a surge in impressionistic buying thinks that “the potential for Western art in China is huge, just massive.”⁶⁶¹ Last year the *New York Times* noted that this renewed interest in Western art appeals to the affluent, like hedge fund manager Lawrence Chu, as well as new Chinese buyers who were raised during the Cultural Revolution and are now “successful business people with huge amounts of money at their disposal.”⁶⁶² Perhaps you and your company can sell paintings and statues on Taobao through ExportNow (discussed in Chapter 7). Perhaps you can use Wildfire or Mila (discussed next in Chapter 12) to locate patrons and clients. Either way, your company can capitalize off the consumer demand for Western art in China without needing to open a physical shop on the mainland.

Another opportunity for independent artists and hobbyists is to sell art through a Beijing start-up called Yizzu. For several hundred RMB, consumers can purchase reprints instead of paying thousands for an original.⁶⁶³ Community sites like this will enable a new segment of clientele to decorate their homes and offices. And for perspective, at the other end, in 2011 more than 700 paintings sold for \$1 million in China, compared with 426 in the US and 377 in the UK.⁶⁶⁴ Thus there are now opportunities at all price points.

Takeaway: Chinese tourists now comprise one of the largest tour blocks in the world, at 82 million overseas tourists in 2012. China is also home to one of the largest markets for luxury consumer goods and its middle class places high value on foreign-made products. In addition, Hong Kong - and by proxy, China - is now the world's the largest art market. How can you and your company capitalize off of these changes? Can you reposition your brand and product like Coach handbags has? Do you currently provide artisan services such as training and tutelage? Perhaps you can begin to market your brand overseas using social media (discussed in Chapter 12) to promote your company to a new customer base that automatically considers and perceives

foreign products and services as high quality. And remember, if you do not take this opportunity, your competitor's likely will.

Chapter 12 – Social Media and marketing your brand

Unlike Chatroulette, parachute pants and cabbage patch dolls, social media is not a passing fad. Despite its IPO growing pains, with more than one billion users Facebook is here to stay. And organizations like *Pew Internet* continue to note the strong embrace of social media by digital denizens. For example, in September 2012, Pew reported that 46% of internet users (in the US) post original photos and videos online.⁶⁶⁵ Similarly, there are 564 million internet users in China (growing at a rate of 4 million more each month, a number expected to reach 800 million in 2015), a large portion of who – as I detail below – have also adopted and incorporated social media into their daily lives.⁶⁶⁶⁶⁶⁷⁶⁶⁸

Keep in mind, as Matt Garner notes in *Red Flags*, that you will *not* be able to establish a long-term presence in China as a foreign company without establishing yourself as a brand – using social media services. This is because domestic Chinese companies will continually benchmark your bottom-line and undercut you on price. The situation can be likened to the consumer goods company that sells excess product to a private in-house label. Before long, the company has diluted its own brand image and the private label has cannibalized its market share. The original benefit to an American company sourcing its goods from China is a low cost overhead. But when the American firm decides to turn around and sell its goods directly in China it often discovers it cannot because the source company has already started selling its own domestic brand of the same product. One way to establish your brand is by using social media.

Yet social media services in China are typically no different than those in the West. For example, I remember exactly where I was when Youtube, Facebook and Twitter no longer worked in China – at my apartment in Bengbu in the summer of 2009. Yet, irrespective of what you might think about the Great Firewall and internet censorship, the humbling reality of China is in the words of Bill Bishop: one worlds, two internets.⁶⁶⁹ In fact, in a short email exchange in January 2013, Bishop explained to me that “If they [foreign social media experts and firms] are not tracking and engaging on Chinese social media they will not be talking to most of their Chinese customers who are online. Facebook and Twitter are basically irrelevant on the Chinese Internet.”

Or in other words: an intractable situation that will not change anytime soon. But while international web 2.0 technology titans such as YouTube, Facebook and Twitter are effectively blocked, this is not to say that domestic internet users are not proficient with similar services. And with its 564 million internet users (and 420 million mobile net users), it would arguably be a significant segment too important to ignore even if you think it is not worth the trouble.⁶⁷⁰

Do Chinese users spend much time on these services or buy anything? *Incitez*, a market research firm, found that “consumers in China spend 46 minutes a day visiting social-media sites.”⁶⁷¹ In comparison, in Japan the time is 7 minutes a day and in the US it is 37 minutes. And according to a report from the *Boston Consulting Group* published last fall, China’s online shopping population was the largest, 193 million compared with 170 million in the US (though it trails both the US and Japan in total online spending).⁶⁷² China’s shopping population has since grown to 242 million people through December 2012.⁶⁷³

How big is this in revenue numbers? Altogether in 2012, e-commerce revenue totaled \$196 billion.⁶⁷⁴ During the 2012 Single's Day (November 11th or 11-11) on the mainland, Alibaba Group e-commerce properties (Tmall and Taobao) purportedly broke the single day sales record with over 100 million visitors and \$3.03 billion.⁶⁷⁵ And as noted earlier in Chapter 7, the BCG report also estimates that China's e-commerce market will become the world's largest in 2015. In fact, Analysis International projects that China's e-commerce market will hit 2.57 trillion RMB (\$410 billion) by 2015 and \$457.6 billion in 2016.⁶⁷⁶ For comparison, e-commerce sales in the US reached \$186.2 billion in 2012; the previous revenue records were \$1.3 billion from Cyber Monday 2011 and \$1.04 billion of merchandise was sold on Black Friday 2012.⁶⁷⁷

What are the domestic alternatives to the international social media site? In place of these Silicon Valley firms are a slew of Chinese-based solutions, most notably:⁶⁷⁸

- Tencent is China's largest tech company, generating \$4.5 billion in 2011 and \$3.24 billion in the first half of 2012.⁶⁷⁹⁶⁸⁰ It develops the popular instant messaging clients, QQ (784 million users) and Weixin or as it is known in English, WeChat (300 million users, doubling its userbase in 6 months) and operates two microblogging sites called Qzone and Tencent Weibo.⁶⁸¹⁶⁸²⁶⁸³⁶⁸⁴⁶⁸⁵ Its success has prompted Western marketers such as Nike, Intel and Starbucks to build marketing campaigns around it.⁶⁸⁶ WeChat's Western-equivalent is WhatsApp and the Chinese companies influence may have rubbed off on Facebook which itself has been purportedly stealthily adopting some of WeChat features for mobile users (e.g., communications tool).⁶⁸⁷ And messaging applications like WeChat have become so popular that SMS usage in China grew at a mere 2.1% in 2012 even though wireless service penetration grew at 9%.⁶⁸⁸ Furthermore WeChat now has 10 million overseas users and has recently opened a US office with a team focused solely on developing the app for developed countries.⁶⁸⁹ According to the same *Incitez* report above, Qzone and Tencent Weibo are the 1st and 3rd most popular networks for social sharing in China. All told Tencent is the 9th largest web platform in the world. For perspective, the collective instant messenger userbase in China reached 1.21 billion in Q3 2012 and the mobile instant messenger active userbase reached 480 million in the same timeframe.⁶⁹⁰
- Youku/Tudou recently merged in the summer of 2012 to become the largest video sharing site in China's fragmented market. Altogether they receive a combined 400 million visitors a month. By one estimate, their combined marketshare was originally 32.3% but decreased to 25.2% in May 2012 while their main competitor, iQiyi (which itself was recently acquired by Baidu) has jumped up to 18.4% marketshare in July 2012. In Q1 2011 all three of them had a combined 70% marketshare.⁶⁹¹ Tencent-related properties have reportedly gained at their expense. Despite this challenge, Youku's revenue increased 84% in Q3 2012 and posted its first ever profit during the same time frame.⁶⁹² And in December 2012 Victor Koo (founder and CEO of Youku) now estimates that "Youku gets 74% of the Chinese Web audience in a given month [for streaming videos]."⁶⁹³
- Renren is one of the largest domestic social networking sites, with about 200 million

registered users and more than 45 million monthly active users.⁶⁹⁴ According to *Incitez* it is the 4th most popular network for social sharing. Its feature-set serves as a very close proxy to what Facebook offers, including many of the popular games and apps. For perspective, *eMarketer* estimates that China is already the largest social networking market with an expected ad revenue of \$612.8 million in 2013 (based on a conservative estimate of 307.5 million users).⁶⁹⁵

- Sina Weibo, is now the world's second largest microblogging service after Twitter. As of February 2013 they had 503 million accounts, 300,000 enterprise customers and at least 46.3 million daily active users, second only to Twitter (which also more than 500 million registered users and 200 million monthly active users).⁶⁹⁶⁶⁹⁷⁶⁹⁸⁶⁹⁹ It has a number of additional features that differentiate it from Twitter, such as a built-in instant messenger.
- Baidu is the largest search engine in China (with 78.6% marketshare through 2012) largely because of preferential regulatory policies that have stymied Google (which only has about 15.6% marketshare on the mainland).⁷⁰⁰ Baidu also now owns iQiyi, the Chinese equivalent to Hulu that streams licensed HD video content.⁷⁰¹ *Incitez* estimates that Baidu properties account for roughly 12% of social media sharing. It now has 80 million daily active users on its mobile search product and serves up five billion search queries daily across all of its partner sites; it is the 3rd largest tech company by revenue, \$3.558 billion in 2012 (up from \$2.34 billion in 2011).⁷⁰² And in an effort to internationalize, in February 2013 it launched an English website for developers.⁷⁰³

While the start-up culture is still young and maturing, some domestic start-ups are funded by the likes of Kai-Fu Lee (former head of operations for both Google and Microsoft in China) and Digital Sky Technologies (DST) or through incubators in Shenzhen financed by Tencent.⁷⁰⁴ Others are even financed directly by Silicon Valley venture capitalists (VCs) like 500 Startups which opened a Beijing office in Q1 2013 headed by Rui Ma, an experienced venture capitalist.⁷⁰⁵⁷⁰⁶ There is even a venue similar to TED-talks called Geek Park which has held 40 forums since 2010, bringing together thousands of developers, product managers and investors.⁷⁰⁷ In fact, after initial success this past year, Microsoft now plans to incubate 100 companies annually on the mainland and will provide "the space, the technology, mentorship, access to funds" to the start-ups.⁷⁰⁸

Yet Duncan Clark, a technology analyst in Beijing, has noted that the insular protectionist policy making by officials renders it increasingly difficult for international companies to enter the domestic market.⁷⁰⁹⁷¹⁰ What this means is that you should not wait for the Great Firewall to open back up. Instead, take the initiative to create company accounts at Chinese social media sites.

Starting from scratch

Arguably the first service a foreign firm should start working with is QQ international. It is free and easy-to-use because it is in English (Sina Weibo is also internationalizing and creating an English-based version⁷¹¹). It also puts you into direct contact with more than 700 million active

QQ users. But it does not stop at the desktop as many TV commercials and retailers prominently display company QQ numbers (like the AOL keyword). In addition to the traditional contact information, many Chinese business cards also have QQ numbers displayed as well. So if you plan to do business in China and want to interface with potential customers, having a QQ number is a must.

While micro-blog Twitter-like sites such as Sina Weibo and Tencent Weibo follow the same 140 character constraints as their Western counterparts, one distinct advantage written Chinese has over English is that the language is more compressed. Chinese users typically only need 1-3 characters to make a word whereas English words typically need more, even when abbreviated. While this may seem trivial minutiae, every little bit helps to better understand your potential customer base more.⁷¹²

Pin-boards and group-buying

Pinterest is an increasingly popular “pin-board” style content sharing web service, breaking the record for fastest time to reach 10 million unique visitors (accomplished in less than 1 year).⁷¹³ It was founded in March 2010 and raised \$100 million this spring at a \$1.5 billion valuation. It competes head-to-head with Facebook’s newly acquired Instagram photo sharing site. And it has a significant advantage in this region: it is not blocked in China.

As a consequence its usage rate is not only soaring, but its popularity has inspired the sincerest form of flattery, copying. One recent estimate from Zhang Dan at *ZDNet* is that there are now about 30 Chinese clones of the site.⁷¹⁴

One of the key differences between Pinterest and clones like Faxian and Mogujie is that users not only “pin” things that interest them, but can also buy items as well. Typically users can make purchases directly from Chinese e-tailers like Taobao who have formed revenue sharing partnerships with the Pinterest-clones.⁷¹⁵ As a consequence many of these start-up Pinterest/e-commerce hybrids in China have found relatively “quicker return on capital.”

What about other services that have moved West-to-East? The seemingly instant success of group-buying sites such as Group-On has inspired a plethora of copy-cats in China as well. According to an August 2012 China e-Business Research Center report, there were 3,210 group-buying sites operating in China, whose transaction values reached \$2.3 billion in the first half of 2012, “an increase of 124 percent from the same period a year ago.”⁷¹⁶ It is a highly crowded space with about half of all group-buying websites closing down in 2012 including *24quan*, which was shut down in September (it had been the 5th largest). In fact, Lashou was at one point the market leader yet has dropped to 6th by revenue.⁷¹⁷⁷¹⁸ While it may be very difficult to start a similar service, placing your product on one of the sites could enable your company to expand its brand awareness to an entirely new customer base.

The immediate takeaway for you and your company is this: how can you position your idea, your brand, and your products in China?

If you sell consumer goods, components or even services you can utilize Pinterest's organic grassroots community sharing to help promote your goods and services. And you can also try to get your products placed on Meituan, the current group-buying leader in China.

There are of course legal concerns to regarding copyrights in Pinterest-like sites. Because of the relative ease and viral nature of copy/pinning, Pinterest has attempted to help alleviate some of the legal headaches by implementing a "nopin" tag that companies can use to prevent copyrighted images from being pinned on the site. Another issue that Brian Heidelberger recently noted, that touches on this viral marketing and positioning of your product: if you open an official company Pinterest page and allow your customers and fans to pin images for your promotion, these users may not own, thus creating copyright complications (e.g., because when a copyrighted image is attached to a commercial product, your company must receive legal permission to use it).⁷¹⁹

Brand Positioning

Just like there was a virtual land rush for unique domain names in the 1990s and with Facebook Pages, so too is there a land rush for social media positioning in China. And with that rush comes branding and market research.

In October 2012 I spoke with Pieter Nooren, Research Manager at Wildfire Asia, a social marketing firm with offices in Shanghai and Singapore. Wildfire Asia provides technology for understanding and changing online conversations; a service with high demand in a country where word-of-mouth is shown to drive 55% of consumer purchase decisions.⁷²⁰

In particular, the company combs Chinese social networks to discover conversations and trends, helps brands to understand and engage in conversations, and recruits unpaid influencers to a brands' cause. In Nooren's words, "We monitor the internet. We index any conversations and comments on forums, BBS and social networks according to our client's strategic objectives. We then analyze this data to provide consumer and market insights, as well as to identify advocates and influencers in the brand's category."

To help their clients manage all of the data, Wildfire provides them with an online dashboard providing key conversation metrics, Weibo performance, and influencer management tools. Based on the data, Wildfire can provide "insights and strategic recommendations to the client." This is important, especially to foreign companies unfamiliar with both the Chinese marketplace and social networking services. And Wildfire's business model has been effective thus far, as the firm has grown to 25 full-time staff since its founding in 2009.

What does this mean in a nutshell?

It means that Wildfire not only tracks what consumers are saying about your brand, but gives you the ability to impact those conversations through social customer relationship management

(CRM) and influencer marketing. You can also find out what is going on with your competition using the same tools.⁷²¹

You might already be thinking to yourself, “I already have a Facebook strategy, why should I bother with Weibo or Renren?” As both Duncan Clark and Bill Bishop have noted above, it would be foolish to assume that Facebook will be allowed back in anytime soon. And unfortunately the harsh reality is that Facebook’s reach is very limited within China.⁷²²⁷²³

Back in September 2012 there was a rumor regarding a speculative Facebook user-base number being floated around parts of Western media: that there were up to 63.5 million Facebook users in China. This however was quickly verified to be untrue.⁷²⁴ Nor are there millions of Twitter users on the mainland.⁷²⁵ While we may never know the real number, Facebook’s own indirect estimate is closer to 600,000 (and perhaps only 18,164 active Twitter users).⁷²⁶ While relatively low, this falls in line with another number: there are approximately 600,000 permanent foreign residents in China.⁷²⁷ It should be noted that not all foreigners use Facebook in China nor do all foreigners have a VPN to access it in the first place. Furthermore, the average Chinese user does not currently have access to a VPN or other “Wall Climbing” software such as UltraSerf, WebFreer or Hotspot. In their mind, why should they have to pay to access foreign services when there is a similar Chinese version available for free?

Brand awareness

Social media provides important benefits in improving company brand awareness. According to a 2012 *McKinsey & Company* report, Estée Lauder created a drama series exclusively for China called “Sufei’s Diary” to promote the brand Clinique.⁷²⁸ The 40 episode series was broadcast on a variety of digital venues in China (websites, buses, trains, airplanes). Its online viewership alone was viewed “more than 21 million times” and as a consequence, Clinique’s online brand awareness “is now 27 percent higher than its competitors.” Estée Lauder’s use of social marketing has paid off financially, as the company generated \$500 million in China in 2011, which is an integral part of its 9.2% increase in overall corporate revenue.⁷²⁹

Another consideration for foreign cosmetic firms is that what Chinese consumers view as beauty may not be the same as Western tastes and preferences. For example, fair porcelain skin is traditionally considered more preferable over tan skin due to historical social status (e.g., the affluent could afford to sit inside whereas manual laborers had to withstand the elements including sun light). Thus Unilever, the 2nd largest consumer goods company globally plans to expand its business on the mainland “five fold” by marketing products like Pond’s Flawless White.⁷³⁰

While this is not to say your company will also reap immediate success, creating a social media plan today will enable your company to reach new customers and generate additional revenue streams. Or as *Incitez* recommends, do not become too obsessed with return-on-investment in social media – “digging out insights is more important.”⁷³¹

Using social media to find customers

As I discuss later in Chapter 13, another way that SMEs can leverage domestic social media sites is through a start-up called Mila. Mila is a new cloud service that combs social media websites and helps companies find potential customers. For example, if you are a real estate agent, you can post pictures of vacant apartments and then Mila can help to find people who are looking for apartments for you. Or if you are a plumber, you can create a company profile on Mila which will then search across social networks for potential customers looking for plumbers.

Mila has been localized for the Chinese marketplace through a partnership with China Unicom and is even rebranded as Womaiwomai (沃买沃卖) for the Android ecosystem (its Mila name remains the same on the iTunes App Store). Together with Unicom they integrate Sina Weibo (the largest microblog platform in China) and Alipay (the largest e-pay platform in China) into their product.

Thus before even moving to China your company can create accounts on a wide-variety of social media services in China like Youku. You can then promote your brand through Pinterest-style websites and communicate with customers, clients, fans and even critics through Sina Weibo and Renren. And perhaps most importantly, you can even find potential leads through Mila, which searches social networks to discover who is looking for services that your company offers.

Culture and branding

While there are numerous historical case studies regarding mistranslations of company names and slogans that are typically cited in business schools, creating a Chinese name for your company or product is just as important as it is in the West.⁷³²⁷³³ For example, whereas Apple and Microsoft literally translated their names into Mandarin, Pepsi was a little more creative and chose the name *baishi* which means “wishing 100 happy things.”⁷³⁴ Similarly, Coca-Cola is pronounced *ke kou ke le* “which includes characters for delicious and happy” and as a consequence is considered a prime example – or gold standard – of how to brand your company and product on the mainland.⁷³⁵ In contrast one tone of Bing (病) – the name of Microsoft’s search engine – sounds like “sickness” in Chinese and thus was mocked by netizens when it was first introduced.⁷³⁶

Why is this language component important? According to a 2012 *Economist Intelligence Unit* report, “43 percent of nearly 600 global executives admitted to incurring financial setbacks as a result of communication misunderstandings standing in the way of a major cross-border transaction.”⁷³⁷ Furthermore, “90 percent of the executives [surveyed] felt that company profits, revenue and market share would climb if cross-border communication is improved.” What this means is that you and your company should be cognizant of communication barriers and limitations at both the negotiation table and marketplace for brand recognition.

Takeaway: with nearly 600 million internet users (and as of January 2013 more than 420 million of whom are mobile users), China has a digital populace almost twice the size of the US total

population.⁷³⁸ So what is your company's social media plan and strategy in China? If you do not have one, you still have time to develop and roll one out. And while you may be unable to understand Mandarin, there are a number of free, easy-to-use online tools that can help you register a namespace at popular Chinese social media sites. Ignoring these potential customers is the last thing your company should do. Be safe rather than sorry – register your brand name at social media sites today.

Chapter 13 – IT and software services

At the various schools, colleges and organizations I have worked at on the mainland, each facility was staffed by employees with a diverse range of technical abilities. In addition, the equipment ranged from slightly dated to cutting edge. While I have had the chance to work on a SugarCRM and Drupal wire frame development project domestically, I think some general statistics will give you a better idea of the size, scope and marketshare of the software and IT service industries in China.

According to their 2012 annual report, the Ministry of Industry and Information Technology estimated that China's software and information services in 2011 had an output of \$60 billion, "up nearly 40 percent year-on-year."⁷³⁹ *IBISWorld* estimates that the entire software and IT industry in China "generated revenue of \$284.02 billion in 2011, up 35.1 percent from 2010."⁷⁴⁰

For perspective, India's business process outsourcing and IT industries generated \$100 billion in revenue in 2011.⁷⁴¹

In terms of BPO growth – which is commonly called offshoring in the West – *NASSCOM* estimates that Indian firms generated \$11 billion in BPO revenue in 2008 and \$32 billion in 2012.⁷⁴² In comparison, by one estimate the Chinese BPO sector "generated revenues of US\$3.52 billion in 2009."⁷⁴³ Another estimate, by *XMG Global*, shows that Chinese outsourcing firms generated \$43.1 billion in revenue in 2012 (compared with \$63.2 billion in India).⁷⁴⁴

Since its humble beginnings as an importer of DEC computers in the late 1970s (e.g. the PDP-7 minicomputer) China's software development and IT services industry have grown dramatically and by one optimistic estimate, could generate \$635 billion by 2015.⁷⁴⁵

Yet for perspective, the US software industry generated \$261 billion in 2007 and the ten largest US software companies alone generated over \$235 billion in 2010.⁷⁴⁶ Furthermore 63 of the world's largest software companies are headquartered in the US compared with 2 in China.⁷⁴⁷

Big numbers, big opportunities

What this means is that for US-based firms, there are numerous opportunities to provide both software and related-services to the Chinese market. And while market access and intellectual property (IP) infringement issues continue to dominate bilateral forums, there is still potential for foreign firms – especially those that focus on services – to gain substantial market share.

For example, in November 2012 I spoke with Larry Chang, the CEO of Pro-Lambda Solutions which specializes in Computer Aided Engineering (CAE) solutions and provides CAE software packages.⁷⁴⁸ Chang is originally from Taipei and had spent 25 years working in the CAE industry including in the US. After conducting due diligence, he created a startup in Shanghai five years ago based on some surprising market research: there is no domestic CAE software company that actually develops and sells its products abroad (yet). Or in Chang's words, "zero engineering

software products that are made in China are sold outside of China. As a consequence everything is by-and-large still imported from other countries. Obviously, something is missing here; if and when we can provide this missing part to the society, the economic payback will follow. That is the opportunity we see and value.”

This is not to say that Chinese individuals and software companies do not make innovative or exportable software. For example, Kingsoft (金山软件) is a Chinese developer that develops antivirus software and a office productivity suite called WPS. It has 50 million monthly active users globally.⁷⁴⁹ Internet giant Baidu recently invested in the firm as well.⁷⁵⁰ Similarly, local software engineers like Ni Chao, a developer in Beijing, can and do create innovative solutions to large-scale problems such as purchasing train tickets during peak hours.⁷⁵¹ Innovation takes place outside of the computer world as *Reuters* recently aired a story about various inventions used by migrant workers on their long journey home during Spring Festival, such as a local designed “seat sleeper” that enables passengers without beds to sleep on a mobile tray that can be leaned on.⁷⁵² And in another fulfillment of Plato’s dictum “necessity is the mother of invention,” *The Telegraph* discovered a Chinese man of modest means who hand-built a working dialysis machine that has kept him alive for the past 13 years.⁷⁵³

Yet Arthur Kroeber, founder of the research firm Dragonomics sees scalability issues even with this promising amount of creativity. In March 2013 he told a literary panel in Beijing that, “What’s sad is the amount of creativity you see in China is phenomenal but it’s not always directed in ways that are ultimately productive.”⁷⁵⁴ He likened it to figuring out how to create homemade solutions to a car whose parts are no longer on the market, yet running into problems trying to create “innovative solutions which are scalable throughout the entire world.”

As a consequence, Chang’s long-term vision is to become the first mover, to build and design engineering software in China which is then exported abroad. There is a small twist to his strategy. One of the problems he (and others like David Veksler cited later) have noted is that if you build and try to sell a product in China, most Chinese consumers will consider the quality is of lesser value. That a product is perceived to be “better” if it originated from a foreign country is a stigma that Chang is hoping to reverse. Thus in August 2012, Pro Lambda began selling its software solutions to the international market with the intention of giving his team experience, credibility and real-world feedback, before they attempt to sell directly on the mainland.

While traditional software solutions may be a risky business, services also have its share of challenges. According to Chang, “one of the problems with the service industry as a whole and the software industry in particular is that this value added service is relatively unknown – and quite a suspicious concept to most Chinese consumers and businesses. For example, upon buying your software they often think ‘why do we have to pay for your services since we just bought your software? You owe me, not the reverse.’ Thus, this is a long-term challenge but I think enterprises and developers have begun making inroads as a younger generation of consumers has begun to understand the importance and value of this business model.”

There are also a few reasons why this lack of engineering software exports exists. Yet according

to Chang, this absence presents an opportunity for those willing to do the training needed. For example, he notes that “software architects continue to live and work outside of China as do nearly all software product managers and development facilitating teams. As a consequence, what has moved to China in the past decade is the ‘digital assembly line’ – coders and programmers are pretty much all that currently exists. These coders and programmers are overseen by a project manager who coordinates with the foreign-based research and development office. Yet, there is no facilitating team and no product team for engineering software on the mainland.” Chang’s comment about a dearth of software architects was recently echoed by Ji Yongqing. Ji is a technology author on the mainland who noted that while there are many programmers in China, relatively small amounts of resources are put into long-term projects to generate high-end skills, ideas and fundamental software research. In his words, “Even now in the internet industry, everyone talks about product managers and no one talks about software architects, but in truth the two are equally important.”⁷⁵⁵

Furthermore, there are at least two systemic issues for this phenomenon as David Veksler (see below) and Chang both note: the first is that most Chinese students typically did not participate in team-based activities throughout school. Thus when they are required to work as a team on larger scale projects, they often have difficulties adjusting to cooperation-based tasks – because they have been culturally raised to always compete and silo off information that can be traded and exchanged like currency. Or in other words, whereas many Western education systems encourage teamwork and cooperation, older generations in China were taught a different style which relies more on trust networks (e.g., only share information with those you know, with whom you have *guanxi*) instead of “being a team player.”

Another key issue which is being addressed and discussed at every level and corner of Chinese society is fostering innovative thinking and creativity – taking the initiative to “think different” (see Chapter 20 too). Yet there is a Chinese phrase that describes and explains why this same phenomenon is being repressed (and one that many Westerners are familiar with): 树大招风、枪打出头鸟 or in English, “the stake that sticks up gets hammered down.”⁷⁵⁶ There are numerous requirements to build a “creative class” – yet there are also numerous cultural and institutional hammers that prevent this from germinating and blossoming on the mainland. And while rote memorization and a lack of institutionalized ‘free thinking’ (e.g., ‘free expression’) are typically cited as the two main reasons, there are a number of additional factors that explain the constraints on domestic creativity, those would fill volumes if fully discussed.

Yet to be even handed, this is not to say that Chinese people are not creative or innovative. For example, there is an entire industry of *shanzhai* (山寨) products such as customized smartphones which are cobbled together in a MacGyver-like fashion (though some segments are being shut down).⁷⁵⁷⁷⁵⁸ Similarly, web services such as Sina Weibo actually made it very easy to find and maintain trackbacks which illustrates indigenous ingenuity. On that point, Gary Wang, founder of Tudou (a video streaming site that merged with Youku last year) recently told *The Wall Street Journal* that Chinese incubators, app-makers and innovators actually have cutting-edge, top-quality ideas comparable to those in Silicon Valley.⁷⁵⁹ However in his view they fall short due to a lack of experience and skills because of “the educational system and shorter start-up

culture.” Thus there is long-term potential as Larry Chang noted, for utilizing and training local talent for research and development.

Proprietary leakage

Later on in this chapter I discuss trade secrets and IT security issues, but one real-world case study that entrepreneurs should be aware of is what Chang himself faced several years ago. His sales team abruptly left and took corporate proprietary information with them and as a consequence his sales bottom line was “burned.”

Instead of offering higher pay and enforcing stricter rules, he simply showed the predicament of the start-up company to his employees. What he does is explain to each employee that while they could become temporarily richer by leaving and selling proprietary information, if they stayed and continued to build the company the results and rewards would be substantially larger in the long-run.⁷⁶⁰ Thus he considers his employees as partners, not employees – continuously trusting them with vital information while painting a picture of the future in which they are compensated significantly more than they might have otherwise in the immediate short-run. As a consequence, Chang figuratively keeps the door open for all staff and is certain that any proprietary information that does leave would find little market value due to his focus on branding (i.e., why buy a pirated copy of software for the same price as the legitimate software?).

And while it remains a challenging market, as he also noted that “while a younger generation of engineers are willing to buy some types of software and government institutions are required by law to stymie digital piracy, many of the top enterprises, institutions and organizations on the mainland still typically use pirated copies and do not feel bad about it. This presents an opportunity though and I do not begrudge them,” Chang said, “for example, in order to export a product domestic firms will have to eventually benchmark it with a legitimate copy of the software in order for foreign customers to trust its quality. As it stands now, piracy is a form of free marketing and advertising. As subsequent generations of users adopt and use the software they will begin to trust the product and eventually buy both the product and support services. Take Hollywood films for example. If copyright enforcement and penalties had been very strict, it is highly likely that no one would have watched the films to begin with.” This last point is germane to the rapid growth of video stream sites like Youku, who arguably would not have gained preeminence if they had not stored and streamed copies of Hollywood films (Youku has now signed agreements with every Hollywood studio, see Chapter 14 for more).⁷⁶¹

As a consequence, after hiring his first software architect five years ago, Chang’s firm now has about 30 employees, with growth rate targets of 30% annually, the profit of which is recycled and reinvested back into the company.

Services

In December 2012 I spoke with Richard Qi, the director of SR Force Consultants, a Brisbane-based software consulting firm that focuses on providing SugarCRM solutions to the Chinese

marketplace – specifically to joint-ventures and foreign-owned firms.⁷⁶² CRM stands for customer relationship management; it is a type of organizational and productivity software that creates a streamlined method for tracking, converting and managing leads and is used at nearly every large enterprise in Western countries. Qi is originally from Dongbei (中国东北) and worked in Australia for 10 years before returning to the mainland two years ago. According to him, “while there is a lot of growth potential, one of the challenges to providing technical services and solutions is that many local firms simply have not done the necessary due diligence to implement and fully utilize a lot of the software and services they purchase. For example, SAP implementations have a roughly 70% failure rate on the mainland (e.g., initial production goals were unmet) because local customers and decision makers typically do not know what to do after the software is installed and integrated.”

Thus one of the reasons why Qi caters to joint-ventures and foreign firms is that, “they usually have detailed operational meetings and specific milestones providing both their internal IT team and external contractor with the necessary requirements gathering to build and use the functionality of the system. They know what they are getting into. In contrast most domestic customers are not fully cognizant of the limitations and features of their IT department let alone something more complex like a CRM system. They may know how to run and synch a Windows server with Outlook yet they typically do not have the necessary enterprise management skill base to utilize some of the more complex packages and projects that are initially funded and installed.”

Thus in his mind, one opportunity that service firms such as his provides is “filling in the blanks with locally sourced expertise. We hire all of our consultants locally based on both bilingual abilities and technical proficiency. Yet services such as ours do not have to be strictly focused on CRM; business consultancy in general is about delivering value to customers and not necessarily every functionality imaginable.” Yet one of the challenges is that “many local businesses are family managed so they typically do not have the training necessary to make long-term strategic growth plans – they are focused on immediate short-term profits that result in millions of different business paths that are often counterproductive. In the past when we have provided solutions to these local firms, the initial service requests typically involve functionality issues (“do you have a PDF convertor”?) rather than strategic long-term issues (“how to distinguish a lead from a contact?”). As a consequence, a challenge that other service firms will face is that if they focus solely on domestic companies, your firm may become part of an endless feature-focused loop that prevents your firm from growing and keeping pace with your international peers.”

Another issue that Qi explained and is not necessarily endemic to China is budgeting constraints. Often time because enterprise software implementation is new to most domestic firms, the allocated budget is usually not adequate. For example, in projects like implementing a CRM typically for every \$1 spent on software, \$2 needs to be spent on services just in case new modules need to be added or modified or technical support issues crop up. Yet due to aggressive timelines, many firms face budget overruns that can prevent the systems from working efficiently or providing value to the end-user.

Cloud services

Another challenge for software makers in general is that, irrespective of trade secret issues, a large portion of traditionally developed software (e.g., shrink wrapped packages) has already been emulated, copied and installed at Chinese enterprises. For example, one estimate of the bootleg rate in China is 77% (down from 92% in 2003).⁷⁶³⁷⁶⁴⁷⁶⁵

So where does that leave your firm?

Perhaps your company can build out cloud computing on the mainland. For instance, according to IDC, \$286 million was spent on cloud-computing specific infrastructure in China in 2011 and this is expected to increase to \$1 billion by 2016.⁷⁶⁶ There are currently 430,000 data centers and more than 5 million servers on the mainland.⁷⁶⁷ Furthermore according to IDC, over the next five years the cloud computing data center market as a whole on the mainland “is valued at 2 trillion RMB (\$320 billion).”⁷⁶⁸

In terms of specific build outs, Jingdong Century, owners of 360buy.com (a leading e-commerce site on the mainland), recently invested 4 billion RMB (\$750 million) building two new datacenters and in January 2013 opened a new cloud R&D facility in Beijing.⁷⁶⁹⁷⁷⁰ In September 2012 Baidu announced that it is investing \$1.6 billion in building a cloud computing center.⁷⁷¹ In March 2013 EMC, an information management company, said that it expects to land 1,000 projects over the next five years by focusing on niche segments like healthcare and education in over 300 cities on the mainland.⁷⁷² Also in March, the Weather Company International, producers of the Weather Channel, announced that it would further expand its cloud and data services on the mainland where it already has more than 35 clients.⁷⁷³ And in addition to the Kyocera’s newly launched cloud-based network security services other firms like the Alibaba Group (Taobao, Tmall, Alibaba) are already among the leading local cloud service providers as its sites host tens of thousands of storefronts for SMEs.⁷⁷⁴⁷⁷⁵

During my interview with Eric Azumi, vice president of information services at EF (see Chapter 9) he noted cloud computing as one area on the mainland ripe for opportunities primarily because local players are still largely fragmented, inexperienced and unfamiliar with international ‘best practices.’ For example, due to various legal issues (see below) it is difficult for foreign companies to set up and directly own a data center on the mainland. Thus Salesforce.com built a new center in Japan and Europe because according to Azumi, “there is no big money for the cloud China for the largest international participants at this time but there probably will be in the future.” Yet concurrently he sees abundant openings for experienced foreign firms to still come in and train and provide other ancillary services to this segment.

One word of caution however, “[f]oreign companies that wish to operate cloud service in China must have governmental license.”⁷⁷⁶ As a consequence, Microsoft actually leases room in a China Telecom’s data center and outsources data management to a local firm, 21Vianet. And Amazon recently suspended their cloud rollout due to these regulatory requirements. Thus

foreign firms specializing in cloud services should investigate the necessary legal requirements before entering this segment as well.

While moving to the cloud is increasingly popular, another area where US expertise and experience still thrives and cannot be easily copied is support services. For example, *Gartner* forecasts software-as-a-service (SaaS) reached \$14.5 billion globally in 2012, with US-firms taking the lions share at \$9.1 billion.⁷⁷⁷ And *Parks Associates* estimates that the US tech support industry will “grow from \$9.6 billion in 2011 to more than \$20 billion by year-end 2015.”⁷⁷⁸ Can you or your company provide such services?

There is an app for that

Another potential area for US and foreign software companies is modifying their iOS and Android apps for the Chinese market. As I mentioned in Chapter 6, China is now the world’s largest smartphone market, overtaking the US this past summer. In addition, there are certain demographic groups, such as the elderly (aged 55+) that have been thus far overlooked for targeted apps, specifically games.⁷⁷⁹

What is the breakdown for app ecosystems?

While iOS remains relatively popular within China at more than 17% market share as of Q2 2012, more than 80% of all smartphones sold within China were Android-based.⁷⁸⁰ And in Q3 2012 Android marketshare on the mainland reached 90.1%.⁷⁸¹ This mirrors global adoption rates, as of November 2012 Android-based devices now account for 72.4% of the global market (iOS is 13.9%).⁷⁸² Unsurprisingly this has brought the total Android ecosystem to more than 50% total market share in China.⁷⁸³ This has also led Eric Schmidt, chairman of Google, to actively woo Chinese developers to the Android ecosystem.⁷⁸⁴ Yet despite this huge potential market, nearly all of these Android phones have been stripped of Google ad-supported services as well as Google Play – replaced by custom 3rd party applications and app stores.⁷⁸⁵⁷⁸⁶ In fact, 80% of Android phones in China use a preinstalled version of the Baidu-powered search tool instead.⁷⁸⁷ Or in other words, modern smartphones with Chinese characteristics.

What this means is that for US app developers, there are some opportunities to port and translate their apps and games to the Chinese market. For example, as I also mentioned in Chapter 6, in terms of smartphones and tablets, less than 10% of the Chinese user base are older adults (55+). This same demographic group comprises 7.1% of gaming and entertainment app users compared with substantially larger percentages in the US.⁷⁸⁸

How much larger in the US? For instance, while a *Pew Internet* study found that only 13% of those ages 65+ in the US had a smartphone, *Nielsen* reported in May 2012 that in the US, “more than 50% of those who play FreeCell, Solitaire, and Hearts are over the age of 55.”⁷⁸⁹⁷⁹⁰ And a June 2012 study from *Forrester* research found that 44% of US seniors play solo games online.⁷⁹¹⁷⁹²

In contrast, according to their 2010 report from IDC, only 7.1% of those aged 50+ in China played games. More specifically, in terms of online chess gamers and mobile gamers, those older than 50 comprised 5.7% and 2.4% of all players respectively.⁷⁹³ Or in short, your grandparents and their peers frequently play computer games yet few software firms design games specifically for them, let alone for their Chinese counterparts.

While there may be cultural reasons for such a dramatic difference (7.1% in China versus 50% in the US), in my own anecdotal experience of walking through the parks and streets throughout the cities I have lived in, elderly Chinese seem just as apt to play memory games, dominoes (*mahjong*) and poker-style games as their Western counterparts. And according to *China Daily*, “the turnover of China’s mobile gaming market is soon going to hit 5.2 billion yuan (\$835 million) as the number of players reach 270 million.”^{794,795} Thus in the long run even if the adoption and penetration rate remains relatively low for the elderly demographic group, 7.1% of 202 million (the number of elderly currently in China, see Chapter 18) is a potential niche market for future growth.

And as I mention in Chapter 6, in general, developers looking to port their apps and games over to Chinese markets should consider modifying the games to include Chinese traditions, symbols and cultural tie-ins – or in other words ‘Western video games with Chinese characteristics.’ For example: the color red, number 8, and the Chinese knot (*Zhōngguó jié*) are all considered lucky. Perhaps creatively integrating these symbols into your game would prove popular, just as *Kung Fu Panda* was (see Chapter 14). And since Macau now generates more than six times as much as gambling revenue as Las Vegas (Macau overtook it in 2007) maybe there is a legal way to capture this market.⁷⁹⁶ Or rather, because gambling is popular across all demographic groups perhaps designing a social gambling game or non-monetary betting app would find success across the mainland.⁷⁹⁷

Based on the wide variety of demographic groups playing games on the subway in Shanghai and Guangzhou and standing in line at restaurants, casual games such as those from PopCap (Peggle, Bejeweled, Plants vs Zombies), Imangi Studios (Temple Run), ZeptoLab (Cut the Rope), Halfbrick Studios (Fruit Ninja) and Rovio (the Angry Birds series) are also popular. In fact, “Cut the Rope” has more daily users in China than any other country and according to the *Financial Times*, “around a quarter of all Angry Birds downloads are conducted in China.”⁷⁹⁸ Angry Birds is so popular that Rovio recently turned Shanghai’s skyscrapers green to market their new product and simultaneously launch a native version for the Chinese market.⁷⁹⁹

Another advantage US-firms currently have in porting their apps to the Chinese marketplace: English is the 2nd largest language in the Chinese iOS app store.⁸⁰⁰ And this presents an opportunity for Western developers: in their September 2012 report, *Distimo* found that after introducing a native language app, their “download volumes on the iPhone [increased] by more than 128 percent during the next week that followed.” And sales revenue increased by 26 percent in the same week. Either way you look at it, even if your company does not create a Chinese-version of its apps, the potential competitive marketshare even in English remains in reach of your company.

Understanding the market

You might be asking yourself, how does the app store function in China? Are they run by Apple and Google and are they censored?

Apple opened its first official app store in China on October 27, 2010.⁸⁰¹ By June 2011, China became the second largest source of app downloads for Apple.⁸⁰²⁸⁰³ And China sales for Apple products and services now accounts for 15% of Apple's total revenue, \$23.8 billion in fiscal 2012.⁸⁰⁴ In fact, Apple is actively courting Chinese developers by translating their tools and guides into Chinese.⁸⁰⁵ In addition to the large Android userbase, there are more than 70 Android app stores in China, which is estimated to eventually consolidate down to 10 within the coming years.⁸⁰⁶⁸⁰⁷

In terms of censorship, as reported by the *New York Times*, Apple has been selectively censoring applications in its app store based on requests by the government.⁸⁰⁸ And because of Google's on-again-off-again legal fights with Chinese regulators, it is oftentimes unclear of what is being censored in the Android marketplace. For instance, in the fall of 2011 there was a week-long period in which both the Android marketplace and Gmail application worked intermittently.⁸⁰⁹ This occurred once again in the early parts of the summer and fall of 2012 yet service was restored in both cases.⁸¹⁰

This also raises another visceral point. Despite its off-and-on wrestling with Chinese regulatory authorities, with a mere 4.72% search marketshare, Google's revenue in "China's mobile-app ad market will probably more than double to about 1.8 billion yuan (\$283 million) this year [2012], exceeding the 1.2 billion yuan from mobile-search queries."⁸¹¹⁸¹² In fact, despite these ongoing disputes with Chinese regulators, Google is "still the 3rd largest advertising revenue generator in that country doing \$640 million a year (annualized)."⁸¹³ And despite being hard to access at times Google has roughly 15% of the search engine market on the mainland.⁸¹⁴ If they can achieve this in the face of never ending challenges, then your firm has potential as well.⁸¹⁵

An app that helps find customers

Over the past 18-months Windisch-based *coresystems* has been working on a cloud-based digital assistant called Mila (an app) that was a finalist in the GMIC G-Startup competition held in October 2012.⁸¹⁶ Mila allows entrepreneurs and SMEs to create an online assistant and unified online store front which is hosted on the cloud for free. The assistant (Mila) can then search social media sites like Twitter to look for potential customers based on what your company provides as services. And once a match is found, it then guides you through a streamlined sales process including invoicing using a smartphone.

In October 2012 I spoke with Andrea Chang, the marketing manager for Mila's branch in China. According to Chang, in their effort to localize the brand on the mainland, Mila has partnered with China Unicom (the second largest telecom company in China).⁸¹⁷ Together they have modified

Mila to integrate with Sina Weibo (which I noted in Chapter 12 is the world's 2nd largest microblog site) and Alipay (the largest online payment provider on the mainland). According to Chang, "the process of opening an online shop is one of the easiest and cheapest ways to generate leads and do business in China. Using an integrated chat feature that allows customers and business to speak directly to one another, Mila not only communicates directly with your customer but also conduct all transactions, including invoicing."

Chang also noted that because of the wide proliferation of smartphones and social media in China that one of the advantages of using Mila is that its cloud based transaction model substantially lowers the sales cycle costs (e.g., locating potential customers) while simultaneously providing customer service (e.g., by storing customer contacts). This in turn allows entrepreneurs and SMEs to compete more on service instead of spending resources on search-engine optimization (SEO) or virtual store fronts.

So how does this help foreign companies wanting to do business in China?

Again, as mentioned in Chapter 12, before your company even establishes a physical presence on the mainland, you can use Mila and other services like Wildfire to search and discover the potential customer base for your company's products and services. And as I mentioned in Chapter 12 as well, because Facebook and Twitter are currently blocked on the mainland, you will need a way to localize your customer search to Chinese web services. Solutions like Mila and Wildfire makes the process easier for your team, even if you are unfamiliar with Chinese customs and culture.

Securing your network

Cybersecurity is a sub industry that is often overlooked and dismissed by many businesses in China. It has not helped that some media outlets resort to hyperbole to describe the real – and sometimes imagined – dangers for all firms with insecure IT networks. For example, in July 2012, General Keith Alexander director of the NSA announced that up to \$1 trillion in cybercrime damage was done globally each year. This figure was later debunked.⁸¹⁸ Yet determined hackers – both domestic and foreign – can and will compromise trade secrets and other proprietary assets typically without being caught. Because a lot of theft and digital espionage goes left unnoticed it is very difficult to guess how much damage cybercrimes create.⁸¹⁹ However in September 2012, Symantec released arguably one of the most extensive studies related to cybercrime and estimated the damage to be \$110 billion a year globally.⁸²⁰⁸²¹

How does cybercrime affect China, Chinese business and foreigners doing business in China?

In March 2012, *Businessweek* published a widely circulated report about corporate espionage of a US wind turbine supplier (AMSC) conducted by its Chinese client, Sinovel.⁸²² In short, while AMSC attempted to isolate its trade secrets and proprietary software code outside of China (using an 'air gapped' facility), Sinovel still managed to use social engineering (e.g., bribery) to lure one of AMSC's key Austrian-based programmers to China. An 'air gapped' facility in their

case meant the proprietary code – “secret sauce” – was only accessible at a workstation that was not connected to the internet.⁸²³ Using the ‘defense in depth’ IT security strategy (e.g., multiple firewalls and secure zones nested within one another) AMSC purposefully built this facility with the sole intention of building a physically isolated silo that could not be easily compromised. While the case is still being fought in court, this is not an isolated instance.⁸²⁴ According to Akamai, a leading content-delivery network provider, in Q3 2012 one third of all cyberattacks originated from China (the US was second with 13%).⁸²⁵ All told, since 2007 the FBI and the Justice Department have opened more than two dozen cases involving trade secret, economic espionage and embargo circumvention restrictions involving Chinese contractors and individuals.⁸²⁶

One solution – a drastic solution – was detailed by the *Washington Post* in 2011.⁸²⁷ They interviewed several American executives who frequently traveled between the US and China each year for a variety of meetings. A few of the executives had a straight forward security solution: buy a new iPad before flying to China, download all of the needed information from the cloud and then never use it again (e.g., throw it away). Another simple low-tech, yet increasingly popular solution is to simply no longer provide external media outlets like a USB in a terminal with access to sensitive information. In fact, in some IT security circles, one nickname for the USB is now “Ubiquitous Security Backdoor” due to this chronic problem – the ease in which sensitive information can be removed with a flash drive or in which malware can be conveniently installed, such as Stuxnet and Flame.⁸²⁸⁸²⁹⁸³⁰

But what if the hackers simply move and setup shop overseas in your hometown? In May 2010, *NetworkWorld* ran a story about an ongoing espionage attempt by unknown Chinese operators and a large US firm in the Midwest.⁸³¹ Similarly, according to a recent *Bloomberg* story, right before its attempted \$2.4 billion acquisition of Huiyuan Juice Group fell through, Coca-Cola was hacked in 2009 by a Chinese hacker group dubbed Comment Crew.⁸³²⁸³³⁸³⁴ While it is unclear whether either of the espionage activities was successful, the threat of domestic and foreign hacking should motivate your company into proactive risk assessment – even if it does not plan to operate overseas.

Yet it is not just US firms that are on the losing end of cybercrime. According to the same McAfee study above, malware and phishing attacks cost Chinese consumers \$46 billion in 2011, twice as much as the US.⁸³⁵ The Ministry of Information Technology and Industry published a report that said “in 2012 alone that foreign hackers used viruses and other malicious software to seize control of 1,400 computers in China and 38,000 websites.”⁸³⁶ In fact, according to the Anti-Phishing Alliance of China (APAC) between January and November 2012 there were 24,535 phishing websites and scams targeted specifically at China’s online populace.⁸³⁷ In addition, in just a matter of weeks into 2013, a new virus called “Bill Shocker” has already impacted 620,000 users in China targeting the popular QQ messenger (see Chapter 12).⁸³⁸ In another instance, there was a 47% month-to-month phishing surge during Single’s Day (11-11) in November 2012. This is the biggest online shopping day of the year as mentioned in the previous chapter. Furthermore, Rising Information Technology, a web security company located in Beijing, estimated in a January 2013 report that nearly 200,000 Chinese websites were hacked in 2011

and at least 60% “of the attacks targeting China's large companies, government, and scientific research institutions come from overseas.”⁸³⁹ According to Rising’s report, because Internet security typically is overlooked “[a] growing number of Chinese companies are turning to overseas Web security companies for protection, a move which still leaves them vulnerable to attacks.”

However with these challenges come opportunities for foreign security experts such as David Veksler, CEO of CryptAByte based in Shanghai.⁸⁴⁰ In October 2012 I had a chance to talk with him regarding some of the key opportunities in China’s nascent security industry. He noted that “Chinese companies and foreign firms doing business on the mainland are equally in need of information protection. Since retooling and retraining in business is increasingly based on software, losing proprietary information and trade secrets to any competitor, irrespective of physical location, can lead to losing your competitive advantage in innovation.” Later in Chapter 20 he explains several other challenges and opportunities, but according to him, there are numerous possibilities for security experts since SMEs on the mainland are typically unaware of IT vulnerabilities such as zero-day exploits. Zero-day exploits (or day zero) are threats and attacks that take place on the first days of a discovered vulnerability, before a developer patches the hole(s). Thus according to Veksler, security consultants can help train mainland-based IT departments on ‘best practices’ and preventive measures that Western firms have learned the hard way with.

How does this work in practice? For example, the world economy is shifting from capital intensive retooling which typically involved heavy machinery, to rapid prototypers and 3D printers (see Chapter 7). This means that capital tools are now software. Thus if you want to steal a new factory in the 21st century, all you really need to do is pilfer software. As a consequence, the theft of entire industries could conceivably take place, allowing perpetrators to simply take the data to the cheapest country (e.g., based on land and labor costs) and eat into the marketshare of the original innovator.

This cloak-and-dagger industrial espionage is in Veksler’s words, “actually becoming a prime motivator for innovation. While competitors could learn trade secrets through hiring former employees or reverse engineering, because you are never quite sure if someone has hacked into your systems or used social engineering – like Kevin Mitnick did – to gain access to proprietary information, every incumbent must now continually innovate. Otherwise their competition could use a stealth startup and out-manuever you with your own confidential information.” In economic theory, when a firm is successful it sends profit signals out to the marketplace (e.g., by satisfying consumer demand you become profitable and other participants take notice). As a consequence, because the firm realizes it will eventually draw competition with these “signals of success” it has to always keep striving to improve and innovate.

Kevin Mitnick was a hacker in the 1980s who used social engineering (e.g., manipulating secretaries to give him secure access) to compromise corporate networks such as DEC and Motorola.⁸⁴¹ Samuel Slater, known as the father of the Industrial Revolution in the US, was born in the UK. He was an originally an apprentice at a cotton mill based on Richard Arkwright’s

design near Cromford Mill in England. When he immigrated to the US, he later used a design similar to Arkwright's to kick-start the American Industrial Revolution. This is a common risk noted Kent Kedl of the consultancy Control Risks, who recently told *The Economist* that, "The easiest way to get intellectual property from a firm is by buying or renting an employee inside it."⁸⁴² Thus, a stealth startup today could conceivably appropriate proprietary information (e.g., CAD models, engineering designs) via social engineering, hiring or hacking, build a warehouse in a developing country where resources costs are relatively low, and fill the warehouse with 3D printers. Then in turn, export the products to world markets. Some of the practical issues involving VPNs for corporate environments, such as preventing industrial espionage, are discussed later in Chapter 20 as well.⁸⁴³

During my February 2013 interview with Shaun Rein, founder of China Market Research, he noted that "for any company in the world, internet security is an increasingly important issue. And especially in China I think a lot of MNCs are continuously worried about protecting IP. As a matter of fact, our firm recently received an RFP [Request for Proposal] from a very large internet company building a marketing expansion strategy on the mainland. As part of the proposal we are supposed to disclose our firm's security issues to make sure we are a reliable partner to work with. In other words, to prevent any proprietary information from being leaked by a vendor they are modifying their risk management to hedge against the possibility of being hacked. The flip side of this is that there are currently no large barriers to entry for doing internet security consulting because the government is very supportive of intellectual property transfers at this level. At the same time, it may be more difficult selling antivirus software directly because then you would be competing with domestic forces and local firms like Kingsoft. But services such as IT security are quite open."

In January 2013, internet giant Baidu announced that it was investing in Kingsoft, makers of antivirus software (and an office productivity suite).⁸⁴⁴⁸⁴⁵ At the beginning of this year, several media outlets such as *Businessweek* have released additional reports covering Comment Crew (see above), also known as ATP1 (which may be the same as PLA Unit 61398) which has purportedly hacked into nearly 150 companies and organizations in more than a dozen countries over a period of 7 years bringing this IT security issue to the attention of more stakeholders such as MNCs.⁸⁴⁶

And with all of these local and international security issues laid bare, for another perspective one should also consider the comments from General Electric Vice Chairman, John Rice who recently explained that, "Despite hacking and other issues in China, foreign companies need to be there, due to the country's potential as the world's biggest marketplace. The greater risk lies in staying away."⁸⁴⁷ Without going into details, GE is purportedly "improving how it handles threats to its information." Thus eternal electronic vigilance may be the new normal but it is something that your competitors (both domestic and foreign) will probably have to overcome as well.

Takeaway: The software development, IT support and security services industry is both alive and growing at a fast pace in China. US firms relying on traditional revenue models such as selling shrink wrap packaging will need to modify their business model for entry into China. This may

come in the form of cloud computing and software-as-a-service. Yet either way their expertise and quality management – even at higher costs – are still marketable within China. In addition, US firms specializing in developing apps have yet another revenue stream they can tap into if they are able to modify and translate their applications for Chinese consumption – the world's 2nd largest app market. Furthermore, IT security firms also have potential opportunities to secure and optimize the networks of Chinese enterprises and SMEs whom suffer billions in economic losses each year.

Chapter 14 – Pop Culture

According to the Ministry of Culture, China has now become the world's largest TV series producer and third largest film producer.⁸⁴⁸ While domestically made *Pleasant Goat and Big Big Wolf* (喜羊羊与灰太狼) and homegrown talent like pianist Lang Lang, actress Fan Bing Bing and comedian Zhou Libo are increasingly popular outside of China, irrespective of where I have taught on the mainland, on any given week my students would invariably ask me what kind of foreign pop culture I enjoyed consuming.⁸⁴⁹

One student I vividly recall in the spring of 2010 had the English name 'Scofield' – as in Michael Scofield of *Prison Break*. (Remember 'Cena' from Chapter 2? This was one of his peers). Needless to say 'Scofield' was quite a fan of the show, eagerly downloading the latest episode throughout each season. While exact numbers are hard to come by, during its run, *Prison Break* itself was purportedly the most popular imported TV show from the US, eclipsing even *Desperate Housewives*.⁸⁵⁰ Because of this, Wentworth Miller, who starred as Michael Scofield later appeared in commercials for Me & City (an apparel company) and Ford Motors in China.

While it probably does not come as a surprise to frequent travelers or those with friends living in other countries, US culture is continuously exchanged globally throughout the day. It is perhaps one of the largest, unquantifiable exports that US institutions and individuals produce. It is a type of 'softpower' that is the envy of all emerging markets.⁸⁵¹⁸⁵² And its popularity in China is no exception.

As I mentioned in Chapter 8, Chinese, both young and old are voracious consumers of US sports and in particular the NBA. They are also equally interested in other parts of US culture. In addition to paying attention to LeBron and Kobe statistics, after class these same students would frequently ask what I thought about shows I had never heard of at the time: *Gossip Girl*, *Big Bang Theory*, *Vampire Diaries*, *ad infinitum*.

How do they watch these shows?

While digital video recorders (DVRs) are essentially non-existent on the mainland, in addition to Bit Torrent, there are a number of sites and technologies that stream content on demand such as PPTV, Sohu, iQiyi and Youku (the latter two were mentioned in Chapter 12).⁸⁵³ Several Chinese video sharing sites have even signed agreements with US publishers to 'legally stream' content. Prior to its merger, Youku licensed "Inception" from Warner Brothers and if users wanted to watch it, they had to pay about \$.75. Similarly Tudou (which later merged with Youku) licensed "Desperate Housewives" and "Lost" from Disney. This culminated in November 2012 where the new Youku Tudou signed a 5-year deal with Sony Pictures which in turn means that Youku now has an agreement with every major Hollywood studio.⁸⁵⁴ In January 2013, Tencent announced that it had signed a similar agreement with several studios including Warner, Universal, Miramax and Lionsgate.⁸⁵⁵ For 5 RMB a movie or 20 RMB a month for an ongoing subscription, users of Tencent's video portal can now view Hollywood movies a mere two weeks after they are first shown in US theaters. But by-and-large, these are historically seen as exceptions, not the rule.

How much of an exception? According to a *Los Angeles Times* story, China's bootleg DVD industry "raked in \$6 billion in 2010. By comparison, China's box-office receipts totaled \$1.5 billion last year [2010]."⁸⁵⁶

Yet for perspective consider this. My students knew who Katy Perry was before I did. They were fans of *Game of Thrones* (written by an American) before I even heard of it. They had memorized the lyrics to Lady Gaga songs and their ring tones blared Rah-rah-ah-ah-ah through the halls. They knew what happened to Charlie Sheen (not winning) and could laugh at inside jokes told between Barney Stinson and Ted Mosby. And as mentioned below, it is little wonder that they also consume *Mad Men* as well.

Translating popularity into revenue

Another *Los Angeles Times* report recently discussed the popularity of *Mad Men* on the mainland.⁸⁵⁷ While intellectual property (IP) issues are a continued source of debate on both sides of the Pacific, Sohu, a large internet portal, recently signed an agreement with Lionsgate (which produces *Mad Men*) to distribute it online. While the exact details are not public, other foreign companies have received ad-sharing revenue as these streaming sites place 30-60 seconds worth of pre-roll ads. Altogether the online video ad business on the mainland is estimated to have generated \$1.2 billion in 2012.⁸⁵⁸

Could your company sign similar revenue deals? For the time being, probably not, unless you are a relatively large studio such as Disney, Warner Brothers or Lionsgate and have legal representation on the mainland.

While *Mad Men* may not be as popular as *Gossip Girl* (which is so popular that it is being remade locally⁸⁵⁹⁸⁶⁰⁸⁶¹) or *Prison Break*, according to Ken Ji, who works for the internet portal Soufun, "I think it reflects reality. You can see from 'Mad Men' that [the] U.S. was already sort of open in the 1960s. China is developing and moving toward the stage reflected in the show."⁸⁶² Viewers like Ji and my students can also relate to the smoke-filled rooms in the show. According to the same *Times* piece, "63% of workers are exposed to cigarette smoke on the job." And in my personal experiences, whether it is on a bus, a restaurant, an elevator or even a doctor's office – smoking is near ubiquitous in many areas, especially outside of larger cities like Shanghai or Guangzhou. All told, more than 300 million Chinese currently smoke, the repercussions of which I discuss later in Chapter 18.

I mention this because a number of my students and colleagues found it somewhat strange that a working man such as myself, did not smoke. Apparently because Chandler Bing and Don Draper smoke, so too must other foreigners.

How does this help you and your company set up business in China?

Again, remember, understanding your customer preferences and consumer behavior is just as

important as the product itself. For example, Kung Fu Panda was a smashing success on the mainland because the American producers got the authentic look and feel of China spot-on, leading to a number of domestic thought-leaders and policy makers asking, “why didn’t a Chinese company make it?”⁸⁶³⁸⁶⁴ In contrast, one of the most popular Chinese-made sit-coms on TV right now is iPartment – a popular yet controversial show because many of the jokes and situations apparently directly come from Friends, Big Bang Theory and How I Met Your Mother.⁸⁶⁵

What this means for you

Even if you are in the movie production industry you might not know that the Chinese film market is now the world’s 2nd largest box office, scooting past Japan last year. Ernest & Young estimates that the mainland box office will grow 17% annually through 2015 and overtake the US in 2020.⁸⁶⁶ There are now over 12,000 theater screens in China, a number that will also double by 2015.⁸⁶⁷ And despite market restrictions that prevent nearly all but a select few of foreign films from being screened, foreign films still managed to account for 65% of the revenues for the first half of 2012. In fact, according to *Xinhua*, box office sales in China “totaled \$1.28 billion in the first half of 2012, up 41.7 percent year-on-year, due to imported movies.”⁸⁶⁸

To really give you an idea of how popular foreign films are, in the first half of 2012, out of the 38 imported films screened, 14 were considered revenue blockbusters, and only two of them failed to bring in more than \$16 million. In contrast, “among the 141 China-made movies screened in the same period, only 5 percent managed to break even and the rest lost money, industry insiders said.”⁸⁶⁹⁸⁷⁰ Altogether, movie ticket sales increased 30% in 2012, reaching a new record of \$2.69 billion.⁸⁷¹ And the 76 foreign films screened on the mainland represented 52.4% of ticket sales (compared with 227 Chinese-made productions).⁸⁷² In fact, 7 out of the top 10 highest-grossing movies shown in China last year were imports.

In this same *Xinhua* story, Zhang Huijun, president of the Beijing Film Academy believes that this polarized situation might actually spur more creativity domestically because Chinese producers now ask themselves, “[h]ow can they produce quality films that cater to the audience and generate lakes of cash?”

Yet while this transition and transformation germinates domestically, you and your content company may be able to still capitalize off the popularity of “being foreign” (see also Chapter 3 and Chapter 11) and establish new revenue streams in China. That is not to say that foreign firms can ignore quality. Yet for perspective, this is a country where a mere 600,000 foreigners are year-round residents.⁸⁷³ In fact, in my own anecdotal experience, I have been photographed several hundred times simply because I looked different (or *laowai*).⁸⁷⁴

But also consider one challenge that *Forbes* recently reported on: the difficulties and challenges both foreign and domestic companies have in repatriating their earnings.⁸⁷⁵⁸⁷⁶ This is due in part to laws and regulations as well as a large SOE called China Film Group (CFG) which, even with seemingly ironclad contracts, still purportedly extracts a lion’s share of revenue for the films it distributes (it has an exclusive monopoly on mainland distribution).

For example, as I noted in Chapter 10, before setting up and doing business in China, it is highly recommended that you do your legal due diligence. I then quoted an exchange I had with legal expert, Dan Harris, of the law firm Harris & Moure who said one of the biggest challenges of doing business in China was contract enforcement and getting paid. This same *Forbes* piece above quotes Mathew Alderson, also an attorney at Harris & Moure, who said “getting paid is a big concern” for both domestic and foreign studios alike (and on both sides of the Pacific for that matter).

So a quick recap: foreign pop culture, especially entertainment from the US, is incredibly popular in China. It is readily consumed and easily accessible through a variety of venues and channels, including the internet and movie theaters. China’s movie theater industry has rapidly expanded and is now the largest outside of the US (see also Chapter 11 regarding Wanda and AMC). Yet despite this popularity, monetizing and repatriating the revenue is a challenge for all foreign companies.

Marginal liberalizations and popularity

What kind of headway are foreign firms making into this maturing market? Prior to a deal hammered out earlier in spring 2012 by US trade representatives only 20 US films were allowed to be screened at theaters; the number is now 34. And according to the *Forbes* article above, in order to prevent “receipt leakage” and to audit the box-office receipts of an upcoming joint production, the US producers are “demanding that a collection agency” be used as 3rd party monitor.

Yet again, despite these hurdles, the popularity noted above indicates that pent up demand for foreign cultural products is not likely to subside.⁸⁷⁷ So what can you or your company produce that can capitalize off its cultural ‘uniqueness?’ And again, remember “Made in the USA” is actually a perceived badge of quality (see also Chapter 11).

What other types of entertainment are popular?

The third most-searched query on Baidu (which at 80% has the largest search engine market share in China) in all of 2012 was for 4399, a new popular gaming portal that develops easy-to-use casual games that are popular with younger demographic segments.⁸⁷⁸ NetEase is the 2nd largest tech company in China; it employs more than 6,000 and generated \$7.29 billion in 2011. While it has diversified and operates both a large popular portal (163.com) and a cloud word processor called Youdao Yunbiji, one of its biggest revenue sources is World of Warcraft (WoW) developed by US-based Blizzard Entertainment. WoW is globally the largest (by revenue) massively multiplayer online role-playing game, with around 10 million subscribers.⁸⁷⁹ NetEase is Blizzard’s official partner in arguably the most popular, foreign revenue generating game on the mainland.⁸⁸⁰⁸⁸¹ In fact, by some estimates, half of all WoW subscribers are now from China.

While I briefly touched it in Chapter 6 and Chapter 13, online gaming in China is a large and

growing industry. Just how big? According to Pan Chenyu of PricewaterhouseCoopers (PwC), “China is now the world's largest online gaming market, contributing one-third to the global revenue in this sector in 2009, or 56 percent of the Asia Pacific total.”⁸⁸² In fact, sales revenue for online games in China for 2012 reached \$9.69 billion, an increase of 35.1% from the previous year.⁸⁸³ And a recent report from *China Daily* noted earlier in the chapter, “the turnover of China’s mobile gaming market is soon going to hit 5.2 billion yuan (\$835 million) as the number of players reach 270 million.”⁸⁸⁴ With approximately 330 million players (150 million who are below the age of 19), perhaps you can port or develop games for this market.

What else is consumed besides electronic games?

Based on my own anecdotal evidence, despite their on-again-off-again love-hate political relationship, many Chinese (especially under-30) consume large quantities of Japanese entertainment. Yugi-oh collectible cards are sold in convenience stores and entire series of anime such as One Piece, Sailor Moon, Naruto, Full Metal Alchemist and Shin-chan are downloadable from the same video sites noted above. In addition, local video arcades are full of systems originally from Japan such as SEGA and Namco and toy stores in larger cities are stocked with Japanese imports (like Hello Kitty).

Each large city typically also has stores that import and sell “officially” banned products like consoles such as Sony’s PS2 as well as Microsoft’s Xbox 360 (ironic since they are both manufactured in China as well).⁸⁸⁵⁸⁸⁶ Since being officially banned in 2000 due to parental outcries over “wasting time,” companies like Nintendo have reworked their products to fit the legal framework and while they still face domestic knockoffs and clones (like the “Wii”); Nintendo has managed to generate revenue through their a local partnership in the iQue and iQue DS consoles which are made and distributed on the mainland.

In November 2012 I spoke with Kyron Yang, a native of Kunming who is now completing a graduate degree in computer science at the University of Utah. Prior to his graduate studies he worked as a voice actor for a genre of games called “street mechine” (卡战三国). It is a genre of turn-based, role-playing styles blended between a collectible card game and traditional action game and is sometimes played on consoles at video arcades.⁸⁸⁷ Essentially a player controls a character or several characters that in turn collect cards and can use those cards to perform certain actions (e.g., fight). In East Asia, this type of game is increasingly popular with both teenagers and adults, yet is also very popular with younger demographics. According to Yang, “the market for this type of games is very competitive because the mechanics are relatively simple, much like ‘paper, rock, scissors.’” Yet one word of caution, there are now policies that restrict the amount of hours that games can be played by minors thus solely targeting this demographic could place growth restrictions on your firm.⁸⁸⁸ Perhaps a company looking to build an entertainment venue like those discussed in Chapter 11 (Main Event, Dave & Buster’s) could find success by using these types of game consoles in their venues targeted at a wide range of demographics.

Takeaway: despite being the largest film market outside of the US and the largest TV producer

globally, China's maturing entertainment industry is dominated by foreign imports. Whether it is movies, TV shows, music or even games, Chinese consumers have a seemingly insatiable appetite for foreign-made entertainment. Yet with this demand also comes challenges in the form of bootlegging, regulatory hurdles and capital controls (see also Chapter 10). At this time the market may only support physical sales and value-added services (theaters) yet small inroads have been made in terms of liberalization and revenue sharing. As usual, be sure to do your due diligence before diving in. The rewards may still not justify the investments.

Chapter 15 – Human resource and infrastructure challenges

Consulting firms in China are abundant and usually just a stone's throw away. The primary reason has to do with China's developmental status: China currently lacks expertise and experience in several fields. As a consequence many domestic companies are willing and increasingly have the funds to hire foreign experts to guide, manage and even direct operations at companies. To paint a clearer picture of the situation, according to Chen Yuyu, associate professor at Peking University, "[h]igh-end jobs that should have been produced by industrialization, including research, marketing and accounting etc., have been left in the West."⁸⁸⁹ As a consequence, because they are faced with dilemma of working in low-skilled, low-waged professions, a recent survey found that "among people in their early 20s, those with a college degree were four times as likely to be unemployed as those with only an elementary school education."⁸⁹⁰

At the same time, it is advised that rosy enthusiasm – get-rich-quick in China – be tempered with a dose of reality. For example, the *Wall Street Journal* ran a piece in March 2012 which details the gradual shift away from recruiting expats at all corporate levels.⁸⁹¹ This is due in part to increasingly expensive compensation packages needed to lure experienced expats and because of a growing talent pool of educated Chinese returning from overseas dubbed "sea-turtles" (*hǎiguī*). This changing outlook is best summed up by hedge fund manager Mark DeWeaver who recently told me in an interview,

I don't think immigrating to China would be a logical choice for most foreigners. There just wouldn't be that many job opportunities for them, particularly if they don't speak the language. They would also be competing with the many Chinese graduates of US colleges that return home after graduating.⁸⁹²

Between 2000-2009, more than 630,000 Chinese-born immigrants received US green cards.⁸⁹³ Over the past 30 years more than 1.2 million Chinese studied abroad, approximately 20% of who matriculated to US schools and institutions.⁸⁹⁴⁸⁹⁵⁸⁹⁶ During the 2012-2013 school year, more than 190,000 Chinese students studied at US schools (up from 160,000 the year before) – they also comprise a quarter of all international students in the US.⁸⁹⁷⁸⁹⁸ In fact, 37% of all international graduate students in the US now are Chinese nationals.⁸⁹⁹ While there is some overlap between the two groups and some manage to stay and attain green cards, some of the remaining – well-trained and educated – return home to join the Chinese workforce.⁹⁰⁰

According to the Ministry of Education, due in part to the incentives mentioned above in Chapter 9 ("1,000 Talents") approximately 186,000 overseas Chinese returned to China in 2011, an increase of nearly 40%.⁹⁰¹⁹⁰² While some do move back to the West again, others stay. For example, Kevin Woo is a Shanghai native who received an LL.M. from the University of Wisconsin yet works as an auditor for a large Chinese real-estate firm. He returned to Shanghai in part due to the soft labor market in the US. Anthony Wang received his bachelor's and master's from the University of Waikato and now works at his family-owned factory in Anhui. Tony Wu received his bachelor's from the University of Stirling and now works for AMER International Group, a large Chinese resource company in Shanghai.

So before packing your bags and flying out to China to open an office, you and your company need to answer the following questions: are you *really* a foreign expert? Make a list of things you can do comparatively better than your Chinese counterpart. What is your marginal productive value and what is the typical salary an expat with your skill set makes in China? What are the advantages and disadvantages of opening an office overseas headed by a foreigner?

If you hesitated to answer at least one of these questions, remember that you and your company can always hire Western educated local Chinese who understand not only the complex culture of China but also can usually communicate effectively in English and understand many aspects of the West as well.

With that said, there are still a large number of multinationals that have moved in and set up shop on the mainland, recruiting both locals and expats alike. Some notable examples in Shanghai are Indianapolis-based Eli Lilly which manages about 2,000 in the Pudong and Xintiandi districts; Sunnyvale-based Intel which operates a 2,000 person division in Minhang, Shanghai, and another smaller office in Beijing of less than 1,000 workers (less than 5% are foreigners) both divisions focus on software development of chipset drivers; English First (EF), a Lucerne-based Swedish company which is the world's biggest EFL training company and employs more than 2,100 full-time employees in the Shanghai metro alone, approximately 15% of which are expats. In contrast, BP's Pudong office has 200 employees, 10 of whom are foreigners; AIA's Shanghai office only has about 150 non-sales employees; and Geneva-based Mercuria – a \$75 billion resource multinational company (MNC) – operates a small corporate office of about 25 people also in Pudong.⁹⁰³

Some other auxiliary issues to consider before opening an office in China: according to the 2012 *Expat Explorer* survey, half of the expats recruited expect not only to earn more money upon relocation to China but also perks.⁹⁰⁴ For perspective consider that according to one October 2012 estimate that the per capita income of Tier 1 cities such as Guangzhou (\$9200), Beijing (\$8980) and Shanghai (\$8325) are significantly higher than the average urban annual salary (\$3,430).⁹⁰⁵⁹⁰⁶ For comparison according to the Social Security Administration the national average wage in the US in 2011 was \$42,979.⁹⁰⁷ Yet *Mercer's* 2012 ranking report on the most expensive cities notes that the cost of living for expats in China is disproportionately higher in these same cities: (being closer to 1st means more expensive) Shanghai is 16th, Beijing is 17th and Guangzhou is 31st.⁹⁰⁸⁹⁰⁹ Similarly, an ECA International cost-of-living survey published in December 2012 found that Beijing is the 22nd and Shanghai is the 26th most expensive cities globally for expats.⁹¹⁰ Why? Because according to Lee Quane of ECA, "[e]ssentially what's happening in China is that prices are rising at a faster rate than they are in the West, and that's caused Beijing to leapfrog all those other locations in the rankings."⁹¹¹ Or in other words, make sure to get firm budgetary numbers for the costs of: expat compensation packages (transportation costs, hardship perks, recruiting bonus) and rental property expenditures.

How large are these mainland cities? Shanghai is the largest, with 23 million permanent

residents, Beijing is slightly smaller with 20 million residents and Guangzhou has 16 million.⁹¹² Furthermore in terms of internet penetration rates across the country, Shenzhen has the highest (76.8%) followed by Guangzhou (72.9%), Beijing (70.3%) and Shanghai (66.2%).⁹¹³ In contrast, Hong Kong is 68.7% and Singapore is 77.2%. In terms of foreigners, despite the fact that more than 57 million inbound tourists visited the mainland in 2011 (see Chapter 4) there are only 600,000 foreigners who are permanent residents and 220,000 foreigners legally working on the mainland.⁹¹⁴ Shanghai itself is home to the most foreign residents (200,000), roughly a third of all foreign residents on the mainland (in contrast Hong Kong has about 400,000 foreign residents).⁹¹⁵

What city should you set up your first office and hire local labor from? In addition to doing your due diligence regarding business licenses, you and your company should perform a cost-benefit analysis of mainland cities. While labor costs are significantly cheaper in Tier 2 & 3 cities, salaries in Tier 1 cities also varied. For example, the average monthly salary for an internet censor in Beijing is \$653 whereas a similar censor in Tianjin is paid \$480 a month.⁹¹⁶ Similarly while land rental rates may be cheaper inland, larger metros like Shanghai, Guangzhou and Beijing typically have modern infrastructure (e.g., subways, well-maintained highways) which in turn attracts multinational corporations (MNCs). Shanghai, which was according to a recent *Forbes* report is the best city for business on the mainland, itself has roughly 60 MNCs – more than any other city on the mainland.⁹¹⁷⁹¹⁸ This is due in part to subsidies and duty-free policies. For example, a MNC can now receive an 8 million RMB (\$1.3 million) subsidy for 3 years plus duty-free imports at facilities by setting up an office in Shanghai.⁹¹⁹

Attracting, retaining and discovering talent and connections

Another seemingly mundane recruitment issue facing foreign and domestic companies alike is the labor hiring cycle. Simply put, some recruiting months are not the same as others. While most firms in large cities use the Gregorian calendar year for GAAP accounting, nearly every domestic firm celebrates holidays based on the traditional lunar calendar. The biggest holiday of the year is Spring Festival or Chinese New Year, typically at the end of January to beginning of February. Like their Japanese counterparts, it is customary for domestic companies to award significant bonuses – 20-50% of a month's salary and even higher – to each employee just before Spring Festival.⁹²⁰ As a consequence, it becomes increasingly difficult to hire qualified workers after Mid-Autumn festival (also called Moon festival which is usually held in September) because employees not only would lose their potential bonus at the first, current company but would only be eligible to receive a reduced bonus at the new company. This is just one more cultural issue US firms should be aware of before starting up a domestic office.

How hard is it to hire expats? I posed this question to nearly every person I interviewed and the answer was unsurprisingly the same as it would be in other countries: compensation packages are usually the top priority. And specifically, full medical insurance with coverage and reimbursements to private hospitals (see Chapter 19). One of the reasons why this was important is that in the eyes of these managers, directors and CEOs, expats typically feel more comfortable in a foreign country if they knew they could have access to doctors and medical

providers that spoke their native language. As a consequence, firms looking to attract overseas talent may need to factor in the costs of medical reimbursements which can run up to 20,000 RMB (\$3200) a night at some of the foreign owned and operated medical facilities.

Natalia Shuman, the new COO of Kelly Services' in China mentioned in a recent interview that the top challenge in China for 2013 is,

I think retention and hiring talent are still going to be challenging. More multinational companies are expanding their Chinese operations. And the war for talent continues. From the staffing and recruitment industry prospective, the operating environment here in China is tough: the competition is strong, limited collaboration between players, not enough regulations from the staffing associations, quality issues, cost pressures and price wars.⁹²¹

In terms of retaining employees, in November 2012 I spoke with one foreign executive at a technology company in Shanghai who has employed a unique strategy in an attempt to kill two birds with one stone: retaining skilled employees and maintaining information integrity. After losing several key staff to competitors, instead liquidating his assets he decided to go a different path, a “hollowed castle” route based on a strategy from Zhuge Liang in *Romance of the Three Kingdoms* (三国演义).

In a nutshell, there was a volatile period two thousand years ago when what we now know as China was divided into three warring states (三国时代). One of the states (Shu) had its capital in Chengdu, in the contemporary western province of Sichuan. This kingdom was ruled by a calculating leader named Liu Bei who had under his command an able minister and war general, Zhuge Liang. At one point in this time period Liang had ordered all of his troops to leave the city and engage the enemy (Wei) capital of Chang'an (now Xi'an) to the north. Yet his enemy took a different route avoiding a clash with the Shu, moving rapidly towards Chengdu whereupon they began preparations to lay siege to the Shu castle. Liang, with little recourse attempted an unusual tactic: he opened the castle doors, disguised the remaining soldiers as civilians and played music from the top gates. The leader of the opposing forces, Sima Yi, knew that Liang was a shrewd and calculating opponent and thus came to the conclusion that this ploy must be a trap. So Yi withdrew his forces. This type of reverse psychology is termed the Empty Fort Strategy (空城计). Similarly this executive has since brought his subsequent teams into the fold, explicitly imparting the knowledge that they alone hold the key to their own long-term success – and that they could walk away at any time. His staff turnover was subsequently lower largely due to what he considers from this frankness towards future revenue generation and employee trust.

In terms of specific retention examples in the service industry, when I spoke with both Scott Freeman and Richard Qi (see Chapter 13) they both noted that based on their experiences in the domestic IT industry there is usually a dividing line of 1985. That is to say, that the turnover rate is substantially higher for those born post-1985 (50-60%) than those born before it (20%). Or in other words, the younger the employee, the riskier they may be – yet simultaneously, the younger the employee the more familiar they may be with new ways of thinking differently. And it is a conundrum that is not endemic to China.

Another way to utilize and attract talent is a method used at Motion Global (MG). Nira Binderer is an HR manager at MG in Shanghai and noted in our May 2012 interview that MG unequivocally sees China as the long-term home for its future base of operations.⁹²² While it is no secret that from a wage and salary perspective it may make financial sense to hire local talent (e.g., Chinese graduates from lesser known schools earn less than \$350 a month at their first job⁹²³), Binderer said that MG had a unique external hiring strategy: hire expats as interns. According to her, MG will give each intern a small stipend each month, but requires the interns to pay their own way (flights, accommodation, food) to show just how dedicated and genuine they are regarding SEO (search-engine optimization) and internet marketing. After a two-month probation, their salaries increase proportionally to the success of their SEO campaigns (judged by analytic tools measuring click through rates, bounce rates, etc). When I visited their Shanghai headquarters in May, more than two dozen foreigners (typically recent college graduates) were working side by side with local Chinese. I spoke with one former intern, Miles Vaughn – now in Florida, who noted that he learned more in the months he was at MG than in any classroom. In his words, “I hit the ground running and had a chance to not only learn as I went but each week we had a chance to talk with SEO teams from other companies including Google.”

While it would be difficult to convince the average expat to pay his or her own way just to be an intern at your new China office, hiring interns in general could help tide your firm over during cyclical periods such as the post-Mid-Autumn holiday (when fewer workers are willing to leave their employers due to bonus incentives). Interns can also be viewed as an ongoing-asset. After all your firm has invested both time and money in them, perhaps they can eventually be promoted to a permanent position in the future.

As mentioned several times previously as well as in Chapter 13, one of the problems that Larry Chang specifically faced when setting up shop in Shanghai five years ago was a lack of local contacts. He did not know any businessmen or government employees and the locals were unfamiliar with him because he did not go to school with any of their colleagues, teachers or family members. Thus building his *guanxi* (social, business, personal connections) was a challenge that required significant attention – one that he still focuses on. In Chang’s words, “SMEs cannot make their own *guanxi* over night.” One way he has successfully gotten his foot into the door is by meeting with consultants who act as his ‘air force’ – while he trains a figurative army of software designers, he relies on consultant connections to help put him into contact with suppliers, vendors and other contacts. After years of meetings, this has enabled his firm to grow 30% annually. Thus entrepreneurs should be cognizant of this all-encompassing cultural trait that Matt Garner described in Chapter 1 as “relationship focused” – in contrast to the “results focused” in the West.

Telecom infrastructure

ClarkMorgan runs a very tight ship in Shanghai’s Changning district, next to Jing’an Temple.⁹²⁴ Founded more than a decade ago by Australian Andy Clark and Briton Morry Morgan, it is primarily known as a firm specializing in corporate training, yet I would argue it publishes one of

the top quarterly magazines on HR-related issues in China. When I visited their office in May 2012, I had a chance to see firsthand the typical workday in which expat and local employees worked side by side, sometimes even sharing the same scarce tables. The Shanghai office is staffed by approximately 20 full time employees (half expats) and as Gary Isse, director of operations, explained to me in an interview, “one of the challenges we continually face is maintaining a reliable network connections both internally and externally.”

This is one of the struggles that all potential firms wanting to move to China will face: how to deal with a relatively static telecom industry within each city. While China is home to state-of-the-art telecom gear manufacturers such as Huawei and ZTE who produce modern equipment, its domestic broadband build-out is lagging neighboring peers such as Japan and Korea in part because its internal telecom infrastructure is organized into two disparate tiers.

In October 2012 I spoke with Scott Freeman, CEO of ITBN, a private internet service provider (ISP) that provides broadband connectivity solutions in Beijing and Shanghai.⁹²⁵ ITBN was founded in 2000 and offers a range of connections from dedicated ISDN lines to full fiber connections. While ITBN charges a premium for their services, they also provide something that these SOEs cannot: reliability and bi-lingual telephone support and thus have captured a significant percent of the urban market share.

While much speculation exists about the telecom infrastructure in China, Freeman described the seemingly complicated national network thusly, “there are hundreds of licensed and probably thousands of unlicensed ISPs in China. Some have national licenses (like we do); others have only provincial licenses. Many more operate without licenses. The official differentiation between ISPs like us and the big state-run ones is that we are called “second-tier” ISPs, whereas they are called “first-tier” ones. Theoretically the first-tier telcos are supposed to control all of the physical connections in and out of the country. Other than that it's not so clear what else differentiates them on the ground, other than the fact that the big state-run telcos have a lot more money and the extra job of content monitoring.”

As Freeman noted, aside from a few licensed private firms such as ITBN, there are essentially only three tier 1 ISPs in the whole country (China Telecom, Unicom and Mobile) all of whom are state-owned enterprises.⁹²⁶ In fact, on a user basis China Telecom and China Unicom (both SOEs) are the largest ISPs in the world.⁹²⁷ And while there may be developmental reasons for relatively slower bandwidth speeds (compared with their neighbors), in terms of throughput, according to their Q3 2012 speed survey, ChinaCache noted that while the overall speeds are a little slower than previous speed rankings, Shanghai currently leads the country in average speeds at roughly 3.44 Mb/s and Beijing is 10th at around 2.5 Mb/s.⁹²⁸

While the quality of wireless telephony signals between the US and China is debatable, the Ministry of Industry and Information Technology announced in September 2012 that it plans to begin issuing 4G licenses within the following year.⁹²⁹ Thus while Western countries are finishing rolling out 4G networks, aside from a pilot roll-out in a dozen cities such as Chengdu, Hangzhou and Wenzhou (from China Mobile), the majority of Chinese users unfortunately have

another couple of years before 4G becomes an installed reality.⁹³⁰ And in the case of ClarkMorgan, there just are not many broadband packages that fit their needs at the prices expat managers are accustomed to (e.g., choice between a relatively inexpensive 5 mb/s DSL versus an expensive dedicated T1).

Takeaway: before opening up a Chinese branch for your company be sure to research the costs of living, property rental prices and telecom infrastructure availability in the area. In addition, paying attention to hiring cycles, offering internships and recruiting *hǎiguī* may also give your company a significant advantage over your competition that fails to do so.

Chapter 16 – Localizing and understanding your customer

My own experiences with Western fast-food establishments overseas can be summed up best by the rivalry and fortunes between KFC and McDonald's in China. It was November 2008, when I first arrived in Shanghai (and the mainland) I noticed immediately within walking into the KFC near the Holiday Inn in Pudong that the listed menu items were both visibly different and numerically more. While Americans like to joke that there is a Starbucks at every street corner, the same can almost be said about KFC, especially with train stations in China. No matter where you travel to, you are bound to see the Colonel. And during these subsequent travels I noticed that KFC's food selection varied from place to place: Guangzhou had different tastes than locations in Hefei, which tasted slightly different than those in Shanghai. Furthermore, while the items offered were typically the same from city to city, relative to US menus there were a number of visibly different choices. For example, KFC served corn as dessert in fruit cups, egg-yolk –filled-cupcakes operated as appetizers and traditional gravy was hard to find.⁹³¹

In contrast, I rarely saw McDonald's at every turn of the street. In fact, when I first moved to Bengbu, Anhui in 2008, there were three KFC's and only one McDonald's. Why was one more popular than the other? One rumor was that McDonald's simply imported the food items from the US and used it as the sole menu choice for Chinese customers unfamiliar with hamburger (remember, pork is the most consumed meat in China, not beef).⁹³²⁹³³ But the real story is much more complex and interesting.

KFC and McDonald's both opened up stores at around the same time in the 1980s. Yet today, there are more than twice as many KFC restaurants as McDonald's. *Harvard Business Review* has discussed this case-study in depth,⁹³⁴ pointing out five key reasons for KFC's success:

- 1) Corporate managers at KFC's then-new China division led by Sam Su, "infused a Western brand with Chinese characteristics." As cliché as that may sound, managers at KFC China reworked the menu (expanding it more than 75%) so that it offered a mix of traditional foods as well as local tastes and flavors. Because the parent company (PepsiCo) was relatively hands off, regional managers could continuously introduce, remove and tweak menu's to better cater to local tastes. The notable example HBR cites is that of spices: Shanghai customers thought food was too spicy and those in Sichuan felt foods were too bland. So local managers were given flexibility to cater to the specific regional tastes.
- 2) Instead of trying to compete head-to-head with McDonald's in the largest cities, KFC managers first opened restaurants in smaller cities spread across the country. As a consequence, because they were the first ones in the city, they were able to accomplish the three L's of retailing: location, location, location. So not only did they manage to win highly-trafficked real-estate but also a distributed supply chain to help "reduce costs" as they scaled. The end result, KFC is now the largest restaurant chain in China, "with more than 250,000 employees and about 40% of the market for fast-food chains."
- 3) Starting in 1997, KFC built a distribution network from the ground up. While relatively expensive, the investment paid off because they have supply-chain quality

control all the back to the individual suppliers and animal feed companies. As a consequence KFC “now has the most advanced and integrated cold-chain system in China, with 11 full service logistic centers and six satellite centers serving every province except Tibet.”

- 4) Employee training is an on-going challenge to everyone operating a retailer with ambitious expansion plans. KFC needs “at least 1,000 new managers and 30,000 new members a year” and so it has implemented a sort of rolling team of trainers that move from one new location to another, training each new restaurant team both job skills and people skills so they can provide “excellent customer service.”
- 5) Unlike how they expanded in the US and other international regions, KFC locations in China are almost exclusively (90%) run by the corporate instead of the franchise model. They did this because of a dearth of experienced entrepreneurial talent available and “to closely control every aspect of their operation, from menu to decor, and to monitor results and the success of new products.”

Since their first store opened in 1987, KFC now operates approximately 5,000 restaurant outlets in 700 cities and is on pace to open one new store everyday of the year – with a goal of opening 15,000 nationwide including 700 more in 2013.⁹³⁵ And despite a food scare regarding antibiotics in chicken suppliers mentioned in Chapter 3, they plan to continue this expansion.⁹³⁶ A large reason why they have been successful is as noted above in the HBR study: adapting to local tastes with foods such as fried dough, sweet potato buns and fishball soup. Furthermore, its parent company, Yum Brands, now operates 5,400 stores on the mainland (including Pizza Hut restaurants); more than double what it had five years ago.⁹³⁷ As a consequence, China now represents for over half of Yum’s operating profit and sales globally.⁹³⁸ In fact, in 2010, KFC China for the first time had surpassed the US market in revenue. In contrast, McDonald’s has a mere 1,464 outlets and 16% of the fast-food restaurant market share.⁹³⁹

How can these tribulations help you?

Before opening a physical store, ask yourself these questions:

- Will my target market want my product as-is, or should it be tweaked and modified to fit their tastes?
- Where should our company set-up shop first? Does it need to be in a higher-profile Tier 1 city or can it take the distributed “long tail approach” that KFC utilized by placing proportionally more stores in smaller cities?⁹⁴⁰
- Can you locally source your supply chain? If it is inorganic matter, based on the discussion in Chapter 7 will you try to utilize a 3D printer?
- Who will you recruit to fill your management, sales and customer service roles?
- Should you franchise your operations out or manage them from a central location?

Other foreign restaurants and coffeehouses have moved into China as well. By catering to both local and Western tastes, Starbucks now has more than 700 stores and 12,000 employees on the mainland and plans to have 1,500 stores and 30,000 employees by 2015 making it the 2nd largest market behind the US (for comparison Starbucks recently announced it plans to open 3,000 new

locations in the Americas including 1,500 more in the US by 2017).⁹⁴¹⁹⁴²⁹⁴³ By introducing flavors specific to Chinese tastes such as Red Bean and Green Tea Frappuccinos (popular domestic flavors), they have managed to localize their brand.⁹⁴⁴⁹⁴⁵ As a consequence, same store sales increased 10% in 2012 from the year before and “Starbucks stores in China now average \$886,000 in annual sales, up from \$507,000 in 2008.”⁹⁴⁶⁹⁴⁷

Their success has seen the entry of Britain’s Costa Coffee, which opened its 100th Chinese store in 2011 and now has 186 as of July 2012.⁹⁴⁸ And across the straights in Taiwan, 85C, a coffee chain plans to open up 100 more coffee shops by 2017 (it currently operates 366 on the mainland and 347 on Taiwan).⁹⁴⁹ According to Euromonitor International, coffee shops on the mainland generated \$558 million in sales in 2011 and expect sales to triple by 2016.⁹⁵⁰ In fact, coffee sales collectively rose 20% from 2010 to 2011.⁹⁵¹ In other segments of the industry, Subway restaurants (赛百味) also plan to expand from the current 358 restaurants to 900 by 2015.⁹⁵² Carl’s Jr. opened its first mainland restaurant in Shanghai in 2009 and has plans to add 100 by 2016. And with arguably the most aggressive expansion plan, Burger King plans to open 1000 restaurants by 2019 (up from 63 currently).⁹⁵³ And like KFC before them, these firms are succeeding and hope to succeed by blending both local and Western tastes in a quality-controlled manner.

This localization-first strategy is similarly echoed by mainland experts such as Savio Kwan, former COO of Alibaba who recently told *The Wall Street Journal* that “Companies need to avoid bringing Western business ideas straight into China. It’s not always transferable.”⁹⁵⁴ Similarly, Hermann Hauser, cofounder of Amadeus Capital Partners opined that “Overseas businesses need to tailor their products specifically to the Chinese user, and in particular consider the average GDP per person and adapt product pricing.”⁹⁵⁵ And again, while there is a significant outlier of high-networth individuals at the top, the vast majority of the population earns less than \$5,000 a year. What can your firm localize and sell to this price point?

Takeaway: while it would be impractical to transplant your company or business model in place of KFC, you can use the lessons they learned in doing business in China. Hiring teams comprised primarily of local residents has the added benefit of understanding consumer expectations and buying behavior. In contrast, if you attempt to fill your teams with expats and foreigners, they may not fully understand the local tastes, customs or taboos. And arguably one of the most important questions for companies wanting to sell physical goods: as described in Chapter 10, what are the regulations and laws concerning your industry? What kind of *guanxi* do you need to have with local suppliers, distributors and decision makers? Answering all of these will enable your company to accurately assess strengths, weaknesses, opportunities and threats.

Chapter 17 – Architects, aviation and debt structuring

There are over 170 cities with a million people in China compared with nine in the US.⁹⁵⁶ By 2020 China's urban population will reach 800 million, by 2025 there will be 221 cities with 1 million people and by 2030 there will be more than 1 billion people living in cities.⁹⁵⁷⁹⁵⁸⁹⁵⁹ While some of the build-outs may turn out to be unsustainable, *McKinsey & Company* estimates that 50,000 skyscrapers will be built in the next 20 years on the mainland, "the equivalent of 10 New Yorks."⁹⁶⁰⁹⁶¹ In fact, one-third of all the 100 tallest buildings in the world are now on the mainland and one estimate suggests China will surpass the US in skyscrapers by 2017.⁹⁶² And as China's urbanization increases (crossing the 50% barrier in 2011, see Chapter 6), according to one argument – these people need to live somewhere.⁹⁶³ Thus numerous foreign architects, currently facing a soft labor market in the West have moved to the mainland, to design and construct a cornucopia of buildings including *mian zi gong cheng* (面子工程).

For example, it is a truism to note that nearly every country and political class around the world has erected shrines commemorating battles, people and events (e.g., monuments of grandeur, arches of prestige). In China, "face projects" are called *mian zi gong cheng*. While it could be argued that while the productive capacity of such projects range from practical to 'hopeful' (e.g., Three Gorges Dam versus the Great Wall itself), there are any number of modern day Pyramids continually being built in mainland China (and elsewhere).⁹⁶⁴ The reason it is arguably important to study these face projects is that they provide an insight to what Frédéric Bastiat called the "seen and unseen."⁹⁶⁵ Or rather, what are the opportunity costs foregone in the construction of such edifices?

For example, the Pyramids in Giza offer a historical illustration of this principle in action. These Pyramids, while stunning cultural monuments, consumed vast quantities of economic activity that produced little in return. After a factory is built, it can be used to manufacture any number of products including consumer goods. Pyramids on the other hand, despite their timeless grandeur, are little more than a decorated tomb, a very large mausoleum. And while modern graves do provide positive sanitary spill-over effects (e.g., prevent the spread of diseases) it would be disingenuous to argue that the funeral industry is a productive long-term generator for any economy.⁹⁶⁶ Thus in an alternative timeline, what were other productive uses that the Pyramid materials and workers could have been used in?⁹⁶⁷

And as Frank Shostak pointed out several years ago, while measured by some modern economic metrics constructing the Pyramids would have looked like a GDP boom (e.g., increased economic activity), the actual reality is that this kind of face project consumed several orders of capital without providing any in return.⁹⁶⁸⁹⁶⁹ In short, it was a money pit with no tangible return-on-investment other than psychological feelings of "greatness." And you cannot eat "greatness."⁹⁷⁰

What is the point of this history lesson? How does this apply to modern China? In Mark DeWeaver's new book he discusses Fuyang airport located in Anhui:

Consider the city of Fuyang in Northeastern Anhui Province, for example. Located in a relatively remote location in one of China's poorer interior provinces, the city originally had only a small landing field for flights to Hefei, the provincial capital. In the 1990s, the local government decided to "raise the city's profile" by building an international airport. The original airport's 400 meter runway was expanded to 2,400 meters (long enough for commercial flights to most Asian destinations) and a 7,200 square meter terminal and other amenities were built at a total cost of 320 million yuan.

In 2004, after being open only a year, the new facility had to be closed because there was not enough traffic to keep it operating. While it was finally reopened in 2008, as of the beginning of 2011 its website showed only three flights a day.⁹⁷¹

When I taught in Anhui I asked several students from the Fuyang area if they had ever used the airport. They said it was more practical to use the large train station because the airport only had flights to just a couple of cities (Beijing and Shanghai) during the day. While there is potential growth due to the population size (Fuyang itself is either the 1st or 2nd largest county in Anhui depending on which areas are included), this represents an unproductive asset that would probably not have been built in this location or time frame if left to market forces.

Is this an isolated incident or just a rare exception? Neither. According to the *Financial Times*, in 2010, three fourths of all airports in China lost money.⁹⁷² In 2011, of the 180 civil airports in operation, more than 70% lost money.⁹⁷³ In fact based on research from Li Xiaojin, a professor at Civil Aviation University of China, an airport in China needs to handle 1 million passengers a year in order to turn a profit. Yet according to his estimates, 80% of airports do not hit this mark.⁹⁷⁴ And according to the Civil Aviation Administration of China (CAAC), these losses in 2011 amounted to more than \$314 million.⁹⁷⁵

How does any of this have to do with opportunities for foreigners?

Over the next five years an additional 82 new airports will open in part because policy makers see these losses as short-term pain.⁹⁷⁶ Yet this is not entirely without merit as this may just be a modern chicken and egg problem as airports are only useful if there are other airports that connect to them (i.e., the network effect). If recent trends hold, then the popularity of flying may make these projects more financially feasible. For example, over 270 million passengers flew domestic routes in China in 2011, up 70% from 2003 – and the International Air Transport Association projects "379 million will be flying domestically by 2014."⁹⁷⁷ Furthermore, according to *Reuters*, in the last decade passenger air traffic has grown 14% a year, which is twice as fast as the growth in train travel.⁹⁷⁸ Thus despite the added competition from CRH (high speed rail lines) that have been seen as the main reason why domestic carriers have operated at losses for the last 3 months in a row (through January 2013), ultimately many of these airports may turn a profit.⁹⁷⁹ As a consequence, foreign airport designers may also find opportunities in China. For example, in building airports in western provinces like Tibet, foreign aviation consultants have been brought in to build transponder landing systems such as Automatic Dependent Surveillance-Broadcast (ADS-B).⁹⁸⁰

Engines and cleantech

Another opportunity is avionics and engines. For example, the Aviation Industry Corporation of China (AVIC) is a large SOE with 400,000 employees which has set aside around \$16 billion to build a new engine and may spend up to \$49 billion on an even larger engine research effort in the next decade.⁹⁸¹ And Commercial Aircraft Corporation of China (COMAC), another large aerospace SOE, recently announced that it has now had 380 orders for its domestically made C919 commercial jet.^{982,983} Yet because the nascent domestic aerospace industry has been unable to build and design a reliable jet engine to power the domestically made planes, foreign engine makers are expected to sell \$100 billion in engines alone to China over the next 20 years. Domestic issues also present opportunities to foreign airplane manufacturers, who are expected to sell 5,000 airplanes worth more than \$600 billion to Chinese airlines over the next 20 years, as well as to foreign pilots seeking flight time.⁹⁸⁴

Because of retirement changes in their home countries that have extended the tenure of senior pilots, many junior foreign pilots have begun flying routes in China to accrue flight time. In fact, over the past several years, Chinese airlines have been actively recruiting pilots in the US, offering various perks and enticing several hundred so far.⁹⁸⁵ Thus, because of the growing pains on the mainland, there are numerous opportunities for foreign aerospace and aviation experts. In fact there are only about 6,000 pilots altogether on the mainland, half of whom are students or teaching in aviation schools.⁹⁸⁶ Yet more than 10,000 pilots are estimated to be needed in order to fill the demand as the industry expands. For comparison, in 2009 there were 594,285 active certified pilots in the US.⁹⁸⁷

Again, as noted in Chapter 4, with more than 57 million inbound tourists in 2011, there is certainly potential for air-related services to cater to the growing tourism market. Yet how these domestic airports and airplanes are built, financed and maintained (public versus private) will have long-term consequences for the overall economy (as well as the local domiciles they are built in).

It is little wonder then that China produces and consumes more than half of all cement globally. It is also the largest producer and consumer of steel.⁹⁸⁸ And while the domestic market is fragmented, subsidized and unsustainable at local levels, one of the areas where foreign firms can find new opportunities is developing and selling “cleantech” to cement manufacturers.⁹⁸⁹ For example, as part of the 12th Five Year plan 10% of these cement facilities are set to use “cleantech” with a goal of reducing waste and emissions. As a consequence, Switzerland-based Holcim Group (one of the world’s largest cement producers) is beginning to sell its technology to mainland firms. According to Ian Riley, the head of Holcim Group in China, “[i]f you think about all those things that the Chinese government wants companies to do that require good technology and good management, there are a lot of excellent opportunities indeed for companies such as ours.”⁹⁹⁰

Another example is Canadian-based Westport, a maker of heavy-duty truck engines that run on

natural gas instead of diesel. While there may be some IT security issues that all firms should be aware of (e.g., see trade secrets in Chapter 13), Westport's Q2 2012 sales increased 206% year over year, leading its CEO to note that, "I don't think you can do anything but conclude that it's very, very encouraging, and China is going to be a fabulous opportunity for natural gas over the next few years."⁹⁹¹ And based on an estimate from *China Merchants Securities*, the "cleantech" market in China is expected to be worth \$473 billion by 2015.⁹⁹² Furthermore, state owned oil majors and policy makers hope to replicate the natural gas boom in the US onto the mainland by investing heavily into fracking technologies to diminish the use of coal (see Chapter 19 on 'air pollution'). Modern fracking is a method utilizing pressurized liquid to force and retrieve previously-hard-to-recover hydrocarbons (e.g. gas and oil) from rock and sand formations. In fact, one estimate by geologists is "the nation's recoverable reserves at about 25 trillion cubic meters, on par with the United States."⁹⁹³ Thus both foreign and domestic firms specializing in the natural gas segment (e.g., extraction, storage, transportation) may find new revenue streams in an industry that is expected to pump "6.5 billion cubic meters of natural gas from underground shale formations by 2015."

Ancillary services

In December 2012 I spoke William Song, a software engineer at TravelSky (中国航信). TravelSky is a state-owned enterprise based in Beijing that manages a computer reservation system that handles all of the airline travel data and increasingly others such as hotel and railways (similar to Sabre and Amadeus in functionality); or in industry vernacular they develop a global distribution system (GDS). According to him "we have a monopoly in the sense that we are the sole provider of information technology related to booking, reservations, pricing and ticket settlements on the mainland which we aggregate from airlines; we generate revenue every time an e-ticket is issued with partner airlines. Consequently, consumers using domestic online travel agencies (OTAs) such as eLong and Ctrip (the equivalent of Priceline) and Qunar (similar to Kayak) indirectly utilize our system in booking their air travel." In 2011 TravelSky generated \$589 million in revenue compared with Sabre and Amadeus who together generated more than \$6 billion in revenue during the same period.⁹⁹⁴

The way GDS systems like TravelSky work is, "basically for each passenger that boards a flight, the airlines pay a 'booking fee' to our company (like a commission). In return the airlines use our system to distribute flight information and ticket prices to travel agencies and airports that can use this information to provide services to passengers. In other words, when you buy a ticket and use it, all of the flight logistics information systems behind it are managed by our company. From a technical standpoint these databases are huge considering the size of the current industry in China and that it includes the data for all procedures of the whole journey. Yet because we were originally a department of CAAC (Civil Aviation Administration of China) we still maintain close ties to the indigenously made software stacks. Thus one of the challenges for both domestic and foreign companies that have experience making this kind of software is that in the short-run there will not be a second or third company like us, so there are not many opportunities for their expertise. In fact, all of the SOEs which have monopolies over their respective industries such as rail, gas and telecom have other SOE companies like us to help them

develop and restore the data.” And this is where ancillary services and business models can be built for, such as fulfilling the needs of travel agency owners.

In March 2013 I spoke with David Tang the owner of a travel agency in Guangdong. According to Tang, “one of the challenges created by TravelSky’s monopoly is that their interface is very dated – it uses a command-line style system reminiscent to DOS. As a consequence, travel agencies around the country hire outside vendors to develop easier-to-use front end software packages that hook into TravelSky’s system. My company has been around for more than five years and we have spent at least 100,000 RMB (\$15,000) this past year to work with a vendor in Shenzhen to develop a customized interface. Ctrip and other agencies have also built their own systems. Thus one of the business opportunities is to provide the hundreds of travel agencies around the country with customized interfaces to work with TravelSky’s databases. In addition, foreign GDS systems like Amadeus have begun to be used on the mainland as a way to book hotels and I predict that at some point the government will allow foreign competition to take place in the GDS field with airline bookings as well due to the fact that foreign technology is probably 10 years more advanced than the domestic GDS capabilities.” Ctrip is publicly listed on NASDAQ and is the largest OTA in China, with 36 million hotel bookings and 30 million flight tickets handled through their system annually.⁹⁹⁵

While Tang’s last point is speculation, William Song suggested one future business opportunity may come from opening this up as well. Song noted that, “I think that OTA aggregation services which are easy to use and can eventually utilize our data can make a small fortune. For example, apps for smartphones which can aggregate destination times and prices no matter where you are. Both incumbent and start-up travel agencies will be able to use AI robots (or ‘spiders,’ a program that can collect data) to recalculate information and provide services and metrics to the end customers. For example Qunar is one such domestic start-up, whose founding team came from Kayak. Even though the real time flight information is stored in our database, direct access to this is usually unneeded today because we continuously distribute the flight information directly to airlines and OTA’s who in the future can be scanned by the AI robots for use by other services such as smartphone apps. Or in other words, eventually 3rd parties can use robots to crawl through our databases or our partners’ databases to collect information. Thus there are opportunities for new competitors in this segment.”

Rails and a paddle

As I mentioned in Chapter 9, when I first arrived on the mainland four years ago, I spent time sight-seeing in Shanghai before moving to Bengbu. And as I mentioned in Chapter 4, my initial encounter with proficient English speakers colored my view of the populace (e.g., selection bias, see Chapter 9 about EFL). Similarly, the trip to Bengbu itself skewed my view on economic developments on the mainland because the trip was done on a new high-speed train traveling at 300 kilometers/hour. It took approximately 3 hours, a journey that just 10 years ago would have taken half a day on older rolling stock. At the time I wondered if other travelers on the mainland had similar access. The short answer is yes, the longer answer however dovetails into *mian zi gong cheng* and opportunities therein.

Two years ago a broker friend at Morgan Stanley similarly asked me what my perception of the high-speed rail network was, “Have you ever been on one? Are they packed and profitable?”

Like many public projects, the high-speed railway system (CRH) began with objectively good intentions: build a state-of-the-art transportation network capable of connecting and bringing commerce to all corners of the mainland. Yet as Ludwig von Mises showed, such centrally managed plans cannot efficiently achieve the stated goals.⁹⁹⁶ Similarly, the Railway Ministry is now massively indebted in part because in its push to build a 20,000 kilometer nationwide high-speed rail network, subpar materials were used in certain sections and billions have been siphoned from the budgets via corruption.

As I mentioned in Chapter 10, in their bid to build rolling stock for the CRH project a Japanese consortium of locomotive and rolling stock designers (the same ones that built the Shinkansen) were edged out of the mainland market by the very technology they had designed and transferred to CSR, a domestic SOE that now builds half of the rolling stock.⁹⁹⁷ While it might be assumed that with this “free technology lunch” that the CRH project now gained would have resulted in fewer long-term costs, the reality is that building a rail network – as in any country – requires significant capital expenses for land, labor, tracks, ties, signal boxes and electrical conduits. Similarly, because the state effectively still owns all land (e.g., private individuals can lease land from the state for 50-70 years, after which time it reverts back to the state), it might be assumed that property costs would reduce the bottom line. Yet again, the assumption is incorrect.

In February 2011, Liu Zhijun, the railway minister was fired amidst a probe that alleged a variety of bribery and kickback charges.⁹⁹⁸ Upon investigation, one case mentioned by the National Audit Office noted \$28 million that “was misappropriated by individuals or companies involved in building the Beijing-Shanghai high-speed railway.”⁹⁹⁹ And as Evan Osnos, a reporter for *The New Yorker*, recently described this was not an isolated case. For example, another account from the National Audit Office found on the accounting books of a SOE a “sixteen-million-dollar “commission” to an intermediary in return for contracts on the high-speed rail.”¹⁰⁰⁰

This was only the tip of the iceberg as Osnos’s research found that this public-works project eventually encompassed payouts and bribes that are still being uncovered; amounts that dwarf those listed above:

Like many others, Ding knew something that government auditors uncovered only later: China’s most famous public-works project [the Railway] was an ecosystem almost perfectly hospitable to corruption—opaque, unsupervised, and overflowing with cash, especially after the government announced a stimulus to mitigate the effects of the 2008 global financial crisis. It boosted funding for railway projects to more than a hundred billion dollars in 2010. In some cases, the bidding period was truncated from five days to thirteen hours. In others, the bids were mere theatre, because construction had already begun. Cash was known to vanish: in one instance, seventy-eight million dollars that had been set aside to compensate

people whose homes had been demolished to make way for railroad tracks disappeared. Middlemen expected cuts of between one and six per cent. “If a project is four and a half billion, the middleman is taking home two hundred million,” Wang said. “And, of course, nobody says a word.”

While the investigations are still ongoing, by one account former Railway minister Liu had taken a “4% kickback on railway deals,” another estimate suggests he netted \$152 million.¹⁰⁰¹ Zhang Shuguang, former deputy general engineer of the Railway ministry reportedly embezzled \$2.8 billion into US and Swiss banks.¹⁰⁰²¹⁰⁰³ All told the Railway Ministry is in debt by \$428 billion and posted a loss of \$1.4 billion in the first half of 2012.¹⁰⁰⁴¹⁰⁰⁵¹⁰⁰⁶¹⁰⁰⁷¹⁰⁰⁸

How did it get to be this size? The Rail Ministry in China was essentially an autonomous entity – with its own schools, hospitals and until recently even its own judicial system – that only had to answer to itself.¹⁰⁰⁹ And as a consequence and as part of a major revamp implemented by the new Xi administration, the Rail Ministry is now being split up, with the Ministry of Transport taking over the railway construction and network planning.¹⁰¹⁰ The operational units of the Rail Ministry will be spun off and separated into a new state-owned enterprise called China Railway Corporation that will be managed by the State-owned Assets Supervision and Admission Commission (SASAC).

This is not to say that corruption, bribery and kickbacks do not occur in other countries, nor am I suggesting that this scandal will doom the Chinese growth story or that the high-speed railway network will never be completed. Rather, I am citing this to be even handed, to show that just because planners come up with “big hairy audacious goals” this does not automatically translate into instant successes.¹⁰¹¹¹⁰¹²

In fact, Mark DeWeaver’s book cites dozens of such stories including several others like the Loudi “White House” and a half dozen amusement parks built by local governments which gone bankrupt.¹⁰¹³ Many Olympic venues alone from the 2008 Beijing Summer games have gone into disuse and several have been demolished.¹⁰¹⁴¹⁰¹⁵

Despite \$141 billion in investments and another \$134 billion approved for future expansions, none of the nearly two dozen subway metro systems on the mainland is profitable.¹⁰¹⁶ This is not to say that these subway systems do not generate substantial revenue. Rather they do not generate enough revenue to cover their expenses (i.e., they are operating at a loss). And because some projects may not provide enough return on investment to maintain the capital stock some party or multiple parties are subsidizing these activities. For example, only one of Shanghai’s lines is profitable. Beijing’s metro will post a loss of about \$150 million in 2012. And Shenzhen’s metro charges an average of 2.8 yuan per trip yet the actual costs are 5.9 yuan per trip.¹⁰¹⁷ According to *The Atlantic* one of the reasons it is costly is that “[a]t 500 million yuan per kilometer, or about \$80 million, their pricetags are not that much cheaper than they are in Seoul, where wages are much higher.”¹⁰¹⁸

Similarly last year the *Los Angeles Times* detailed a number of other face projects built by local

governments, that while creative and innovative – such as a \$44 million hotel designed to look like a ping pong paddle – ultimately produce little in terms of sustainable economic activity.¹⁰¹⁹ The one silver-lining for foreigners is that the demand for Western educated architects can be high in certain provinces, especially for those willing to work on *mian zi gong cheng*.¹⁰²⁰¹⁰²¹ In fact, according to industrial designer Michael Young, “China will produce as many world-class designers as Japan within 20 years.”¹⁰²² Notable examples include Wang Shu, who won the 2012 Pritzker Prize, the world’s top prize in architecture. Thus foreign architects may find new opportunities in training and working with domestic firms on a variety of projects over the coming decades.

Structuring debt

In an era of a closed capital account and relatively cheap public capital (as discussed in Chapter 5 and Chapter 10), both of which incentivize capital consumption and fixed asset investment, these types of cases will probably continue into the foreseeable future.¹⁰²³ All told these projects and other local government financing vehicles (LGFVs) that received stimulus funds since 2009 account for approximately \$5.4 trillion in loans.¹⁰²⁴¹⁰²⁵¹⁰²⁶ Despite the ban on municipal bonds (see Chapter 10), these LGFVs issue bonds called *chengtou* which are traded in secondary markets. And in 2012, 942 billion RMB (\$150 billion) of *chengtou* bonds were issued by these LGFVs.¹⁰²⁷ Thus experts in debt restructuring may be able to do consulting for local banks when publicly traded bond markets become a reality. And one advantage of having a publicly accessible bond market is as Shawn Mesaros mentioned to me, “domestic banks could then become facilitators. They could offload debt and focus on value added services, creating new investment vehicles which allow for diversification.” Another advantage is that a bond market would allow for liquidating non-performing loans and spread and distribute risk away from “too big to fail” financial institutions.

And as mentioned in Chapter 5, foreign experts in debt structuring may find new opportunities on the mainland due to this ongoing business cycle. For instance, foreign firms specializing in managing distressed loans such as those used to finance the construction of tech parks, have already capitalized on opportunities on the mainland (with mixed results), including Shoreline Capital Management who raised \$300 million for a new fund last year specifically to invest in distressed Chinese debt.¹⁰²⁸

Another opportunity, although probably out of the reach of most SMEs and entrepreneurs is what Siemens has provided to several mainland subway systems: propulsion systems. Under several different agreements, Siemens has sold equipment packages that include gearboxes, auxiliary converter units, traction motors, traction converters and train control systems.¹⁰²⁹ In fact, as of 2010 Siemens maintained 90 operating companies and 61 regional offices in China alone across all of its divisions (including healthcare and energy).¹⁰³⁰ It has 30,000 employees on the mainland, generated \$8.4 billion in revenue from China in 2012 and “nearly 90% of its raw materials and semi-manufactured goods are purchased from the Chinese local market.”¹⁰³¹ This is part of an effort to develop and install their mobility technology which is used and deployed in nearly a dozen mainland metros and railways. Thus irrespective of the long-term financial

sustainability of metro expansion plans, there may still be opportunities in the short-term for foreign component manufacturers in this sector.

Yet a word of warning. During California's requests for bids in 2011 for a proposed high-speed rail project (HSR), Chinese firms offered to help build it. However the technology that Chinese firms were planning to build the HSR infrastructure (cars, signals, gearboxes) are all based on technology transfers from Siemens, Kawasaki and Bombardier.¹⁰³² Thus the foreign firms found themselves competing with their very own technology as China now tries to build HSRs in other countries. This turn of events resulted in a series of press releases and some protests, yet subsequently both Siemens and Bombardier continue to transfer technology and sell equipment to Chinese firms.¹⁰³³ Be sure to speak with an attorney (see Chapter 10) before transferring any technology.¹⁰³⁴

Takeaway: There are some opportunities for foreign firms and individuals that want to participate in the airline and aerospace industry as well as a number of opportunities for foreign architects. However, while it is impossible to predict what the exact opportunities forgone in the construction of these face projects are, we do know that *ceteris paribus*, that there are other productive choices that market forces would have gravitated towards instead (e.g., allowing capital to accumulate instead of being consumed). And as a consequence, the countless face projects dotting the mainland arguably act little more than a weight, a drag on overall growth. What other productive uses could both the skilled and unskilled laborers that built these uneconomic airports, railways, amusement parks and stadiums been used in instead? The answer to that is left to the imagination of the reader.

Chapter 18 – Retirees, Insurance and NGOs

While there have been a number of reforms in the past three decades, another potential headwind that Chinese policy makers will increasingly face in the future are financial burdens and pressures from entitlement programs such as its social security and health care. In fact, one common misunderstanding many Western analysts have is that during the introduction of market reforms state subsidized living has been phased out.

While it is true that the monolithic cradle-to-grave “iron rice bowls” (铁饭碗) structure has been somewhat liberalized, the shortfall in funding the public pension system will still hit \$2.87 trillion this year (2013).¹⁰³⁵¹⁰³⁶¹⁰³⁷ In fact, according to Cao Yuanzheng of the Bank of China, “[s]uppose the annual rate of GDP growth was 6 percent. China's pension shortfall would reach 68.2 trillion yuan by 2033, accounting for 38.7 percent of the year's GDP.”¹⁰³⁸

One of the reasons for the marked increase is, as I mentioned in Chapter 6, that the life expectancy in China has grown from 65 in 1976 to 73 in 2010. And because of the one-child policy, *ceteris paribus*, the population is likely to peak within the next 20 years.¹⁰³⁹¹⁰⁴⁰ Thus assuming the retirement age is not increased, by 2050, it is estimated that 31% of China's population will near the age retirement age; and within 40 years China will have nearly 500 million elderly people.¹⁰⁴¹ In contrast, today about 14.8% of China's population is over the age of 60. And according to Li Jun of the Chinese Academy of Social Sciences, “by 2050, China's working age population (aged 15-59), will be reduced to 710 million, a staggering 230 million less than in 2010.”¹⁰⁴² In fact, the Chinese working-age labor force itself shrank by 3.45 million in 2012, a decline that is expected to continue into the future.¹⁰⁴³

Under the current system men are eligible for public retirement benefits beginning at the age of 60 and women at state-owned enterprises can retire at 55 (women in private industry can start receiving benefits at 50). Thus in an attempt to alleviate the stress on the system in June 2012 one proposed reform openly discussed in Beijing was to raise the retirement age beginning in 2016 – increasing the required age one year on alternating years – creating a uniform retirement age of 65 by 2045.¹⁰⁴⁴ Yet such proposals have also proven to be resolutely unpopular with younger generations. For example, one poll from *People's Daily* this past June found that 93.3% of the 450,000 respondents voted against raising the retirement age.¹⁰⁴⁵¹⁰⁴⁶

Pension costs and opportunities

Irrespective of the stated goals in universal health care programs, economic laws such as supply, demand and scarcity are immutable. Hospitals, medicine, medical equipment and doctors are all scarce, finite resources. Whereas a free market would ration these resources via prices which arise from interaction between market participants, national health care plans ultimately involve some price distortions (e.g., subsidies) that invariably create artificial shortages and/or oversupply.¹⁰⁴⁷ Or rather, there is no such thing as a free lunch, ultimately someone has to pay. And any activity that is discounted financially (e.g., subsidized) will *ceteris paribus* be consumed more. While a significant portion of the political class and electorate on each hemisphere are

increasingly fond of universal health care “for free” – the underlying finances of these entitlement programs will become markedly burdensome in the long run.¹⁰⁴⁸ China is no different and there may be opportunities for NGOs and foreign businesses to plug into the holes and gaps that are not covered by state programs.

China’s 11th Five year plan (2006-2010) included a number of health care reform provisions. One provision included extending subsidized healthcare to every Chinese citizen by 2020.¹⁰⁴⁹ On January 21, 2009, China’s State Council signed off on this plan which was further expanded in the new 12th Five year plan (2011-2015). In the three years since these provisions were enacted, over 1.5 trillion yuan (\$240 billion) has been spent in the medical sector.¹⁰⁵⁰ According to one estimate roughly 95% of the populace now has access to “basic health care.”

As noted in Chapter 6, there are a number of opportunities for both foreign and domestic health care professionals, pharmaceuticals and medical supply companies to find new opportunities in this growing industry. For example, medical equipment companies such as QIAGEN, which makes medical diagnostic equipment (e.g., blood tests), have found a new revenue source from the 33,000 hospitals and clinics that have been financed as part of this new government plan. In fact according to one estimate in 2010, the medical device market on the mainland alone is worth roughly \$11 billion, “with a compound annual growth rate of 30.6 percent in revenue.”¹⁰⁵¹

At the same time, while it is difficult to predict how long the health care sector will continue receiving subsidies from governmental bodies, because of the rapidly aging population and because the elderly typically spend significantly more on health care, even if the level of subsidies remain this aging process will place challenges on the system in the long-run.¹⁰⁵² Challenges that have the potential to be turned into opportunities. For example, the World Health Organization estimates that 28% of people older than 15 are smokers – that there are approximately 330-350 million smokers in China.¹⁰⁵³ 40% of the world’s smokers reside in China and roughly 60% of all adult men smoke (compared with 4.2% of women).¹⁰⁵⁵ Yet despite various health campaigns and public service announcements highlighting the dangers of smoking and second-hand smoking, there are a number of incentives that prevent this activity from being purged. For instance, at \$18.7 billion in 2010, China National Tobacco (a SOE) generated more profit than either HSBC or Walmart.¹⁰⁵⁶ For perspective, in terms of worldwide sales, China National Tobacco has a commanding 40.6% on cigarette sales globally (Philip Morris has 14.9%).¹⁰⁵⁷ Furthermore, the tax revenue generated by tobacco sales was more than \$95 billion in 2011 and \$137 billion in 2012.¹⁰⁵⁸ Cigarette sales in China are expected to grow 13.5% a year and reach 2 trillion RMB (\$321 billion) by 2016.¹⁰⁵⁹ Yet arguably these direct incentives (tax revenues) probably do not offset the medical expenses and costs that government bodies will eventually pay for in medical care for smokers as they age.

Case in point, each year on the mainland there are around 1.2 million smoking-related deaths (such as chronic obstructive pulmonary disease (COPD)), a number that is expected to increase to 3 million by 2030.¹⁰⁶⁰ What are the financial costs?

While smoking-related deaths and illnesses may not have the same direct economic

consequences as HIV/AIDS has had on south African countries like Botswana — the economic impacts are both pronounced. HIV/AIDS struck significant portions of Botswana's able-bodied working-aged populations, stunting the country's economic performance.¹⁰⁶¹ Likewise, while the effects of smoking are more pronounced and detrimental in later stages of life, the total health care costs borne by friends and relatives (and insurance) will create an economic headwind considering that the funeral bills, hospital visits, treatments and medicine for 3 million individuals must be borne by someone.

For perspective, the roughly 42,000 people that die in the US each year due to second-hand smoke represent \$6.6 billion in lost productivity.¹⁰⁶² And according to a recent study in the US, on top of Medicare subsidies, more than three quarters of households spent at least \$10,000 in out-of-pocket expenses in the last five years of life.¹⁰⁶³ While both the level and costs of care in China are still significantly lower than those in the US, there are 202 million Chinese aged over 60 a number that will double by 2030.¹⁰⁶⁴ Thus the increased costs borne by one or more parties will be increasingly substantial in the decades to come. In fact, by 2015 it is estimated that in China "a decade of costs tied to health care and losses of productivity from diseases such as diabetes and heart disease are expected to reach as high as \$550 billion."¹⁰⁶⁵ Or conversely, according to the World Bank by reducing deaths in China from heart disease and stroke (which smoking contributes to) by 1% a year this could, "generate economic value equal to 68 percent of China's 2010 real gross domestic product, or \$10.7 trillion."¹⁰⁶⁶

Compounding this issue is the one-child policy along with the Confucian ideal of 'filial piety' (e.g., children care for their parents as they grow older).¹⁰⁶⁷ For example, one source I spoke to explained that because many parents are dependent on their children to support them when they retire, that the death of their only child can be devastating both emotionally and financially. In fact, according to this source, in the event that an only child dies, those living in rural regions typically do not have access to any other social safety nets; that the only stipend they may receive from 3rd parties is a 50 RMB (\$8) a month from the local government. The Ministry of Health (now the National Health and Family Planning Commission) estimates that "at least 1 million families had lost their only children by 2010" and many of those parents are too old to have another.¹⁰⁶⁸ Ren Yuan, a professor at Fudan University, has a higher estimate of 10 million families who have suffered this loss, including 300,000 in Shanghai.¹⁰⁶⁹ This then presents an opportunity for both domestic and foreign NGOs, to provide assistance to these at-risk demographic segments (see below for examples).

And again, this presents opportunities to both foreign and domestic health care providers and medical device manufacturers to help provide care for COPD and emphysema as well as Alzheimer's (as mentioned in Chapter 6, China has the largest population of Alzheimer's sufferers).¹⁰⁷⁰ How else do these policies also impact foreigners?

Retiring on the mainland

Under a series of new laws and regulations passed in the last year, foreigners who have spent at least 15 years collectively (not necessarily sequentially) are allowed to retire on the mainland.¹⁰⁷¹

At the same time, the new laws which went into effect October 15, 2011 also requires employers to levy similar social security taxes on foreign workers, even if those workers have no plans to retire on the mainland (similar to FICA taxes in the US which are levied irrespective of nationality).¹⁰⁷² Yet there are additional reforms on the drawing table. For example, under new regulations announced on December 11, 2012 foreigners “who obtain permanent residency will have the same pension, employment and property rights as Chinese citizens.”¹⁰⁷³ This also includes social insurance benefits (e.g., medical, unemployment) and simplifies investment and registration procedures for starting up a new business.

According to the Social Security Administration, about 350,000 American retirees who receive Social Security benefits do so “in countries other than the U.S.”¹⁰⁷⁴ While the majority of those retirees live in Europe, Canada and Mexico I have met several dozen retirees working at various institutions in China in various capacities (e.g., teachers, health care consultants, accountants). While there is an official age cut-off limit of 70 years enforced at many of these institutions, there are still a number of part-time and NGO opportunities that are open irrespective of your age.

Because the costs of living are typically substantially less in provinces further inland (relative to their home countries), one possibility for retired Westerners – irrespective of whether or not they have worked in China previously – is to work as foreign experts at education and cultural institutions. For example, Irvin Abercrombie of California (see below) previously worked as a process design and industrial distribution engineer at various sites across the US. Since his retirement he has spent the past eight years working at colleges and schools across China. And as I mentioned in Chapter 9, more than 100,000 foreigners are hired each year to work in the EFL industry alone on the mainland.¹⁰⁷⁵

Insurance

Following its admission into the WTO, foreign companies were allowed to set up joint ventures on the mainland. As a consequence, dozens of foreign-funded insurance companies are doing business across the country. The largest foreign insurance firm is AIA, who holds about 1% market share on the mainland. The aggregate of all foreign firms is below 5% in the life insurance market and about 1% in property and casualty.¹⁰⁷⁶ Yet even with that relatively small amount, according to Mark Kellock an analyst at Barclays Capital, “that [1%] sliver still accounts for 8% of all its [AIA] new business.”¹⁰⁷⁷ For comparison, China Life is the largest Chinese insurance company, with about 33% marketshare and generated almost \$60 billion in revenue in 2011.¹⁰⁷⁸

And because of a relatively low penetration rate of around 4% overall, the life insurance sector doubled between 2007 and 2010.¹⁰⁷⁹ Altogether premiums revenue reached around \$220 billion in 2010. For comparison, in 2009, the US insurance industry generated \$934 billion in premiums.¹⁰⁸⁰ The world wide insurance market generated just over \$4 trillion in 2010 with European firms accounting for 35.4% of the total market share.¹⁰⁸¹ And Swiss Re projects that both life and non-life insurance premiums will grow in China about 9% a year until 2020.¹⁰⁸²

Yet this industry is not a get-rich-quick market. According to Moody's, of the then-47 foreign insurance companies in China, only 11 made a profit in 2010.¹⁰⁸³ In fact, in 2011 the annualized return on investment for the insurance industry declined by 3.6%.¹⁰⁸⁴ Similarly in 2012, the 26 joint Sino-foreign insurance ventures as a whole collected a mere 47.5 billion RMB (\$7.61 billion) which is roughly 4.7% of marketshare, down from 8% in 2007.¹⁰⁸⁵ The lower joint-venture numbers are a result of exits and liquidations by partners leaving the market. Unsurprisingly, according to PricewaterhouseCoopers, the top three industry challenges include regulatory uncertainties, market shakeout (along with entry by domestic banks) and "finding and keeping good personnel."¹⁰⁸⁶ These are essentially the same issues that all open industries throughout China face.

What this means is that for foreign firms and individuals with experience in all forms of insurance, actuarial and re-insurance industries have the potential to find new growth opportunities due to the relatively low penetration rate (4% as noted above).

Non-profits and NGOs

On May 12, 2008, approximately 69,000 people were killed during the deadliest earthquake that has hit China in the past 30 years. Subsequently, aid and donations (totaling \$11.2 billion) from around China and the world poured into Sichuan, the epicenter of the disaster zone.¹⁰⁸⁷ Yet after the dust settled, several investigations discovered that various organizations and institutions had siphoned off tens of millions of dollars due to a lack of transparency and accountability.¹⁰⁸⁸ In fact, the Red Cross Society of China (RCSC) itself failed to collect the funds donated to drop boxes placed throughout several hundred locations around China – four years after the quake.¹⁰⁸⁹

One of the reasons has to do with institutional administration. In June 2011, a businessman on the board of the RCSC was discovered to have diverted charity money to his girlfriend, Guo Meimei, who in turn spent the funds on a Maserati, business-class airline seats and handbags from Hermès (she posted pictures of it all on Sina Weibo).¹⁰⁹⁰ This created a scandal that resulted in a shakeup of the organization and created public backlash that has lowered trust in such organizations. In fact, according to *China Daily*, "90 percent of the people surveyed said that they will not donate to RCSC any more."¹⁰⁹¹ And due to the perceived corruption within the sector and long-held cynicism subsequent donations fell that summer by 80% – impacting every charity on the mainland.¹⁰⁹²

According to official statistics there are technically 425,000 "social organizations," however only about 1,000 organizations that are typically considered NGOs (e.g., environmental, women's rights, anti-discrimination).¹⁰⁹³ And while there are the usual series of hurdles and challenges that all participants face, the relatively few NGOs presents an opportunity for both foreign and domestic firms and individuals.

Ecotourism and agritourism

In November 2012 I spoke with Irvin Abercrombie who is originally from California and retired as

an industrial designer eight years ago. He has since spent nearly all of the subsequent time working in various capacities in the education industry on the mainland. In 2007 he co-founded Dragon Lake Keepers with Pat Sullivan (see Chapter 9), an environmental group located in Anhui. According to him, “I initially started this group informally with students at a local college I was teaching at. I was surprised by the relatively large quantities of litter that was piled on the side of roads and wanted to lead by example, so each week I would take a group of volunteers to a nearby lake called *Longhu* (Dragon Lake) and we would literally pick up the trash with our hands. Word quickly spread that a foreigner was voluntarily picking up the rubbish that most people do not think twice about before they drop. Subsequently we were interviewed by a number of media outlets including a Huainan television station (a neighboring city) to find out our motivations. And as a consequence we quickly restructured our group into a formal organization that includes support from the IFED (now PCDN) and even have t-shirts and a theme song.” PCDN is the Peace & Collaborative Development Network an NGO specializing in connecting professionals in areas such as conflict resolution and international development.¹⁰⁹⁴

What Abercrombie is describing is an environmental issue that has been moved to the forefront of policy making discussions. While it is hard to fully quantify the impact of environmental pollution (due to a number of variables), a recent MIT study published earlier in 2012 estimated that the lost labor and increased health care from air pollution “cost the Chinese economy \$112 billion in 2005.”¹⁰⁹⁵¹⁰⁹⁶¹⁰⁹⁷ A World Bank study published in 2007 found that “the health costs of air and water pollution in China amount to about 4.3 percent of its GDP.”¹⁰⁹⁸¹⁰⁹⁹¹¹⁰⁰ The Asian Development Bank says “air pollution could be imposing annual economic costs equivalent to as much as 1.2 per cent of the size of the economy.”¹¹⁰¹ During January 2013, breathing the air in cities such as Beijing was likened to living in a smoking lounge or smoking the equivalent of 21 cigarettes (Guangzhou’s air was equivalent to 25 cigarettes and Shanghai was at 9).¹¹⁰²¹¹⁰³¹¹⁰⁴ As an unintended consequence, one of the business opportunities for domestic and foreign businesses is to sell air purifiers. For example, Philips electronics recently posted sales growth of 300% over the past several months and “their two most popular models have been out of stock for most of January.”¹¹⁰⁵ Yuan Da, a Chinese firm that makes air purifiers sold 3.5 million units online in January 2013 compared with 1 million in October 2012.¹¹⁰⁶ In addition to selling face masks, air purifiers and even cans of bottled air, another opportunity is building “pollution domes” above recreational facilities to wall off airborne dust such as those above international schools in Beijing.¹¹⁰⁷ Or to take a page from Chapter 13, air quality monitoring apps for smartphones have become quite popular, with one developer – Wang Jung – seeing 58,000 downloads of his app in one day (up from a mere 1,000 it typically gets).¹¹⁰⁸

In the run up to the 2008 Beijing Olympic games, between \$17 billion and \$32 billion was spent creating a “greener” environment surrounding the city (e.g., closing down factories, creating parks).¹¹⁰⁹ This is an ongoing process as between 2011 and 2015 various institutions and governmental departments plan to spend \$56 billion to cut the level of harmful particles in the air (e.g., PM 2.5 particles).¹¹¹⁰ This past year these particles were estimated to cause the deaths of approximately 8,500 residents “in Shanghai, Guangzhou, Xi'an and Beijing [which] has led to a total economic loss of 6.8 billion yuan (\$1.09 billion).”¹¹¹¹ It is not just air either as an estimated “57% of China’s urban underground water is polluted” and roughly half of the cities are left with

drinking water that fails to meet acceptable hygienic standards.¹¹¹² According to the Ministry of Land and Resources, “heavy metal pollution results in the loss of 10 million metric tons of grain and the contamination of another 12 million metric tons annually, incurring 20 billion yuan [\$3.2 billion] in direct economic losses each year.”¹¹¹³ And while there are a number of reasons why this pollution takes place including a tragedy of the commons and lack of clear property rights enforcement, organizations like Dragon Lake Keepers can provide a service that is currently in short supply.

In fact, Abercrombie’s long-term goal with the organization includes not just cleaning and educational workshops but also ecotourism and agritourism. For example, “I helped put together a business plan that would allow English-speaking students to act as tour guides for foreign tourists who are interested in the surrounding historical sites and agricultural produce. The city of Bozhou is nearby and it is the home to TCM [Traditional Chinese Medicine]; Zhu Yuanzhang (the ‘poor emperor’) was born in a neighboring county; there is a local vineyard that produces some of the most popular wines sold on the mainland; and there are even fresh water pearls cultivated in Dragon Lake itself.” Yet one of the challenges that Abercrombie and others face elsewhere is receiving proper government support and certification. According to him, “unfortunately the agritourism and ecotourism plans did not pan out in part because we did not have the clout and *guanxi* needed with local authorities and because we had intended to pay the students. And once money is involved, taxes and regulations come into play. And since we are foreigners trying to help spearhead this endeavor, it has unfortunately been tabled for the past year.”¹¹¹⁴ Thus his advice to foreigners and foreign NGOs is to make sure volunteer organizations remain completely Chinese led, treat it as a school or community project and do not involve profits or financial gains until later phases.

In terms of overcoming challenges, according to one NGO source I spoke with, “there are a few notable organizations that have obtained NGO status in China including Operation Smile, Roots n Shoots, World Wildlife Fund, Habitat for Humanity and Ciwei in Shenzhen. There are several reasons why they have succeeded where others have not. For instance, with the help of Jackie Chan’s celebrity status, Operation Smile was eventually granted permission to become an NGO. Another reason is that there are issues that seem to be less sensitive - like the environment and animal protection (MarineDream, SeaTurtles911, EcoDesign Fair) - that have a little more wiggle room in terms of operating in the NGO segment on the mainland. In addition, the role of the private sector in funding NGOs is relatively foreign. Charity contributions and CSR (Corporate Social Responsibility) are still new ideas to companies in China so this may take some time to become accepted. Another area is grassroots campaigns. Over the past five years an increasing amount of Chinese students and younger people have begun looking for ways to do charity work. BEAN and Greennovate are two examples of NGOs that have managed to reach into the Chinese community through Weibo and other social media.” Ciwei Philanthropy Institute operates a school for 132 students whose parents are migrant workers and have been unable to receive a *hukou* (household registration) in Shenzhen.¹¹¹⁵ Only holders of certain *hukou* can have access to public institutions like schools.

And one other area for opportunities that Abercrombie discussed involves a nascent segment

called agritourism in which tourists pay visits to farms and ranches – to experience a rural lifestyle. While this is relatively non-existent on the mainland, for comparison, according to Rural Bounty, an agricultural membership organization, there are 65,000 farms and ranches that are open to the public in North America.¹¹¹⁶ A 2007 US Department of Agriculture estimated that 23,000 farms offered agritourism activities, “bringing in an average of \$24,300 each in additional income.”¹¹¹⁷¹¹¹⁸ According to the same study, California which is the largest farm state in the US had, “nearly 700 farms averaging more than \$50,000 in agritourism income.” In fact, according to a survey from the University of California, “California farmers and ranchers hosted more than 2.4 million agricultural tourists in 2008.”¹¹¹⁹ And one farm in Florida charges \$1,500 a night for groups to participate in culinary retreats that include, “handcrafted beds topped with bamboo sheets, a five-course organic dinner and breakfast and lessons on how to prepare meals using farm-raised, hormone-free livestock, eggs and produce.”¹¹²⁰

Or in other words, Chinese farms and ranches such as those in Anhui are leaving a lot of money on the table by not utilizing this new type of tourism.

There are also nearly 900 US farms and ranches that participate in the germinating ‘farm stay’ subindustry – which are distinguishable from traditional bed & breakfasts as they include activities like farm-based cooking classes. These classes “can cost \$25 to \$2,000 per person, depending on the location and chef—usually start in a field, barn or greenhouse. Students harvest vegetables, milk cows and goats, and gather eggs.”¹¹²¹ Thus entrepreneurs and businesspeople with experience in ecotourism and agritourism (e.g., guides to Nappa Valley wineries) may eventually find new opportunities on the mainland including rural Anhui.

Other areas of the mainland have accepted and adapted to this new industry. According to *China Daily*, “[h]ouses have been built for tourists to rent in attractive locations in the countryside in Zhejiang province, more than 90 percent of which have received investment from private capital. They make up to a 20 percent annual return.”¹¹²² Thus perhaps it may be only a matter of time until inland holdouts allow these tourism industries to grow as well. Simultaneously firms that specialize in air purification and air treatment goods and services will find new opportunities as the goal of cleaner air is being pushed at all levels of Chinese society.¹¹²³

Takeaway: The financial costs – and the burdens – for entitlement programs in the West offer an increasingly important illustration of the entitlements being offered in China as well. Over the past several years Chinese policy makers have enacted a number of reforms that have increased spending on health care access and public pensions. While both domestic and foreign firms can find new opportunities in this market, the sustainability and solvency of such government programs remains unclear. At the same time, because of new laws passed over the past year, foreign experts looking to retire overseas now have fewer legal hurdles on the mainland than before.

Chapter 19 – Health care

Another concern that foreign medical professionals probably do not have to worry about currently is trust; or rather they may be able to find an opportunity to rebuild the trust in the medical profession. The reason this is important is that according to the former Ministry of Health, in 2010 there were “more than 17,000 “incidents” aimed at hospitals and their staff.”¹¹²⁴ These sometimes violent encounters have markedly increased, up from 10,000 such “incidents” five years ago.

For example, in March 2012 a young intern at a hospital in Harbin was stabbed to death by a patient, a patient who also stabbed three other doctors during the same encounter.¹¹²⁵ In September 2012 at a hospital in Shenzhen a doctor and nurse were both stabbed by a patient who also stabbed two others.¹¹²⁶ In November 2012 two such incidents occurred. The first, in Hefei, Anhui, a man with a knife entered the 2nd Affiliated Hospital at a medical university and stabbed five medical workers, killing the head nurse.¹¹²⁷ According to a preliminary investigation he had received medical treatment from the same hospital. And in Tianjin, near Beijing, a doctor was axed to death by a psychiatric patient.¹¹²⁸ In fact, in 2011 up to “10 medical staff were murdered by patients.”¹¹²⁹

Why is this occurring? A significant portion of the frustration involves what *The Lancet* (a British medical journal) has called “BribeGate” – medical staff have been found to have received bribes and kickbacks for prescribing drugs to patients, even if the patients did not need the prescription (more on that below).¹¹³⁰ For example, a recent survey found that “54% Chinese doctors acknowledge they have taken drug kickbacks from medicine dealers or manufacturers.”¹¹³¹

While they are not required to take the Hippocratic Oath, Chinese doctors have similar ethical standards that essentially promote the same ideals.¹¹³² Yet there are at least two problems that have created an atmosphere of mistrust: relatively low salaries (set by local governments) and peer-pressure. According to an anonymous doctor at a hospital in Anhui, “I think the low salaries of doctors in China, which I can say don't match the effort they make, are the major cause of this phenomenon; the kickback a doctor accepts is usually greater than his salary. What's more, it's difficult for a doctor to refuse the kickback when all the other doctors accept it. It will alienate him or her from the others.”¹¹³³

This dissonance between having “low salaries” and “work performed” is not just an isolated observation. In August 2012, the Chinese Medical Doctors Association released a report that found 91.9% of the 3,704 doctors surveyed “said the job involves many sacrifices for low financial return.”¹¹³⁴ In fact, according to a recent survey of 363 doctors, 61% reported they were unhappy with their profession due to a number of factors including compensation.¹¹³⁵

What are the typical salaries like? Depending on the city and size of the hospital doctors can earn as little as 5,000 yuan (\$800) a month. At larger hospitals in Tier 1 and Tier 2 cities this amount can be 10,000 yuan or more, yet still only a fraction compared to their Western counterparts. For comparison, according to a 2011 report from the Bureau of Labor Statistics,

the mean annual wage for physicians was \$184,650 in the US.¹¹³⁶ Simultaneously, doctors and nurses in China typically must see 60 to 100 patients during their 10-14 hour shifts. As a consequence the average face time doctors have with patients can be as little as 5 minutes. In contrast, the typical face time with a doctor in the US is 13-18 minutes.¹¹³⁷ And as both the survey and Anhui doctor noted above, practitioners think that salaries do not correlate with the effort and performance.

This has led to another problem involving retention and future matriculation. According to the Chinese Medical Doctor Association, “the proportion of doctors who hoped that their own children would enter the medical profession has decreased, from 11% in 2002 to 7% in 2011.”¹¹³⁸ And based on an August 2012 report from *Health Times* in China, 96% of doctors said they were unsatisfied with their jobs and that “70 percent said they would not allow their children to enter the medical profession.”¹¹³⁹

On the ground cases

I spoke with four Chinese doctors about this issue. Maggie Li is an anesthesiologist who works for a large pharmaceutical company in Shanghai. In her view, “the recent attack on medical staff in Anhui is a snapshot of the problems in the national health care system. I empathize with these five medical professionals. For them, I can see little hope in their seemingly futile effort to continue to be a doctor in China. Based on my observations, doctors are not fully utilized in China because most doctors currently only treat physical, superficial diseases but cannot treat sick hearts – their psychological feelings. However, we as medical professionals still need to have the courage to face this harsh reality and continue on because we are the foundation and real hope of the large majority of Chinese who have few options currently available to them.”

Psychological and mental health issues are an important predicament on the mainland in part because they are still a largely taboo topic.¹¹⁴⁰ This despite the fact that *The Lancet* estimates that up to 17.5% of the adult population in China has some kind of mental ailment.¹¹⁴¹ In fact, because of cultural issues that have largely overlooked or even frowned upon this increasingly important sub industry, there are relatively few active professionals on the mainland. In 2007 there were only 17,000 certified psychiatrists, “one-tenth the number in developed countries, in proportion to the population.”¹¹⁴² According to Tian Chenghua, a professor at Peking University, for every 100,000 people in China there are only “about 1.26 qualified psychiatrists, far lower than the global average of four.”¹¹⁴³ Yet according to a recent *Caixin* report, the second-most commonly diagnosed disease on the mainland is depression, affecting 260 million Chinese people.¹¹⁴⁴ Specifically, more than 287,000 people commit suicide each year in China, some of which stems from a shortage of mental health professionals.¹¹⁴⁵¹¹⁴⁶ In contrast to Western countries, more women commit suicide than men in China (by a factor of three to one) and it is also the leading cause of deaths by young women.¹¹⁴⁷ In fact in 2009 each day an estimated 500 women committed suicide (the most recent year for detailed records).¹¹⁴⁸

And while the suicide rate has itself purportedly halved over the past two decades (from 30 in 100,000 to 15), suicides in China still account for “more than 30 percent of the world's total

suicide cases.”¹¹⁴⁹ While this rate is expected to drop due to suicide prevention awareness, the same *Caixin* report noted that “[m]ore than 88% of patients with mental disorders had never received professional help between 2001 and 2005.” And that, “only 45% of the nation’s depression victims who saw mental health professionals had been treated in the previous six months.” In contrast, the 2009 estimate for the suicide rate in the US was 12.4 in 100,000 (the highest in 15 years).¹¹⁵⁰ Furthermore, a 2007 study found that annual productivity losses due to lost work days from depression amounted to “51.37 billion yuan [\$6.39 billion], including 5.62 billion yuan in medical costs.”¹¹⁵¹ This then presents an opportunity for psychological and psychiatric professionals and NGOs such as the China-American Psychoanalytic Alliance from other countries to help a significant segment to heal what Li referred to as “sick hearts.”¹¹⁵²

In November 2012 I spoke with Jenny Xu, a doctor at a public hospital in Zhongshan, Guangdong. According to Xu, “I think most medical staff, regardless of where they may work on the mainland feel very overwhelmed. We are required to work relatively long shifts in an increasingly stressful and even dangerous environment. I personally have begun the immigration process to move to Canada where I plan to work as a nutritionist. In the free time that I have, I am preparing for TOEFL and learning about North American culture because I do not feel the compensation and lifestyle as a medical professional in China is worth the amount of effort and work that most medical professionals are currently required to do. The incentive structure is warped and some doctors that have received bribes in the past have created permanent problems for the medical community because many patients now do not listen to us. And as a consequence some patients even take their frustrations out on everyone.”

Xu may one day become part of the ‘brain drain’ (the emigration of skilled professionals) I briefly mentioned in Chapter 10. In 2007, China became the leading contributor of emigrants globally. Nearly 100,000 mainlanders received immigration or permanent status to the US, Canada and Australia in 2009. Two year later, 87,000 Chinese immigrated to the US itself; the US now attracts more than half of all Chinese immigrants a year.¹¹⁵³ Of the 1.21 million Chinese students and researchers (*liúxuéshēng*) who studied overseas between 1978 and 2007, only about 25% returned to the mainland after graduation.¹¹⁵⁴¹¹⁵⁵ In fact, 508,000 Chinese (typically wealthy and educated) emigrated abroad to OECD (developed) countries in 2010 alone, a 45% increase over 2000.¹¹⁵⁶ And according to a 2011 report, “27% of Chinese entrepreneurs worth more than 100 million RMB (\$15.9 million) have already emigrated, while another 47% say they are considering doing so.”¹¹⁵⁷ More pointedly, two-thirds of all investment visas (EB-5) issued by the US in 2011 were to Chinese nationals and of the 7,641 investor visas granted in 2012, 80% were taken up by Chinese.¹¹⁵⁸¹¹⁵⁹¹¹⁶⁰ For comparison, since it implemented a new immigration program in 2004, there have been a total of 5,000 foreigners that have received a green card in China.¹¹⁶¹

This brain drain is not just endemic to China, as other developing countries such as India also have had comparable numbers emigrate abroad.¹¹⁶² In fact, it is estimated that Indian doctors now account for 5% of the medical workforce in developed countries.¹¹⁶³ And an estimated 60,000 Indian physicians work in the US, the UK, Canada and Australia. In the case of China, policy makers are beginning to try and stem the exodus with bonuses of up to 100,000 RMB

(\$15,896) to Chinese physicians who take part in visiting physician programs which will train and educate healthcare workers in rural areas that are lacking in medical professionals (e.g. to prevent the ‘overwhelmed’ feeling of Xu and her peers).¹¹⁶⁴ In the meantime, perhaps you and your firm could provide immigration services to those looking to move abroad.

Compensation related to productivity is another issue that came up in a conversation I had in November 2012 with Lin Zhang. Zhang is an iconographer (doctor who studies X-rays and CT scans) at a hospital in Shanghai. She noted that “government bodies have instituted a new policy, a two-tier wage system of ‘ordinary’ and ‘famous’ specialists, yet the gap between these doctors is arbitrarily set. Perhaps in future reforms, doctors can be paid according to other performance reviews and thus there may be a near-infinite amount of price points that they can be paid at, just like in the US. And unfortunately ‘ordinary’ doctors currently do not have many opportunities to promote themselves in the work environment. Thus, while the ‘ordinary’ doctors do most of the daily work, their compensation is relatively poor compared with the large quota requirements. And because of the way this system is set up, they are often victims of violent incidents in hospitals. In fact, one of the reasons why some patients have turned violent over the past few years is because of the little face time that these ‘ordinary’ doctors are allocated per patient. Coupled with the low salary this has created a profession that is internally frustrated and externally looked down upon by customers and public opinion.” I discuss the new ‘ordinary’ versus ‘famous’ specialists below.

Reforms and alternatives

Currently the break down for hospital revenue is in three portions: 40% of hospital revenues are typically generated by selling medicine, 40-50% comes from services like diagnostic tests and treatments and the remaining 10% comes from governments. Because of their relatively low salaries (as noted above), in most hospitals, doctors are directly compensated by the “profits of the sales of medicine.”¹¹⁶⁵ This sets in place the cycle noted above where some doctors will overprescribe medications knowing that they can in return, receive additional compensation. To remove this incentive, as part of the reforms that began during the 11th Five year plan by which medicines and prescriptions as a whole will be reduced in price (e.g., ‘mark-ups’ as noted in Chapter 6), governmental bodies have recently introduced a “medical service” fee.

Because medicines will no longer be generating as much revenue, to bridge this revenue gap, this new “medical service” fee enables patients to pay a rate of 42 yuan (\$6.72) to consult with an “ordinary” doctor and 100 yuan (\$16) to consult with a “famous specialist.”¹¹⁶⁶ Thus, creating some incentive for medical practitioners to focus away from overprescribing and towards providing services; as there is now an objective bridge linking performance and productivity to mandatory hours.¹¹⁶⁷ Yet as noted by both Li and Zhang and the numerous surveys above, this is just one small step in the reform process. Similarly, despite a concerted effort to remove pharmaceutical mark-ups (see below) these reforms have met resistance from hospitals. For example, “[a]lthough more than 300 county-level hospitals have implemented the price reform since Chen announced it at the beginning of the year, only a dozen city-level hospitals – including two in Beijing and 10 in Shenzhen – have stopped charging the mark-ups.”¹¹⁶⁸

Another area under reform is the “pay first” method (in contrast to the “pay after” service system in much of the West) which has sometimes left poorer patients in a bind. For example, in August 2011, a doctor in Wuhan, Hubei province removed the stitches on a patient’s fingers immediately after surgery because the patient did not have enough money to pay the medical fees.¹¹⁶⁹ Due to public criticism, a new “pay after” payment system is currently undergoing new trials across 20 provinces that will attempt to alleviate future problems.¹¹⁷⁰

A Byzantine process and long-term opportunities

In December 2012 I took a CRH (mentioned in Chapter 10) and spoke with Yolanda Bo who works for a large pharmaceutical distributor that sells Chinese-made pharmaceuticals (usually reproductions of Western drugs like penicillin) to dealers in Nanjing, Jiangsu province. She has been working in the industry for over five years and according to her, “the way the drug system works is rather complex. On the supply side are factories, several hundred factories spread throughout the country. They will produce a certain drug like an antibiotic and sell it to a company like ours for 15 RMB (\$2.40) – a base price that fluctuates according to the tender price. There are approximately 200 distributors in Nanjing alone and thousands across the country. What we do is sell products to dealers (brokers) for usually around 17.5 RMB (\$2.80) – and as the wholesaler this price point still provides a comfortable profit margin for us. Dealers maintain relationships with four different entities: doctors, delivery companies, hospitals (specifically the purchasing department) and a unique group called a billing company. The dealer will often pay them 8-12% of the price differences as a type of fee and then absorb the remaining profit. Thus the dealer will only buy our product if they can make a profit margin of around three times the cost to them.”

The reason why the dealer markup is relatively high is that in this system he or she needs to build and maintain *guanxi* with each of those four entities who in turn require a certain margin to keep for themselves. According to Bo, “for example, the delivery company which physically delivers the product to the hospital will buy the product for around 54.62 RMB (\$8.75) from the dealer, this is based on an average 6% fee yet sometimes this fee can be up to 8% or more. In turn the delivery company resells the product to hospitals for 58 RMB. Hospitals in turn may add additional mark-ups depending on where they are located though generally they add about 15% more. In poorer, rural regions, the hospitals might negotiate with the dealer and receive higher terms, perhaps 20-60% of the retail price. Simultaneously, the dealer typically hires subcontractors to maintain relationships and connections with the head doctors (deans), administrators (purchase managers) and directors at each hospital. Thus if a finished product sells for 100 RMB (\$16) to the patient, some of the top doctors’ share typically amounts to around 20% (20 RMB). To complicate matters further, because of numerous regulations and certification requirements (like warehouses, storage facilities and transportation that must meet certain standards and provide government authorized invoices) the delivery company itself actually must physically receive the product through another middle-man called the billing company typically located in Anhui due to the laxer regulations and price structure.”

Over the past decade various governmental entities have attempted to reform this business model due to the relatively high costs and low value added in the middle-man process.¹¹⁷¹ Yet while price ceilings are set, factories will simply stop producing the product because they can no longer charge the required amount for this incentivized model to continue.¹¹⁷² As a consequence those medications are no longer produced, thus to prevent this shortage from occurring government regulators have allowed a certain amount of rent-seeking to continue.¹¹⁷³¹¹⁷⁴

While these prices are essentially artificially inflated at each level, because of competitive pressures due to hundreds of factories producing identical pharmaceuticals, the wholesale prices themselves are purportedly “kept in check.” Yet according to Bo, “wholesale prices do fluctuate every 2 years after mandatory governmental checks and reauthorizations which levy or remove fees. We call it ‘inviting tenders’ or a proposal (RFP) and as a consequence new medicines percolate into hospitals while concurrently others will disappear from the market; it all depends on the government’s attempts to control prices.”¹¹⁷⁵

In a nutshell, because of all the agents, middle-men and logistical movements (e.g., Coasian transactions costs¹¹⁷⁶), a drug that costs 15 RMB to manufacture is often sold, according to Bo, to hospitals for 3-10 times the cost to end-users without any value-added in between. As a consequence, Chinese consumers collectively spend more on pharmaceuticals as a percentage of GDP (2.26% in 2007) than compared to most other OECD countries.¹¹⁷⁷ And because patients are increasingly aware of how this pharmaceutical business model operates it has led in part to the intense emotional venting surrounding ‘Bribeagate’ discussed at the beginning of the chapter.

Another solution (and one where new business opportunities may be found) to this issue that one source said is being planned for pilot programs is to allow not just salaries to reflect market conditions, where prices fluctuate based on the supply of medical professionals but also the supply of pharmaceuticals based on the market demand and consumption by end-users (e.g., wholesalers selling directly to medical practitioners). Or in other words, removing the artificial barriers, subsidies, the price ceilings and floors and letting market participants bid on scarce resources directly from the original suppliers (e.g., directly from factories and wholesalers or the skilled labor and per usage of medical equipment). However as Bo and others I have interviewed noted that even though some of these pricing mechanisms have been liberalized and reformed, because various institutional bodies still set compensation rates and effectively create a quota system, they have removed other incentives for doctors to perform based on productivity.¹¹⁷⁸ And in some cases, some hospitals still pay top doctors based on both the new “service fee” as well as a percentage of the pharmaceuticals sold. The analogy Bo used to describe this process in our conversation was, “Rome was not built in one day, so it would be myopic to expect such an entrenched business model to be immediately reformed overnight.” Thus according to her, while these reforms may take years and decades to become fully realized one of the long-term opportunities for both foreign and domestic firms is to continue establishing new factories that produce pharmaceuticals because of the demand by both an aging population and from a growing middle class.

Private and foreign owned facilities

Another opportunity for foreign medical professionals is that because of this general distrust among the populace towards Chinese medical professionals, those with means have begun turning towards private, Western-run hospitals. Beginning in 2000, Chinese policy makers “officially permitted foreign companies to pursue hospital and clinic joint ventures but limited ownership to 70%.”¹¹⁷⁹ In December 2010, as part of the health care reforms, foreign companies were now allowed to own 100% in hospitals.¹¹⁸⁰ Foreign-owned and managed hospitals include United Family Healthcare (UFH which is owned by publicly traded Chindex: CHDX) and Parkway (a Singapore-based company) which have opened several locations throughout Tier 1 and Tier 2 cities.¹¹⁸¹ In fact, while the majority of clients used to be typically foreigners, wealthier Chinese now make up 50% of the patients at UFH locations. As a consequence, after 15 years since they first started, UFH has grown to include 3 hospitals and 11 satellite clinics. While the hospitals provide many common international services, satellite clinics typically handle immigration health checks for residents applying for visas abroad.

In November 2012 I spoke to Alan Kahn, Vice President of Marketing at UFH in Beijing. According to him, “our secret for success is that we are patient centered, we try to provide the best services available to them. As a consequence we invest a lot of capital into unseen quality of life amenities. For example, almost certainly none of our patients will walk out of the hospital with a staph infection because there are strictly followed hygienic and sanitary protocols in place and each patient has their own individual room. New mothers have their own privacy in an OBGYN wing which is guarded by a permanent security detail to prevent child theft, which can occur in certain areas of China. We are also the only JCI quality accredited hospital on the mainland and spend a lot of time bringing international standards, new innovations and ‘best practices’ to our customers. In fact we were the first to provide Western-style in-patient care on the mainland, which has been subsequently emulated by other companies and institutions. We were also the first in a number of other service areas like pregnancy care and post-partum recovery which have also been copied and emulated by others. And since we are not restricted by quotas – and are privately owned – we can continually change our services to meet the needs and demands of the customers. This includes building specialized centers, like our new Rehabilitation Hospital which is one of the first of its kinds on the mainland.”¹¹⁸²

Accidentally transmitting diseases like staph can still conceivably occur in any hospital in any country, yet in part because of inconsistent quality control and sanitation procedures occur more frequently in public facilities. For example, in the fall of 2009 there was an outbreak of multidrug-resistant *Acinetobacter baumannii* (MDR-Ab) at a large public hospital in Beijing. Twelve patients were infected and five died because the bronchoscopes had not been properly sterilized.¹¹⁸³

And while the costs of their services may be more expensive than visiting a public hospital, one of the reasons Chinese customers are increasingly interested in private health care facilities is that, “they do not have to worry about trust or over-medication or trying to provide a *hong bao* (红包, a red envelope or bribe) in hopes of seeing a specific doctor.” Or in other words, UFH and other

private firms primarily focus on providing service in an industry – that because of its system as noted at the beginning of the chapter – has struggled to fully provide.

In my own experiences with public medical treatment on the mainland (I have not utilized UFH facilities), one of the problems is that while the doctors are typically well-trained and competent, because of long queues and short face time, there is still a tendency to overprescribe, for example, antibiotics. In fact in November 2011 I learned firsthand of the consequences of receiving too much antibiotics when it was discovered I had very little bacteria left in my GI tract to digest food (e.g., there are billions of bacteria cells in your stomach which play a key role in digestion, using antibiotics kills the ‘bad’ infections as well as your useful stomach bacteria).¹¹⁸⁴ This is not a startling revelation either, as nearly every month there is a news story about this phenomenon.¹¹⁸⁵ In fact, according to the Ministry of Health (now the National Health and Family Planning Commission), “on average each Chinese person consumes 138 g of antibiotics per year — 10 times the amount consumed per capita in the U.S. Meanwhile, three times as many Chinese people are prescribed penicillin compared with the international standard.”¹¹⁸⁶

Another reason for UFH’s success is that its founder, Roberta Lipson came to China in 1979, thus they are a first mover in an industry that takes years to set-up.¹¹⁸⁷ Throughout the initial opening and reform during the 1980s, many policy makers and potential customers alike were suspicious and uncertain of privately owned health care facilities. Just like Pizza Hut and KFC (see Chapter 16) were seen as curiosities that few could initially afford, private health care was a service that took adjusting to. Yet after a number of VIPs, celebrities and thought leaders had a chance to visit and use private health care services, mainland media outlets took note and public opinion has been increasingly positive towards this seemingly foreign idea.

Another reason is that as Kahn explained, “up until the recent reforms, the public health care system was under immense systemic strains. Because there were few modern healthcare facilities in the countryside and because most of the well-trained doctors worked in cities, rural residents would surge into cities’ overwhelming resources in order to wait in line to see the few doctors who could provide needed surgeries. For example, if you needed life-saving gall bladder surgery there may only be a couple doctors in a big city like Kunming who could provide it. So you and your family would move to the city for weeks and months, waiting in various lines and queues for 24 to 72 hours on end just to see a specialist for a few minutes. As a consequence sometimes desperate families take every action possible, such as trying to present doctors with large gifts *hong bao* (红包) in hopes of receiving admission and service.”

How long are these waiting times? According to the former Ministry of Health “waiting times at public hospitals are 30 times longer than private hospitals.”¹¹⁸⁸ In fact, one public maternity hospital in Beijing alone receives 5,000 patients a day and “there is a line stretching back 200 meters from the window where patients have their blood tested every morning. A one-hour wait to have a blood test is normal.”¹¹⁸⁹¹¹⁹⁰

This is not to say that private hospitals in China do not have their own problems. In fact, in 2012 a TV station utilized an undercover reporter who visited three private hospitals. The

reporter sent green tea in for analysis instead of urine. The private hospitals did not notice it was tea and subsequently offered several expensive treatments including “surgery for calcification.”¹¹⁹¹ This was a repeat of a 2007 scandal in Hangzhou where reporters from a different TV station sent in green tea as well. The subsequent investigation found that five hospitals (one of which was private) prescribed relatively expensive medicines for treatment.¹¹⁹² Another instance of medical negligence was uncovered in Liaoning, a northeastern province in February 2013. A doctor at a privately run clinic infected as many as 95 patients with Hepatitis C which can cause cancer.¹¹⁹³

In November 2012 I also spoke with a Chinese doctor at a private hospital in Pudong. According to her, “foreign health care providers can now move to China to provide their services as there are more and more expatriates in China who usually feel more at ease and secure when they are seen by doctors from similar cultural and linguistic backgrounds. Meanwhile, the administration departments at Chinese joint ventures and private hospitals continue to transform and integrate their hospital services to the level of so-called international standards. Hence, foreign health care providers especially from advanced health systems will find many opportunities for reshaping and improving the management-side of the facilities. In addition, the pay of foreign doctors is usually on-par with many facilities in their home countries and local accommodations and cost-of-living perks are almost always provided by the employer. Needless to say, legal certificates and license are also required before practicing on the mainland. Yet despite all of these inducements and known requirements, one major challenge facing foreign doctors could still be cultural issues in all aspects of working place. For example, at international medical centers, different doctors from different countries and health systems may have different guidelines for both treatments and consultation approaches to patients. Ultimately however, while they will need to take time to iron out the differences and reach a common ground, overall the medical principles, practices and ideas are typically similar at these private facilities. Hence the increased popularity of their services.”

Yet while reforms of the public industry are still being carried out (as noted at the beginning of the chapter), Kahn and others I spoke with are of the opinion that the current reforms are relatively well thought out, that the overprescribing of medication can now be tracked and prevented by software that is being rolled out in pilot hospitals. Similarly, he thinks the new changes in doctor training more in line with Western practices, (with China now piloting a 3 + 2 system for doctors to take 3 years in general practice medical study and 2 years of specialty application before being allowed to fully practice), will help prepare doctors that are better able to handle more maladies while boosting ER capabilities. For example, prior to reforms, doctors were assigned to the ER, not because they had that particular skill – in fact many were specialists in other areas like internal medicine – but based on hospital administrative organizational management (e.g., politics).

And according to Kahn and others, one of the opportunities that health care professional can provide to all demographics in China is internationally recognized ‘best practices’ which mainland institutions are still incorporating and adjusting to. Thus despite all of the issues, hurdles and problems there are still potential opportunities in a growing market. After all, China’s

healthcare industry is projected to reach \$900 billion by 2020, up from \$275 billion in 2010.¹¹⁹⁴ For instance, last year two US firms (Medtronic and Stryker) purchased two Chinese medical companies (China Kanghui Holdings and Trauson Holdings) for nearly \$1.6 billion. Perhaps you and your company can provide consultations, services and training in this growing market or even acquire a local partner.

Medical tourism

Under the current reforms, the Ministry of Health has set a target to double the utilization rate and overall contribution of private facilities in China by 2015. That is to say, the Ministry has set a goal by which private health care facilities will manage 20% of all inpatient and outpatient volume.¹¹⁹⁵ Yet as Maggie Li also informed me, “for most Chinese people, they still trust local Tier 3 hospitals more than these foreign private hospitals currently because as a local residents can still oftentimes use a network [*guanxi*] to see the doctor that the patient would like. For wealthier patients, they are also willing to choose to give birth to children in Hong Kong or in North America because these children would be the citizen of Hong Kong or US at the birth. That is the dream of many families to give their children a foreign passport so that their children can choose freely where to study, live and work when they grow up. Freedom is the best gift that parents can give to their children.”

Tier 3 hospitals are the largest and most sophisticated hospitals on the mainland (e.g., 500+ beds and advanced surgery and treatments). According to one estimate, there are roughly 1200 Tier 3 hospitals now on the mainland.¹¹⁹⁶

There is also a controversial ancillary service within medical tourism called birth tourism or maternity tourism. For instance, more than a third of all births in Hong Kong in 2010 were to mainland mothers (32,653 babies) compared with just 620 in 2001.¹¹⁹⁷ In 2011, this increased again as 44,000 mainland mothers had babies in Hong Kong.¹¹⁹⁸ Yet beginning in 2013, Hong Kong policy makers have set a new, lower quota and will begin to bar mainland mothers from giving birth in the SAR. For example, in October 2012, more than 400 mainland mothers were arrested for traveling to Hong Kong with the purpose of giving birth on the island and thereby gaining residency and access to services (e.g., birth right citizenship).¹¹⁹⁹

In the US, while specific statistics are hard to come by, there are at least several independent maternity clinics that have sprouted up over the past several years to cater to Chinese mothers as part of the market for birth tourism. While this is not illegal, it can be risky as there have been investigations and closures of several facilities. For instance, a maternity clinic in Chino Hills, California was recently closed due zoning violations and another in San Gabriel was closed because “neighbors complained about noise from the babies.”¹²⁰⁰ Yet despite these known risks, many others cater to the increased demand. According to one report from the *Washington Post*, the costs for this alternative route (flight, 3-month maternity stay, meals, delivery) is approximately \$14,750; and the medical staff at some of the facilities speak Chinese.¹²⁰¹ For example, a motel in Arcadia, California runs a makeshift maternity ward catering to Chinese mothers. These women pay a China-based agency \$25,000 “in fees for

travel, medical, visa and other related expenses.”¹²⁰² Another American business owner in New York interviewed by *NBC* runs a similar clinic and charges up to \$30,000 for all expenses.¹²⁰³ The family of 4-month old Ada Lin, now in China, who was born in the now-shuttered clinic of Chino Hills, paid \$27,000 for all the expenses.¹²⁰⁴ And as noted in previous chapters, with a growing middle class, the 110,000 yuan price tag (\$15,000) at many of these facilities is becoming increasingly affordable.¹²⁰⁵¹²⁰⁶

Again, while the legalities are still being sorted out and discussed, perhaps you and your firm can consult with potential clients. After all, all of the Chinese women that do choose this option have received legal travel visas and are not a burden on welfare systems as their expenses are funded privately. For example, according to *NPR*, some of these women and their families will use the occasion to buy luxury, foreign-made products (as noted in Chapter 11). In one such instance, a mainland mother, “went to a conference in Las Vegas and bought eight pairs of designer shoes, for about \$200 each, half the price they cost in China.”¹²⁰⁷ Another example was recently reported by *NBC*, who interviewed a new Chinese mother that had also gone shopping during this gestation period in the US and “bought an iPad, suits and dress clothing, luxury brand perfumes and baby clothes from brands like Polo by Ralph Lauren.”¹²⁰⁸ In fact, according to a 2008 *McKinsey & Company* report, between 60,000 to 85,000 medical tourists travel to the US each year to pay for and receive medical care out of pocket.¹²⁰⁹¹²¹⁰ Perhaps you and your company can provide consultative services with these potential customers.

Takeaway: Because of institutionalized incentives systems involving kickbacks and over-medication, there is a strenuous relationship between doctors and patients. While a number of reforms to alleviate these strains have begun rolling out, other fundamental issues involving the calculation problem may place additional constraints on possible reforms and changes. During this transition time foreign firms specializing in traditional health care may find a new consumer base – one that is increasingly wealthier – that is hesitant to trust domestic practitioners and institutions.

Chapter 20 – VPN and infrastructure services

Any company wanting to conduct international business on the mainland, irrespective of whether it is local or foreign, must invariably factor in the additional costs of communicating electronically beyond the mainland. Beginning in 1996 and launching in 1999, the Ministry of Public Security and other governmental organizations began implementing and enforcing a series of regulations involving data filtering that ultimately matured into what is commonly referred to as the “Great Firewall” (GFW).¹²¹¹¹²¹² Collectively, the types of filtering techniques employed by the Ministry through Tier 1 ISPs (all SOEs as noted in Chapter 15) include: IP blocking, DNS filtering, URL filtering, packet filtering and connection resets. Simultaneously, the Ministry maintains a continuously updated “black list” of websites that mainland users are unable to access through this dynamic filtering and blocking mechanism.

This presents an opportunity to virtual private network (VPN) providers overseas. A VPN is a type of technology that effectively creates a secure tunnel from one computer to another, isolating its data stream from the surrounding traffic. This can be done by means of encryption and as a consequence many banks, financial institutions and national security centers – irrespective of the region or hemisphere – typically use some form of VPN to securely communicate with outside parties (e.g., for wiring money, discussing trade secrets, or diplomacy).¹²¹³

There is no shortage of VPN providers in Western countries and there are in fact, Chinese-based VPN providers as well – the efficacy and reliability of which is debatable.¹²¹⁴ In my own anecdotal experience, even with a paid service based in a foreign country, data can still be throttled and your connection reset.¹²¹⁵ One reason is that the GFW is not a passive system – it is continually tweaked and changed. In an interview in 2011, Fang Binxing, the Father of the Great Firewall explained that he himself has “six VPNs on my home computer.”¹²¹⁶ He uses them to “test which side wins: the GFW or the VPN.” And in his opinion, “[s]o far, the GFW is lagging behind and still needs improvement.”¹²¹⁷

One world, two internets

As I mentioned in Chapter 12, while there are any number of domestically made and managed counterparts and clones of foreign social media services (e.g., Sina Weibo is the equivalent to Twitter), there is still niche demand for foreign-based web services. For example, as I mentioned in Chapter 9, there are now about a million Chinese students studying overseas each year; more than 190,000 Chinese students studied in the US this past year alone.¹²¹⁸ In addition, 1.36 million Chinese tourists visited the US in 2011.¹²¹⁹ What this means is that as I mentioned in Chapter 3, Chinese consumers are increasingly exposed to Western and in particular, American tastes and services.

Yet to temper the optimism that a VPN provider could immediately sell several million service packages to individual mainlanders, consider this rough facsimile: while we may never know the real number, Facebook’s own indirect estimate of mainland usage of its social network is close to

600,000.¹²²⁰ While there are a number of other niche services in demand, especially from financial service firms, this 600,000 number can be used as a proxy to estimate the general demand for VPNs.

It should also be noted that not all foreigners use Facebook in China nor do all foreigners want to pay for a VPN to access it. Furthermore, based on my own anecdotal experience at various institutions, the average Chinese user does not currently have access to a VPN or other *fan qiang* (“Wall Climbing”) software such as UltraSurf or Hotspot. In their mind, why should they have to pay to access foreign services when there is a similar Chinese version available for free? This is not to say that they could not gain access to the services if they were motivated and inclined to do so. In my own anecdotal experience virtually none of the several thousand students I have had at various cities on the mainland over the past four years have had active Facebook accounts. A few however have had VPN accounts so they could play online games like World of Warcraft on servers outside the mainland (e.g., “gold farmers,” see Chapter 14).¹²²¹

Assuming the number is around 600,000, how much can a foreign-based service provider expect to generate? Currently, the average monthly rates at PandaPow, Astril and most others are roughly \$10 a month.¹²²² And because a large portion of a VPN package is based on software that is open-source and free, the initial setup costs are minimal.¹²²³ Yet bandwidth charges, hardware purchases, customer support labor and utilities charges all vary and will depend on how large you plan to scale your company to. Thus before investing in this segment, do your due diligence.

Entrepreneurs should also consider this: Bill Bishop has cogently noted numerous times over the past several years that while mainland users are effectively prevented from using some foreign web services, the mainland equivalents are not only more easily accessible and relatively comparable (e.g. same features), but the interconnectivity issues (e.g., latency, bandwidth) with them are relatively muted.¹²²⁴ In other words, assuming you have access to a VPN, it is still more convenient for mainland based users to stream videos on Youku than it would be to stream from Youtube because of the increased bandwidth throughput and reduced lag due to closer proximities to the content delivery networks (CDNs) for Youku-like providers such as ChinaCache.¹²²⁵ David Wolf, a partner at Allison+Partners (a consulting firm) echoed similar reasoning recently in an interview with The Wall Street Journal, noting that “What they [national government] prefer is that Chinese users decide it is just too much trouble and by default use onshore sites, or sites that are mirrored onshore.”¹²²⁶ As a consequence, because of the sheer size of the Chinese-based internet (see Chapter 12 and Chapter 13), there is now “one world, two internets.”¹²²⁷

Climbing the wall

I spoke with security expert David Veksler (see also Chapter 13), CEO of CryptAByte, who has given security workshops and seminars about these issues.¹²²⁸ In his view, “the GFW presents a fundamental problem for domestic researchers. Because significantly large portions of foreign-based information are blocked and denied, only researchers with VPNs are able to keep

up-to-date with their foreign counterparts. Those without VPNs are left trying to use Google which is frequently blocked and misdirected or Baidu, which outputs few useful or useable results. Thus they become discouraged, often times quitting and are ultimately unable to do the necessary research – idea investigations – for innovation.”

How does this create opportunities? According to Veksler, this ties into another Catch-22 that domestic firms find themselves in, this endless cycle of benchmarking and cloning. That irrespective as to whether or not they want to innovate, they are in a prisoner’s dilemma, “every competitor on the mainland expects to have the lowest costs. Yet if they increase their research and development – creating higher quality products – consumers do not believe them, because consumers also expect that domestic companies are cutting corners, so why pay extra for a product that is probably just the same as the rest?”

He also likens this dilemma to a game theory scenario: the first domestic company to make that leap into quality is punished because consumers simply do not trust the product quality due to a history of scandals. Thus any firm that does it is unable to recoup the capital costs of the research and development. In contrast, foreign companies have spent decades building up their brands and reputations based on quality control programs (e.g., Six Sigma) and as a consequence are readily more trusted on the mainland. Yet he remains optimistic, “the first domestic company to make a concerted, long-term leap into quality will not only be monetarily successful, but will help end this never ending cycle of benchmarking and cloning.”

Thus Veksler thinks that foreign brand managers, experts like Matt Garner, will be able to find opportunities to work within the entire spectrum of industries as their participants build national and internationalization expansion plans.

Chicken and egg problem

It is hard to measure the impact that an apparatus like the GFW has on productivity and creativity which business start-ups should take into consideration. Consider Silicon Valley and Moore’s Law. Much like other projects and *mian zi gong cheng*, there have been several public initiatives to replicate Silicon Valley in China, such as Zhongguancun in Beijing. And yet for every successful start-up like iQiyi or venture capitalist like Kai-Fu Lee (see Chapter 12), large quantities of resources have been misallocated towards supercomputers that when installed – while capturing headlines for theoretical peak performances – are unable to be fully utilized because there are not enough trained software engineers to develop the sophisticated machines.¹²²⁹ Similarly despite 2 billion RMB (\$320 million) in investment since 2010, Jike, a new search engine developed by People’s Daily (an SOE) has managed to capture a mere 0.0001% marketshare forcing the organization to lay off 20% of its staff.¹²³⁰

Empirically speaking, if central planners were to be the creators of Silicon Valley, they would have created Silicon Valley. If central planners were to be the creators of Moore’s Law, they would have created Moore’s Law.¹²³¹¹²³² For example, the Soviets spent decades and relatively large budgets to overtake the West in computing innovations, yet failed at every turn. In fact, it was

not just one or two half-hearted attempts, it was a concerted effort directed from the top. Mikhail Gorbachev himself made advancements in microprocessor technology a cornerstone part of *Perestroika* in 1985 (encompassing the 14th Five Year Plan).

Just how much effort was put into their centrally planned machine industry? Consider what the USSR tech industry was like circa 1988:

Machine building is the sector of industry on which Gorbachev is relying to ensure the success of his [Perestroika] strategy. The hub of Soviet [computing] industry, this complex employs over 16 million workers at more than 9,000 research institutes, design bureaus, and production and enterprises, and is responsible for designing, developing, and producing over one-fourth of the country's industrial output. Of the 17 industrial ministries that make up the machine-building complex (detailed in foldout at back of paper), nine — collectively referred to as the defense industry — specialize in military hardware. The other eight produce primarily consumer goods and equipment for investment in the civil sector.¹²³³

Gorbachev recognized that “a high-investment, high-growth strategy must, at a minimum, continue through at least the first few years of the period to renew the sector's capital stock.” Yet ultimately, the Soviets tried, consumed their capital base, and failed.¹²³⁴¹²³⁵ Instead, hundreds of private companies, entrepreneurs, venture capitalists, designers, and one relatively free market created a semiconductor industry that accounts for the number one export of the United States.¹²³⁶ Furthermore, this is not to say that technological activity will not take place in China, nor that Chinese institutions and researchers will not produce usable technology. The question is rather, can it be cutting edge and innovative? And if your firm hopes to tap into the innovation potential of the mainland, how does this impact your firms' investment?

Many of these artificial technology and science research parks conflate cause and effect. For example, during World War II, the Allies used Pacific islands as forward operating bases to protect their overseas supply routes. On many of the islands the Allied forces built airstrips, including one on Vanuatu. Following post-war demilitarization, most of these islands were vacated as the warring militaries returned home. On Vanuatu, many of the islanders wanted the supply ships to return and provide modern goods to their pre-industrial society. As a consequence, the islanders staged “drills” and “marches” with mock soldiers while others attempted to man the airstrips — all under the belief that it is these superficial motions and actions that originally brought the Western supplies. Richard Feynman dubbed this “cargo cultism” (e.g., a cult that dreamt of Western cargo).¹²³⁷

In November 2012 I spoke with Mark Thornton, an economist at the Ludwig von Mises Institute and an expert in the boom-bust investment cycle.¹²³⁸ According to him, “Research parks are all about inventing technology for commercial and other purposes. Generally we are speaking of higher order goods, the types of goods associated with the boom phase of the business cycle. Therefore we would expect that research park projects tend to be established during booms when profits are high, the cost of capital is low, and where retained earnings are more than

sufficient to support additional projects. If research parks are established at or near the peak in the business cycle then it would be wise to avoid contracting with research parks that have few tenants. Traditionally one of the main benefits of research parks is synergy. If your research park has no tenants then you do not have the type of synergies that successful research parks generate. New companies, new technologies and products, as well as successful research parks (e.g. Stanford Research Park and Research Triangle Park) tend to get their starts during bad economic times. During recessions land, labor, capital are cheaper and budding entrepreneurs are more abundant.” In economic terms, higher order goods are goods used to produce consumer goods (e.g., those which require a long-term investment such as building a factory which in turn creates consumer goods).¹²³⁹

Similarly, many of these research parks and endeavors – not just in China – arguably exhibit patterns of modern-day cargo cultism. Thornton noted that, “The next Silicon Valley will not look like Silicon Valley. It will have some new features and not have all the same features as Silicon Valley. You cannot just build “it” and expect them to come. Silicon Valley is more than just Stanford Research Park and Stanford University. There are tangible and intangible factors that matter. They include things like the weather, demographics, culture, and relatively limited regulatory impact from the government. Even some factors we just do not know. Government can subsidize research parks but it takes a free market and entrepreneurs to actually weave the fibers of something extremely complex like Silicon Valley.”

In fact, in the US, nearly every state has erected several tech parks with the hopes of “creating” another Silicon Valley; there are dozens of research and technology centers across the country. This raises the question: if you build it, will they (the creative classes) come?

In February 2013 I spoke with Becky Wu a native of Jiangsu province and a project manager at Xi-Tong Scientific & Technology Industrial Park located in Nantong, Jiangsu province.¹²⁴⁰ The primary task of her job is attracting and relocating foreign firms so that they will build and setup operations in the industrial park. According to her, “we provide incentives and subsidies to attract firms from abroad. For example, if land prices were with 230,000 RMB per *mu*, depending on how promising the project is and what industry your firm is in we can lower the price to 200,000 RMB or even 150,000 per *mu*. This helps attract firms, enticing them to construct their new offices in the park. We will also provide free temporary offices for new companies for up to 6 months while their new office is being built. The utilities are also free of charge as well.” As noted earlier in Chapter 3, a *mu* is 1/6th of an acre.

Wu also explained that there are other rebates and training subsidies that firms can receive. She noted that, “we also offer new companies subsidies for research and to train personnel that can be allocated and spent without strings attached. For example, we can provide up to \$1,000 a year per person, up to 10 people to help offset training and research costs. In terms of income taxes, we provide rebates to specific workers, typically managers and high-level executives for 3-5 years. The way this works is that if you have to pay 100 RMB in taxes, 60% goes to the central government, 8% goes to the provincial government, the remaining portion goes to Nantong, thus we at the park can reimburse the remaining 32% back to you.” Clients

such as Caterpillar, BIC, Accuma and Kopron have taken advantage of these incentives over the past several years.

Does the return-on-investment pay for the capital expenditures which were originally expended? While it is impossible to say yes or no for all the cases, what can be said is that the GFW itself probably does not create innovation, foster creativity or act as an incentive to attracting outside talent. If it did, the Chinese computing industry would not be reliant on Western semiconductors, Western software and foreign know-how.¹²⁴¹ And as a consequence, mainlanders conducting research are left using a virtual straw in order to access, view and communicate with the outside world.

How is this relevant and how does this affect your company? Without virtual openness to new ideas, the domestic, indigenous engineering industries – while not autarchic – will probably always be laggards due to what Veksler noted above (e.g., getting frustrated and quitting). To this point, last year the American Chamber of Commerce in Beijing conducted a survey of its members, “nearly three-quarters of about 300 businesses it surveyed said unstable Internet access impedes their efficiency. About 40% said China's censorship efforts have a negative business impact.”¹²⁴² Similarly, economist Arthur Kroeber, founder of Dragonomics research noted in March 2013 that one obstacle to growth is the GFW. In his view, innovation in the modern world today comes from “the sharing of knowledge and information across a variety of fields. Innovation comes when you take knowledge in one area and it migrates over to another area and someone comes up with a new way of using it. China seems to have a political system that mentally at its core is opposed to those networks ever becoming viable.”¹²⁴³ Thus, in addition to the issues raised in Chapter 15, this obstacle is another consideration that all firms looking to recruit talent must take account for.¹²⁴⁴

While there are occasional opportunities and projects like “1,000 talents” (mentioned in Chapter 9 and Chapter 15) that provide monetary and other perks and incentives to relocate, these well-intentioned plans may be unable to offset the hurdles created by the GFW and as a consequence there has been a “brain drain” that all firms and HR departments should be aware of.¹²⁴⁵

Yet to be even handed, Larry Chang mentions that he works within this system on purpose because it is “an untapped opportunity.” He only hires fresh mainland graduates with the sole purpose of building an indigenous software industry. And in his opinion, with more than 6 million college students graduating each year, there are bound to be creative, outside-the-box thinkers. Similarly, at the 2013 Unleashing Innovation conference recently held in Singapore, Ya-Qin Zhang, chairman of Microsoft’s Asia Pacific research and development group, noted that “Chinese engineers are well equipped to produce the kind of innovative work that their more illustrious American rivals are renowned for” and continued with, “[t]he scale of innovators and the scale of the market will converge and eventually make China a key [innovation] center in the region.”¹²⁴⁶ Thus it may just be a matter of time before the right combination of inputs brings about the transition up the value chain as described in Chapter 7.

Opportunities in the rough

Again, even with these seemingly insurmountable challenges there are also opportunities. For example, as I noted in Chapter 17, foreign architects are in high demand to help build and design buildings, bridges and even office parks. Perhaps your firm can find new revenue streams by helping to build out domestic content delivery networks (CDNs) and cloud computing initiatives that are part of these technology parks. As I mentioned in Chapter 13, according to IDC, \$286 million was spent on cloud-computing infrastructure in China in 2011 and this is expected to increase to \$1 billion by 2016.¹²⁴⁷ And this segment is quickly professionalizing, for example, ChinaCache is the largest CDN on the mainland with 53% of the marketshare.¹²⁴⁸ It was initially funded by the likes of Intel and is now listed on NASDAQ.

Another opportunity is with corporate VPNs. While the individual market may seem like a logical way to establish a steady revenue stream, according to David Veksler, corporate enterprises – both domestic and foreign – will eventually want and need to have VPNs to secure their communication with clients, vendors and essentially anyone. Irrespective of the GFW, Veksler's own estimate is that there is an unlimited amount of potential growth for VPNs because very few domestic firms currently recognize the need to protect their assets. But Veksler suggests, "this attitude will probably change, due to the increasing security vulnerabilities publicly acknowledged by even the largest of enterprises."

But there is also a challenge regarding foreign owned and run VPNs on the mainland, as the *Global Times* recently quoted Fang Binxing (father of the GFW as noted above) that, "[u]nregistered VPN service providers are not protected by Chinese laws, and any company running a VPN business should realize they have a responsibility to register."¹²⁴⁹ More directly, an employee in the Ministry of Industry and Information Technology pointed out in the same report that, "only Chinese companies and Sino-foreign joint ventures can apply to establish a VPN business." This is not to say that is illegal to connect to a VPN outside of the mainland. Currently there are no laws which prohibit users in China from connecting to an overseas VPN.¹²⁵⁰

In December 2012 I spoke with an American executive at a large IT company that provides dedicated internet connections to enterprises and institutions primarily in Tier 1 cities. According to him, "no foreign IT company and few domestic companies advertise their VPN services yet many of them will bundle it as part of a package to corporate clients. Furthermore, Chinese regulators typically permit VPNs so as long as it is privately - not publicly - accessible as well as the stipulation that consumers use leased-lines. A typical dedicated leased-line will cost over 3,000 RMB a month for 1 mb/s, this scales linearly (e.g., if you need 4 mb/s you are charged around 12,000 RMB), thus this option is typically out of reach by most consumers outside of the corporate and foreign communities. In addition, you can find a number of local firms that will provide point-to-point VPN services within the mainland. So if you are an expat that works for a foreign company that operates a VPN network elsewhere, then you will be able to securely connect from your local VPN to their secure environment overseas."

Similarly, as an entrepreneur you can utilize these tech parks in China since they are not going to

disappear overnight, if ever. For example, Larry Chang merged all company divisions under one roof in a research park located on a campus of a local college in Changning, Shanghai. His firm was provided incentives such as reduced rental rates for doing so. Similarly, Richard Qi mentioned that a new area in Shanghai called Cloud City – a tech park – provides perks and benefits to foreign software, engineering and IT firms. For example, Cloud City provides discounted office property, assistance in communicating with governmental organizations, stipends from the government and as the name-sake suggests, access to cloud services. Prior to relocating to this tech park, Qi mentioned that it was often difficult as a foreign service provider to issue invoices because of unclear laws (e.g., Shanghai and other municipalities are currently transitioning from a business tax to a VAT) and it was hard to find the government contacts needed to settle these transactions. In addition, perhaps your software or semiconductor firm can also take advantage of these inducements created by the 2011 policy which provides a tax holiday for several years, reduces the subsequent tax rates and provides exemptions on profits.¹²⁵¹

Takeaway: Due to a variety of regulations and policies on the mainland, certain telecommunication restrictions have germinated into a formidable barrier called the GFW. And with several million technologically-inclined consumers familiar with Western tastes and styles, there exists a potentially new customer base for VPN service providers. Yet just because there is potential for growth does not necessarily mean that the potential customers will purchase your goods and services (e.g., “if you build it, will they come?”).

Chapter 21 - Synthesis and implementation

Now that you have seen a snapshot of the mainland economy and have had a chance to become acquainted with a number of industries, it is time to figure out how to transform this knowledge and information into a practical business plan.

After you begin to do your due diligence by conducting market research and performing a SWOT analysis (strengths, weaknesses, opportunities and threats), the very next step you can immediately take is to set up social media accounts as described in Chapter 12. If you are unable to read Chinese, there are a number of free online tutorials that will guide you through a step-by-step process. For example, it is highly recommended that you create a Sina Weibo account because it is the 2nd largest microblog (with over 500 million accounts) and also because Twitter is currently blocked on the mainland.¹²⁵²¹²⁵³ And even though it is more person-to-person (in contrast to the mass publication ability of Weibo) because of its rapid adoption, foreign firms are also encouraged to set up a WeChat (Weixin) account due to the huge penetration rate (300 million users just over 2 years).¹²⁵⁴ In addition, you can download and use the English version of QQ instant messenger.¹²⁵⁵ As I noted in Chapter 12, QQ is the world's largest instant messaging tool, with over 700 million users.

Once you have these two tools, you can begin to communicate with an entirely new customer base about your goods and services. And as I detailed in Chapter 12 your marketing team may even be able to utilize other sites like Youku (the leading video streaming site) as well as Pinterest (and its many clones) to help promote your brand and wares.

In addition, for other perspectives, there are several resources published the China-based foreign business community, including the American Chamber of Commerce in Shanghai, the American Chamber of Commerce in Beijing and the European Union Chamber of Commerce.¹²⁵⁶ Each of these organizations publishes insights, surveys and original research that helps illustrate the market conditions – the opportunities and challenges – on the mainland.

Questions and answers

The very first question at the beginning of this book was, should you and your company come to China?

While your own perception of the mainland may be influenced by both bullish and bearish commentary, the real answer to this question differs from case to case. There is no *a priori* answer for entrepreneurs. In addition, there are several other questions that you should ask before you and your company make any significant decisions.

For instance, what goods or services does your company produce that someone in China would want? What is the return-on-investment of opening a hotel, restaurant or retailer on the mainland? What are the licensing requirements for foreign businesses?¹²⁵⁷ What are some of the legal risks and uncertainties that foreign firms commonly face?

And again, while I provided a number of statistics, stories and anecdotes to address these questions, I would encourage all foreign companies to also consider these Do's and Don'ts.

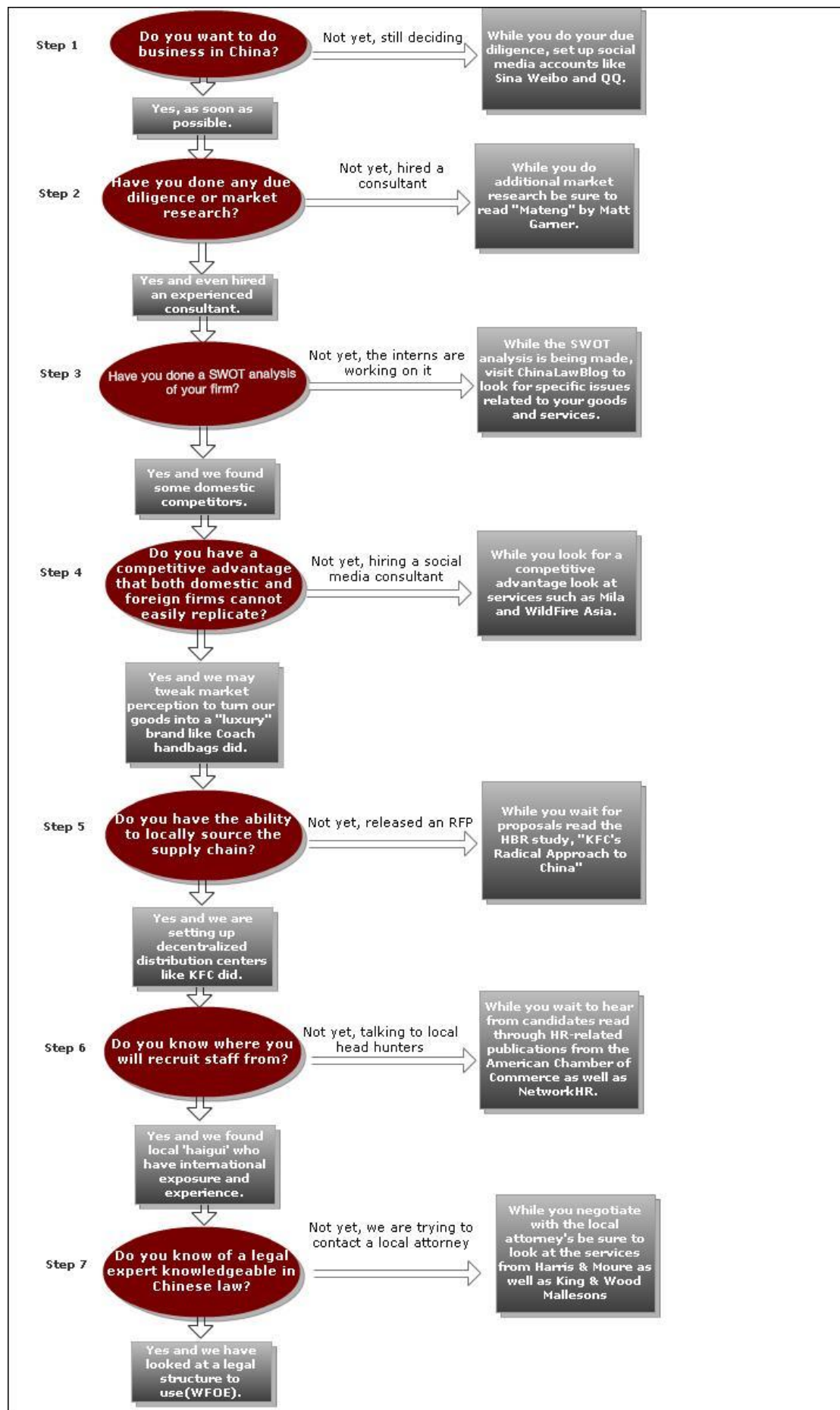
- If you hire outside consultants to conduct market research on the mainland, *do* your own in-house-based research as well. You *do not* get heart surgery without a second opinion, nor should you invest capital based on one report.
- *Do not* invest in China just because you heard an analyst on TV or the radio tell you too. Many analysts “talk their own book” and have other interests at play (e.g., *cui bono*). Wishful thinking can be a powerful opiate; and those predicting absolute certain futures would be wise to pay heed to what Niels Bohr once quipped: prediction is very difficult, especially about the future.¹²⁵⁸
- If you plan to actually *do* anything on the mainland that involves contracts, technology transfers or corporate structures, be sure to consult with a legal expert (see Chapter 10). *Do not* risk losing your assets or being cut out by suppliers because you think you understand the Chinese legal system.
- *Do not* invest on the mainland simply because you want to diversify due to recessions in other parts of the world or merely because hope it will be better elsewhere. Your ventures and stakes are not a guaranteed success merely because the geographical location is different. Why risk your capital without doing the due diligence first?

While you may feel the urge to jump headfirst into this new marketplace, recall what the late Coach Wooden said: failing to prepare is simply preparing to fail. And if you recall the first story in Chapter 1 from Jim Chanos, even with due diligence and cultural fluency you may run into challenges that are seemingly insurmountable. While there may be any number of other cliché truisms to repeat, there are arguably no long-term downsides to being over prepared – better safe than sorry.

Flowchart

You and your management team can, in the space of an hour, put together a simple step-by-step guide to moving into the Chinese marketplace. Below is an example of commonly asked questions and answers that based on several chapters of this book. The numbering and order is entirely arbitrary and will change depending on each company and market segment.

Figure 1:



There can be any number of other questions and decision trees. This is merely an illustration of the thought processes you and your colleagues can consider as you put together a China strategy.

And finally, recall the Voltaire quote at the beginning of the book, about “the best.” You and your company do not have to be the best nor do you have to create the best business model. In some cases you can just be good enough. After all, your new local competition has succeeded and they did that without – by and large – attending professional Western business schools. If they can do that, perhaps you can too.

Takeaway: With the information, cases and examples provided in the preceding chapters, the transition from knowledge to practice is now paramount. And while there any number of ways to practice and implement a plan, fully understanding you and your company’s comparative strengths, weaknesses, opportunities and threats in a new marketplace is both risky and potentially rewarding. Tempering your enthusiasm with not just statistical facts but also advice from experienced professionals should be part of the strategic plan of any firm wanting to do business in China.

About the author



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Keep up to date with further information at: www.OfNumbers.com

Endnotes

¹ The name of the book is [Mr. China: A Memoir](#) by Tim Cissold. During his April 12, 2010 show, Charlie Rose interviewed Jim Chanos, Chanos briefly discussed the story:

“There’s been a couple wonderful books, including one called “Mr. China” about two investment bankers who set up shop right after Tiananmen Square. They spoke Mandarin, they were connected. They hired the kids of the high party officials. And they couldn’t have gotten it more right from a big-picture point of view. And they wrote this book a number of years later on how they were lucky to get out with their skin. They were completely bankrupted by China.”

² [Economic Calculation in the Socialist Commonwealth](#) by Ludwig von Mises

³ Due to the one-child policy and outward immigration, according to UN demographers, *ceteris paribus* China will hit a peak population within the next 20 years. India will likely eclipse China during this time frame in large part because its birth rate remains above the 2.1 replacement mark. In contrast, China’s birthrate is effectively 1.47 per mother. This is further discussed in Chapter 18. See also [Birth rule could be relaxed](#) from *China Daily*, [Peak toil](#) from *The Economist* and [One-child policy shift won’t usher in China baby boom](#) from *Reuters*

⁴ *Red Flags: My Years in a Chinese Company* by Matt Garner (forthcoming)

⁵ See [China’s Golden Rule of Consumption](#) by Yukon Huang and [China unlocks right kind of growth](#) from *Financial Times* and [Chinese shoppers are thriving](#) from *Financial Times*

⁶ [U.S. Exports Top Historic High of \\$2.1 Trillion, Support 9.7 Million Jobs](#) from the Economics & Statistics Administration

⁷ See [Record Overseas Sales Boost U.S. Growth](#) from *BusinessWeek* and [U.S. International Trade in Goods and Services](#) from the Bureau of Economic Analysis

⁸ [Surprise! U.S. economy likely grew in fourth quarter](#) from *Reuters*

⁹ Another reason to export is that the long-term potential for emerging market annual consumption is expected to reach \$30 trillion by 2025. See [Winning the \\$30 trillion decathlon: Going for gold in emerging markets](#) from *McKinsey Quarterly*

¹⁰ [Opportunities for U.S. Small and Medium Business in the China Market](#) from the American Chamber of Commerce in Shanghai

¹¹ [The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger](#) from Marc Levinson

¹² [American Chamber of Commerce in Shanghai SME Center](#)

¹³ See [Better Business Bureau](#), [Dun & Bradstreet](#), [US Commercial Service](#) and the 2012 US Commercial Service report: [Powering Export Growth](#)

¹⁴ [Foreigners Set For Social Benefits](#) from *Shanghai Daily*

¹⁵ [Free Trade Agreements](#) from the International Trade Administration

¹⁶ [US lawmaker urges investment treaty pact with China](#) from *Reuters*

¹⁷ This is not an endorsement that the WTO and managed trade agreements are supposedly the manifestation and embodiment of pure free-trade. Yet some trade is better than no trade. Or as Frédéric Bastiat purportedly said, if merchants and goods do not cross borders, armies will. Yet due to relatively freer trade channels, merchants (especially in the West) have access to more potential trade channels than at any time in history. See [Who Said It?](#) by Don Boudreaux and [Biography of Frederic Bastiat](#) by Thomas DiLorenzo

¹⁸ According to Eric Jay Dolin’s new book [When America First Met China](#), this trade-based relationship goes back 225 years. See [How the China Trade Helped Make America](#) from *The Daily Beast*, [China’s 2011 foreign trade surges 22.5%](#) from *China Daily*, [Statistical Communiqué on the 2011 National Economic and Social Development](#) from National Bureau of Statistics of China

¹⁹ Historically these “heavy” or “key industries” are called the commanding heights, a term that was first coined by Vladimir Lenin during the first years of the Soviet Union. See [The Commanding Heights: The Battle for the World Economy](#) by Daniel Yergin and Joseph Stanislaw

²⁰ [China’s PE Industry Grows More Challenging for Foreign Players](#) from *Global Intelligence Alliance*

²¹ According to a recent estimate, by one measure state employment in China may have

decreased 25% between 2002 and 2009. Although several questions remain unresolved, did the author include listed SOEs (e.g. ICBC) or LLC's that are subsidiaries that are wholly owned by SOEs? See [A Shrinking Leviathan: State Employment in China Looms Smaller Than Expected](#) from *Peterson Institute for International Economics*

²² It is relatively difficult to gauge the exact number of SOE contribution to GDP in part because numerous suppliers and vendors – while technically private – exclusively do business with SOEs thus further blurring the distinction between private and public. Another lower estimate is 40% of non-agricultural GDP is generated by SOEs. For comparison, in 1995 there were 1.4 million SOEs on the mainland. See [China's New Place in a World in Crisis: Economic, Geopolitical and Environmental Dimensions](#) edited by Ross Garnaut, Ligang Song and Wing Thye Woo, [A Glance At Chinese State-Owned Enterprises](#) from *CNPOLitics* and [Beijing Lines out Rout for Central SOE Reforms](#) from *Caijing*

²³ [China government 2011 procurement totals 1.13 trln yuan](#) from *Xinhua*

²⁴ [China announces next step in joining Government Procurement Agreement](#) from the World Trade Organization

²⁵ Foreign firms in the procurement business also face stiff domestic competition with “buy China” policies at various governmental levels on the mainland. See [Chinese gov't departments told to "buy China"](#) from *Xinhua*

²⁶ See [GDP grows 7.8% to top \\$8 trillion](#) from *China Daily*, [The state advances](#) from *The Economist* and [China still lags US in trade](#) from *China Daily*

²⁷ In December 2012 it subsequently surged in the highest daily gains since October 2009 due to policy changes in the Qualified Foreign Institutional Investor program (QFII 合格境外机构投资者). See [China Scraps QFII Limit on Sovereign Funds, Central Banks](#) from *Bloomberg*, [China's Stocks Drop Below 2,000](#) from *Bloomberg* and [China stocks fall below 2000 to 4-year low](#) from *South China Morning Post*

²⁸ On the other side of the coin is the view that these stocks are now relatively cheap or a “bargain buy.” See [Analysis: "Caveat emptor" as foreigners rush to ride China rebound](#) from *Reuters*

²⁹ [With Great Power Comes Great Responsibility](#) from *Peterson Institute for International Economics*

³⁰ [Certification and Accreditation Administration of the People's Republic of China](#)

³¹ For a step-by-step procedure, see [Starting a Business in China](#) from the World Bank. See also [New Path for Trade: Selling in China](#) from *The New York Times*

³² See [China gets tough on labelling and packaging of medtech](#) by Katherine Wang and [国家食品药品监督管理局关于规范境外医疗器械标签和包装标识的通知](#) from the SFDA

³³ See [China Revises Categorization of Imported Goods and Tariff Rates](#) from *China Briefing*, [Import taxes 'will be cut' this year](#) from *China Daily* and [China Voice: Keep China's big spenders at home](#) from *Xinhua*

³⁴ Some airlines such as Air China explain this duty free limit (5,000 yuan) to passengers who are required to declare assets upon landing. Mainland airports have similar restrictions as well. See [More duty-free shops in Hainan](#) from *China Daily* and [Customs And Visas](#) from Air China

³⁵ [Free trade zones are clearly the way to go](#) from *China Daily*

³⁶ [Shanghai gives green light to duty-free store](#) from *China Daily*

³⁷ As a Chinese colleague recently pointed out, there is a Chinese saying *guan zi liang ge kou* (官字两个口). It is literally translated as 'the character for "official" (guan) has two mouths' - but actually means 'there is no such thing as singular truth in officialdom.' This explains the distinctive trait of the traditional Chinese businessperson's distaste and disinclination to involve the official court in all matters concerning business dealings. Hence, the preference, for many centuries, among Chinese business people, has been to first establish a good and dependable relationship with prospective partners prior to the actual transaction and execution of (unofficial) agreements. The basis of a good relationship is *xin yu* (信誉) or a strong reputation for honesty and integrity – this is an important virtue called *xin* (trust) of the classical Confucian gentleman.

³⁸ See [Cat Scammed: How A U.S. Company Blew Half A Billion Dollars In China](#) from *Forbes*,

[Caterpillar Still Investigating Chinese Accounting Discrepancy](#) from *Bloomberg*, [Ex-chairman of firm linked to Caterpillar fraud "dismayed"](#) from *Reuters*, [Caterpillar Tracks a Wayward China Path](#) from *The Wall Street Journal* and [New twist in Caterpillar-ERA saga](#) from *Financial Times*

³⁹ For an overview of common accounting mistakes that have been used in scandals in China be sure to read: [The simplicity of Chinese accounting scandals](#) from *Quartz*

⁴⁰ China is also the largest motorcycle market. See [Global and China Motorcycle Industry Report, 2012](#) from *PRNewswire*

⁴¹ [Vehicle sales overtake Europe in 2012](#) from *China Daily* and [2012: Slowing growth, maturing market](#) from *China Daily*

⁴² An estimated 20.65 million automobiles are expected to be sold in 2013. See [China 2013 Auto Sales May Accelerate This Year to Top 20 Million](#) from *Bloomberg*, [China Slowing Auto Sales Still Eclipse U.S.-Japan-Germany: Cars](#) from *Bloomberg* and [China's vehicle sales remain in doldrums](#) from *Financial Times*

⁴³ One of the issues facing policy makers is traffic congestion. Each city handles it differently, some auctioning off license plates to residents. The cost of license plates has increased as cities have become denser and more affluent. In Shanghai for example, in the recent license plate auction held in January 2013, the average price for a plate was \$12,000. See [Shanghai's Newest Luxury Item: The License Plate](#) from *The Wall Street Journal* and [Shanghai licence plates 'precious as gold,' says vice mayor](#) from *South China Morning Post*

⁴⁴ Used car sales are increasing faster than new car sales on the mainland and may be an opportunity for foreign auto dealers with experience in this segment. 4.8 million used cars were sold in China in 2012 compared with 15.5 million new cars. Used car sales are expected to double to 10 million in the next three years. For comparison, in the US the used car market is four times the size of new cars. See [Coming of age: China's used car market outpaces new sales growth](#) from *Reuters*

⁴⁵ [China to surpass US as top luxury car market: study](#) from *Agence France-Presse*

⁴⁶ [China Vehicle Population Hits 240 Million as Smog Engulfs Cities](#) from *Bloomberg*

⁴⁷ ['Imported From Detroit' Is a Good Idea in China, if Only...](#) from *The Wall Street Journal*.

⁴⁸ [Modern facilities, global reach for Jaguar Land Rover](#) from *China Daily*

⁴⁹ Many other luxury cars continue to sell well on the mainland. For example, in 2011 Chinese consumers overtook the US in purchases of Rolls Royce vehicles; although in 2012 US consumers retook the "torch" which may again be handed off in 2013. See [U.S. Overtakes China as World's No. 1 Buyer of Rolls-Royce](#) from *The Wall Street Journal*

⁵⁰ According to Flurry, by the end of February 2013, China had 246 million smart devices compared with 230 million in the US. See [iPhone 5 hits China as Apple market share slips](#) from *Reuters* and [China Knocks Off U.S. to Become World's Top Smart Device Market](#) from *Flurry*

⁵¹ See [China to pursue renminbi internationalization on market-oriented basis: central bank vice governor](#) from *Xinhua*, [China's Next Step on Yuan Is Convertibility, Zhou Says](#) from *Bloomberg* and [Full convertibility of the yuan ruled out](#) from *China Daily*

⁵² In terms of whether the currency is undervalued or overvalued, the only way of knowing for sure what the open market rate "should be" is to float the currency. By one measure, according to *The Economist's* annual Big Mac Index, despite the appreciation over the past several years, the yuan is still "undervalued" by 40%. See [Calories and currencies](#) from *The Economist*

⁵³ [Modern China: A tale of luxury villas and displaced villagers](#) from *McClatchy*

⁵⁴ According to estimates from the World Bank, gross national income per capita in China was \$4,940 in 2011.

⁵⁵ [Charting China's Family Value](#) from *The Wall Street Journal*

⁵⁶ [China has 1m multimillionaires: Hurun report](#) from *China Daily*

⁵⁷ [Why Rich Chinese Are Investing Overseas \(It's Not What You Think\)](#) from *The Wall Street Journal*

⁵⁸ [Report: China 'Affluent' Population to Hit 280 Million by 2020](#) from *The Wall Street Journal*

⁵⁹ *Red Flags* by Matt Garner (forthcoming)

⁶⁰ [LinkedIn, others face challenges against China 'guanxi'](#) from *South China Morning Post*

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- ⁶¹ [W.T.O. Rules Against China's Limits on Imports](#) from *The New York Times*
- ⁶² [China Appeals WTO Ruling on Book, Film, Music Imports](#) from *Bloomberg*
- ⁶³ [China loses WTO media imports appeal](#) from *BBC*
- ⁶⁴ [Chinese Fiction Is Hot](#) from *BusinessWeek*
- ⁶⁵ Other genres that are currently maturing on the mainland include fantasy and science fiction which was recently a focus of special issue the Science Fiction Studies at DePauw University. See ["Great Wall Planet": Introducing Chinese Science Fiction](#) by Yan Wu
- ⁶⁶ [IPA's Global Ranking of Publishing Markets—US, China on Top](#) from *Publishing Perspectives*
- ⁶⁷ Slightly older data (2006) lists the largest book markets as: the US, Germany, China, Japan and the UK. See [The Global 2011 eBook Market: Current Conditions & Future Projections](#) by Rüdiger Wischenbart and Sabine Kaldonek
- ⁶⁸ [What Chinese want to read](#) from *People's Daily*
- ⁶⁹ Ibid
- ⁷⁰ Mo Yan won the 2012 Nobel Prize in Literature and in doing so brought modern Chinese literature into the spotlight. Sales of his English-translated works rose to best-seller status on *Amazon.com*. Similarly, sales of Yan Lianke works also increased following the announcement of being a finalist for the Man Booker Prize in 2013. See [Man Booker International Prize 2013 Finalists Announced](#) from *The Man Booker Prizes*, [The world has yet to see the best of Chinese literature](#) from *The Spectator* and [Stealing Books for the Poor](#) from *The New York Times*
- ⁷¹ [The Global 2011 eBook Market: Current Conditions & Future Projections](#) by Rüdiger Wischenbart and Sabine Kaldonek
- ⁷² [Bezos' Kindle-Less Amazon Mashed in China by Ma's Alibaba](#) from *Bloomberg*
- ⁷³ [Shanda Cloudary US IPO is Finally Taking Off](#) from *Tech In Asia*
- ⁷⁴ [China's Top 10 Tech Companies by Revenue](#) from *Tech In Asia*
- ⁷⁵ Some of the top China-based translation firms are [CLS Communication](#), [Sinophone](#), [Yuyi](#) and [Berlo](#)
- ⁷⁶ [The Top 100 Language Service Providers](#) from *Common Sense Advisory*
- ⁷⁷ Dean Stamatis is the President of Contemporary Consultants in Michigan.
- ⁷⁸ [Stealing Books for the Poor](#) from *The New York Times*
- ⁷⁹ [GAPP: Amazon China's Kindle Store Violates Regulations](#) from Marbridge Consulting
- ⁸⁰ [Bezos' Kindle-Less Amazon Mashed in China by Ma's Alibaba](#) from *Bloomberg*
- ⁸¹ A Chinese friend suggested that I provide an explanation to this phrase. The complete phrase is *wang zhe yi min wei tian, min yi shi wei tian*. While *wang zhe* means emperor, according to him the key to this is the last word "*tian*." *Tian* on its own is literally 'heaven' or the sky over our heads. But this phrase should be better appreciated in the context of its originator, a Minister Guan Zhong of the powerful Qi Kingdom of the Spring Autumn (1st half Eastern Zhou) period, who meant to use *tian* here as in "*tian ming*" - the mandate from heaven (to rule over the people). Properly understood, the five character phrase ending should correctly translate to something like "the government's mandate (king or prince) to rule is founded upon its ability to feed the people." Or, in the more sophisticated form of political advice: "hunger breeds discontentment."
- ⁸² See [Agriculture Commissioner Todd Staples says that Americans spend less of their disposable income on food than individuals in Mexico, China and Russia](#) from PolitiFact and [Meet the 2020 Chinese Consumer](#) from *McKinsey & Co.*
- ⁸³ Seniors aged 55 to 65 in China's largest cities spend half their expenditures on food and only 7% on apparel, according to Ogilvy data, while those a decade younger allocate 38% of their spending to food and 13% to apparel. See [Targeting Grandpa: China's Seniors Hunger for Ads](#) from *The Wall Street Journal*
- ⁸⁴ See [Chinese figures show fivefold rise in babies sick from contaminated milk](#) from *The Guardian*, [Two get death in tainted milk case](#) from *China Daily*, [Timeline: China milk scandal](#) from *BBC*, and [毒牛奶事件](#) from *Yunnan News*
- ⁸⁵ [China dairy industry whistle-blower dies after assault](#) from *South China Morning Post*
- ⁸⁶ Another reason milk powder is in high demand is that milk powder companies have

successfully convinced families that powder makes babies more “chubby” and therefore healthier than being breast-fed. See [Breastfeeding faces challenges in China](#) from *Xinhua* and [Breastfeeding flashmobs: Chinese mothers are abandoning formula](#) from *The Telegraph*

⁸⁷ See [Baby food sails out with Chinese crews](#) from *The New Zealand Herald* and [Dollar falls as tariff raised](#) from *The New Zealand Herald*

⁸⁸ This trend may not last as Chinese consumers and government officials have begun investigating a claim regarding dicyandiamide, or DCD that has purportedly contaminated some milk powder from New Zealand. See [Ministry acts on dairy safety](#) from *China Daily*

⁸⁹ [Farmers to milk China's taste for cheese](#) from *The Australian*

⁹⁰ [Hopes wane for China whole milk imports](#) from *agrimoney*

⁹¹ [美赞臣等洋奶粉仍热销 国产奶粉再沦陷消费者失去信心](#) from *Qbaobei*

⁹² [Tmall announces cooperation with foreign baby formula companies](#) from *Xinhua*

⁹³ [Foreign cheese firms eye big slice of China's market](#) from *China Daily*

⁹⁴ [China targets dairy industry](#) from *Financial Review*

⁹⁵ [Chinese buy farms for food](#) from *The Western Australia*

⁹⁶ See [The Shandong Oilman](#) from *Caixin* and [Maggots in the Pasta: Europe Screens Tainted Chinese Food](#) from *The New York Times*

⁹⁷ See [Survey: Half of Chinese like US ideas on democracy](#) from *Associated Press* and [McDonald's says food giveaway not tied to China's TV show on Corporate Shame](#) from *South China Morning Post*

⁹⁸ [The consuming challenge of food safety](#) from *China Daily*

⁹⁹ For an illustration of why and which foreign items are purchased in China see this excellent infographic: [Why Do Chinese Consumers Pay So Much for Foreign Brands?](#) from East-West Connect

¹⁰⁰ See [The Hidden Price of Food from China](#) from *Der Spiegel* and [No contamination found on China-exported strawberries: watchdog](#) from *Xinhua*

¹⁰¹ The consumer report site is [Zhichuchuangwai](#)

¹⁰² [China Retail Report](#) from the US Department of Agriculture Trade Office in Shanghai

¹⁰³ [Sea Bass With Barbie Dolls Challenge Wal-Mart in China](#) from *Bloomberg*

¹⁰⁴ [China Retail Report](#) from the US Department of Agriculture Trade Office in Shanghai

¹⁰⁵ [Chinese retailers give global giants run for money](#) from *The Hindu*

¹⁰⁶ [Walmart, Tesco, Carrefour finding it tough to do business in China](#) from *The Economic Times*

¹⁰⁷ [Sea Bass With Barbie Dolls Challenge Wal-Mart in China](#) from *Bloomberg*

¹⁰⁸ This is not an endorsement of their services as there are other chains that provide high-quality imported food as well, such as Ole’ – which is owned by CR Vanguard (華潤萬家), the largest grocery company on the mainland. Another competitor is Metro (麦德龙), a German-owned chain.

¹⁰⁹ [CityShop](#)

¹¹⁰ [China Organic Food Certification Center](#) (中绿华夏)

¹¹¹ [Cold storage industry sees a hot market in mainland](#) from *China Daily*

¹¹² [In Beijing, cool profits from sub-zero storage](#) from *smartplanet*

¹¹³ *Ibid*

¹¹⁴ [Beacon Consultancy](#)

¹¹⁵ [China's restaurant industry shows strong growth potential](#) from *Want China Times*

¹¹⁶ This double digit increase is expected to decline due to a maturing market and a crackdown on government banquets in 2013. See [New Bureaucratic Diet Takes Bite Out of Restaurants, Hotels](#) from *The Wall Street Journal*

¹¹⁷ [Chocolate-makers seek to whet China's appetite](#) from *Asia One*

¹¹⁸ [Mainland restaurant takings plummet as party order cadres to tighten belts](#) from *South China Morning Post*

¹¹⁹ *Ibid*

¹²⁰ For a step-by-step guide on forming an WFOE see [China's Approval Process for Inbound Foreign Direct Investment](#) from the US Chamber of Commerce. See also [Forming A China WFOE](#).

[How Long Will That Be Going On?](#) from *China Law Blog* and [Selling In And Into China. Four Good Tips And Mine.](#) from *China Law Blog*

¹²¹ [Interview: Bob Boyce, owner of Blue Frog and KABB](#) from *Shanghaiist*

¹²² [Reverse brain drain: China engineers incentives for “brain gain”](#) from *Christian Science Monitor*

¹²³ See [Demystifying the Chinese traveler](#) from *CNN* and [Chinese rush overseas for holiday](#) from *China Daily*

¹²⁴ While Chinese consumers typically trust foreign brands (as shown in Chapter 3) they are increasingly vigilant against scams and cons as well, especially while traveling abroad. See [Tourist: We were conned](#) from *The New Zealand Herald*

¹²⁵ [Chinese Choosing Prada Over Louvre Boost Luxury Shares](#) from *Bloomberg*

¹²⁶ [Chinese check-ins](#) from *The Economist*

¹²⁷ In 2011, the US embassy in China issued more than 160,000 student visas for Chinese students to study at American schools. Yet a November 2012 report from Open Doors notes that the actual number is even higher, 194,029. See [Ten Years of Rapid Development of China-US Relations](#) from *Xinhua* and [Students from China add \\$5b to US economy](#) from *China Daily*

¹²⁸ The goal Sales at Tmall and Taobao combined to reach \$157 billion in December 2012, a new record. See [RMB 1 TRILLION: Alibaba Shopping Sites Hit a Sales Milestone](#) from *Alizila*

¹²⁹ According to a recent Morgan Stanley research note, Alibaba is worth between \$66-128 billion and Alibaba continues to diversify into other areas of e-commerce including notably a new search engine through its Aliyun brand. See [Morgan Stanley's Latest Alibaba Estimates Suggest It's Worth \\$66 – 128 Billion](#) from *Forbes* and [China's E-Commerce Giant Now Has a Search Engine to Take on Baidu and Google](#) from *Tech In Asia*

¹³⁰ [Tmall Plans to Link China's Consumers with Foreign Goods](#) from *Caixin*

¹³¹ The plans are being rolled out together however the domestic 24-hour delivery service is expected to be completed within 1 year. See [马云 1000 亿建电商物流 目标全国任何地区 24 小时内送达](#) from *ifeng*.

¹³² [China beer consumption hits the 50 billion litre mark for first time in 2011](#) from *Mintel*

¹³³ [In the battle for China's beer drinkers, the \\$0.32 brew is still king](#) from *Quartz*

¹³⁴ [Carlsberg launches take-over offer for Chinese brewer](#) from *Reuters*

¹³⁵ [Putting some fizz into the wine market](#) from *China Daily*

¹³⁶ [German winemakers seek to win over the Chinese](#) from *Deutsche Welle*

¹³⁷ [Chocolate-makers seek to whet China's appetite](#) from *AsiaOne*

¹³⁸ See [US agricultural exports to China become costly in times of drought](#) from *Global Post* and [U.S. chief agricultural negotiator sees bright future for exports](#) from the *Agricultural*

Communication Services

¹³⁹ [China Overtakes U.S. as Largest Crop Importer, WTO Data Show](#) from *Bloomberg*

¹⁴⁰ Chinese farmers produced 50 million tons of pork in 2012, more than half of the world's total. See [How China's love affair with pork is creating a pollution problem](#) from *The Guardian*

¹⁴¹ [Animals Spirits with Chinese Characteristics](#) by Mark DeWeaver

¹⁴² [From the U.S., a Future Supply of Livestock for China](#) from *The New York Times*

¹⁴³ According to one estimate at the US Department of Agriculture that I spoke with, building a new corn or soybean farm in the US may be profitable with current prices, especially since both of these crops are in high demand from China.

¹⁴⁴ [Game Boy: Billionaire William Ding Lei Has A Few Fantasies Of His Own](#) from *Forbes*

¹⁴⁵ [Backed by Profit-hungry Investors, New Approach to Farming Takes Root](#) from *Caixin*

¹⁴⁶ This is not to say all produce has increased in costs. For example, there has been a cabbage glut that has put many farmers in northern China in a bind. The cost of cabbage harvest and transportation costs more than what could be made selling the produce at the market. Thus some farms have allowed the public to gather cabbages for free and in some cases even let the cabbage rot in the fields. See [Cabbage price drop hurts growers, wholesalers, grocers](#) from *China Daily*

147 [Cheap food may be a thing of the past in U.S.](#) from *Los Angeles Times*

148 See [China's food inflation leaving a bad taste](#) from *Globe & Mail* and [China's inflation eases to 1.7 percent in October, giving room for more stimulus](#) from *Washington Post*

149 China CPI in December 2012 rose to 2.5% and has spurred interest in looking for ways to reduce farm distribution costs. See [China moves to cut farm produce distribution costs](#) from *Xinhua*

150 [Meat prices add to China's inflation, policy risks](#) from *Reuters*

151 [China's farm produce prices down](#) from *China Daily*

152 See [Agriculture Commissioner Todd Staples says that Americans spend less of their disposable income on food than individuals in Mexico, China and Russia](#) from *PolitiFact* and [Meet the 2020 Chinese Consumer](#) from *McKinsey & Co.*

153 [Fake honey sales called rampant, hard to detect](#) from *Shanghai Daily*

154 [Bad moon rising: China's mooncakes won't keep](#) from *Want China Times*

155 [From Milk to Peas, a Chinese Food-Safety Mess](#) from *International Health Tribune*

156 See [China wrestles with food safety problems](#) from *Los Angeles Times* and [Noodle makers in hot water](#) from *China Daily*

157 [3 arrested over Shanghai steamed bun scandal](#) from *China Daily*

158 See [Yum stumbles badly in China, warns on profit](#) from *Reuters*, ['Kentucky Fried China' no more?](#) from *Reuters*, [Yum's Yuck Factor in China](#) from *The Wall Street Journal*, [Yum's chicken in China contained excessive levels of drugs](#) from *Reuters*, [CCTV report says KFC chickens are being fattened with illegal drugs](#) from *South China Morning Post* and [China Chicken Probe Hurts Profit as KFC Ends Deal: Liuhe](#) from *Bloomberg*

159 [Yum Makes Cuts to Supply Chain in China](#) from *The Wall Street Journal*

160 [Some foreign fast food is harder to swallow](#) from *China Daily*

161 [Shenyang McDonald's apologizes after woman served detergent](#) from *Want China Times*

162 Manufacturing, mining and construction represent approximately 45-48% of China's GDP; in contrast, services accounted for 44.6% of China's GDP in 2012. While there are and will continue to be opportunities for manufacturing, the service industry continues to grow at a fast clip. Yet as a number of the people I interviewed noted, services are intangible, physical goods are much more tangible so it can be a lot of hard work educating consumers about the value proposition in paying for something less concrete than they are used to. How long will it take to educate them to appreciate this quality? How to differentiate your company from local competitors like Newegg tried to do? See [Chinese Graduates Say No Thanks to Factory Jobs](#) from *The New York Times* and [Served in China](#) from *The Economist*

163 [Entrepreneurs turn to the land for profit](#) from *China Daily*

164 Another innovation that may assist in the merging, acquisition and development of agricultural land is satellite imagery which is now being used as part of a land reform project being piloted in Anhui. See [China's big step in rural reform; mapping tiny plots of farm land](#) from *Reuters*, [加快推进玉米收获机械化 力争2015年玉米主产区机收水平超过50%](#) from the Ministry of Agriculture and [All About Corn](#) by Cathy Gao Jing

165 [农业部：全国“三秋”农业机械化生产迅速展开](#) from The Central People's Government of the People's Republic of China

166 [Monsanto Needs to Put Doubts to Rest](#) from *The Wall Street Journal*

167 [Analysis: China turns to machines as farmers seek fresh fields](#) from *Reuters*

168 Ibid

169 [The Hidden Price of Food from China](#) from *Der Spiegel*

170 [Farms Fund Robots to Replace Migrant Fruit Pickers](#) from *Wired*

171 [Strawberry-picking robot knows when they're ripe](#) from *c/net*

172 This is not to say similar "eminent domain" cases do not take place in other countries. See [China's cabinet warns of rural land expropriation](#) from *Xinhua*, [China's giant, deserted malls wait for reluctant consumers](#) from *The Globe & Mail* and [Henan city refuses to stop clearance of graves to make farmland](#) from *South China Morning Post*

173 This is not suggesting that China is facing a looming plague or food shortage as a whole. Yet

despite a record grain output of 589 million tons in 2012, according to *Xinhua*, China throws away enough food to feed 200 million people each year. Another estimate from China Agricultural University states that 50 million tons of food is wasted annually (10% of China's annual grain output) due to poor storage techniques and rot during transportation. These statistics have become talking points recently during a government crackdown on waste and corruption targeted at government banquets where food is often left uneaten. For comparison, according to the Food and Agriculture Organization (FAO), one third of all food grown globally is lost or wasted each year (amounting to approximately \$1 trillion). Another recent report from the Institution of Mechanical Engineers states that as much as half of all food produced in the world ends up wasted each year. See [Curbing food waste](#) from *Xinhua*, [China's anti-waste campaign revives frugal spirit](#) from *Xinhua*, [Grain supplies still not secure](#) from *China Daily*, [Assuring Chinese Finish Their Live Lobster Sashimi](#) from *Bloomberg* and [Almost half of the world's food thrown away, report finds](#) from *The Guardian*

¹⁷⁴ [Shortage of farms and water threatens grain output targets](#) from *China Daily*

¹⁷⁵ [Shrinking arable land threatens grain security](#) from *China Daily*

¹⁷⁶ This is called a "grain security" issue that Chinese policy makers and analysts have been increasingly discussing over the past several years. Some have noted this is equivalent to the "Western dependence" on Middle East petroleum. See [Keep a red line for arable land](#) from *China Daily* and [Grain supplies still not secure](#) from *China Daily*

¹⁷⁷ See [Monsanto Sees Greater China Investment on Par With Brazil](#) from *Bloomberg* and [Monsanto Needs to Put Doubts to Rest](#) from *The Wall Street Journal*

¹⁷⁸ [Tourism Development in China \(2011\)](#) from the UN World Tourism Organization

¹⁷⁹ [Plan to reduce minimum stay for foreign workers](#) from *Shanghai Daily*

¹⁸⁰ The top 10 tourist source countries to China are: the US, Australia, Singapore, the UK, Malaysia, Canada, India, Germany, Indonesia and France. See [China Tourism](#) from *TravelChinaGuide*

¹⁸¹ Shaun Rein is the founder of [China Market Research Group](#) and the author of "[The End of Cheap China](#)."

¹⁸² [China Lunar New Year Festival Retail Sales Gain 14.7%](#) from *Bloomberg*

¹⁸³ [For Affluent Asians, Africa's Appeal](#) from *The Wall Street Journal*

¹⁸⁴ [Chinese rush overseas for holiday](#) from *China Daily*

¹⁸⁵ [Building boom in hotel industry](#) from *China Daily*

¹⁸⁶ [Luxury hotel boom leads to oversupply in China](#) from *Want China Times*

¹⁸⁷ [Meet Hualuxe, China's Newest Upscale Hotel Brand](#) from *The Wall Street Journal*

¹⁸⁸ [2011 At-a-Glance Statistical figures](#) from the American Hotel & Lodging Association

¹⁸⁹ According to STR Global as of February 2012, globally there are 13.4 million hotel rooms.

See [Reader quiz: 16% guess worldwide hotel room count correctly](#) from *USA Today*

¹⁹⁰ 7 Days Inn was recently acquired by Carlyle Group for \$688 million. See [Carlyle-Led Group Buys China Hotel Chain for \\$688 Million](#) from *Bloomberg*

¹⁹¹ Hilton is the parent company of DoubleTree and operates more than 30 hotels in China.

Marriott is the parent company of Ritz-Carlton. Marriott operates 56 hotels on the mainland and has another 44 being built. See [Marriott International Announces its 100th Hotel in China](#) from Marriott

¹⁹² [Strong overseas, US sales lift Coach 1Q profit](#) from *BusinessWeek*

¹⁹³ [Meet Hualuxe, China's Newest Upscale Hotel Brand](#) from *The Wall Street Journal*

¹⁹⁴ If your firm is looking to cater to Chinese tourists you may be interested in learning from the mistakes of previous companies that have used stereotypes and clichés to conduct business so as to avoid their pitfalls. See [The cultural cliches the travel industry uses for Chinese tourists](#) from *Skift*

¹⁹⁵ [The Peninsula Shanghai is Acclaimed as the World's Best Business Hotel by Travel + Leisure Magazine](#) from *PRNewswire*

¹⁹⁶ Another Shanghai hotel recently received an international award for its interior design and decoration. See [The Swatch Art Peach Hotel Shanghai wins prestigious prize for daring design at](#)

the Tatler Travel Awards 2013 from *Travel Daily News*

¹⁹⁷ See [Beijing to offer 72-hour visa-free stay for foreign visitors in 2013](#) from *People's Daily* and [45 countries listed for 72-hour visa-free stay in Shanghai](#) from *Global Times*

¹⁹⁸ [Coming Soon, Visa-Free Beijing Visits](#) from *The Wall Street Journal*

¹⁹⁹ [Leadership in China's Hospitality Industry Begins at the Head Office](#) from Heidrick & Struggles

²⁰⁰ Ibid

²⁰¹ Shangri-La will open its 71st hotel this year. Headquartered in Hong Kong, these are all high-end 5-star accommodations. See [Billionaire Kuok Says His Empire Can Last 'Generations'](#) from *Bloomberg*

²⁰² [Mind Group](#)

²⁰³ [Hotels feel the pinch as banquet business slumps](#) from *Xinhua*

²⁰⁴ While a lot of focus from journalists (both foreign and domestic) has been on real estate prices in Tier 1 cities, bubbles formed in other tertiary cities as well, such as Yingkou in Liaoning province. See [Beijing issues new rules to limit house purchase](#) from *China Daily*, 王安顺:北京房地产调控决不动摇 from *Yicai* and [Real Estate Bubble Expands to Third and Fourth Tier Cities](#) from *The Economic Observer*

²⁰⁵ This is not to say that these properties will lay dormant, especially as the middle class grows and rural migrants continue to move to Tier 1 cities. See [Who Says China is Building Too Much?](#) from *The Wall Street Journal* [Shanghai Sells Year's Most Expensive Land as Market Recovers](#) from *Bloomberg*

²⁰⁶ See [Shanghai property sold for US\\$35,000 per square meter](#) from *Want China Times*, [Average salaries rise by 10.9%](#) from *Shanghai Daily*, [Land price at record high in Beijing, Shanghai](#) from *China Daily* and [Four Land Parcels in Beijing Sold for CNY 3 Bn](#) from *ChinaScope Financial*

²⁰⁷ [The \\$640,000 parking space](#) from *CNNMoney* and [Hong Kong Parking Costs \\$387,000 as Cash Moves From Homes](#) from *Bloomberg*

²⁰⁸ In terms of average age for first-time home buyers, at 27 years old, Beijing actually has the lowest average in the world, due in part to parents and relatives pooling savings together. See [First-time house buyers are youngest in China: survey](#) from *Want China Times*

²⁰⁹ [China's Hot Real Estate Market Takes Broad Toll](#) from *NPR*

²¹⁰ See [China's gender imbalance alleviates but still grave](#) from *China Daily*, [The Plight of China's Favored Sons from](#) *The New York Times* and [Bride Shortage in China](#) from *Facts and Details*

²¹¹ In 2009 there were 11.45 million marriages and increased to 13 million in 2012. See [China reports more divorces, marriages in 2009](#) from Confucius Institute and [Loving China: Romance, Dating & Weddings](#) from *Thoughtful China*

²¹² See [China to overtake U.S. in diamond consumption](#) from *Xinhua* and [Diamond Demand Slows in China](#) from *The Wall Street Journal*

²¹³ [Profound Evaluation and Development Trend Forecast of China's Wedding Dress Market, 2011 to 2015](#) from *Huidian Research*

²¹⁴ [Loving China: Romance, Dating & Weddings](#) from *Thoughtful China*

²¹⁵ Ibid

²¹⁶ [China's Gome Invests CNY1 Billion In Maternity E-commerce Website](#) from *China Tech News*

²¹⁷ Dating sites are also increasingly popular for a variety of reasons and by 2014 these sites are expected to generate an estimated \$318 million in revenue. The largest, Jiayun, has 68 million registered users. Yet another area that may be relatively untapped is the divorce app market. For example, more than 5,000 couples divorce each day in China. Roughly 1.96 million couples got divorced in 2009; in 2011 2.9 million couples got divorced. In fact, the divorce rate has doubled over the past decade in Beijing and Shanghai and is now nearly 40% (for comparison the national divorce rate is 2.29%). To be even handed, some of these divorces may be related to avoiding regulations on buying 2nd or 3rd homes. Yet just like in the West, when children are involved, the custody issues require communication between exes. Thus online communication through apps may be a potential market. See [Ensuring a long marriage with insurance](#) from *China Daily*, [Joint Custody From A Distance](#) from *The New York Times*, [Divorce: Why the big](#)

breakup in China? from CNN, [China's Hot Real Estate Market Takes Broad Toll](#) from NPR, [China's divorce rule dubbed 'Law that makes men laugh and women cry'](#) from *The Telegraph*, [Over 5,000 couples divorce each day in China during first quarter](#) from *People's Daily*, [Divorce rate exceeds one third in Beijing and Shanghai](#) from SINA, [Shanghai has 2nd highest divorce rate in China](#) from *People's Daily* and [Divorce app could help couples decide if their marriage has a future](#) from *The Guardian*. See also [Why China's Internet Dating Sites Are Booming](#) from Worldcrunch and [Dating in a Digital World: Trends in 21st Century China](#) from Knowledge@Wharton

²¹⁸ See [China's Foreign Direct Investment Declines for Eighth Month](#) from Bloomberg, [China 2012 FDI suffers first annual fall in three years](#) from Reuters and [China Overtook US as main Destination for FDI in First-half 2012 –UNCTAD](#) from *The Wall Street Journal*

²¹⁹ [Investment from China in US reaches record high](#) from *China Daily*

²²⁰ According to the World Bank total overseas investment by Chinese firms reached \$21.4 billion in Q1 2012. This is substantially higher than \$17.8 billion in all of 2009. See [China Buys Overseas Assets](#) from *The Wall Street Journal* and [China's overseas direct investment strategy](#) from *finfacts*

²²¹ [The Shift from East to West: Chinese Investment in North America](#) from Firmex

²²² See [Chinese company buys battery maker that got recovery funds](#) from *The Washington Post* and [Investment from China rises amid concern](#) from *The Washington Post*

²²³ See [Chinese Investment to the U.S. Speeds Up from Caijing](#) from *Caijing*, [Chinese outbound investment accelerates](#) from *China Daily*, [Investment from China rises amid concern](#) from *The Washington Post* and [Make It for China to Buy U.S. Businesses](#) from Bloomberg

²²⁴ Another area Chinese individuals and firms are now investing in is the US real estate and property market. According to a recent report, “[b]uyers from China also invested almost \$2 billion in commercial property in 2011, or quadruple what they spent several years ago.” One of the recent deals was led by China’s Vanke (the largest real estate developer on the mainland) who agreed to a \$620 million project in San Francisco in December 2012. See [Chinese buyers lead foreign investment in US housing market](#) from *Fox News*, [China Vanke Arrives in U.S.](#) from *The Wall Street Journal* and [Lennar Said to Get \\$1.7 Billion San Francisco Loan](#) from Bloomberg

²²⁵ See [A Gateway to the U.S.](#) by Daniel Rosen and Thilo Hanemann, [China's outward FDI to reach US\\$150bn by 2015](#) from *Wanted China Times* and [FDI with Chinese characteristics](#) from *The Economist*

²²⁶ [Chinese firm puts millions into U.S. natural gas stations](#) from Reuters

²²⁷ [Chinese Investment: Europe vs. the United States](#) from Rhodium Group

²²⁸ [After the Boom in Natural Gas](#) from *The New York Times*

²²⁹ Another segment Chinese firms are expanding into in the US and Europe is construction equipment. Sany is China’s largest heavy machinery manufacturer (e.g., excavators) and aims to become the largest globally in the world. As a consequence it is looking abroad for mergers, acquisitions and joint-ventures. Perhaps your firm could find a new partnership with them. See [Sany Tries to Gain Traction in the U.S.](#) from *The Wall Street Journal*

²³⁰ [China takes new step in oil sands](#) from *The Globe And Mail*

²³¹ See [Animal Spirits with Chinese Characteristics](#) by Mark DeWeaver and [Achieving 2020](#) from the Brookings Institute

²³² See [Foreign capital rules eased](#) from *China Daily* and [China Capital Account Restrictions Loosened for Foreign Investors](#) by Stan Abrams

²³³ See [China Big Bang Seen Like London in New Regime: Cutting Research](#) from Bloomberg and [Reins on Shanghai set to be loosened](#) from *South China Morning Post*

²³⁴ In addition to QFII, a recent report suggests that citizens of Taiwan, Hong Kong and Macau could invest directly into mainland stock exchanges. See [Mainland to allow overseas citizens in stock market](#) from *Xinhua*

²³⁵ [Graphics: Super Ministry](#) from *Caixin*

²³⁶ [SAFE Issues New Rules to Further Relax the Foreign Exchange Controls over Direct Investment](#) from King & Wood Mallesons

²³⁷ See [China Scraps QFII Limit on Sovereign Funds, Central Banks](#) from Bloomberg, [China's](#)

[Stocks Drop Below 2,000](#) from *Bloomberg* and [China stocks fall below 2000 to 4-year low](#) from *South China Morning Post*

²³⁸ See [Qatar granted \\$1b QFII quota](#) from *Reuters*, [China's Qualified Success In Attracting Qualified Foreign Investors](#) from *China Bystander*, [China pledges to expand QFII, RQFII programs](#) from *China Daily* and [64 More Institutions Enter China via QFII, CSRC Official Says](#) from *Caixin*

²³⁹ [China to Expand Short-Selling Program as Part of Reform](#) from *Bloomberg*

²⁴⁰ [China Allows Brokerages to Conduct Securitization Business](#) from *Bloomberg*

²⁴¹ [深圳、珠海商事登记改革 3 月 1 日起正式实施国家工商总局支持两地启用新版营业执照](#) from Guangdong Province Administration for Industry & Commerce

²⁴² See [Shanghai makes China's first direct local-bond issue](#) from *Reuters* and [China Scraps Trial of Local Government Bonds, Studies Risks](#) from *Bloomberg*

²⁴³ [Regulator Allows Bank Subsidiary to Sell Special Bonds](#) from *Caixin*

²⁴⁴ According to Shang Fulin, chairman of the China Banking Regulatory Commission, as of September 2012 the local government debt collectively amounted to \$1.48 trillion. See [High local debt levels coming under control](#) from *China Daily* and [China averts local government defaults](#) from *Financial Times*. Other higher estimates can be found in [China tells banks to roll over local govt loans: report](#) from *Reuters* and [Are Chinese Banks Hiding "The Mother of All Debt Bombs"?](#) from *The Diplomat*

²⁴⁵ [Back in Fashion: China's Bad Debt](#) from *The Wall Street Journal*

²⁴⁶ [Pamria Asset Management](#)

²⁴⁷ [No exit](#) from *China Economic Review*

²⁴⁸ [Private Equity in China: Which Way Out?](#) from *The New York Times*

²⁴⁹ [Chinese Headwinds Beset Private-Equity Highfliers](#) from *The Wall Street Journal*

²⁵⁰ [China Private Equity Chilled by 'Old Days' Asking Prices](#) from *Bloomberg*

²⁵¹ See [China's Stocks Slump to Two-Month Low on Property Curbs](#) from *Bloomberg*, [Finding Investment Opportunities in a Tough Market](#) from *The Wall Street Journal* and [China IPO Hiatus May Prompt Smaller Firms to Seek HK](#) Listing from *The Wall Street Journal*

²⁵² This decline in IPOs is not a new phenomenon; even Hong Kong has had difficulties this past year. See [Bankers See Fees Fade as China Era of Jumbo IPOs Draws to Close](#) from *Bloomberg* and [Hong Kong Has Tough IPO Road Ahead](#) from *The Wall Street Journal*

²⁵³ [China Private Equity Chilled by 'Old Days' Asking Prices](#) from *Bloomberg*

²⁵⁴ [Doubts Over Returns Hit Fundraising in China](#) from *The Wall Street Journal*

²⁵⁵ See [China IPO Hiatus May Prompt Smaller Firms to Seek HK](#) Listing from *The Wall Street Journal*, [Private Equity in China: Which Way Out?](#) from *The New York Times*, [Auditing Spat Dividing U.S. and China Turns Ugly](#) from *Caixin* and [MNCs in China and PCAOB deregistration](#) from *China Accounting Blog*

²⁵⁶ Foreign auditing firms such as the Big Four are stuck between the proverbial rock and hard place. On the one hand the SEC requires that these firms hand over audit documents to be verified and audited by the government, yet due to Chinese laws, the same auditing firms sometimes cannot hand over some of the documents as the audit documents are considered "state secrets." See [Deloitte sued over audits of ChinaCast Education](#) from *Reuters*, [MNCs in China and PCAOB deregistration](#) from *China Accounting Blog* and [New challenges to VIEs](#) from *China Accounting Blog*

²⁵⁷ The IPO process has been frozen for six months in China because the security regulators are currently reorganizing both the process and the personnel involved in the approval process. See [Finding IPO Alley](#) from *Caixin*

²⁵⁸ The private equity (PE) market has also been directly affected by other policies recently discussed in [With Great Power Comes Great Responsibility](#) from Peterson Institute for International Economics. On the other side of the Pacific, PE and Chinese firms were recently discussed in [Chinese Firms Take Lonely Buyout](#) from *The Wall Street Journal*

²⁵⁹ [In China IPOs, the Upside of Scarcity for Private Equity](#) from *The Wall Street Journal*

²⁶⁰ Another short term area for opportunities may be as an auditor due to the large dispute

between the US and China over potential delistings of Chinese firms from US credit markets. See [What U.S.-China Auditing Dispute Means for Chinese Business Culture](#) from *The Wall Street Journal*, [U.S. audit watchdog chief hopeful on China dispute](#) from *Reuters*, [Auditing Spat Dividing U.S. and China Turns Ugly](#) from *Caixin* and [MNCs in China and PCAOB deregistration](#) from *China Accounting Blog*

²⁶¹ [Developing a Competitive Edge](#) from *Insight*

²⁶² Ibid

²⁶³ [Fosun International Announces 2012 Interim Results Revenue and Net Portfolio Value Continue to Grow](#) from *PRNewswire*

²⁶⁴ For a detailed explanation of criteria and challenges regarding Shanghai's push to become an international financial center see [Achieving 2020](#) from the Brookings Institute.

²⁶⁵ [China Bankers Earn Less Than New York Peers as Pay Dives](#) from *Bloomberg*

²⁶⁶ See [Starting a business in China](#) from the World Bank and [New Path for Trade: Selling in China](#) from *The New York Times*

²⁶⁷ [Private Banks Enter 'Golden Period' in China](#) from *The Wall Street Journal*

²⁶⁸ Ibid

²⁶⁹ [Life expectancy in China Rising Slowly, Despite Economic Surge](#) from *The New York Times*

²⁷⁰ [Life expectancy increases by 44 years from 1949 in China's economic powerhouse Guangdong](#) from *People's Daily*

²⁷¹ Residents of Shanghai has the highest life expectancy at birth on the mainland, at 82.41 years. See [City keeps top life expectancy on mainland](#) from *Shanghai Daily*

²⁷² Guangdong has led GDP provincial output on the mainland since 1989. In 2012 its GDP output was 5.7 trillion RMB (\$920 billion) which is half the size of India's. See [Guangdong GDP up 10.2 percent in 2012](#) from *NewsGD*, [Jiangsu unchained: Top in per capita GDP, Guangdong in its sights](#) from *Want China Times* and [Guangdong leaders fear they will lose economic pole position to Jiangsu](#) from *South China Morning Post*

²⁷³ [Empower elderly to be active participants](#) from *People's Daily*

²⁷⁴ See [Age will weary the Chinese miracle](#) from *BusinessSpecator* and [Elderly population to surpass 200 mln in 2013](#) from *Xinhua*

²⁷⁵ [China's Achilles heal](#) from *The Economist*

²⁷⁶ [Age of disillusion haunts senior citizens](#) from *China Daily*

²⁷⁷ [Japan's elderly playgrounds show fun is for everyone](#) from *Reuters*

²⁷⁸ [Alzheimer's Disease: Dutch Village Doubles as Nursing Home](#) from *ABC News*

²⁷⁹ [Switzerland's 'Dementiaville' designed to mirror the past](#) from *The Independent*

²⁸⁰ See [China in Alzheimer's double bind](#) from *BBC* and [China, in a Shift, Takes On Its Alzheimer's Problem](#) from *The New York Times*

²⁸¹ [China, in a Shift, Takes On Its Alzheimer's Problem](#) from *The New York Times*

²⁸² This upfront cost is on top of the \$26 billion in annual healthcare and lost productivity. See [China Diabetes Triples Creating \\$3.2 Billion Drug Market](#) from *Bloomberg* and [China's diabetes epidemic exacerbated by one-child policy](#) from *News Track India*

²⁸³ [E-Textile Pants Identify Fall-Prone Elderly](#) from *PhysOrg*

²⁸⁴ [Computer science helping the aged stay home](#) from The University of Adelaide

²⁸⁵ [Fujitsu prototype GPS cane hands-on: the future of monitoring and protecting the elderly](#) from *Engadget*

²⁸⁶ For an in-depth discussion on assistive robots, see [Population Ageing and Socially Assistive Robots for Elderly Persons: The Importance of Sociodemographic Factors for User Acceptance](#) from the International Journal of Population Research

²⁸⁷ [Robot Suit Hal](#) from *Cyberdyne*

²⁸⁸ [Hector: Robotic Assistance for the Elderly](#) from *Forbes*

²⁸⁹ Another robot that could potentially assist both the elderly as well as manufacturers is Baxter. See [Small Factories Give Baxter the Robot a Cautious Once-Over](#) from *MIT Technology Review*

²⁹⁰ With their increased popularity in North America, selling walk-in bathtubs may also be another market opportunity although transportation inland may be difficult.

291 [Low rate of ownership to lift PC buying](#) from *Shanghai Daily*

292 [China saw 138,000 Internet cafes as of 2009](#) from *Xinhua*

293 China Mobile alone sold 60 million TD-SCDMA (a domestically developed radio technology) devices in 2012. See [Check Out 3 Years of Stunning 3G Growth in China](#) from *Tech in Asia*, [China's Smartphone Sales Grow 189 million Units in 2012](#) from *MIC Gadget* and [China Mobile Sold 60 Million TD-SCDMA Devices Last Year](#) from *China Tech News*

294 See [China Had Over 1.1 Billion Mobile Phone Users By November 2012](#) from *China Tech News* and [China Has Over a Billion Mobile Phone Users, 192 Million 3G users](#) from *Tech In Asia*

295 [China smartphone market to overtake U.S. in 2012](#) from *Reuters*

296 [China Knocks Off U.S. to Become World's Top Smart Device Market](#) from *Flurry*

297 [Flurry: China Is Fastest Growing Market For iOS & Android devices, Chile comes in 2nd](#) from *TechCrunch*

298 [Vintage PC Video Games Still Thrive in World of App](#) from *Nielsen*

299 [The Data Digest: Digital Seniors](#) from *Forrester*

300 [Flurry Game Acceleration Program](#) from Digital Analytics Association Symposium in June 2012

301 [China Internet Insights -- Incitez](#), p.11 from *China Internet Watch*

302 See Table 3, p. 9 [China Gaming Market End-User Survey, 2010](#) from *IDC*

303 See [2011 年中国 Android 智能手机用户年龄分布](#) from *iiMedia* and [2011 年中国 Android 智能手机用户年龄分布](#) from *China Mobile*

304 [中国 iPhone 用户用户年龄段偏成熟](#) from *ChinaPP*

305 [China Mobile Internet User Age Distribution](#) from *China Internet Watch*

306 [2010-2011 年 12 月中國智能手機與非智能手機網民的年齡分布比較](#) from *Askci*

307 See [China urbanization rate exceeds 50 percent](#) from *Xinhua*, [China's Urban Population Exceeds Countryside for First Time](#) from *Bloomberg* and [Crossing the 50 Percent Population Rubicon: Can China Urbanize to Prosperity?](#) by Kam Wing Chan

308 [China's Long — but Uneven — March to Literacy](#) from *The New York Times*

309 [Social, Digital, Mobile China \(Jan 2013\)](#) from *We Are Social*

310 Part of the problem in terms of relatively low penetration rates has to do with the User Experience (UX) that is still being refined. Phones like SafeTalk ("as seen on TV") are designed specifically for seniors and others who may have vision difficulties.

311 [Red Bull still waiting for approval to enter China](#) from *Just Drinks*

312 Despite initial reports that suggested a new pilot program was starting at a casino in Sanya, Hainan province (called Jesters), gambling on the mainland is currently banned. Macau is the only nearby domicile where this is allowed. Mainland residents must still apply for an entry visa in order to travel to Macau and are typically only allowed to visit it a few times a year. There are exceptions, for example, if you live nearby in certain cities of Guangdong or if you have relatives living in the SAR. See [Sanya Says It Never Licensed Any Form of Gambling Activities](#) from *Caijing*, [Chinese authorities close cashless casino bar in island resort](#) from *Reuters*, [Macau Casinos Decline on Visa, Credit Limit Concerns](#) from *Bloomberg*, [Macau's Casino Revenue Reaches Record After Holiday Week](#) from *Bloomberg* and [China Tightens Reins on Macau](#) from *Bloomberg*

313 Revenue hit \$38 billion in 2012 and is expected to reach \$44 billion in 2013. See [Rolexes Pawned in Macau Signal Further Gains for Casinos from Bloomberg](#), [Macau gaming revenues hit \\$33.5 billion in 2011, no slowing seen](#) from *Las Vegas Review-Journal*, [Broken Tooth and New Macau](#) from *Foreign Policy* and [Door is about to slam shut on high-rolling holidays to Macau](#) from *The Times*

314 Despite visa issues, MGM and other resorts continue to invest in building casinos on Macau. See [MGM to build new 15.5bn yuan casino in Macau](#) from *Shanghaiist*

315 Qian Jianchu is also the editor-in-chief at [China Commerce and Trade Press](#)

316 See [Empower elderly to be active participants](#) from *People's Daily* and [Rise in China's Aging Poses Challenge to Beijing](#) from *The New York Times*

317 [Targeting Grandpa: China's Seniors Hunger for Ads](#) from *The Wall Street Journal*

318 [Big money bets on China growing old, and rich](#) from *Reuters*

319 [China faces 'timebomb' of ageing population](#) from *The Guardian*

320 [Growing old in China: The business of going grey](#) from *BBC*

321 [7-star nursing home opens in Haikou](#) from *China Daily*

322 See [Nursing Facilities, Staffing, Residents, and Facility Deficiencies, 2001 Through 2007](#) from PAS Center and [Nursing Homes](#) from the AARP Public Policy Institute

323 [Growing old in China: The business of going grey](#) from *BBC*

324 See [About Shanghai International Medical Center, Shanghai](#) from Parkway Pantai and [Covance China and Eli Lilly Pharmaceutical Signed an Agreement on Strategic Cooperation](#) from SIMZ

325 For a detailed, illustrative case study on filial piety in modern China see: [In China, Betting It All on a Child in College](#) from *The New York Times*

326 [600 million middle-class Chinese by 2020: think tank](#) from *Xinhua*

327 [China's middle-class boom](#) from *CNNMoney*

328 While it may be momentary exception to the trend, the stereotype of “Chinese generational savers” may be coming to an end. According to a recent *CNN* report younger Chinese consumers born in the 1970s and 1980s have a savings rate near zero. Shaun Rein author of “[The End of Cheap China](#)” similarly observes that today’s “20-something generation” are veritable spendthrifts with “an effective savings rate of zero.” See [China youth have savings rate near zero](#) from *CNN* and [Getting Chinese to stop saving and start spending is a hard sell](#) from *The Washington Post*

329 In terms of specific numbers, in Guangzhou, “[t]he Shouxing Building is the city’s largest private rest home and home to about 50 pensioners from Hong Kong.” See [Hong Kong elderly go north for retirement](#) from *China Daily*

330 See [Opportunities for U.S. Small and Medium Business in the China Market](#) from the American Chamber of Commerce in Shanghai.

331 It is called [ExportNow](#). I would like to thank both Eric Meng and Matt Garner for bringing this service to my attention.

332 While some Western sources consider Chinese auction e-tailers to be less than trustworthy, Alibaba (Taobao’s parent company) has implemented a number of policies to improve the quality, reliability and service of Taobao. As a consequence it was recently removed from the USTR “notorious markets” list. See [Alibaba Group’s Taobao Removed From “Notorious Markets” List By U.S.](#) from *TechCrunch*

333 Another reason to export is that the long-term potential for emerging market annual consumption is expected to reach \$30 trillion by 2025. See [Winning the \\$30 trillion decathlon: Going for gold in emerging markets](#) from *McKinsey Quarterly*

334 In Q3 2012, online ad revenue in China surpassed newspaper ad revenue: 14.53 billion RMB (\$2.33 billion) versus 14.39 billion RMB. See [China Online Ads Market: Review and Prospect](#) from *China Internet Watch*

335 [Nearly 60% Taobao Shoppers Between 25-35 Year-old](#) from *China Internet Watch*

336 See [Demographic Differences Are Key in Amazon-Walmart Online Battle](#) from *CBSNews*. For recent data from Quantcast see [Amazon](#) and [Walmart](#)

337 [Wal-Mart Set to Cash In on Chinese Online Boom](#) from *The Motley Fool*

338 See [Bezos’ Kindle-Less Amazon Mashed in China by Ma’s Alibaba](#) from *Bloomberg* and [China Had 564 Million Netizens By End Of 2012; Fewer Using Desktop Computers To Surf](#) from *China Tech News*

339 [Saudi Arabia’s Kingdom Holding Invests in 360Buy Jingdong](#) from *The Wall Street Journal*

340 See [China Now Has 242 Million E-Commerce Shoppers, Spending \\$40,000 per Second](#) from *Tech In Asia*, [E-commerce in China - Statistics and Trends](#) from *Go-Globe*,

341 [China E-Commerce Market to Reach 30 Trillion Yuan in 2020](#) from *China Internet Watch*

342 Over the past three years, sales at 51buy.com “increased by nearly 20 times.” See [Tencent Adjusts E-commerce Subsidiary Structure In China](#) from *China Tech News*

343 [Walmart’s Chinese E-commerce Initiative Takes Further Shape](#) from *China Tech News*

344 [Saudi Arabia’s Kingdom Holding Invests in 360Buy Jingdong](#) from *The Wall Street Journal*

345 Named after economist William Lewis, this eponymous law describes the transition from

relative subsistence to a modern industrialized economy with higher wages (e.g., capital accumulation leads to prosperity which leads to specialization away from subsistence agriculture).

See [How to blow away China's gathering storm](#) from *Financial Times*, [What Does the Lewis Turning Point Mean for China? A Computable General Equilibrium Analysis](#) by Huang Yiping and Jiang Tingsong and [The Lewis Turning Point in China and its Impacts on the World Economy](#) by Andong Zhu and Wanhuan Cai

³⁴⁶ [The rise of the robots](#) from *China Daily*

³⁴⁷ See [Economy Higher costs forcing firms to relocate](#) from *China Daily*, [Chinese Graduates Say No Thanks to Factory Jobs](#) from *The New York Times* and [What Worker Shortage? The Real Story of China's Migrants](#) from *The Wall Street Journal*

³⁴⁸ On the other hand, remaining factories may be moving up the value chain. See [Analysis: Investors make \\$100 billion bet on China's drive up value chain](#) from *Reuters* and [China Still The Place For Manufacturing](#) from *ChinaLawBlog*

³⁴⁹ Mexico is increasingly competitive in manufacturing as the *maquiladora's* in border cities continue to grow in experience and talent. See [Mexico: The New China](#) from *The New York Times*

³⁵⁰ For example, Samsung is investing \$7 billion to build a chip plant in Xi'an and another \$1.7 billion to expand production capacity at an existing plant in Kunshan, Jiangsu. See [Analysis: Investors make \\$100 billion bet on China's drive up value chain](#) from *Reuters* and [Samsung Ups Chinese Manufacturing Investment](#) from *China Tech News*

³⁵¹ [Will your next iPhone be built by robots?](#) from *IT World*

³⁵² [富士康暂停招工机器人将上岗](#) from *Sina*

³⁵³ Another estimate puts the increase at 51%. See [Chinese robot wars set to erupt](#) from *China Daily*

³⁵⁴ Ibid

³⁵⁵ See [What's Behind Japan's Love Affair with Robots?](#) from *TIME* and [The Rise of the Machines](#) from *IEEE*

³⁵⁶ Another robot that could potentially assist both the elderly as well as manufacturers is Baxter. See [Small Factories Give Baxter the Robot a Cautious Once-Over](#) from *MIT Technology Review*

³⁵⁷ The average salary for assembly line workers in Guangdong is typically around 30,000 RMB a year. See [富士康机器人上岗：每台成本 14 万 智商七八岁](#) from *TechWeb*

³⁵⁸ Another estimate from Wang Tianmiao, head of the State High-Tech Development Plan is that "a typical industrial robot costs around 300,000 yuan and has annual maintenance costs of 20,000 yuan. The total layout of 500,000 yuan over 10 years is considerably less than that for a 6,000-yuan-a-month technician, and robots can work three times more efficiently." See [Chinese robot wars set to erupt](#) from *China Daily*

³⁵⁹ Ibid

³⁶⁰ [Will Robots Steal Your Job?](#) from *Slate*

³⁶¹ [Skilled Work, Without the Worker](#) from *The New York Times*

³⁶² Hackerspaces are small, community owned shops typically owned, run and managed by hobbyists (like independent researchers and engineers) to allow for tinkering and education. China now has several hackerspaces including perhaps its best known, XinCheJian in Shanghai. See [Created in China](#) by Silvia Lindtner and David Li

³⁶³ [How Big Business is Stymying Makers' High-Res, Colorful Innovations](#) from *Wired*

³⁶⁴ You can even use recycled plastic to refill the spool used in a 3D printer with the new Filabot which successfully completed its Kickstarter goal. See [Turn Your Plastic Recyclables Into 3D Printing Spools With Filabot](#) from *Singularity Hub*

³⁶⁵ See [The Desktop Manufacturing Revolution](#) from *Fast Company*, [Desktop Manufacturing's 'Macintosh Moment'](#) from *Wired*, [Disruptions: On the Fast Track to Routine 3-D Printing](#) from *The New York Times* and [Print me a Stradivarius](#) from *The Economist*

³⁶⁶ See [3D printing may put global supply chains out of business: report](#) from *smartplanet*, [Mr. China Comes to America](#) from *The Atlantic*, [The Insourcing Boom](#) from *The Atlantic*, [3D Printing and the Future of Shopping: Shapeways CEO Peter Weijmarshausen](#) from *Reason*, [Big Data and](#)

cloud computing empower smart machines to do human work, take human jobs from *The Washington Post* and [What's the Deal with Copyright and 3D Printing?](#) from Michael Weinberg

³⁶⁷ [The New MakerBot Replicator Might Just Change Your World](#) from *Wired*

³⁶⁸ There are more than a dozen publicly released 3D printers available to consumers. See [The shape of things to come: A consumer's guide to 3D printers](#) from *Engadget* and [Formlabs Co-Founder Describes Their Stereolithographic 3D Printer](#) from *Slashdot*

³⁶⁹ See [Completely Customizable 3-D Printed Figurines](#) from *Wired*, [The World's First 3D Printed Guitar](#) from *BusinessWeek* and [voxeljet builds Aston Martin models for James Bond film Skyfall](#) from *3ders*

³⁷⁰ [Student Engineers Design, Build, Fly 'Printed' Airplane](#) from *UVAToday*, [Everything you need to know about the Lumia 820 and 3D printing](#) from Nokia, [Microscale 3D printing of a spaceship](#) from Nanoscribe, [Weighted Companion Cube Die - Stainless Steel](#) from Etsy, [3D Printed "Exoskeleton" Lets a Little Girl Lift Her Arms and Play](#) from Stratasys, [Robohand: How cheap 3D printers built a replacement hand for a five-year old boy](#) from *ArsTechnica*, [A Simple, Low-Cost Conductive Composite Material for 3D Printing of Electronic Sensors](#) from *PLOS One*, [Nike launches its first 3D-printed football cleat](#) from *Engadget*, [Bioengineers print ears that look and act like the real thing](#) from *Chronicle Online*, [Recreating 19th-century face jugs with 3D scanning and printing technology](#) from *BoingBoing*, [Robotic Dinosaurs On the Way for Next-Gen Paleontology at Drexel](#) from *Drexel NOW*, [Honey, I Shrunk the Dam!](#) from US Army Corps of Engineers, [Dutch architect to build "endless" house with 3D printer](#) from *3ders*, [Print your own life-size robot for under \\$1,000](#) from *CNN*, [3D printing: The world's first printed plane](#) from *NewScientist*, [Airbus Explores Building Planes With Giant 3D Printers](#) from *Forbes*, [Colony: beautiful 3D prints, reminiscent of marine life-forms](#) from *BoingBoing*, [Edinburgh scientists use 3D printing to produce stem cells](#) from *BBC*, [Foster + Partners works with European Space Agency to 3D print structures on the moon](#) from Foster + Partners and [3D Printing "Photo Booths" Popping Up Across the World](#) from *Singularity Hub*

³⁷¹ [3D Systems](#)

³⁷² [Stratasys](#)

³⁷³ [Staples to Use Mcor IRIS in Copy Centers](#) from *Fabbaloo*

³⁷⁴ [KinsellaLaw](#)

³⁷⁵ [New Industry Report on Additive Manufacturing and 3D Printing Unveiled](#) from *Wohler Associates*

³⁷⁶ [How Big Business is Stymying Makers' High-Res, Colorful Innovations](#) from *Wired* and [EFF](#)

³⁷⁷ [3D Systems Sues Formlabs and Kickstarter for Patent Infringement](#) from *Wired*

³⁷⁸ [RepRap](#)

³⁷⁹ A free open-source repository of CAD files for 3D printing is actively maintained at [Thingiverse](#) and Autodesk recently released an iOS app called [123D Creature](#) that allows users to design and print 3D creatures.

³⁸⁰ See [Giant 3-D Printing Factory Opens In New York City](#) from *Popular Science* and [Inside The World's Biggest Consumer 3D Printing Factory](#) from *Forbes*

³⁸¹ [Next Year's 3-D Printers Promise Big Things — Really Big Things](#) from *Wired*

³⁸² Stratasys recently merged with Objet to become the largest 3D printer company (ahead of 3D Systems). See [After Merger, 3D Printing Industry Has A New Leader](#) from *SingularityHub*

³⁸³ Domestic research and development of 3D printing is a nascent industry on the mainland. According to Wohler's Associates, two-thirds of 3D printers sold in 2011 were made in the US compared with just 3.6% from China. See [China's 3D Printing: Not a Revolution — Yet](#) from *Caixin*

³⁸⁴ [Toys 'R' Us Grows in China, With 'Tiger Moms' in Mind](#) from *The Wall Street Journal*

³⁸⁵ [Lego Ramps Up Production for Asia](#) from *The Wall Street Journal*

³⁸⁶ See [Why Barbie Stumbled in China and How She Could Re-invent Herself](#) from *Forbes* and [What do Chinese consumers want? Not Barbie](#) from *CNN*

³⁸⁷ In addition to studying the 250 million members of the emerging middle class and their shopping habits, another area of potential research involves that of the consumer behavior of

only-children which may impact the sales of the goods and services from your company. See [Ambition and angst: inside China's middle class](#) from *The Times* and [Little Emperors: Behavioral Impacts of China's One-Child Policy](#) from L. Cameron et. al.

388 [China reaches for the big leagues](#) from *The National*

389 [NBA China Revenue to Increase at Least 10% Annually, Stern Says](#) from *Bloomberg*

390 [NBA, CCTV to boost basketball coverage in China](#) from *Variety*

391 [NBA, CCTV to expand partnership](#) from *China Daily*

392 [Yao Gives Reebok An Assist in China](#) from *The Wall Street Journal*

393 [O'Neal the real deal as Li-Ning goes global](#) from *People's Daily*

394 2012 was a relatively difficult year financially and strategically for Li Ning and it may not exist in a year or two. See [A Year of Rebuilding for China's Li Ning](#) from *The Wall Street Journal*, [Li Ning Torches Inventory](#) from *The Wall Street Journal*, [Li Ning tumbles on fundraising plan](#) from *Financial Times* and [Is the end nigh for Li-Ning?](#) from *The Li-Ning Tower*

395 [Chinese Shoe Deal Could Make Dwayne Wade The Richest Athlete of All Time](#) from *Celebrity Networth*

396 [Wade to sign with shoe brand Li-Ning](#) from *ESPN*

397 I would be remiss if I did not mention a story Matt Garner originally told me. Qiaodan is what they call Michael Jordan in China, but it was also a knock-off Air Jordan brand that Chinese consumers thought was actually American. The reality is that the brand was registered as "Qiaodan," not Jordan. But most Chinese consumers cannot tell the difference. It is like having a place in the US called "Hafo Business School" which has nothing to do with the real Harvard Business School yet most Chinese consumers do not know what they call Harvard in English. See [In China, Air cheow-DAN Cries Foul](#) from *The Wall Street Journal*.

398 [J.Crew to Open First Asian Store in Hong Kong](#) from *Bloomberg*

399 See p. 204, [Sports Around the World \[4 Volumes\]: History, Culture, and Practice](#) by John Nauright and Charles Parrish and [STATS Delivers the NBA to China's Leading Web Portals](#) from *STATS*

400 [Pro basketball hits a wall in China](#) from *FORTUNE*

401 [It's Official: NBA Star Tracy McGrady to Play in China](#) from *The Wall Street Journal*

402 [How Big is Tracy McGrady in China?](#) from *The Wall Street Journal*

403 The two 'followings' are different. Whereas KFC operates more stores on the mainland than anywhere else outside of the US, many basketball fans have enjoyed the rise of Jeremy Lin (born in Los Angeles to Taiwanese immigrants). See [Jeremy's KFC Photo Shoot and More Photos From Volvo Shoot](#) from *Confessions of a Jeremy Lin Addict*.

404 Another high-profile NBA import is Gilbert Arenas who currently plays for the Shanghai Sharks which is owned by Yao Ming. See [Zero Sum Game](#) from *Slam Online*

405 [NBA Washouts Have China Calling Foul](#) from *Bloomberg*

406 [Beyond Yao: The Future of Chinese Basketball](#) from *Knowledge@Wharton*

407 [Yao Ming's Cure for What Ails Chinese Basketball](#) from *The Wall Street Journal*

408 [One Billion Fans, One Terrible Team](#) from *The New Republic*

409 [IMG Sees 'Tremendous' Sponsor Interest in Chinese Soccer](#) from *Bloomberg*

410 See [Beckham's CSL ambassadorial role now confirmed](#) from *The Li-Ning Tower* and [Chinese Super League hoping Beckham can restore its battered image](#) from *South China Morning Post*

411 See [China bans former soccer chiefs for life, slaps heavy fines on clubs](#) from *Xinhua* and [Soccer in China](#) from *Facts and Details*

412 [Where are China's Soccer Stars?](#) from *The New York Times*

413 [Asian Cup final smashes viewing records](#) from the Asian Football Confederation

414 [Chinese soccer clubs pay high salaries to foreign players](#) from *Want China Times*

415 [How world stole the brains behind Australian sport](#) from *The Daily Telegraph*

416 [How a swim school in Redcliffe is driving China's Olympic gold rush](#) from *News Limited*

417 [Back in the swim](#) from *Financial Times*

418 [Skateboarding out of the shadows](#) from *China Daily*

419 [SMP Skate Park](#)

420 [Action Sports and Sport Participation in China](#) from *China Sports Review*

421 [The world's 33rd most marketable athlete - Lin Dan](#) from *SportsPro*

422 See [China, Still the World Champ, Is Falling Out of Love With Table Tennis](#) from *The Atlantic* and [Ping Pong Diplomacy](#) from *China.org.cn*

423 The late Zhuang Zhedong was one of the best known table tennis players on the mainland. He was instrumental in 'Ping Pong Diplomacy' which presaged the normalization of relations between China and the US in the early 1970s.

424 See [Zhang Jike: An Eligible Bachelor](#) from *Table Tennista* and [State Grid Welcome Visitors to the Brazil Junior and Cadet Open](#) from *ITTF*

425 She was most recently the runner-up in the 2013 Australian Open. See [Li Na wins three-year Mercedes endorsement](#) from *SportsPro* and [Li Na on course to be world's highest earning female athlete](#) from *The Li-Ning Tower*

426 He was recently disciplined and his "commercial activities" (sponsorships) were put on hold. See [Sun Yang, advertising's next big thing](#) from *China.org.cn* and [Sun Yang suspended from commercial activities](#) from *China Daily*

427 Zou Shiming, gold-medal winner in Olympic boxing, is just one of many potential world-class athletes coming out of China. See [Zou Shiming's professional example set to lead boxing revolution in China from](#) *Global Times*

428 [Human Action Media](#)

429 [Amway sponsors snooker](#) from *SportBusiness*

430 [World Snooker](#)

431 [Bumper revenues for Premier League clubs tempered by soaring wages](#) from *CNN*

432 The wealthiest man in China is Zong Qinghou, founder of Wahaha which is the largest beverage producer in China. See [Man Utd signs up Chinese sponsors](#) from *Financial Times*, [Manchester United Signs Sponsorship Deal with Wahaha in China](#) from *Business Wire* and [China's Richest Man Says Capital Markets 'Suck'](#) from *The Wall Street Journal*

433 [Chinese parents turn to US summer camps](#) from *China Daily*

434 Some of these summer school programs may come under scrutiny due to relatively lax transfer credit requests. See [Chinese Summer Schools Sell Quick American Credits](#) from *The Chronicle of Higher Education*

435 [China discovers its inner tree-hugger](#) from *Financial Times*

436 Ibid

437 [Club Med looks to profit from China's skiing craze](#) from *Agence France-Presse*

438 Ibid

439 See [Ski fields in Urumqi opens for business](#) from *Xinhua*, [Ice and Snow Festival kicks off in Xinjiang](#) from *Global Times* and [Urumqi attractions](#) from *China Daily*

440 [The ski's the limit](#) from *China Daily*

441 [Golf course boom points to China corruption](#) from *Financial Times*

442 [The Forbidden Game](#) from *Slate*

443 [Golf course boom points to China corruption](#) from *Financial Times*

444 See [Golf defies rules to gain ground](#) from *China Daily* and [Mission Hills puts share float idea on table](#) from *South China Morning Post*

445 [Golf construction is booming in China, though it's banned](#) from *Los Angeles Times*

446 See [Swimming: Chinese pools often too crowded to swim](#) from *Agence France-Presse* and [China's Dead Sea Is World's Most Packed Swimming Pool](#) from *The Daily Mail*

447 This is a phenomenon that Matt Garner calls "stress stratification." In fact, due to time constraints Garner and others have predicted that many families will begin consuming pre-made food packages such as TV dinners like Hungryman. This is further discussed in Chapter 3 (e.g., "frozen foods").

448 Another estimate is much lower, 13.3% of urban Chinese male college students were classified as obese compared with 19.6% Americans in the same demographic group. See [China's young in crisis of declining fitness](#) from *Associated Press*

449 See [Obesity in China: Waistlines are Expanding Twice as Fast as GDP](#) from USC US-China

Institute, [Deaths in sports means more exercises needed](#) from *China Daily* and [What's Making China Fat?](#) from *The Atlantic Cities*

⁴⁵⁰ Another report from the International Diabetes Foundation puts the Chinese percentage slightly lower at 8.8% and in the US at 9.3% See [Prevalence of Diabetes among Men and Women in China](#) from Yang *et al.* and [China's diabetes epidemic exacerbated by one-child policy](#) from *News Track India*

⁴⁵¹ [Deaths in sports means more exercises needed](#) from *China Daily*

⁴⁵² [Children's tug of war between classroom, sports ground](#) from *Global Times*

⁴⁵³ [Races canceled as students struggle to stay in shape](#) from *China Daily*

⁴⁵⁴ See [Second death from Guangzhou marathon reported](#) from *Xinhua* and [Sudden death of college student raises attention](#) from *China Daily*

⁴⁵⁵ See [Races canceled as students struggle to stay in shape](#) from *China Daily* and [China's young in crisis of declining fitness](#) from *Associated Press*

⁴⁵⁶ Compounding this problem is air pollution (as noted later in Chapter 18). According to John Balmes, a professor of medicine at UC San Francisco, due to the poor air conditions and relatively high levels of pollution in cities like Beijing, "it's actually unhealthy for kids to be exercising outdoors. When you're playing sports outside -- or just being a kid and being very active -- you get a high exposure to pollution because you're breathing more per minute. Also, when you're exercising, you breathe through your mouth instead of your nose, which has a filter." See [Eye-Stinging Beijing Air Risks Lifelong Harm to Babies](#) from *Bloomberg*

⁴⁵⁷ Compared to the rest of the industry, Curves has actually fallen on financial difficulties. Thus competing firms that operate in this niche may be able to take this opportunity to expand overseas. See [In Search of More Muscle](#) from *The Wall Street Journal*

⁴⁵⁸ The first official CrossFit gym on the mainland was recently opened in Shanghai. See [Iron Dragon: Crossfit](#)

⁴⁵⁹ [Down at the gyms](#) from *China Daily*

⁴⁶⁰ Ibid

⁴⁶¹ Ibid

⁴⁶² Ibid

⁴⁶³ See [Gym, Health & Fitness Clubs in the US: Market Research Report](#) from *IBISWorld*, [The Shape of the Fitness Industry](#) from *South Source* and [Industry Research](#) from IHRSA

⁴⁶⁴ [Down at the gyms](#) from *China Daily*

⁴⁶⁵ For perspective consider that a year ago in 2011 Bally's had large expansion plans for the mainland however those do not seem to be panning out. Similarly, the fitness market has been another area that seems to have suffered from hype as back in 2002 it was reported that China's sport and leisure market had 400 million consumers who spent \$1.7 billion on sporting goods in 2000. Thus, again while the potential remains, it may take many more years for any kind of critical mass or market penetration rates that are equivalent to the West, if ever. See [China's Next Revolution Is in Fitness](#) from *The New York Times*, [Little Weight to China's Gym Fad](#) from *Los Angeles Times* and [The New Sweatshops](#) from *TIME*

⁴⁶⁶ An area of personal interest is the sport supplement and dietary supplement industry (which I did my graduate research on in the US). While specific market research numbers are hard to come by, products from GNC are readily sold in CityShop (see Chapter 3) locations and some yogurt shops sell MuscleMilk. And because of the prevalence of TCM (traditional Chinese medicine) and herbal supplements at every local pharmacy, perhaps foreign firms specializing in supplements could find a new market to generate revenue from if properly localized, branded and marketed.

⁴⁶⁷ [Number of Elementary Schools Shrink in China as Population Ages](#) from *Xinhua*

⁴⁶⁸ [Age will weary the Chinese miracle](#) from *BusinessSpectator*

⁴⁶⁹ More specifically, "Despite a 40% increase in population since 1976 the number of primary school students has gone down by 33%, from 150 million to 100 million, and there were half as many primary schools in 2010 as there were in 2000." See [停止计划生育政策的紧急呼吁](#) from *Eduzx.net*

⁴⁷⁰ The peak was 9.5 million in 2006. It has declined in part because of the one-child policy and also because many students are matriculating overseas for education. See [More students choose to study abroad](#) from *People's Daily* and [The gaokao: still life's most important test?](#) from *China Daily*

⁴⁷¹ The number of higher education institutions doubled in ten years, from 1,022 to 2,263 in 2011. This includes a combination of both universities and junior colleges. For comparison roughly 3 million students graduate from US universities and junior colleges each year. There are now 11 times as college students in China as it had in 1989. See [China's Ambitious Goal for boom in College Graduates](#) from *The New York Times*, [China's Graduates Face Glut](#) from *The Wall Street Journal*, [Chinese Graduates Say No Thanks to Factory Jobs](#) from *The New York Times* and [A work in progress](#) from *The Economist*

⁴⁷² [Testing time for study abroad](#) from *China Daily*

⁴⁷³ Currently there are no SAT test centers on the mainland due to restrictions by the government. Thus students wanting to take the SAT must go elsewhere, typically Hong Kong. See [“洋高考” 来势凶猛国内高校面临挑战](#) from *Sohu*

⁴⁷⁴ See [Chinese Flock to the GMAT](#) from *The Wall Street Journal* and [China Outperforms U.S. on GMAT](#) from *The Wall Street Journal*

⁴⁷⁵ This growth in GMAT testing and overseas matriculation is one of the reasons why US institutions that provide MBAs have grown from 26,000 to more than 168,000 annual graduates from 1970 to 2009. There are a number of mainland based MBA schools as well including the top ranked Cheung Kong Graduate School of Business in Beijing. See [Is the MBA Obsolete](#) from *Forbes*, [China Best Business School Leadership MBA](#) from *Forbes* and [Game Changers: Guanghua Cai](#) from *Fortune*

⁴⁷⁶ [China's Test Prep Juggernaut](#) from *BusinessWeek*

⁴⁷⁷ New Oriental is currently involved with a class action lawsuit that alleges the company did not clearly state that students in franchises (which the company does not own) were counted among the overall headcount (e.g., headcount inflation). See [New Oriental faces class law suit in the US](#) from *China Daily* and [New Oriental Sinks as Block Renews Allegations: China Overnight](#) from *Bloomberg*

⁴⁷⁸ [An education exchange would strengthen ties with China](#) from *Politico*

⁴⁷⁹ [Chinese Learn English the Disney Way](#) from *The Wall Street Journal*

⁴⁸⁰ [China to recruit foreign experts through Internet](#) from *People's Daily*

⁴⁸¹ In addition to traditional formats and courses, the EFL market in China also includes: IELTS, TOEFL, SAT, GRE, GMAT and LSAT.

⁴⁸² For a step-by-step procedure, see [Starting a Business in China](#) from the World Bank. See also [New Path for Trade: Selling in China](#) from *The New York Times*

⁴⁸³ Ambow is currently facing a lawsuit by investors who accuse it of fabricating acquisitions to bolster its revenue numbers. See [Ambow Education Investors Pursue Lawsuit as Shares Plunge](#) from *Bloomberg*

⁴⁸⁴ [Teaching English in China: What You Need to Know](#) from *Yahoo! Voices*

⁴⁸⁵ [The Impact of English in China](#) by Jun Liu

⁴⁸⁶ As I note in Chapter 14, through the mass consumption of Western entertainment, the Romanization and Latinization of both mainland businesses and cultures continues. And yet this is not the only area in which Western culture is absorbed on the mainland. According to Yasmin Haskell, “The Chinese already appreciate the importance of these sources [European sinologists]. Several years ago they were sending local students on scholarships to learn Latin at European universities. Today, as I am reliably informed by a senior American colleague, they are training up thousands of Chinese teachers of classics -- not the Chinese classics of Confucius and Lao Tzu, that is, but those of ancient Greece and Rome.” See [We must look to an ancient tongue to understand Asia](#) from *The Australian*

⁴⁸⁷ Another on-going long-term opportunity for brand marketers is working with these large SOEs as they internationalize and go abroad. While they typically dominate their specific market segments domestically (in part because of their monopolistic privilege) they have had

uphill challenges in expanding abroad. See [BCG: Chinese State-Owned Firms Not So Muscular Abroad](#) from *The Wall Street Journal*

⁴⁸⁸ [China Needs American Education. Here's How to Bring It There](#) from *Forbes*

⁴⁸⁹ See [English language education in Korea, fad or the future?](#) from *Yonhap* and [The Economics of English](#) by Hyo-Chan Jeon

⁴⁹⁰ See [Japan Launches primary push to teach English](#) from *The Guardian*, [The Economics of English](#) by Hyo-Chan Jeon and [Elementary Schools to get English](#) from *The Japan Times*

⁴⁹¹ The economic term for this is the “subjective theory of value” in contrast to the classical “labor theory of value.” See Chapter 4 entitled [The Subjective Theory of Value](#) by Thomas Taylor

⁴⁹² [An Interview With Charles Zhang, CEO of Sohu](#) from *Agenda*

⁴⁹³ [China's Middle-Class Parents Underwhelmed by Undergrad Degree](#) from *The Wall Street Journal*

⁴⁹⁴ Ibid

⁴⁹⁵ [In China, Betting It All on a Child in College](#) from *The New York Times*

⁴⁹⁶ As one of my Chinese mentors in Singapore explained, the cultural component should not be overlooked or downplayed. There is a Confucian virtue called *xiushen* (修身 or self-cultivation, improvement, rectification) which has been enshrined at a deep cultural level across the Chinese populace that Western education, especially at tertiary levels, and particularly in the fields of science, technology, management, marketing and finance will probably see strong demand for years to come. This is not simply a calculation concern (to improve one's income potential), but even more so a cultural phenomenon.

⁴⁹⁷ [600 million middle-class Chinese by 2020: think tank](#) from *Xinhua*

⁴⁹⁸ See p. 10 [The Chinese Luxury Consumer White Paper](#) from *Hurun*

⁴⁹⁹ The target schools abroad, especially in the US are elite institutions like the Ivy League. See [Chinese flock to elite U.S. schools](#) from *CNN*

⁵⁰⁰ To be even handed there are also several successful domestic tech firms founded by homegrown talent that did not matriculate overseas such as Jack Ma (Alibaba) and William Ding (NetEase).

⁵⁰¹ USC's Marshall School of Business has a joint international venture with Jiao Tong University in Shanghai, offering an executive MBA since 2004.

⁵⁰² [Harvard Trained Communists Vie for Power as Party Gathers](#) from *Bloomberg*

⁵⁰³ Ibid

⁵⁰⁴ Some of these new “special” programs (preparatory courses often taught by foreigners) are called “American-Chinese cooperation programs” and are being implemented at public schools, yet they also have their own admissions hurdles. For example, they all require their own entrance examination and some of these programs charge up to 100,000 RMB (\$15,000). See [“洋高考” 来势凶猛国内高校面临挑战](#) from *Sohu*

⁵⁰⁵ See [British public schools exported to China](#) from *BBC* and [China creates a replica of famous British public school Wellington College near Beijing](#) from *Daily Mail*

⁵⁰⁶ [An Oxford in Changzhou? International schools spread across China](#) from *Reuters*

⁵⁰⁷ [SMIC Private School](#) in Shanghai is estimated to cost around \$11,000 a year whereas the [British International School](#) in Shanghai purportedly costs \$30,000 per annum.

⁵⁰⁸ [An Oxford in Changzhou? International schools spread across](#) China from *Reuters*

⁵⁰⁹ [Spreading their wings early](#) from *China Daily*

⁵¹⁰ Ibid

⁵¹¹ Ibid

⁵¹² [Can U.S. Universities Stay on Top?](#) from *The Wall Street Journal*

⁵¹³ Various levels within the Chinese government are attempting to recreate the education boom laid forth by the G.I. Bill through their own \$250 billion a year initiative. See [China's Ambitious Goal for Boom in College Graduates](#) from *The New York Times*

⁵¹⁴ [Chinese boost for US colleges](#) from *Shanghai Daily*

⁵¹⁵ It is not just US colleges that have benefited from this international student pool. According

to an *Al Jazeera* report, “British universities receive more students from China than any other country outside of the European Union.” There were 67,235 Chinese international students in the 2010-2011 cohort in the UK. See [Chinese students choosing to study abroad](#) from *Al Jazeera*

⁵¹⁶ [Students from China add \\$5b to US economy](#) from *China Daily*

⁵¹⁷ [Ten Years of Rapid Development of China-US Relations](#) from *Xinhua*

⁵¹⁸ Prior to World War II, the leading institutions of both the sciences and social studies were in German-speaking countries. German, not English, was the *lingua franca* of the academic world for nearly a century.

⁵¹⁹ One tool that all administrators and application departments in any country can now utilize to screen potential candidates is InitialView which is an interview platform that is becoming increasingly popular among both by applicants and administrators (38 out of the top 50 US colleges now accept interviews from this platform). See [China’s InitialView gains traction as most top US universities now accept its candidate interviews](#) from *The Next Web*

⁵²⁰ [Stanford research center opens at Peking University](#) from *Stanford*

⁵²¹ [Shanghai NYU will open for fall of 2013](#) from *Shanghai Daily*

⁵²² [Juilliard to Bring New York-Style Teaching to China](#) from *The New York Times*

⁵²³ [Foreign universities: Campus collaboration](#) from *The Economist*

⁵²⁴ [Duke Kunshan University delayed again, following communication and funding problems](#) from *The Chronicle*

⁵²⁵ [Forged Transcripts and Fake Essays: How Unscrupulous Agents Get Chinese Students into U.S. Schools](#) from *TIME*

⁵²⁶ While there are many genuine applicants, foreign admissions consultants should be aware that considerable amounts of fraud have taken place in this subindustry. In fact, one report in 2011 based on a survey of 250 Beijing high school students matriculating to the US “concluded that 90 percent of Chinese applicants submit false recommendations, 70 percent have other people write their personal essays, 50 percent have forged high school transcripts and 10 percent list academic awards and other achievements they did not receive.” See [A Chinese Education, for a Price](#) from *The New York Times*, [The China Conundrum](#) from *The New York Times* and [Busted: Fraud in China](#) by Tom Melcher

⁵²⁷ For a step-by-step procedure, see [Starting a Business in China](#) from the World Bank. See also [New Path for Trade: Selling in China](#) from *The New York Times*

⁵²⁸ [SNQA](#)

⁵²⁹ [Chinese Universities Send Big Signals to Foreigners](#) from *The New York Times*

⁵³⁰ [‘Sea turtles’ reverse China’s brain drain](#) from *CNN*

⁵³¹ [Steal this Scientist](#) from *The Daily Beast*

⁵³² [Reverse brain drain: China engineers incentives for “brain gain”](#) from *Christian Science Monitor*

⁵³³ For a step-by-step procedure, see [Starting a Business in China](#) from the World Bank

⁵³⁴ For a concise explanation see [PRC Taxes on Hong Kong & Foreign Companies: Clarifications, Changes, Challenges & Opportunities](#) from Orrick, Herrington & Sutcliffe. And while not exactly the same, there is a similar method of reducing tax liabilities used by numerous multinationals; see [‘Double Irish With a Dutch Sandwich’](#) from *The New York Times* and [Google Revenues Sheltered in No-Tax Bermuda Soar to \\$10 Billion](#) from *Bloomberg*

⁵³⁵ See [In Reversal, Cash Leaks Out of China](#) from *The Wall Street Journal* and [The Mechanics of Moving Cash Out of China](#) from *The Wall Street Journal*

⁵³⁶ According to *Distimo*, “Applications with Chinese as a language in the top 200 were responsible for the largest share of the free downloads in China at 73 percent. English was responsible for only 69 percent of the free downloads among the top 200 in China.” See [App Distribution Becomes A Global Game: The Shift Of Power & Impact For Developers](#) from *Distimo*

⁵³⁷ [One Man, One Computer, 10 Million Students: How Khan Academy Is Reinventing Education](#) from *Forbes*

⁵³⁸ [ChinaCache Releases Third Quarter 2012 China Internet Connection Speed Rankings](#) from

China Web Report

⁵³⁹ For comparison, the average download bandwidth in the US is 11.6 Mb/s. See [International Broadband Data Report \(Third\)](#) from the Federal Communications Commission

⁵⁴⁰ [China's 'Wall' Hits Business](#) from *The Wall Street Journal*

⁵⁴¹ To be balanced I should point out that there are several other competitors that offer online language learning services including [TellMeMore](#) and [GlobalEnglish](#).

⁵⁴² [Tencent Eyes Growing Online Education Market in China](#) from *Caijing*

⁵⁴³ [China Investors: We Don't Need No Edukation](#) from *The Wall Street Journal*

⁵⁴⁴ Ibid

⁵⁴⁵ For their series on protecting your IP in China, see [How To Protect Your IP from China](#) from *ChinaLawBlog*

⁵⁴⁶ For their discussion on technology transfers and legal statutes in China see [How To Handle Chinese Negotiating Tactics. Part Three.](#) from *ChinaLawBlog*

⁵⁴⁷ For more regarding legal issues surrounding joint ventures on the mainland see, [China Joint Ventures. Watching The Sausage Get Made.](#) from *ChinaLawBlog*

⁵⁴⁸ See [Japan Inc shoots itself in foot on bullet train](#) from *Financial Times* and [IPR fears won't derail bullet train exports](#) from *China Daily*

⁵⁴⁹ General Motors closest competitor is Volkswagen, who sold 2.81 million cars in 2012 but initiated one of the largest recalls beginning April 2, 2013. See [Volkswagen recalls over 384,000 cars in China: watchdog](#) from *Reuters*

⁵⁵⁰ [General Motors in China: Coping with the Changes in the Automobile Industry](#) from ICMR

⁵⁵¹ [GM and SAIC join forces on electric cars](#) from *Financial Times*

⁵⁵² See [Road Gets Bumpy for GM in China](#) from *The Wall Street Journal* and [GM and SAIC's Open Marriage](#) from *China Bystander*

⁵⁵³ There are endless amounts of anecdotes retold by colleagues and coworkers over the years. One notable story involves a friend who wanted to buy natural and artificial hair in China and ship it to the US targeted specifically for African hair salons for use as braiding. She spent several hundred hours traveling across Shandong, filing the necessary paperwork, building *guanxi*, buying hair samples and contacting US hair salons. Yet due to the thin margins, legal fees related to permits, import & export duties on both sides of the Pacific and transportation costs, her business plan would prove to be unprofitable. Thus collecting all of the necessary requirements and doing due diligence is highly recommended before investing any significant capital into an overseas endeavor.

⁵⁵⁴ For a step-by-step guide on forming an WFOE see [China's Approval Process for Inbound Foreign Direct Investment](#) from the US Chamber of Commerce. See also [Forming A China WFOE. How Long Will That Be Going On?](#) from *China Law Blog* and [Selling In And Into China. Four Good Tips And Mine.](#) from *China Law Blog*

⁵⁵⁵ [VIEs In China. The End Of A Flawed Strategy.](#) From *ChinaLawBlog*

⁵⁵⁶ [Variable interest entities in China](#) from *China Accounting Blog*

⁵⁵⁷ [Yahoo gets short end of stick in Alibaba deal](#) from *Reuters*

⁵⁵⁸ According to Analysys research and consulting, as of Q2 2012, Alipay leads with 47.3%. This is up from 46.9% in Q4 2011. See [Alipay Lead China 3rd Party Internet Payment Market 2011Q4](#) from Analysys

⁵⁵⁹ [Yahoo/Alibaba/Alipay/Jack Ma/Carol Bratz: What Really Happened And What It All Means.](#) from *ChinaLawBlog*

⁵⁶⁰ See [Harris & Moure](#) and [King & Wood Mallesons](#)

⁵⁶¹ See Chart 4 on p. 14 in [Comprehensive Guide to Bar Admission Requirements 2012](#) from National Conference of Bar Examiners

⁵⁶² See p.5 in [Judicial Reform in China](#) from the State Council Information Office

⁵⁶³ [China has 220,000 lawyers](#) from *China Daily*

⁵⁶⁴ There are other requirements as to the eligibility of the shareholder for claiming the inspection right as well. In addition, the restrictions on this and on accessing full company records will vary city by city.

⁵⁶⁵ [On Doing Investment Research In China As A WFOE. Not Legal.](#) from *ChinaLawBlog*

⁵⁶⁶ [China's Turn Against Law](#) by Carl F. Minzner

⁵⁶⁷ In some ways this is similar to retailers in Western countries that practice "rolling inventory" at the end of the year. Speak with a legal professional before conducting this type of transaction.

⁵⁶⁸ [In Reversal, Cash Leaks Out of China](#) from *The Wall Street Journal*

⁵⁶⁹ This issue was directly discussed in [Getting Money Out Of China. That's Illegal.](#) from *ChinaLawBlog*

⁵⁷⁰ [The Mechanics of Moving Cash Out of China](#) from *The Wall Street Journal*

⁵⁷¹ Another area that may change in the near future is capital gains tax on returns for private equity firms investing in China. See [Tax Experts: China May Crack Down on Capital Gains](#) from *The Wall Street Journal*

⁵⁷² [Property curbs to stay](#) from *Global Times*

⁵⁷³ One of the reasons this rate incentivizes real-estate speculation is that the interested earned at a bank is usually lower than CPI or inflation. Thus merely placing funds into a savings account will actually net a loss once adjusted for inflation. Readers may also be interested in the analysis from [Michael Pettis](#), a finance professor at Peking University and [Patrick Chovanec](#), a finance professor at Tsinghua University as well as [Animal Spirits with Chinese Characteristics](#) by Mark DeWeaver.

⁵⁷⁴ See [China Tourism Academy showed 70 million Chinese tourists outbound in 2011](#) from *China Business Network*, [Chinese rush overseas for holiday](#) from *China Daily* and [China Voice: Keep China's big spenders at home](#) from *Xinhua*

⁵⁷⁵ [Bless the Crass Chinese Tourist](#) from *The New York Times*

⁵⁷⁶ Thailand now receives more tourists from China than anywhere else. In fact, tourists from the mainland "accounted for 13 percent of the 19.8 million visitors to Thailand in the first 11 months of last year." For example during the 2013 Spring Festival, an estimated 270,000 Chinese tourists visited Thailand. See [Chinese Tourists Lost in Thailand Boosts Hotels: Southeast Asia](#) from *Bloomberg* and [270,000 Chinese in Thailand during festival](#) from *China Daily*

⁵⁷⁷ [China now top source of leisure travelers to US](#) from *Want China Times*

⁵⁷⁸ [Chinese tourists spend more in US in 2011](#) from *China Daily*

⁵⁷⁹ Ibid

⁵⁸⁰ Some of these mainland tourists are now traveling abroad during Chinese holidays. In fact there are numerous travel groups that are targeting the US during the winter due to its relatively slower season (compared with the intensely busy travel season on the mainland). According to one report "four Chinese tourism companies have launched a project to attract Spring Festival vacationers from China" to the US. See [Start the new year with a trip to the US](#) from *China Daily*

⁵⁸¹ Hainan Airlines recently set up a non-stop direct route between Beijing and Chicago. See [Hainan Airlines to begin direct Chicago flights](#) from *China Daily*

⁵⁸² Global Blue also found that the top three favorite destinations for Chinese tourists are France, Germany and Singapore. See [Chinese overseas shopping hits record high](#) from *Xinhua*

⁵⁸³ One of the reasons why there is such a large disparity between tourists to France versus the UK has to do with the Schengen Area harmonized visas (e.g., if you get an tourist visa to one member of the EU you can visit any of the other members). The UK is implementing a new visa policy to streamline and make it easier for mainland tourists to visit; in 2012 the UK Border Agency issued 286,000 visas to people in China. And according to Patricia Yates of VisitBritain, "[t]he average Chinese visitor spends about three times as much -- £1,600 (\$2,600, 2,000 euros) -- as the average visitor to Britain." Collectively their spending amounted to £240 million (\$390 million) last year. See [Britain looks to Chinese tourists for Christmas cheer](#) from *Agence France-Presse* and [UK aims to streamline visa application process](#) from *Global Times*

⁵⁸⁴ [France tops European table for Chinese tourists](#) from *The Guardian*

⁵⁸⁵ See [Chinese check-ins](#) from *The Economist* and [Chinese flock to Europe, US for holiday](#) from *China Daily*

586 Another possibility that I did not mention is that you could cater to Chinese tourists coming to your hometown. For example in 2011, “Starwood Hotels & Resorts Worldwide and Hilton Worldwide rolled out global hospitality standards such as in-room tea kettles, slippers and translation services, centered on wooing Chinese guests.” See [Meet Hualuxe, China’s Newest Upscale Hotel Brand](#) from *The Wall Street Journal*

587 [Chinese brands struggle in luxury market](#) from *People’s Daily*

588 [Chinese luxury: top of the shoppers](#) from *Financial Times*

589 For an illustration of why and which foreign items are purchased in China see this excellent infographic: [Why Do Chinese Consumers Pay So Much for Foreign Brands?](#) from East-West Connect

590 [Why China is sitting on fashion’s front row](#) from *CNN*

591 [Luxury Without Borders: China’s New Class of Shoppers Take on the World](#) from *McKinsey & Co.*

592 See [China’s metrosexual men revive luxury shopping](#) from *Reuters*, [Let’s hear it for the boys: China’s men lift luxury market](#) from *Reuters* and [Gucci owner targets luxury brands to cash in on Chinese consumers](#) from *South China Morning Post*

593 [Corruption curbs crimp luxury market](#) from *China Daily*

594 According to one 2009 estimate, gifts to government officials comprised nearly 50% of all China’s luxury sales. See [China Targets Corruption, Luxury Brands Mourn](#) by Evan Osnos, [For Bribing Officials, Chinese Give the Best](#) from *The New York Times* and [SARFT orders ‘gifting’ ads off the air](#) from *Global Times*

595 [Corruption curbs crimp luxury market](#) from *China Daily*

596 奢侈品告别 “中国盛宴” Gucci 今年在华暂停开店 from *Yicai*

597 [Chinese Shoppers Overtake U.S. as Top Luxury Buyers](#) from *Bloomberg*

598 The actual study period was from August 2011 to August 2012. See [Coming to a City Near You: More Chinese Shoppers](#) from *The Wall Street Journal*

599 [China Gets Angry at Overseas Luxury Shopping Trips](#) from *The Wall Street Journal*

600 See [Le Chinese tour de luxe](#) from *South China Morning Post*, [Luxury brands still reaping big rewards in China](#) from *South China Morning Post* and [视频：业内人士曝洋奢侈品在中国利润吓死人](#) from *CCTV*

601 In economic parlance this is called “conspicuous consumption.”

602 [Coming to a City Near You: More Chinese Shoppers](#) from *The Wall Street Journal*

603 Chinese consumer spending overseas increased 31% between 2011 and 2012 yet sales growth on the mainland for luxury goods fell from 30% to 7% during the same time. See [China Voice: Keep China’s big spenders at home](#) from *Xinhua*

604 [China’s Frills and Posh Market Springs a Leak](#) from *Caixin*

605 Another estimate cited by Colin Speakman is that in 2012 Chinese consumption of luxury goods amounted to \$46 billion in total of which \$27.1 billion was spent overseas. See [The bane of domestic consumption](#) from *China Daily*

606 [Luxury goods: style rises in the east](#) from *Financial Times*

607 [Burberry lays on ‘mother of all parties’ to launch flagship Beijing store](#) from *The Telegraph*

608 To give you an idea of how many people visit Hong Kong, in November 2012 more than 3 million mainlanders visited the SAR; this resulted in a 13.7% increase in sales of jewelry and watches. See [Hong Kong Luxury Sales Rebound on Confidence in Mainland](#) from *Bloomberg*

609 [Why China’s 1% Is Now Discreetly Hiding Its Wealth](#) from *The Atlantic*

610 One challenge for foreign retailers that receive tourists from the mainland is dealing with the “kickback” bonus (5-10% of sales) to tour operators who bring the Chinese tourists to the actual stores. See [Copenhagen Luxury Retailers Face Chinese Tour Guide “Kickback Culture”](#) from *Jing Daily*

611 [Santa is coming and China takes a lot more](#) notice from *China Daily*

612 UnionPay is the largest credit card company on the mainland (equivalent to MasterCard and Visa). Despite the assumption that few people or families have credit cards in China, the reality is that by the end of 2013 there will be an estimated 360 million credit cards on the mainland.

This is up from a mere 3 million in 2003. See [More Chinese to swipe credit cards in 2013](#) from CCTV News, [Spring Festival holiday fuels bank card transactions](#) from Xinhua, [China Credit Card Market Forecast to 2015](#) from RNCOS and [Competing for China's credit card market](#) from

McKinsey Quarterly

⁶¹³ [Chinese tourists snub 'Big Stupid Clock'](#) from BBC

⁶¹⁴ Ibid

⁶¹⁵ [Le Chinese tour de luxe](#) from *South China Morning Post*

⁶¹⁶ [Santa is coming and China takes a lot more](#) notice from *China Daily*

⁶¹⁷ [Chinese tourists snub 'Big Stupid Clock'](#) from BBC

⁶¹⁸ [Retailers prepare for holiday shoppers from China](#) from *China Daily*

⁶¹⁹ There are 12 animals altogether in the Chinese astrological zodiac. See [What Do People Want Most for Chinese New Year? Cash Money](#) from *The Wall Street Journal*

⁶²⁰ [Remington Pipes](#)

⁶²¹ Approximately one in three pairs of Nike shoes are made in China. Nike contracts out to 180 manufacturers, employing 210,000 workers on the mainland. See [Nike still sees China labor challenges](#) from *USA Today* and [Rising Chinese salaries pushes Adidas to look elsewhere: report](#) from *Agence France-Presse*

⁶²² See [Imported' furniture never left country, say officials](#) from *Shanghai Daily*, [What did DaVinci furniture scandal expose?](#) from *People's Daily* and [Furniture retailer fined after 'fake imports' scandal](#) from *China Daily*

⁶²³ While many other countries have similar policies, dozens of Chinese industries and product-lines receive VAT export rebates and subsidies which incentivize production irrespective of their profitability. See [Nation 'unlikely' to reduce export rebates](#) from *China Daily* and [Vuvuzela sounds clarion call for China's manufacturers](#) from *Xinhua*, [Glut of Solar Panels Poses a New Threat to China](#) from *The New York Times* and [China adjusted VAT & consumption tax policies for exported goods and services](#) from KPMG

⁶²⁴ [Swiss Watch Boutiques Swap Christmas Trees for Hongbao](#) from *Bloomberg*

⁶²⁵ Not all is smooth sailing for luxury goods. For example, during the recent crackdown on government corruption, gift giving has dropped markedly. And since luxury watches were one of the popular gifts provided to businessmen and officials, there has been a measurable decline. According to the Federation of the Swiss Watch Industry “show that Swiss watch exports to the Chinese mainland dropped 27.5 percent year-on-year in September.” This is on the back of 40% growth from the previous year. See [Corruption curbs crimp luxury market](#) from *China Daily*

⁶²⁶ One of the reasons why Hong Kong has become a large importer of wines is that duties were removed on wine imports in 2008. See [Mainland China Now #5 Export Market For US Wines, HK #3](#) from *Jing Daily*

⁶²⁷ Yacht designers – both foreign and domestic – have also begun finding new opportunities with wealthier Chinese clients. Two other areas are hand-made tobacco pipes and hand-made bicycles which are both seen as unique, luxurious items by high-net worth individuals. See [Made-in-China superyachts reflect changing tide of economy](#) from *CNN*, [Bikes for bonuses as China's wealthy reminisce](#) from *Reuters* and [The new face of bling in China – bikes](#) from *Reuters*

⁶²⁸ There may have been another bubble in the wine industry as wine sales dropped from \$397 million in 2011 to \$322 million in 2012 at the biggest auction houses. See [Wine Auctions Drop 19%, Chinese Demand Cools for Bordeaux](#) from *Bloomberg*

⁶²⁹ [China On Track To Be World's Biggest Cognac Consumer](#) from *Jing Daily*

⁶³⁰ [China Has Become A Very Important, Huge Market For Every Cognac Company](#) from *Jing Daily*

⁶³¹ See [J.Crew Brings Its Brand to China](#) from *The Wall Street Journal* and [Strong overseas, US sales lift Coach 1Q profit](#) from *BusinessWeek*

⁶³² [Coach Looks to Bag Chinese Market](#) from *The Wall Street Journal*

⁶³³ [The consuming challenge of food safety](#) from *China Daily*

⁶³⁴ See [U.S. and Chinese Consumers Willing to Pay More for Made in USA Products](#) from Boston Consulting Group and [Chinese Willing to Pay More for Made-in-USA Goods](#) from *The Wall Street Journal*

635 Chinese consumers are becoming increasingly savvy and in-tune with fashionable trends from elsewhere as magazines such as Elle, Vogue and Cosmopolitan publish large monthly issues customized for their Chinese audience. See [The Stylish Side of China](#) from *The New York Times*

636 [China uncovers luxury bag fakery, arrests 73](#) from *Xinhua*

637 [Fashion industry struck by China lowdown](#) from *The Independent*

638 [It's Up, It's Down: Reading the Tea Leaves on China's Luxury Market](#) from *brandchannel*

639 See [Burberry profit warning chills luxury rivals](#) from *Reuters* and [Burberry lays on 'mother of all parties' to launch flagship Beijing store](#) from *The Telegraph*

640 See [China Targets Corruption, Luxury Brands Mourn](#) by Evan Osnos, [For Bribing Officials, Chinese Give the Best](#) from *The New York Times*

641 [China bloggers expose more corruption: reports](#) from *Agence France-Presse*

642 See [China's downturn-proof booze makers hit government wall](#) from *Reuters* and [SARFT orders 'gifting' ads off the air](#) from *Global Times*

643 After six months since the “clamp down” on “pricey booze” began, domestic liquor makers have reported that business was not initially been hampered and in fact they have posted strong profits in Q3 2012. Yet at the turn of the New Year, *baijiu* manufacturers were especially hit relatively hard due to a new national government crackdown on extravagant spending at banquets and parties funded by local governments. And according to a recent survey of high-network individuals in China, most affluent residents prefer to receive foreign luxury items as opposed to domestically made brands. Subsequently Moutai itself has had a number of administrative problems that have only added to the issues of crackdowns on banquet and gift-giving. Conversely imported liquor is reportedly seeing robust growth, with UK-based Diageo seeing a 50% increase in sales of its luxury Scotch. See [Mao's \\$300 Red Army Liquor Suffers Before China Congress](#) from *Bloomberg*, [Withdrawal symptoms: China's rice wine market](#) from *Buy Buy China*, [Glass half full for imported liquor](#) from *China Daily*, [Premium liquor shares iffy amid frugality campaign](#) from *Xinhua*, [Bottoms up: China booze makers defy economic gloom](#) from *Reuters* and [China gift crackdown hits watches, booze but foreign brands hold on](#) from *Reuters*, [茅台整改：反腐潮加快白酒业全面市场化](#) from *NBD*, [媒体称多地严查公款吃喝后部分名酒价格暴跌](#) from *163* and [白酒年关难过](#) from *Caixin*

644 [Baijiu Stocks Sink After Premier Vows to Curb Spending on Banquets](#) from *The Economic Observer*

645 On October 22, 2012 Bill Bishop [highlighted](#) a Chinese photographer's tour of the American West during Chinese National Day (October 1-7). Bishop predicts that there “will be lots more travelers like this as US visas get easier for Chinese tourists.” See [美国西部特写-大提顿国家公园](#) 梁芳洁的芳草地 梁芳洁 博联社 from 梁芳洁.

646 [Chinese parents turn to US summer camps](#) from *China Daily*

647 [Number of Chinese tourists to USA doubles after loosen visa policy](#) from *South China Morning Post*

648 Glenn Wilkinson, the Australian consultant that I mentioned a couple of times, told me he knows of numerous Chinese who have gone and who are currently interested in going to the Australian Outback or even Africa. This kind of “genre tourism” caters to those wanting to experience the authentic conditions (e.g., ruggedness, safari). See [For Affluent Asians, Africa's Appeal](#) from *The Wall Street Journal*

649 See [Best massages in Shanghai](#) from *CNN* and [Dragonfly Spa Review](#) from *About.com*

650 [Top 10 private companies in China 2011](#) from *China.org.cn*

651 [Wanda of China set to buy more U.S. entertainment assets](#) from *Los Angeles Times*

652 [Changba: The Viral KTV App](#) from *The World of Chinese*

653 [China saw 138,000 Internet cafes as of 2009](#) from *Xinhua*

654 [Art Sales' Old Guard Gets Rival From Asia](#) from *The Wall Street Journal*

655 [Four Tips On How To Approach China's Art Boom](#) from *Forbes*

656 See [Sotheby's autumn HK sales drop as China economy slows](#) from *Reuters* and [Auction Houses Go Head-to-Head in Hong Kong](#) from *The Wall Street Journal*

657 [China art market: auction houses see slump in 2012](#) sales from *Financial Times*

⁶⁵⁸ [Chinese slump dents global art market in 2012](#) from *China Daily*

⁶⁵⁹ In Guo's words, "The briber first presents a forged artwork as a gift to the official being bribed, which does not violate the Chinese anti-corruption laws since such artworks have very low monetary value. Then, the official auctions the painting via an auction house. Finally, the briber attends the auction and purchases the artwork back for a very high price, as if he mistook the work for an original. Since bribery, rather than investment or personal appreciation, is the purpose of such purchases, "elegant bribery" is a significant source of inelastic demand for works of art in the Chinese auction market, driving prices beyond what can be explained by observable characteristics." See [What Drives the Chinese Art Market? The Case of Elegant Bribery](#) by Jia Guo

⁶⁶⁰ [Art schools face uncertain financial future](#) from *The Guardian*

⁶⁶¹ [Chinese take the art market by storm](#) from *China Daily*

⁶⁶² [China's New Cultural Revolution: A Surge in Art Collecting](#) from *The New York Times*

⁶⁶³ [Yizzu.com Brings Chinese Art to the Masses and Builds a Community](#) from *TechNode*

⁶⁶⁴ [Four Tips On How To Approach China's Art Boom](#) from *Forbes*

⁶⁶⁵ [Photos and Videos as Social Currency Online](#) from *PewInternet*

⁶⁶⁶ See [MIIT: China's Internet User Base to Hit 800 Mln by 2015](#) from *People's Daily*, [SMS growth in China slows as mobile users turn to alternatives like Tencent's WeChat](#) from *The Next Web* and [Social, Digital, Mobile China \(Jan 2013\)](#) from *We Are Social*

⁶⁶⁷ See [Chinese Web Users Hit 538 Million](#) from *PCMag* and [China's Internet population surges to 564 million, 75 percent on mobile](#) from *ZDNet*

⁶⁶⁸ As of 2011, the amount of rural internet users was 136 million. According to *China Internet Watch*, "In other words, there is still 82% of rural population that could not access the Internet. Paralleling that, Chinese penetration of broadband connection is low. Only 39% of families have fixed broadband connection in China. In some middle and western provinces, less than 70% of population has phones." See [74% Chinese Netizens Acquire News Online](#) from *China Internet Watch*

⁶⁶⁹ [One World, Two Internets](#) by Bill Bishop

⁶⁷⁰ [China Had 564 Million Netizens By End Of 2012; Fewer Using Desktop Computers To Surf](#) from *China Tech News*

⁶⁷¹ [China Social Media Whitepaper \(October 2012\)](#) from *China Internet Watch*

⁶⁷² See [Singles Day: China's online shopping holiday](#) from *USA Today* and [Singles' Day promotions draw in shoppers](#) from *China Daily*

⁶⁷³ [China Had 564 Million Netizens By End Of 2012; Fewer Using Desktop Computers To Surf](#) from *China Tech News*

⁶⁷⁴ [Bezos' Kindle-Less Amazon Mashed in China by Ma's Alibaba](#) from *Bloomberg*

⁶⁷⁵ See [Black Friday in Red China](#) by Evan Osnos and [Singles Day: China's online shopping holiday](#) from the *Associated Press*

⁶⁷⁶ See [China Now Has 242 Million E-Commerce Shoppers, Spending \\$40,000 per Second](#) from *Tech In Asia* and [E-commerce in China - Statistics and Trends](#) from *Go-Globe*

⁶⁷⁷ [Black Friday surpasses \\$1B in online sales](#) from *Computer World*

⁶⁷⁸ I would be remiss if I mentioned Group-buying and Pinterest clones but not about Kickstarter-like crowd-funding sites in China. See [Tapping into Crowd Power with Website Finance](#) from *Caixin*

⁶⁷⁹ [Tencent announces \\$4.5 Billion in 2011 revenue](#) from *NASDAQ*

⁶⁸⁰ Unaudited 1H 2012 revenue was 20 billion RMB (\$3.24 billion). See [Interim Report 2012](#) from Tencent Holdings

⁶⁸¹ See [Tencent's WeChat messaging app passes 300m users, adding its latest 100m in just 4 months](#) from *The Next Web*, [Tencent: WeChat App Set to Surpass 300 Million Users Next Month](#) from *Tech In Asia*, [200 million users strong, Tencent's WeChat messaging sees huge adoption outside of China](#) from *The Next Web*

⁶⁸² According to their Q3 2012 results, Tencent generated \$1.82 billion in Q3 and their WeChat

service passed the 200 million user mark. See [Tencent continues modest growth in Q3 with \\$1.8b in revenue, \\$511m in profit](#) from *The Next Web*

⁶⁸³ WeChat is quickly gaining on Sina Weibo. See [Tencent's WeChat Takes Bite Out of Weibo](#) from *The Wall Street Journal*

⁶⁸⁴ See [WeChat Bests Weibo in Monetizing Social Media](#) from *Caijing* and [Wechat's Monetization and Overseas Quest](#) from *TechNode*

⁶⁸⁵ For more about WeChat and how to effectively use it to reach consumer see: [Conquering WeChat: Effective B-2-C Communication](#) by Digital Jungle and [The best blog posts about marketing and branding on WeChat](#) from *China Internet Guru*

⁶⁸⁶ [China's Fast-Growing WeChat Shakes Up Weibo. Could It Jump to the U.S.?](#) from *AdAge*

⁶⁸⁷ [Facebook looks more like WeChat every day](#) from *Pando Daily*

⁶⁸⁸ [SMS growth in China slows as mobile users turn to alternatives like Tencent's WeChat](#) from *The Next Web*

⁶⁸⁹ See [China's Tencent Aims Mobile App at U.S. Market](#) from *The Wall Street Journal* and [WeChat to set up US office](#) from *Global Times*

⁶⁹⁰ See [China's Instant Messaging Users reached 1.21 Billion in Q3 2012](#) from *China Internet Watch* and [China Mobile IM Active Users Reached 480 Million](#) from *China Internet Watch*

⁶⁹¹ See [Youku Tudou May See Postmerger Static](#) from *Barron's* and [China Online Video Market Update Q1 2011](#) from *China Internet Watch*

⁶⁹² [Youku Revenue up 84% in Q3; Reports Net Profit for 1st Time](#) from *Caijing*

⁶⁹³ [Youku's Now The King Of China Web Video: Can It Make Money?](#) from *Forbes*

⁶⁹⁴ As of September 30, 2012 Renren had approximately 172 million users and is expected to hit 200 million within the next year. See [Renren Has 45 Million Monthly Active Users, Eyes on Mobile](#) from *Tech In Asia*

⁶⁹⁵ To be even handed, some of these social media numbers require more objective analysis and may be artificially inflated. See [The myth of Chinese social media user numbers](#) from *South China Morning Post* and [Asia-Pacific to Top Western Europe Social Network Ad Spend in 2013](#) from *eMarketer*

⁶⁹⁶ See [Sina Weibo poised to launch new version](#) from *China Daily*, [Twitter reaches 500 million user mark](#) from *The Washington Post* and [Twitter monthly active users: 200 million and growing fast.](#) from *Slate*

⁶⁹⁷ See [Sina Weibo Passes 500 Million Users, But Needs to Monetize More on Mobile](#) from *Tech In Asia* and [Of Sina Weibo's 500 Million Registered Users, Are 90% Actually Zombies?](#) from *Tech In Asia*

⁶⁹⁸ Monetizing your company's fan base from social media sites like Sina Weibo is a challenge that was recently discussed by Ken Hong, the general manager of the Sina Weibo platform at Sina. See [Turning Brand Fans into BFFs](#) from *Thoughtful China*

⁶⁹⁹ How many people actually use Weibo is another issue as a recent study conducted by researchers Hong Kong University found that a large percentage of users may be "zombies" – fake accounts used by marketers to boost follower numbers (an attract higher advertising premiums). See [Reality Check for the Chinese Microblog Space: A Random Sampling Approach](#) by King-wa Fu and Michael Chaus

⁷⁰⁰ The 15.6% is an estimate from EnfoDesk regarding Google.cn; CNZZ estimates that Google's marketshare is lower at 4.72% in October 2012. See [China Search Engine Market Share in 2012](#) from *China Internet Watch* and [Google decline in China continues as its search share falls to 4th place, maps to 6th](#) from *The Next Web*

⁷⁰¹ [Baidu acquires dominant stake in online video firm iQiyi, buys out ex-Hulu investor Providence](#) from *The Next Web*

⁷⁰² See [Baidu Handles 5 BILLION Search Queries Per Day](#) from *Tech In Asia*, [Baidu Reaches 80 Million Mobile Apps Users, Reveals Full 2012 Financials](#) from *Tech In Asia*, [Qihoo Looks to Cut Into Baidu's Market Share of China's Internet Search Engine Market](#) from *Marketwire* and [Baidu Announces Fourth Quarter and Fiscal Year 2011 Results](#) from *PRNewsWire*

⁷⁰³ [China's Largest Search Engine Baidu Launches English Site For Developers](#) from *TechCrunch*

⁷⁰⁴ DST is a Russian-based venture capital firm headed by Yuri Milner that focuses in part in emerging market tech firms including those in China such as 360buy. See [China Deals Represent Half of DST Global's Recent Investments](#) from *The Wall Street Journal*

⁷⁰⁵ [VCs coach Silicon Valley startups on investing in China](#) from *China Daily*

⁷⁰⁶ In a bit of a role reversal, [InnoSpring](#) is a new US-China incubator based in Santa Clara, California. See [500 Startups Is Setting Up Shop In China, Adding Beijing-Based Venture Partner Rui Ma](#) from *TechCrunch*

⁷⁰⁷ [Geek Park Lures Google's Schmidt in China App Hunt](#) from *Bloomberg*

⁷⁰⁸ Ibid

⁷⁰⁹ [Could China Rival Silicon Valley](#) from *Australia Network News*

⁷¹⁰ This also provides a challenge for domestic Chinese internet companies wanting to expand and internationalize into the global marketplace. See [Now China's WeChat App is Censoring Its Users Globally](#) from *Tech In Asia*, [If Tencent wants WeChat to go global, it has to stop international censorship](#) from *Pando Daily*, [China's Tencent Apologizes for Message Problems](#) from *The Wall Street Journal* and [All Eyes Are on WeChat, Including the Chinese Government's](#) from *Motherboard*

⁷¹¹ [Sina Weibo introduces beginnings of an English interface](#) from *Shanghaiist*

⁷¹² In terms of understanding internet market opportunities and consumer behavior, it is highly recommended that readers peruse the [2012 China Internet White Paper](#) from *IDG-Accel* which goes into detail about several areas that are sometimes overlooked. For example, Chinese internet demographics can be broken down into the “Baigujing” (educated urban net users) and “Grassroots” (everyone else). Understanding this type of consumer segmentation could help focus your marketing strategy.

⁷¹³ [Pinterest Hits 10 Million U.S. Monthly Uniques Faster Than Any Standalone Site Ever](#) from *TechCrunch*

⁷¹⁴ [China's “Pinterest” in a faster profit-making mode](#) from *ZDNet*

⁷¹⁵ [Pinterest clones flooding Chinese web space](#) from *BBC*

⁷¹⁶ [Nearly Half of China's Group Buying Sites Now Closed Amid Heated Competition](#) from *PCWorld*

⁷¹⁷ See [Popular group-buying site in China shutters](#) from *ZDNet* and [24Quan, Once China's 5th-Biggest Daily Deals Site, Suspends Operations](#) from *Tech In Asia*

⁷¹⁸ [China's Lashou Has Lost its Mojo, its IPO, and 50% of Market Share](#) from *Tech In Asia*

⁷¹⁹ [How Brands Can Use Pinterest Without Breaking the Law](#) from *Ad Age*

⁷²⁰ [Experience Brands and the New Engagement Model](#) from Jack Morton in 2010

⁷²¹ Readers are encouraged to peruse the analytics provided in several case studies. See [Case Studies](#) from *Wildfire Asia*

⁷²² This [image](#) was released in December 2010 showing the active regions of the world based on Facebook usage. China is notably dark.

⁷²³ There are also a number of social networks designed for professional business people akin to LinkedIn; collectively their userbase has now reached 100 million. To illustrate the dynamism in this space, one of the former leaders, ChinaHR is currently in decline and its parent company (Monster.com) has sold off all but 10% of its stake by February 2013. See [China's Professional Social Networking Users to Reach 100 Million](#) from *China Internet Watch*, [Rumor: ChinaHR.com May Be Dumped By Parent Company For Measly CNY55 Million](#) from *China Tech News* and [Ireland's Saongroup Acquires 90% Stake In ChinaHR.com; Half Staff Will Lose Jobs](#) from *China Tech News*

⁷²⁴ [No, Facebook does not have 63.5 million active users in China](#) from *The Next Web*

⁷²⁵ [There are NOT millions of Twitter users in China: Supporting @ooof's result and refuting GWI's survey](#) from *Blocked on Weibo*

⁷²⁶ [New Study Proves that Twitter Users in China are Rare Birds](#) from *Tech In Asia*

⁷²⁷ [593,832 foreigners live on Chinese mainland: census data](#) from *Xinhua*

⁷²⁸ [Understanding social media in China](#) from *McKinsey Quarterly*

⁷²⁹ [Estee Lauder's New Skin Care Brand in China: The Potential for High-risk, High-reward](#) from

⁷³⁰ [Redefining the Chinese Beauty Standard](#) from *China in Focus*

⁷³¹ [China Social Media Whitepaper \(October 2012\)](#) from *China Internet Watch*

⁷³² Perhaps the most popular urban legend, which is false, is the Chevy Nova. It is sometimes mentioned in business school textbooks as having sold poorly in Spanish-speaking countries due to a retranslation of “nova” as “no go.” This is incorrect. See [Don't Go Here](#) from *Snopes*

⁷³³ [In China, Air cheow-DAN Cries Foul](#) from *The Wall Street Journal*.

⁷³⁴ [What's In a Name?](#) by Meredith Rodriguez

⁷³⁵ [Naming in Chinese, the Coca-Cola Story](#) from *About.com*

⁷³⁶ [Microsoft Launches Search Engine for China — But Don't Call It Bing](#) from *The Wall Street*

Journal

⁷³⁷ See [Competing across borders](#) from *Economist Intelligence Unit* and [Bridges and Barriers](#) by Linda Yu

⁷³⁸ See [China's Internet population swells 10% to 564m in 2012, with 75% logging on from a mobile device](#) from *The Next Web* and [Sohu's mobile traffic nears PC volumes](#) from *China Daily*

⁷³⁹ [Software outsourcing on upward curve](#) from *China Daily*

⁷⁴⁰ [Chinese Software Industry to Grow 25% Through 2016: Report](#) from *eWeek*

⁷⁴¹ [Indian IT-BPO Industry](#) from *NASSCOM*

⁷⁴² *Ibid*

⁷⁴³ [5 Reasons Why China Will Dominate Business Process Outsourcing](#) from *Right Site*

⁷⁴⁴ [China, not PH, eroding India's BPO leadership, says consulting firm](#) from *InterAksyon*

⁷⁴⁵ See [The Emerging Market of China's Computer Industry](#) by Jeff Zhang and Yan Wang and [Chinese software, IT revenue to touch \\$635bn](#) from *Times of India*

⁷⁴⁶ [Software Industry Facts and Figures](#) from *Business Software Alliance*

⁷⁴⁷ [Global Software Top 100 Edition 2011: The Highlights](#) from *Software Top 100*

⁷⁴⁸ See [Pro-Emfatic](#) and [Pro-Lambda Software](#)

⁷⁴⁹ [Kingsoft Boasts Over 50 Million Monthly Active WPS Users](#) from *China Tech News*

⁷⁵⁰ [Baidu Invests in Kingsoft, Moves Into Web Security, Qihoo's CEO Calls it a "Big Joke"](#) from *Tech*

in Asia

⁷⁵¹ See [Train ticketing software highlights China's innovation paradox](#) from *Xinhua* and [China Train Ticket Site Cost Nearly \\$100 Million, Seems to Be Harassing Programmers, And Might Be Broken Again](#) from *Tech in Asia*

⁷⁵² [Rubber chickens, ostrich heads ease China's rough ride home](#) from *Reuters*

⁷⁵³ [Chinese man kept alive by self-built dialysis machine](#) from *The Telegraph*

⁷⁵⁴ [Economist: China Plenty Creative, Just Not in Right Ways](#) from *The Wall Street Journal*

⁷⁵⁵ [Why China Can't Make Its Own Mobile OS](#) from *Tech In Asia*

⁷⁵⁶ It is a cultural characteristic of many regions in East Asia. For example, the Japanese equivalent is 出る杭は打たれる.

⁷⁵⁷ See also hackerspaces in Chapter 7. See [Bandit phone king has the last laugh](#) from *Financial Times*, [Imitation Is the Sincerest Form of Rebellion in China](#) from *The Wall Street Journal* and [In China, Knockoff Cellphones Are a Hit](#) from *The New York Times*

⁷⁵⁸ [Number's up for fake cell phones](#) from *Shanghai Daily*

⁷⁵⁹ [Chinese Companies Getting Good at Attracting Talent](#) from *The Wall Street Journal*

⁷⁶⁰ The economic term for short versus long-term time horizons is “time preference.” See Chapter 18 in [Human Action](#) by Ludwig von Mises.

⁷⁶¹ Similarly, Hearst president David Carey recently noted that Apple and Steve Jobs “taught people how to buy digital content.” See [Hearst president David Carey: Apple taught people 'how to buy digital content'](#) from *Engadget*

⁷⁶² [SRForce](#)

⁷⁶³ [Microsoft's newest weapon in China piracy fight](#) from *Reuters* and [Report: China's software piracy rate falls to new low -- of 77%](#) from *ZDNet*

⁷⁶⁴ To combat piracy of Windows 8 in China, Microsoft will not sell a shrink wrapped package – users can only get it pre-installed by OEMs or by downloading it. With the release of Office

2013 on the mainland, consumers can still purchase traditional packages via Microsoft's online store. See [Microsoft Cancels Packaged Windows 8 For Chinese Market](#) from *China Tech News* and [Microsoft Commences Office 2013 Software Sales In China](#) from *China Tech News*

765 One other partnership area could be to pursue a joint-venture such as the kind that Microsoft and Suning (a large mainland retailer) have recently announced. See [Suning, Microsoft Ink Multipart Retail Deal For China](#) from *China Tech News*

766 [Cloud computing investment 'to hit \\$1b'](#) from *China Daily*

767 [Ministry to set up cloud computing data centers](#) from *China Daily*

768 Ibid

769 [Tech Bytes: 4 Billion Yuan](#) from *China Daily*

770 [China's 360buy.com Launches Cloud Computing R&D Center In Beijing](#) from *China Tech News*

771 [Baidu Shares Plunge on Worries over Mobile Monetization](#) from *Caijing*

772 [EMC China's Growth Focuses On Big Data, Cloud Computing](#) from *China Tech News*

773 [Cloudy Days Ahead As Big Data Comes To Chinese Meteorological Administration](#) from *China Tech News*

774 [Cloud-based Network Security Suite Launched By Kyocera In China](#) from *China Tech News*

775 [Alibaba's Cloud Computing Platform Combines Storage Services](#) from *China Tech News*

776 [Amazon's cloud service aborted in China, launch of Kindle delayed](#) from *Morning Whistle*

777 [Gartner Says Worldwide Software-as-a-Service Revenue to Reach \\$14.5 Billion in 2012](#) from *Gartner*

778 [Tech Support Industry Webcast Will Examine Opportunities in \\$9 Billion Market](#) from *Parks Associates*

779 It is highly recommended that game developers and digital entrepreneurs read [Digital Game Design for Elderly Users](#) from *Association for Computing Machinery*. The study noted a similar finding, including one that I also point out: "the growing 65+ demographic is currently not well served by the majority of commercial games on the market, creating a significant potential niche market for game developers."

780 [China's smartphone market grows 164%, Apple's iOS takes 17.3%](#) from *Apple Insider*

781 [Report: Android Rises to 90% of Smartphone Market in China](#) from *Tech In Asia*

782 Gartner has published two others estimates which put Android marketshare globally at 68.4% in 2012 compared with 19.4% for iOS and later with Android at 69.7% and iOS at 20.9%. See [Strategy Analytics: Android claimed 70 percent of world smartphone share in Q4 2012](#) from *Engadget*, [Gartner Says Worldwide Sales of Mobile Phones Declined 3 Percent in Third Quarter of 2012; Smartphone Sales Increased 47 Percent](#) from Gartner and [Gartner Says Worldwide Mobile Phone Sales Declined 1.7 Percent in 2012](#) from Gartner

783 See [Android is winning - if you're writing apps for China. Elsewhere, though...](#) from *The Guardian* and [Alternative app stores and platform branches: Is Android too open?](#) from *Android Authority*

784 [After North Korea trip, Google's Eric Schmidt swings by China to woo Android developers](#) from *The Next Web*

785 Google is beginning to try and take action to purportedly prevent further fractures and forking of the Android ecosystem. See [The Acer/Google/Alibaba tussle: It's not about open Android](#) from *ZDNet* and [Acer Apparently Reconciles With Google](#) from *Forbes*

786 While there has been a lot of discussion over the past year over whether or not it is profitable for developers to make Android apps for the Chinese marketplace, there is at least one success story that could be used as a case study: CocoaChina which makes a popular game called Fishing Joy. See [How CocoaChina proved it's possible to make money on Android in China \(to the tune of \\$2m a month\)](#) from *The Next Web*

787 See [80% of Android phones in China will have its default search set to Baidu](#) from *The Next Web* and [Android Takes Off in China, But Google Has Little to Show for It](#) from *Forbes*

788 See Table 3, p. 9 [China Gaming Market End-User Survey, 2010](#) from *IDC*

789 [Nearly half of American adults are smartphone owners](#) from *PewInternet*

790 [Vintage PC Video Games Still Thrive in World of App](#) from *Nielsen*

⁷⁹¹ [The Data Digest: Digital Seniors](#) from *Forrester*

⁷⁹² While unrelated to gaming see also, [For the first time, half of adults ages 65 and older are online](#) from *PewInternet*

⁷⁹³ Gamers in a sample size of 29,392. Online chess gamers in a sample size of 3,050. Mobile gamers in a sample size of 1,519. See [China Gaming Market End-User Survey, 2010](#) from *IDC*

⁷⁹⁴ [Internet gaming: 'A winning gamble'](#) from *China Daily*

⁷⁹⁵ Mobile payments are also expected to rise markedly over the next 3-5 years, hitting \$112 billion by 2015. According to Alipay (the largest domestic online payment service), in 2012 the number of people who used mobile payment increased by 223% and “over 4.3 million people spent more money via mobile phones than PCs.” See [China's Mobile Payments Will Reach Over CNY700 Billion By 2015](#) from *China Tech News* and [China's Alipay Reported 546% Wireless Payment Growth In 2012; Tibetan City Tops Ranking](#) from *China Tech News*

⁷⁹⁶ Revenue hit \$38 billion in 2012 and is expected to reach \$44 billion in 2013. See [Rolexes Pawned in Macau Signal Further Gains for Casinos from Bloomberg](#), [Macau gaming revenues hit \\$33.5 billion in 2011, no slowing seen](#) from *Las Vegas Review-Journal*, [Broken Tooth and New Macau](#) from *Foreign Policy* and [Door is about to slam shut on high-rolling holidays to Macau](#) from *The Times*

⁷⁹⁷ Despite initial reports that suggested a new pilot program was starting at a casino in Sanya, Hainan province (called Jesters), gambling on the mainland is currently banned. Macau is the only nearby domicile where this is allowed. Mainland residents must still apply for an entry visa in order to travel to Macau and are typically only allowed to visit it a few times a year. There are exceptions, for example, if you live nearby in certain cities of Guangdong or if you have relatives living in the SAR. See [Sanya Says It Never Licensed Any Form of Gambling Activities](#) from *Caijing*, [Chinese authorities close cashless casino bar in island resort](#) from *Reuters*, [Macau Casinos Decline on Visa, Credit Limit Concerns](#) from *Bloomberg*, [Macau's Casino Revenue Reaches Record After Holiday Week](#) from *Bloomberg* and [China Tightens Reins on Macau](#) from *Bloomberg*

⁷⁹⁸ See [For App Makers, China Is Untapped and Untamed](#) from *The Wall Street Journal* and [China: lots of three kingdoms, not enough Angry Birds](#) from *Financial Times*

⁷⁹⁹ [Rovio announces Angry Birds book app: Live from Frankfurt Book Fair](#) from *paidContent* and [Bad Piggies and Angry Birds Hit the Road in China, Turn Shanghai Skyline Green](#) from *Tech In Asia*

⁸⁰⁰ According to *Distimo*, “Applications with Chinese as a language in the top 200 were responsible for the largest share of the free downloads in China at 73 percent. English was responsible for only 69 percent of the free downloads among the top 200 in China.” See [App Distribution Becomes A Global Game: The Shift Of Power & Impact For Developers](#) from *Distimo*

⁸⁰¹ [Apple Opens Chinese App Store](#) from *The Wall Street Journal*

⁸⁰² [China Now Apple App Store's Second Biggest Market](#) from *PcMag*

⁸⁰³ [Apple's App Store made big gains in China in 2011](#) from *GigaOm*

⁸⁰⁴ In a January 2013 interview, Apple CEO Tim Cook predicted that China will become the biggest market overall for Apple. See [iPhone 5 launch results in new weekend record for Chinese market](#) from *ArsTechnica*, [Tim Cook: China Accounts for 15% of Apple's Sales, Will Get iPhone 5 in December](#) from *Tech In Asia* and [iPhone 5 hits China as Apple market share slips](#) from *Reuters*, [Interview: Apple CEO expects China to become biggest market](#) from *Xinhua* and [Apple's China dilemma: market share or cachet?](#) from *Reuters*

⁸⁰⁵ Apple is also opening up an R&D center in Shanghai. See [Apple courting Chinese developers to strengthen iOS in China](#) from *ArsTechnica* and [Apple Shanghai R&D center confirmed for summer 2013](#) from *Apple Insider*

⁸⁰⁶ See [China Has 70 Android App Stores, But That Could Soon Whittle Down To 10](#) from *paidContent* and [For App Makers, China Is Untapped and Untamed](#) from *The Wall Street Journal*

⁸⁰⁷ One problem with this fragmentation is that applying security patches is a much longer process and sometimes never occurs, leaving consumers open to fraud schemes such as ‘smishing’ (sending phony text messages). See ['Fragmentation' leaves Android phones vulnerable to hackers, scammers](#) from *The Washington Post*

⁸⁰⁸ [Far-Ranging Support for Google's China Move](#) from *The New York Times*

809 [China Cripples Android With Fitful Blocks of Gmail, Market Apps](#) from *paidContent*

810 Similar blockages have occurred in November during the leadership transition. Readers may be interested in the developments with GitHub as well. See [What is going on with Gmail in China, and how to get around](#) from *GreatFire* and [China, GitHub and the man-in-the-middle](#) from *GreatFire*

811 [Google Finally Leads in China – in App Ad Sales](#) from *Bloomberg*

812 [Google decline in China continues as its search share falls to 4th place, maps to 6th](#) from *The Next Web*

813 [Google Still Does \\$640 Million In Annual Revenue In China](#) from *Forbes*

814 [China Search Engine Market Share in 2012](#) from *China Internet Watch*

815 According to one recent report, sometime at the beginning of December 2012 Google acquiesced and removed “a feature which had previously informed users from China of censored keywords” and “at the same time, they deleted the help article which explained how to use the feature.” Yet according to another source “the opportunity to capitulate was lost forever when Google gave the middle finger and left.” See [Google Bows Down To Chinese Government On Censorship](#) from *GreatFire.org* and [Mr Kim, tear down that wall; Mr Xi, carry on](#) from *The Economist*

816 [Mila](#) from coresystems can be downloaded from Google Play and Apple’s App Store (WoStore is China Unicom’s equivalent)

817 China Unicom has its own marketing channel which Mila uses.

818 [Does Cybercrime Really Cost \\$1 Trillion?](#) from *ProPublica*

819 [Pentagon Warns: ‘Pervasive’ Industrial Spying Targets U.S. Space Tech](#) from *Wired*

820 In February 2013 Microsoft researchers published a report discussing reasons and variables for why certain geographic regions and areas are more or less prone to cybersecurity holes and abuse. Unsurprisingly economic stages of development played a big role (e.g., wealthy countries have lower rates of malware infection compared with developing countries). See [Wealthy Countries Better At Protecting Citizens...From Malware](#) from *The Security Ledger*

821 [2012 Norton Study: Consumer Cybercrime Estimated at \\$110 Billion Annually](#) from *Symantec*

822 [China Corporate Espionage Boom Knocks Wind Out of U.S. Companies](#) from *BusinessWeek*

823 [FAA: Boeing's New 787 May Be Vulnerable to Hacker Attack](#) from *Wired*

824 [China Court to Weigh Corporate-Spy Case](#) from *The Wall Street Journal*

825 [China Source of Most CyberAttacks, Says Akamai](#) from *PC Magazine*

826 [Summary of Major U.S. Export Enforcement, Economic Espionage, Trade Secret and Embargo-Related Criminal Cases](#) from Department of Justice

827 [In China, business travelers take extreme precautions to avoid cyber-espionage](#) from *Washington Post*

828 [Ubiquitous Security Backdoor](#) from *SANS Institute*

829 This security issue is not endemic to China. For example, over the past two years, a school in Virginia and a hospital in Oregon accidentally lost USB drives which contained sensitive information. See [OHSU says stolen USB drive contained some patient data](#) from *KATU* and [Students' personal data exposed after USB drive stolen](#) from *SOPHOS*

830 See [Flame and Stuxnet Cousin Targets Lebanese Bank Customers, Carries Mysterious Payload](#) from *Wired* and [Resource 207: Kaspersky Lab Research Proves that Stuxnet and Flame Developers are Connected](#) from Kaspersky Lab

831 See [Black duck eggs and other secrets of Chinese hackers](#) from *NetworkWorld* and [Michigan Couple Stole GM Secrets for Chinese, U.S. Says](#) from *Bloomberg*

832 [Coke Gets Hacked And Doesn't Tell Anyone](#) from *Bloomberg*

833 Comment Crew (also known as APT1) is also suspected of hacking into other firms (both foreign and domestic) including a high-profile case involving Solid Oak Software, a California-based firm that specializing in developing internet filtering software. Two other large hacking organizations are the collective known as ‘Beijing Group’ and the PLA’s Unit 61398 whom are suspected of conducting economic espionage (APT1 and 61398 may be one in the same). See [China Mafia-Style Hack Attack Drives California Firm to Brink](#) from *Bloomberg*, [A Chinese](#)

[Hacker's Identity Unmasked](#) from *Businessweek*, [Mandiant, the Go-To Security Firm for Cyber-Espionage Attacks](#) from *Businessweek* and [Mandiat APT1 Report](#) from Mandiat

⁸³⁴ The New York Times has repeatedly been hacked since October 2012 as have the servers of The Wall Street Journal and The Washington Post as well. The perpetrators of all three are purportedly located in China. See [Hackers in China Attacked The Times for Last 4 Months](#) from *The New York Times*, [Chinese Hackers Targeted Wall Street Journal Computers](#) from *The Wall Street Journal*, [The People's Republic of Hacking](#) from *Foreign Policy*, [A Chinese Hacker's Identity Unmasked](#) from *Businessweek* and [Chinese hackers suspected in attack on The Post's computers](#) from *The Washington Post*

⁸³⁵ [Chinese lost US\\$46 billion to cybercrime last year](#) from *Shanghai Daily*

⁸³⁶ [U.S. Ready to Strike Back Against China Cyberattacks](#) from *Associated Press*

⁸³⁷ [Phishing scams target China's growing online population](#) from *Xinhua*

⁸³⁸ [Malware controls 620,000 phones, sends costly messages](#) from *Help Net Security*

⁸³⁹ [Nation under increasing threat from hackers](#) from *China Daily*

⁸⁴⁰ [CryptAByte](#)

⁸⁴¹ See [The Art of Deception: Controlling the Human Element of Security](#) by Kevin Mitnick and [Takedown: The Pursuit and Capture of Kevin Mitnick](#) by Tsutomu Shimomura

⁸⁴² [Who needs cyber-spying?](#) from *The Economist*

⁸⁴³ Domestic Chinese firms are also investing into this segment. See [Baidu Invests in Kingsoft, Moves Into Web Security, Qihoo's CEO Calls it a "Big Joke"](#) from *Tech in Asia*

⁸⁴⁴ [Baidu Invests in Kingsoft, Moves Into Web Security, Qihoo's CEO Calls it a "Big Joke"](#) from *Tech In Asia*

⁸⁴⁵ In 2002, foreign firms such as Symantec, Trend Micro and Network Associates were required to give code samples (e.g., viruses, rogue wiretaps) to the security ministry in order to receive approval for access to the mainland consumer market. In addition to Kingsoft, domestic firms now include Qihoo 360 and Rising. As of Q3 2012, Qihoo 360 had 442 million monthly active users and the enterprise version reached 420,000 users (representing millions of computers). See [China Is Asking Software Firms To Provide Samples of Viruses](#) from *The Wall Street Journal* and [Qihoo 360 Acquires Chinese Web Log Analysis Platform](#) from *China Tech News*

⁸⁴⁶ See [A Chinese Hacker's Identity Unmasked](#) from *Businessweek*, [Mandiant, the Go-To Security Firm for Cyber-Espionage Attacks](#) from *Businessweek* and [Mandiat APT1 Report](#) from Mandiat

⁸⁴⁷ [Being in China Is Less Risky Than Not Being There](#) from *The Wall Street Journal*

⁸⁴⁸ [China becomes largest TV series producer](#) from *China Daily*

⁸⁴⁹ See [An Animated Goat, Banker Look Abroad](#) from *The Wall Street Journal* and [Letter from Shanghai: Class and capitalism mix with comedy](#) from *The Washington Post*

⁸⁵⁰ ["Prison Break" catches on in China](#) from *The Seattle Times*

⁸⁵¹ [Sun Tzu and the art of soft power](#) from *The Economist*

⁸⁵² [Hollywood 'gaining ground' in China](#) from *BBC*

⁸⁵³ On September 26, 2012, Bill Bishop [noted](#) the irony in Youku's rise to the top. It has now largely purged itself of "copyright infringement" material yet arguably would never have caught on and been popular in the first place if it had not stored and streamed this materials in the first place. See also, [Romney Dumped Shares In Chinese Video Giant That Was Piracy Haven](#) from *BuzzFeed Politics*

⁸⁵⁴ The new company Youku Tudou now has agreements with every major Hollywood studio including, Warner Brothers, DreamWorks, Paramount, Disney, NBC Universal, Lionsgate and Twentieth Century Fox. See [Youku Tudou signs 5-year deal with Sony Pictures, completes its collection of Hollywood studio licenses](#) from *Engadget*

⁸⁵⁵ [Action rolls as online portals sign on with US movie giants](#) from *China Daily*

⁸⁵⁶ [DVD pirates running rampant in China](#) from *Los Angeles Times*

⁸⁵⁷ [In China, 'Mad Men' reflects reality of modern life](#) from *Los Angeles Times*

⁸⁵⁸ [Youku's Now The King Of China Web Video: Can It Make Money?](#) from *Forbes*

⁸⁵⁹ [Why China Loves 'Gossip Girl'](#) from *Forbes*

⁸⁶⁰ [With 'Gossip Girl' a Hit in China, Could a Chinese Remake Be Far Behind?](#) from *Ad Age*

861 [China getting its own 'Gossip Girl'](#) from *Los Angeles Times*

862 [In China, 'Mad Men' reflects reality of modern life](#) from *Los Angeles Times*

863 ['Kung Fu Panda' Hits A Sore Spot in China](#) from *Washington Post*

864 One of the reasons why there is a disconnect despite having a large domestic film production industry yet a relative lack of popularity has to do with creative control. See [In Hollywood Movies for China, Bureaucrats Want a Say](#) from *The New York Times*

865 [Netizens post evidence of scene stealing](#) from *Global Times*

866 [Spotlight on China](#) from Ernst & Young

867 [MPAA says Chinese box office receipts reached new record: \\$2.75B in 2012](#) from *ArsTechnica*

868 [Overseas blockbusters drive China's box office surges in first half](#) from *Xinhua*

869 [China film industry suffers Hollywood headwind](#) from *China Daily*

870 This is not to say domestic films are neither creative nor popular. For example, *Lost in Thailand* is a low budget comedy that has gone on to break the domestic box office for Chinese-made films and is also popular with audiences. Yet its domestic success did not translate into overseas success as it only generated \$57,000 in the US and \$72,000 in Hong Kong. See [Low-Budget Comedy Finds Record-Setting Success](#) from *Caixin* and [China's Hollywood dream gets lost in translation](#) from *CNN*

871 [Nation's movie ticket sales hit \\$2.69b last year](#) from *China Daily*

872 Ibid

873 This number, while seemingly low probably does not fully take into account undocumented workers and “permanent” tourists (e.g., those that do visa runs each month across the border). For example, at least 20,000 Africans legally live in Guangzhou alone (up to 150,000 Africans are estimated to live there including tourists and those illegally overstayed their visa). For comparison, between 580,000 and 820,000 Chinese migrants live in Africa. See [593,832 foreigners live on Chinese mainland: census data](#) from *Xinhua*, [The Promised Land](#) by Evan Osnos and [China cracks down on African immigrants and traders](#) from *The Guardian* and [Eastern Promise in Little Africa](#) from *The Global Mail*

874 There are endless streams of stories about how foreigners (*laowai*) are paid to attend various functions, meetings and forums and not actually say or do anything. For instance, during the time I lived in it, the city of Bengbu, Anhui had at any given time 10 Westerners living in a city of 3 million. Yet throughout my stay I was offered any number of voice acting and ‘modeling’ jobs not because I had any particular talent, but rather because I was *laowai*. See [Chinese companies 'rent' white foreigners](#) from *CNN*

875 [Dazzled By China's \\$2 Billion Movie Box Office? Try Getting Paid](#) from *Forbes*

876 Another challenge for foreign film studios is that China Film Group can delay the theatric release and sometimes even pare releases together (e.g., head-to-head against other foreign ‘blockbuster’ films). See ['Skyfall' China Release Date Pushed to 2013](#) from *The Hollywood Reporter*

877 Direct censorship, chilling effects and self-censorship also play a role. For example, there are daily quotas for domestic TV primetime slots which have led to large, continuous productions of certain genres such as World War II re-enactments. Or as Zhou Weicheng, general manager of Greentown Media recently explained, “There’s a limit on costume stories and spy dramas are not allowed to be aired during prime time slots. What can we shoot other than the anti-Japanese war?” See [Hollywood and China: Revenue and Responsibility](#) by Evan Osnos, [Director takes Chinese censorship, business battles public](#) from *Los Angeles Times*, [What Lee's 'Life of Pi' Oscar Says of Chinese Film](#) from *Bloomberg*, [State Meddling Stifles China's Film Industry](#) from *The New York Times*, [China TV extra dies eight times a day as Japanese soldier](#) from *South China Morning Post* and [The east is read?](#) from *Global Times*

878 [4399, the Third Most-searched Query on Baidu in 2012](#) from *Tech Node*

879 This number fluctuates throughout the year; it was at 12 million approximately a year ago after a new expansion was released (*Mists of Pandaria*) but has dipped down to 9.6 million. See [World of Warcraft cities hacked](#) from *BBC* and [World of Warcraft down to 9.6 million subscribers](#) from *Joystiq*

⁸⁸⁰ The9 (第九城市) was the original partner in China, however in 2009 Blizzard switched and began working with NetEase.

⁸⁸¹ There are other popular foreign games such as Counter Strike and DOTA, but the foreign publishers do not purportedly generate much revenue from them.

⁸⁸² [China's online game revenue tops the world](#) from *China Daily*

⁸⁸³ See [China's Online Game Industry Sales Reached CNY60.28 Billion In 2012](#) from *China Tech News* and [China's online game sales up 16.9% in H1](#) from *China Economic Net*

⁸⁸⁴ [Internet gaming: 'A winning gamble'](#) from *China Daily*

⁸⁸⁵ See [Why Are Consoles Banned In China?](#) from *Kotaku*, [Ban on games consoles may be lifted, suggests Culture Ministry source](#) from *China Daily*, [China's Ministry of Culture: We're NOT Considering Lifting the Game Console Ban](#) from *Tech In Asia*, [China's complicated history with video games: when a ban isn't really a ban](#) from *Engadget* and [If the Xbox Came to China, Would the Chinese Notice?](#) from *BusinessWeek*

⁸⁸⁶ According to *Engadget*, the PS3 may have been given official approval for sale on the mainland. See [Sony quietly gets PlayStation 3 certification in China, we hope for a few more Dynasty Warriors players](#) from *Engadget*

⁸⁸⁷ One of the most popular of these card games is San Guo Sha (三国杀) based in part on the Romance of the Three Kingdoms novel. The mechanics are similar to another Western game called Bang! The company Yang worked for is 中山市众森信息科技有限公司 in Guangdong. There is also a very popular web-based version at [Sanguosha.com](#)

⁸⁸⁸ [Chinese Web Gamers at 51% Discount a Buy to Openheimer](#) from *Bloomberg*

⁸⁸⁹ See [China's Graduates Face Glut](#) from *The Wall Street Journal* and [University Graduates Have Hard Time Finding Job, Initial Survey Finds](#) from *Caixin*

⁸⁹⁰ In other words, many college graduates are typically uninterested in low-wage, low-skilled factory work. See [Chinese Graduates Say No Thanks to Factory Jobs](#) from *The New York Times*

⁸⁹¹ [Asia's Endangered Species: The Expat](#) from *The Wall Street Journal*

⁸⁹² [Animal Spirits with Chinese Characteristics: An Interview with Mark DeWeaver](#) from *The Libertarian Standard*

⁸⁹³ [Legal and Unauthorized Chinese Immigrant Population](#) from Migration Policy Institute

⁸⁹⁴ According to a 2008 report from *Reuters*, "Of the 1.2 million Chinese people who have gone abroad to study in the past 30 years, only one fourth of them have returned, according to the Chinese government." In addition to Chapter 19, see [China's Brain Drain at the High End](#) by Cong Cao, [China's Brain Drain Dilemma: Elite Emigration](#) from *The Jamestown Foundation* and [China fears brain drain as its overseas students stay put](#) from *The Guardian* and [China goes on the road to lure "sea turtles" home](#) from *Reuters*

⁸⁹⁵ [Unrealistic U.S. Immigration Policies Push Away China's Best And Brightest](#) by *Forbes*

⁸⁹⁶ [An Export of Students: Where Are China's Ultra-Rich Sending Their Children to Study?](#) from *Good Infographics*

⁸⁹⁷ In 2011, the US embassy in China issued more than 160,000 student visas for Chinese students to study at American schools. Yet a November 2012 report from Open Doors notes that the actual number is even higher, 194,029. See [Ten Years of Rapid Development of China-US Relations](#) from *Xinhua* and [Students from China add \\$5b to US economy](#) from *China Daily*

⁸⁹⁸ [Spreading their wings early](#) from *China Daily*

⁸⁹⁹ [U.S. a Hot Spot for Chinese Grad Students](#) from *The Wall Street Journal*

⁹⁰⁰ [Tough US job market sends Chinese students home](#) from *China Daily*

⁹⁰¹ [Reverse brain drain: China engineers incentives for "brain gain"](#) from *The Christian Science Monitor*

⁹⁰² [Is overseas returnee working as driver a waste of talents?](#) from *People's Daily*

⁹⁰³ It should also be noted that due in part to an economic slow-down on the mainland and because of political tensions, numerous Japanese firms are purportedly considering relocating elsewhere. According to *Reuters* a "quarter of Japanese manufacturers are rethinking their investment plans in China and some may shift future production elsewhere." For perspective,

since 1990, Japanese firms have invested almost \$1 trillion the mainland. And despite these tensions, in 2012, "Chinese consumers bought nearly 3 million Japanese cars and trucks." See [As China tensions simmer, Japan pulls back from "world's factory"](#) from *Reuters* and [Five Predictions for China's Auto Industry in the Year of the Snake](#) from *The Wall Street Journal*

⁹⁰⁴ [Expat preference for the growing Chinese economy is apparent](#) from HSBC

⁹⁰⁵ Other estimates such as the National Bureau of Statistics put the per capita averages higher: (~\$13,000/capita), Beijing (~\$12,500) and Guangzhou (~\$13,000). The reason for the disparity involves not just sample size but also what geographic districts are included or excluded (e.g., in the NBS case they divided total GDP by population in the region). See [Guangzhou has highest average salaries for cities in mainland China](#) from *South China Morning Post*

⁹⁰⁶ [Charting China's Family Value](#) from *The Wall Street Journal*

⁹⁰⁷ [National Average Wage Index](#) from Social Security Administration

⁹⁰⁸ [Modern China: A tale of luxury villas and displaced villagers](#) from *McClatchy*

⁹⁰⁹ [Worldwide Cost of Living Survey 2012](#) from Mercer

⁹¹⁰ [Beijing, Shanghai Cost-of-Living Leaps](#) from *The Wall Street Journal*

⁹¹¹ Ibid

⁹¹² See [The Current Demographic Profiles of Shanghai \(2011\)](#) from Shanghai Municipal Population and Family Planning Commission, [Beijing's temporary population fell in 2011](#) from *China Daily* and [Guangzhou seeks opinions on population draft](#) from *China Daily*

⁹¹³ [Shenzhen Has the Highest Weibo Penetration Rate in China](#) from *China Internet Watch*

⁹¹⁴ See [593,832 foreigners live on Chinese mainland: census data](#) from *Xinhua* and [Plan to reduce minimum stay for foreign workers](#) from *Shanghai Daily*

⁹¹⁵ [Shanghai's foreign population above 200,000](#) from *Want China Times*

⁹¹⁶ Wages have also decreased for certain professions over time. For example, in 2000 a computer science graduate could earn \$725 a month in Shenzhen, a wage that has decreased to \$550 a month due to more competition from graduates. See [China's 'Manhattan' becomes censorship capital](#) from *Financial Times* and [Chinese Graduates Say No Thanks to Factory Jobs](#) from *The New York Times*

⁹¹⁷ See [Shanghai tops China's "best city for business"](#) from *Sina* and [Top 10 best cities for business in China 2012](#) from *China.org.cn*

⁹¹⁸ Another estimate puts the number of Asia-Pacific headquarters in Shanghai at 393. See [Almost 400 MNCs have their Asia HQs in Shanghai](#) from *IANS* and [Shanghai tops China in attracting multinational headquarters](#) from *Xinhua*

⁹¹⁹ [Shanghai policies woo multinational headquarters](#) from *Xinhua*

⁹²⁰ This is different than *shūshin koyō* (employment for life). For a dated yet clear explanation of the Japanese bonus system see [Bonuses and Employment in Japan](#) from *Journal of the Japanese and International Economies*, 1987

⁹²¹ [Developing a Competitive Edge](#) from *Insight*

⁹²² [Motion Global](#)

⁹²³ [China's Graduates Face Glut](#) from *The Wall Street Journal*

⁹²⁴ [Clark Morgan](#)

⁹²⁵ [ITBN](#) and [ITR](#)

⁹²⁶ While there are a few large, private, independent ISPs on the mainland such as 263.net (网络通信) and Great Wall Broadband (recently acquired in Q4 2012 by Chengdu-based Dr. Peng Telecom, 成都鹏博士电信传媒集团股份有限公司) nearly all traffic is still routed through the three SOE tier 1 backbone monopolies. China Tietong Telecommunications (中国铁通集团有限公司) which used to be China Railcom, merged with China Mobile in May 2008. China Netcom (CNC) merged with China Unicom in October 2008. See [Users angry at slow Internet speeds](#) from *Global Times*

⁹²⁷ [Just two Chinese ISPs serve 20% of the world broadband users](#) from *ArsTechnica*

⁹²⁸ [ChinaCache Releases Third Quarter 2012 China Internet Connection Speed Rankings](#) from *China Web Report*

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- ⁹²⁹ [China 4G licenses to be issues in 2013](#) from ZDNet
- ⁹³⁰ See [China Mobile Network Costs Mean First Net Drop Since '99](#) from *Bloomberg*, [China Mobile Builds First 4G Base Station In Chengdu](#) from *China Tech News* and [China Unicom Books 50% Net Profit Growth In 2012](#) from *China Tech News*
- ⁹³¹ Western fast-food establishments such as McDonald's, Pizza Hut and KFC (the latter two of which are both owned by Yum!) are generally perceived as 'higher-class.' That is to say that because their food is generally more expensive relative to local restaurants, families treat a visit to McDonald's, Pizza Hut or KFC as a something "special." The marketing campaigns and quality control programs at these establishments further reinforces this image of 'higher-class' which surprises the typical Western tourist who probably does not view it the same way.
- ⁹³² See [China's Volatile Pork Industry](#) from the USDA and [China rejects U.S. complaint against chicken tariffs](#) from *Los Angeles Times*
- ⁹³³ Chinese farmers produced 50 million tons of pork in 2012, more than half of the world's total. See [How China's love affair with pork is creating a pollution problem](#) from *The Guardian*
- ⁹³⁴ [KFC's Radical Approach to China](#) from *Harvard Business Review*, November 2011
- ⁹³⁵ [Yum Brands Says The Chinese Still Love KFC](#) from *The Wall Street Journal*
- ⁹³⁶ See [Yum Brands Rebounds From Chicken Antibiotic China Scare](#) from *Bloomberg*, [Yum stumbles badly in China, warns on profit](#) from *Reuters* and ['Kentucky Fried China' no more?](#) from *Reuters*
- ⁹³⁷ [Yum's Yuck Factor in China](#) from *The Wall Street Journal*
- ⁹³⁸ ['Kentucky Fried China' no more?](#) from *Reuters*
- ⁹³⁹ [KFC's Big Game of Chicken](#) from *BusinessWeek*
- ⁹⁴⁰ [The Long Tail: Why the Future of Business is Selling Less of More](#) by Chris Anderson
- ⁹⁴¹ See [Why Starbucks succeeds in China and others haven't](#) from *USA Today* and [Starbucks opens first India outlet in historic Mumbai 'shrine'](#) from *Vancouver Sun*
- ⁹⁴² [Starbucks: we love China](#) from *Financial Times*
- ⁹⁴³ See [Starbucks back on expansion path in Americas, China](#) from *Reuters* and [Starbucks to More Than Double China Staff to 30,000 by 2015](#) from *Bloomberg*
- ⁹⁴⁴ [Neat! Starbucks Asia - Red Bean & Green Tea and Hojicha Frappuccinos](#) from *Brand Eating*
- ⁹⁴⁵ Another niche opportunity may be exporting tea to China. For example, the descendants of Charley Grey (the Prime Minister whose eponymous namesake 'Earl Grey' tea comes from) have been successfully growing and exporting tea to Chinese consumers; selling 10 metric tons in 2012. See [Earl Grey descendants sell English tea to China](#) from *Reuters*
- ⁹⁴⁶ [Starbucks: China to Become No. 2 Market](#) from *The Wall Street Journal*
- ⁹⁴⁷ See the informative two part series: [Will China be Starbucks' Cup of Tea?](#) and [Will China Be Starbucks' Cup of Tea? Part 2](#) from *contextChina*
- ⁹⁴⁸ [Whitbread sales boosted by Costa Coffee growth](#) from *Reuters*
- ⁹⁴⁹ [Taiwan cafe chain hits the spot on mainland](#) from *South China Morning Post*
- ⁹⁵⁰ [China the new battleground for coffee brands](#) from *The Malaysian Insider*
- ⁹⁵¹ [Starbucks Plays to Local Chinese Tastes](#) from *The Wall Street Journal*
- ⁹⁵² See [Subway Aims For 900 Sandwich Restaurants In China By 2015](#) from *China Retail News* and [Subway eyes further China expansion](#) from *China Daily*
- ⁹⁵³ [Burger King Plans to Open 1,000 Stores in China](#) from *Bloomberg*
- ⁹⁵⁴ [The Do's & Don'ts of Business in China](#) from *The Wall Street Journal*
- ⁹⁵⁵ Ibid
- ⁹⁵⁶ While city limits and boundaries are arbitrary and different in every country, according to their 2010 estimate the 9 cities are: New York, Los Angeles, Chicago, Houston, Philadelphia, Phoenix, San Antonio, San Diego and Dallas. See [Annual Estimates of the Resident Population for Incorporated Places](#) from the US Census Bureau
- ⁹⁵⁷ [China's urban population to hit 800 million by 2020](#) from *People's Daily*
- ⁹⁵⁸ [China's Megacities](#) from *Bloomberg*
- ⁹⁵⁹ One of the upcoming challenges that policy makers face with this urbanization is reforming the Hukou, or household registration system. See [Eight Questions: Tom Miller, 'China's Urban](#)

[Billion'](#) from *The Wall Street Journal*

⁹⁶⁰ This is not to say that these properties will lay dormant, especially as the middle class grows and rural migrants continue to move to Tier 1 cities. See [Who Says China is Building Too Much?](#) from *The Wall Street Journal* [Building the American Dream in China](#) from *The New York Times*

⁹⁶¹ Some of these property developments lay vacant. For example, the Kangbashi New Area in Ordos, Inner Mongolia, is a master planned city designed for over 300,000 people yet is home to only a fraction of that. Thus becoming a modern example of a Potemkin village. Another purportedly similar Potemkin-esque village is the One City, Nine Towns residential project that had a goal of attracting 500,000 affluent residents. One such town was Thames Town (泰晤士小镇) which is a replica city modeled after classic English buildings along the Thames river that has failed to attract residents and is relatively deserted. Another example is Xinagluowan Business District in Tianjin. Again, this is not to say that this will lead to any kind of macro-level collapse, but rather serves as illustrations to temper bullish expectations and intentions. See [China's ubiquitous ghost cities](#) from *Financial Times*, [Ordos: The biggest ghost town in China](#) from *BBC*, [Chinese City Has Many Buildings, but Few People](#) from *The New York Times*, [Where is Everyone](#) from *Daily Mail*, [Ordos, China: A Modern Ghost Town](#) from *TIME*, [Ordos Bust Creates Mecca for Used Luxury Car Buyers](#) from *The Economic Observer*, [China's Ghost Towns Won't Have a Hard Landing](#) from *Bloomberg* and [One city; nine towns; no people](#) from *Global Times*, [Inside the McMaoMansion: How China copies the west](#) from *Shanghaiist*, [One City, Nine Ghost Towns](#) from *Pop-Up City*, [天津滨海新区响螺湾众多房企项目烂尾 封盘](#) from *Caijin* and [China's ghost towns and phantom malls](#) from *BBC*

⁹⁶² See [China builds one skyscraper every five days](#) from *Want China Times* and [China Skyline Getting Bigger, More Skyscrapers Than USA](#) from *Forbes*

⁹⁶³ Many of the migrant workers and less affluent (such as students) are part of a demographic group called *yizu* or ant tribe (蚁族). These consumers typically live in residential apartments that have been reapportioned to accommodate many multiples of what the buildings were typically designed for (e.g., 10 people inside 3 rooms). The wear and tear and lack of maintenance may consume more capital than is generated to repay the loan used to finance its original construction (e.g., non-performing loan). See [China's Graduates: An Ant's Life](#) from *The Wall Street Journal*, [Ant tribes and mortgage slaves](#) from *The Economist* and [What Worker Shortage? The Real Story of China's Migrants](#) from *The Wall Street Journal*

⁹⁶⁴ One alternative scenario regarding the Dam is that a number of smaller ones could have been built upstream instead. Other issues involve the displacement of villagers and the actual financial cost which by one estimate is twice the official number. See [China Admits Problems With Three Gorges Dam](#) from *The New York Times*

⁹⁶⁵ [Selected Essays on Political Economy](#) by Frédéric Bastiat

⁹⁶⁶ The funeral industry may have been bustling with a glut of customers during the Black Death, but ultimately provided little in the way of long-term capital accumulation or production. Or in other words, if dying was an engine of growth then the world wars, the mass democides and genocides of the 20th century should have created an economic boom (e.g., "bomb our way to prosperity").

⁹⁶⁷ Khufu's Great Pyramid alone consists of roughly 2.3 million limestone blocks that were quarried 500 miles up the Nile at Aswan. Thus if this project itself had not been undertaken -- ignoring the resources consumed by the construction and final assembly crews -- the thousands of quarry workers alone that had to be fed and sheltered could have worked on other productive projects such as building towns and villages, constructing buildings for blacksmiths and millers, or even just farming additional crops. While it is impossible to say what additional crops and farm labor would have added to the overall economy, we do know *ceteris paribus* that by removing healthy productive workers from economic-surplus generating activities, other knock-on activities that could only take place with a surplus of crops (like research and development which require some laborers to forgo toiling in the fields) will likely be delayed, stunting technological change, innovation and growth. This is in addition to the 8,000 tons of granite and 500,000 tons of mortar plus the agriculture and lodging that was required to feed and shelter the tens of

thousands of workers at both the quarry and construction sites. The alternative opportunities foregone by diverting and redirecting scarce labor and resources towards these unproductive assets is left to the imagination of the reader. See [Explore Ancient Egypt](#) from PBS and [The Great Pyramid](#) by John Romer

⁹⁶⁸ [What is up with the GDP?](#) by Frank Shostak

⁹⁶⁹ While dual and even triple track accounting and statistical book keeping probably does occur in other countries, it is important to distinguish and recognize that economic activity is not the same thing as long-term economic productivity or growth. Otherwise ‘white elephant’ projects would be a boon and not a bust. See [Local Exaggeration in GDP: 5.8Ttl Higher than Central Data](#) from *Caijing*

⁹⁷⁰ This is in reference to the French phrase, “*Qu'ils mangent de la brioche*” (Let them eat cake) which was purportedly said by Queen Marie Antoinette upon hearing *hoi polloi* faced a shortage of bread. While she probably never said that exact phrase, the historical context is germane as the 18th century French Royal family was able to continually live an opulent lifestyle at the Palace of Versailles due to wealth confiscation of the peasantry. During the purported time frame, because of a famine there was no bread to eat, which was a major staple. Thus telling the peasantry to eat desserts and cake showed how disconnected she was with the plight of the populace. Similarly, despite the vast quantities of agriculture needed to support the Pyramid workforces, the lavish lifestyle of the Pharaohs – the sheer opulence of their mausoleums (originally covered in gold and marble which were later looted) – is another display of Royal despotism that is wholly disconnected with reality. This is also a tangential twist to eating “confidence.” During the height of the 2008 financial crisis one of the ideas for kick-starting consumer consumption was by “instilling confidence into consumers.” Yet no matter how much ‘jawboning’ takes place, you cannot eat confidence.

⁹⁷¹ [Animal Spirits with Chinese Characteristics](#) by Mark DeWeaver

⁹⁷² [China's airport overkill](#) from *Financial Times*

⁹⁷³ [More than 70% of Chinese airports lost money in 2011](#) from *Want China Times*

⁹⁷⁴ [China Airport Boom: Will There Be a Bust?](#) from *TIME*

⁹⁷⁵ [82 new airports to be built](#) from *GlobalTimes*

⁹⁷⁶ See [China Plan Seeks to Bolster Airports, Locally-Produced Airplanes](#) from *Bloomberg* and [我国 5 年投资 4200 亿建设支线机场 或大面积亏损](#) from *Sina*

⁹⁷⁷ [Air rage: Chinese screaming mad over delays](#) and *Reuters*

⁹⁷⁸ [China Tea Leaf Index: Look to the skies](#) from *Retuers*

⁹⁷⁹ [Airlines fly into headwinds from high-speed trains](#) from *South China Morning Post*

⁹⁸⁰ See [Performance-Based Navigation Implementation Roadmap](#) from Civil Aviation

Administration of China and [Surveillance accuracy analysis of ADS-B supporting the separation service in western China](#) from *IEEE*

⁹⁸¹ See [China nears approval of \\$16 billion domestic jet-engine plan](#) from *Reuters* and [Unable to copy it, China tries building own jet engine](#) from *Reuters*

⁹⁸² [China sells jets, dabbles in Eastern Air revival](#) from *Reuters*

⁹⁸³ Chinese aerospace firms have made progress in other areas including military jetcraft such as the new Y-20 strategic transport aircraft that recently made its maiden flight in January 2013.

See [The Y-20: China Aviation Milestone Means New Power Projection](#) from *The Wall Street Journal*

⁹⁸⁴ [Boeing Raises China 20-Year Plane Demand Forecast 5.2%](#) from *BusinessWeek*

⁹⁸⁵ See [Chinese airlines seek elite foreign pilots](#) from *China Daily* and [Skies too friendly for foreign pilots, key document says](#) from *China Daily Asia Pacific*

⁹⁸⁶ [Sky's the limit for booming general aviation sector](#) from *China Daily*

⁹⁸⁷ [US Civil Airmen Statistics](#) from the Federal Aviation Administration

⁹⁸⁸ [China says top 10 steel mills to control 60 percent of capacity by 2015](#) from *Reuters*

⁹⁸⁹ The domestic steel industry – despite subsidies – has collectively been operating at losses due to slow demand and as a consequence many participants have been unable to pay back loans.

See [Loans to Steel Traders in China Pose Risk](#) from *The Wall Street Journal*, [China's steel industry](#)

in trouble: association from *Xinhua*, [Steel demand to slow over next two years](#) from *Financial Times*, [Central Gov't Reshuffles a Bad Deck at Steel Services Firm](#) from *Caixin*, [China faces steel-production paradox](#) from *MarketWatch*, [Baosteel's sell down could signal start of rethink by state-owned enterprises](#) from *South China Morning Post*, [China's steel makers set for two more years of poor profits](#) from *South China Morning Post*, [Steel producers prepare for difficult months ahead as property sector slows](#) from *China Daily* and [Deal Journal China stimulus won't work this time, says Citigroup analyst](#) from *The Wall Street Journal*

⁹⁹⁰ [Cementing a strong business in China](#) from *China Daily*

⁹⁹¹ [Behind China's Green Wall: Special Report](#) from *The Tyee*

⁹⁹² See [2015 年环保产业总值或超 3 万亿元 成市场新动力](#) from *Sohu* and [Environmental protection industry to reach 3 trillion RMB by 2015](#) from *China Green News*

⁹⁹³ Despite the aggressive timeline for hydrocarbon extraction, another hurdle is a lack of experience. None of the 16 firms awarded drilling rights at a recent auction has ever drilled a hole. See [China's ragtag shale army a long way from revolution](#) from *Reuters*, [Environmental Frets as Frackers Move In](#) from *Caixin* and [China's "Ultimate Goal Is a Huge Fracking Industry"](#) from *Mother Jones*

⁹⁹⁴ [TravelSky Announces 2011 Annual Results](#) from Strategic Financial Relations

⁹⁹⁵ [Ctrip](#)

⁹⁹⁶ Without an organic price mechanism that arises via market participants (e.g., interaction between entrepreneurs, investors and consumers) central planners – lacking this mechanism – must arbitrarily pick coefficients for their models and equations. In other words, they cannot rationally calculate away from net losses and towards profitable (and efficient) solutions. Thus *a priori* their plans lead to inefficiencies and disarray. See [Economic Calculation In The Socialist Commonwealth](#) by Ludwig von Mises

⁹⁹⁷ [Japan Inc shoots itself in foot on bullet train](#) from *Financial Times*

⁹⁹⁸ [China's Railway Minister Removed from Position](#) from *Caixin*

⁹⁹⁹ [Former rail minister expelled from Party](#) from *China Daily*

¹⁰⁰⁰ [Boss Rail](#) by Evan Osnos

¹⁰⁰¹ [China's New Wealth Spurs a Market for Mistresses](#) from *The New York Times*

¹⁰⁰² [Chinese rail crash scandal: 'official steals \\$2.8 billion'](#) from *The Telegraph*

¹⁰⁰³ These were not isolated incidents as Luo Jinbao, former chairman of China Railways Container Transport also received a variety of bribes. See [State firms paid half the bribes rail executive Luo Jinbao received](#) from *South China Morning Post*

¹⁰⁰⁴ See [China Unveils Rail Ministry Breakup to Curb Corruption](#) from *Bloomberg*, [China's Ministry of Railways debt: Three ways out of the mess](#) from Institute for New Economic Thinking and [Local Gov'ts Angle for Slice of Rail Projects](#) from *Caixin*

¹⁰⁰⁵ [China's Railway Ministry Posts \\$1.4 Billion Loss](#) from *The Wall Street Journal*

¹⁰⁰⁶ According to a November 2012 report from the *Global Times*, the NDRC recently approved an additional \$7.87 billion of new railway projects. This is on top of the \$110 billion for 25 other rail projects. The Railway Ministry spent 506.9 billion yuan (\$81 billion) in the first 11 months of 2012. And according to another November 2012 news story, the Railway Ministry is planning to spend 612 billion yuan (\$82.6 billion) on capital expenditures related to the railway system this coming year. However in January 2013 it was announced that \$104 billion would in fact be spent on railroad construction. See [China approves \\$7.87 billion in railway projects to jumpstart economy](#) from *Global Times*, [Ministry Spends More than 500 Bln Yuan on Railway Fixed-asset Investment](#) from *Caixin*, [铁路基建投资又迎新高潮 明年将超 5160 亿](#) from *Jin Ji Can Kao Wang*, [Railway Investment to Increase Next Year, Ministry Says](#) from *Caixin* and [Funding set for renewed railway boom on horizon 2013 from](#) *Global Times*

¹⁰⁰⁷ According to an estimate from a Citigroup analyst, the Railway Ministry will buy 300 to 400 train sets within the next two months financed by \$6.2 billion in 'tenders.' See [China May Make First High-Speed Train Orders Since Crash](#) from *Bloomberg*

¹⁰⁰⁸ In November 2012 another \$12 billion has been approved for railway projects. And in December 2012 it was announced that 500 billion yuan (\$69.9 billion) "will go into infrastructure

investment next year [2013].” See [NDRC approves 75b yuan rail projects](#) from *China Daily* and [Ministry Spends More than 500 Bln Yuan on Railway Fixed-asset Investment](#) from *Caixin*

¹⁰⁰⁹ See [China Unveils Rail Ministry Breakup to Curb Corruption](#) from *Bloomberg*, [Railway ministry loses powers](#) from *Global Times*, [China Takes a Slow Train to Railway Reform](#) from *Caixin* and [全国铁路法院全部改制移交地方](#) from the Supreme People’s Court of the People’s Republic of China

¹⁰¹⁰ See [China to dismantle bloated rail ministry](#) from *Reuters* and [China’s Leaders Plan Government Revamp as Xi Set to Take Reins](#) from *Bloomberg*

¹⁰¹¹ ‘Big Hairy Audacious Goals’ is a term that comes from a popular business management book called “[Built to Last](#)” by James Collins and Jerry Porras.

¹⁰¹² [Inside China’s High-Speed Rail Triumph](#) from *The Daily Beast*

¹⁰¹³ [China Cities Value Land at Winnetka Prices With Bonds Seen Toxic](#) from *Bloomberg*

¹⁰¹⁴ As a matter of fact, hosting the Olympics typically leads to an unsustainable boom of unnecessary construction nearly every place they are held – in fact few Olympiads have ever turned a profit. For example, the multi-million Wukesong baseball stadium was demolished and turned into a shopping mall. See [Beijing’s Olympic building boom becomes a bust](#) from *Los Angeles Times*

¹⁰¹⁵ Another argument has been made that Olympiads act as unsustainable booms, creating unproductive assets that in the long run creates economic dead weight. For example, the 2004 Athens Olympics is considered in retrospect as having spurred part of the debt problem that contemporary Greeks currently face. See [Did the 2004 Athens Olympics contribute to the Greece financial meltdown?](#) from *Examiner* and [The Stadium Gambit and Local Economic Development](#) by Dennis Coates and Brad R. Humphreys

¹⁰¹⁶ [For Subway Projects, a Costly Ticket to Ride](#) from *Caixin*

¹⁰¹⁷ This is not a phenomenon found only on the mainland as very few subways are profitable in other countries. The Hong Kong MTR and Japanese counterparts are a few notable exceptions. See [Why Subways Suffer Losses](#) from *The Economic Observer* and [Japanese Private Railway Companies and Their Business Diversification](#) from *Japan Railway & Transport Review*

¹⁰¹⁸ [Why China’s Subway Boom Went Bust](#) from *The Atlantic*

¹⁰¹⁹ [Amid poverty, Chinese officials splurge on lavish vanity projects](#) from *Los Angeles Times*

¹⁰²⁰ See [Building the American Dream in China](#) from *The New York Times* and [Copycat Architects in China Take Aim at the Stars](#) from *Spiegel*

¹⁰²¹ Recreating iconic landmarks and villas probably will not stop anytime soon thus there are continual opportunities for Western architects to literally bring the West to the East. See [Eight Questions: Bianca Bosker on China’s ‘Original Copies’ in Architecture](#) from *The Wall Street Journal*

¹⁰²² ["China is a dream scenario for a designer" - Michael Young](#) from *de zeen*

¹⁰²³ Another illustration of the irrational exuberance of “face projects” that dot the mainland is the 328-meter New Village Building in Huaxi. At the top of the £300 million skyscraper is a one ton 24k gold bull. What are the alternative opportunities foregone in consuming resources towards this project? What are alternative industrial uses for \$54.4 million of gold (at 2012 prices)? See [China’s richest village opens its own skyscraper](#) from *The Telegraph*

¹⁰²⁴ According to Shang Fulin, chairman of the China Banking Regulatory Commission, as of September 2012 the local government debt collectively amounted to \$1.48 trillion. See [High local debt levels coming under control](#) from *China Daily*. Other higher estimates can be found in [China tells banks to roll over local govt loans: report](#) from *Reuters* and [Are Chinese Banks Hiding ‘The Mother of All Debt Bombs’?](#) from *The Diplomat*

¹⁰²⁵ Other investment vehicles also include wealth management products (WMPs) such as trust companies which are a type of wealth management service that amounts to more than \$1 trillion and is considered to be part of a “shadow” banking system (e.g. off-balance sheet transactions). According to Xiao Gang, chairman of Bank of China, there are 20,000 WMPs in circulation currently. See [Examining China’s ‘Shadow Stimulus’](#) from *The Wall Street Journal*, [In China, Hidden Risk of ‘Shadow Finance’](#) from *The Wall Street Journal*, [Regulating shadow banking](#) from *China Daily*, [Uncertain foundations](#) from *Financial Times*, [China to tighten shadow banking rules](#)

from *Financial Times*, [China's brokerages turn shadow banks](#) from *Financial Times* and [Don't Worry About Wealth-Management Products, Regulator Says](#) from *The Wall Street Journal*

1026 [Impending Bad Debt Headache Likely Bigger Than Expected](#) from *The Wall Street Journal*

1027 [China's booming fake muni bonds](#) from *Financial Times*

1028 [Back in Fashion: China's Bad Debt](#) from *The Wall Street Journal*

1029 [Siemens to support the development of mass transit in China](#) from Siemens

1030 [Siemens to supply signaling for new metro lines in Suzhou, Qingdao and Chongqing](#) from Siemens

1031 [Siemens Reported Revenue Of EUR6.35 Billion In China In 2012](#) from *China Tech News*

1032 See [Train Makers Rail Against China's High-Speed Designs](#) from *The Wall Street Journal* and [A Problem with California Plans to Tap Chinese Tech](#) from *The Wall Street Journal*

1033 See [Siemens transfers low-floor tram technology to Chinese manufacturer](#) from *Xinhua* and [Bombardier to share railway technology with Chinese](#) from *The Globe and Mail*

1034 See [China Technology Licensing. Sometimes It Makes Perfect Sense.](#) by Dan Harris and [China's Awkward Quest for Bullet Train Technology](#) from *Knowledge@Wharton*

1035 Even though there have been a number of pension reforms that purportedly affected state-owned enterprises and civil servants, the traditional "iron rice bowl" is still sought after. See [Iron Rice Bowl Redux: Official Jobs No. 1, Says Survey](#) from *The Wall Street Journal*, [Civil servants to lose 'iron rice bowl'](#) from *China Daily* and ['Iron rice bowl' ban served up in another city](#) from *China Daily*

1036 [The golden rice-bowl](#) from *The Economist*

1037 There are now approximately 10 million civil servants up from 3.7 million in 1978. And a record number of applicants – 1.12 million – took the annual civil service exam in November 2012. See [China's Civil Service Reform: An Update](#) by Kjeld Erik Brodsgaard and Chen Gang and [Record number of hopefuls sit annual civil service exam](#) from *China Daily*

1038 [Pension gap to hit \\$2.87 trillion](#) from *China Daily*

1039 According to UN projections India will likely eclipse China during this time frame in large part because its birth rate remains above the 2.1 babies per mother replacement mark. In contrast, China's birthrate is effectively 1.47 babies per mother. See [Age will weary the Chinese miracle](#) from *BusinessSpecator*, [China's Achilles heal](#) from *The Economist*, [Birth rule could be relaxed](#) from *China Daily*, [Recession Big Factor as Birthrate Falls](#) from *The Wall Street Journal* and [One-child policy shift won't usher in China baby boom](#) from *Reuters*

1040 Another area of potential impact that the one-child policy may have is on macro consumer behavior. See [Little Emperors: Behavioral Impacts of China's One-Child Policy](#) by L. Cameron et. al.

1041 See [Empower elderly to be active participants](#) from *People's Daily* and [Rise in China's Aging Poses Challenge to Beijing](#) from *The New York Times*

1042 See [Proposal to push retirement age to 65](#) from *China.org.cn* and [人社部专家建议退休年龄延至 65 岁](#) from *Netease*

1043 [Peak toil](#) from *The Economist*

1044 See [Proposal to push retirement age to 65](#) from *China.org.cn* and [人社部专家建议退休年龄延至 65 岁](#) from *Netease*

1045 [Age-old question raises a retirement dilemma](#) from *China Daily Asia Pacific*

1046 It should be noted that this crisis did not creep up as a surprise, rather this arguably illustrates that interest groups are just as self-interested and resistant to change in the East as they are in the West. See [A Simple Solution To China's Pension Crisis](#) by David Li and Ling Li and [Retirement Promises Prove Iffy Under Chinese Communists](#) from *Bloomberg*

1047 As counterintuitive as it may seem, under a centrally planned economy and centrally planned health care system, "too much" medical equipment could be made (e.g., oversupply due to subsidized incentives) or "too few" doctors trained (e.g., shortages due to licensing). There is no organic pricing mechanism to tell planners what should and should not be made or trained, thus all decisions are made arbitrarily. See [Economic Calculation in the Socialist Commonwealth](#) by Ludwig von Mises

1048 [What's Really Wrong with the Healthcare Industry](#) by Vijay Boyapati

1049 [Universal healthcare is within reach](#) from *China Daily*

1050 [Achievements of China's medical reform](#) from *CCTV*

1051 [The Chinese Medical Device Market](#) from *Insight*

1052 See [Longevity and health care expenditures: the real reasons older people spend more](#) by Yang et.al., and [Out-of-Pocket Spending in the Last Five Years of Life](#) by Kelley et.al.

1053 See [China tobacco bigger than Wal-Mart?](#) from *CNN* and [10 Facts on Tobacco and Gender in China](#) from the World Health Organization

1054 [WHO: 80% of China Deaths from Non-Communicable Diseases](#) from *The Wall Street Journal*

1055 [Mainland Outlines Plans Cut Smoking Without Graphic Labels](#) from *South China Morning Post* and [MPower Report Prevalence](#) from World Health Organization

1056 [China's Tobacco Monopoly Bigger by Profit Than HSBC](#) from *Bloomberg*

1057 [Buying 'Double Happiness' Reveals China's Tobacco Battle](#) from *Bloomberg*

1058 [Chinese tobacco firms' tax payments surge](#) from *Xinhua*

1059 [Buying 'Double Happiness' Reveals China's Tobacco Battle](#) from *Bloomberg*

1060 [Public health: Where there's smoke](#) from *Nature*

1061 This statement was not intended to diminish the severity of HIV/AIDS in Africa. See [The Fiscal Dimension of HIV/AIDS in Botswana, South Africa, Swaziland, and Uganda](#) from the World Bank

1062 [Secondhand Smoke Kills 42,000 Nonsmokers a Year in US](#) from *LiveScience*

1063 See [Out-of-Pocket Spending in the Last Five Years of Life](#) by Kelley et.al. and [Health-Care Costs Hit the Elderly Hard, Diminish Financial Wellbeing](#) from *ScienceDaily*

1064 See [Elderly population to surpass 200 mln in 2013](#) from *Xinhua* and [Ageing China: Changes and challenges](#) from *BBC*

1065 [WHO: 80% of China Deaths from Non-Communicable Diseases](#) from *The Wall Street Journal*

1066 [Buying 'Double Happiness' Reveals China's Tobacco Battle](#) from *Bloomberg*

1067 For a detailed, illustrative case study on filial piety in modern China see: [In China, Betting It All on a Child in College](#) from *The New York Times*

1068 [One-child policy leaves bereaved parents with broken hearts](#) from *Xinhua*

1069 [Monks without a temple](#) from *The Economist*

1070 One third of all Alzheimer's sufferers live in China. Shanghai alone has 120,000 residents with Alzheimer's or dementia. See [China in Alzheimer's double bind](#) from *BBC* and [China, in a Shift, Takes On Its Alzheimer's Problem](#) from *The New York Times*

1071 See [China to allow some foreigners to retire there](#) from *Reuters*, [Shanghai may be delaying foreigners' pension scheme: report](#) from *Reuters* and [Six Points on Social Insurance for Foreigners](#) by Matthew Stinson

1072 [Foreigners Set For Social Benefits](#) from *Shanghai Daily*

1073 [Foreigners to get key rights](#) from *China Daily*

1074 [What's Driving Americans to Retire Abroad? Money -- or Lack of It](#) from *Knowledge@Wharton*

1075 [China to recruit foreign experts through Internet](#) from *People's Daily*

1076 [Foreign insurance companies in China](#) from *PriceWaterhouseCoopers*

1077 [Where the state does too little](#) from *The Economist*

1078 [China Life Insurance Company 2011 Annual Results](#) from *China Life*

1079 [Growing pains](#) from *The Economist*

1080 [The Financial Services Industry in the United States](#) from *US Department of Commerce*

1081 [Insurance: Global Industry Almanac](#) from *Marketline*

1082 [Foreign insurance companies in China](#) from *PriceWaterhouseCoopers*

1083 [China's Insurance Industry Faces Challenges, Regulator Says](#) from *Bloomberg*

1084 *Ibid*

1085 [China Firms Lose Interest in Insurance](#) from *The Wall Street Journal*

1086 [Foreign insurance companies in China](#) from *PriceWaterhouseCoopers*

1087 [China gets 76 bln yuan in donations for Sichuan quake](#) from *People's Daily*

- ¹⁰⁸⁸ [County vows to correct misuse of post-disaster relief money](#) from *China Daily* and [Quake zone hit by yet another relief scandal](#) from *South China Morning Post*
- ¹⁰⁸⁹ [Red Cross donations not collected for 4 years](#) from *China Daily*
- ¹⁰⁹⁰ See [Businessman quits amid China Red Cross scandal](#) from *BBC*, [Scandal-hit China Red Cross changes leadership](#) from *China Daily*, [An Online Scandal Underscores Chinese Distrust of State Charities](#) from *The New York Times* and [Wife sacked amid graft probe](#) from *Shanghai Daily*
- ¹⁰⁹¹ [Charity's credibility](#) from *China Daily*
- ¹⁰⁹² [Chinese charity donations fall 80 per cent](#) from *The Telegraph*
- ¹⁰⁹³ See [China's Rapidly Growing Non-Governmental Organizations](#) by Xu Ying and Zhao Litao and [Chinese Nongovernmental Organizations](#) by Amy Gadsden
- ¹⁰⁹⁴ [PCDN](#)
- ¹⁰⁹⁵ See [Health damages from air pollution in China](#) from MIT and [China's pollution puts a dent in its economy](#) from *MIT News*
- ¹⁰⁹⁶ Some of the long-term health issues with the water pollution are that the industrial runoff (e.g., toxic chemicals) ends up downstream and because these streams are sometimes the only source for water, farmers must use it to water their produce. As a consequence, several hundred "cancer villages" have sprung up outside of large industrial centers, where cancer rates are abnormally higher due to this runoff. See [Toxic Water: Across Much of China, Huge Harvests Irrigated with Industrial and Agricultural Runoff](#) from *Circle of Blue* and [China: Dirty Air, Dirtier Water?](#) from *Council on Foreign Relations*
- ¹⁰⁹⁷ [A silver lining in China's grey](#) skies from *Reuters*
- ¹⁰⁹⁸ [Cost of Pollution in China](#) from The World Bank
- ¹⁰⁹⁹ Air pollution also damages and destroys crops. See [China's Urban Air Kills Rural Plants](#) from *Discovery*
- ¹¹⁰⁰ Of China's 500 largest cities, less than 1% meets the World Health Organization's (WHO) air quality standards. Furthermore, 16 out of the 20 most-polluted cities globally are in China according to WHO. And up to 40 percent of China's rivers are seriously polluted. Another recent estimate in February 2013 from the China Geological Survey is that 60% of ground water in Chinese cities are "severely polluted." See [7 of world's 10 most polluted cities are in China: report](#) from *Want China Times*, [China's Water Pollution Crisis from](#) *The Diplomat*, [China's river pollution 'a threat to people's lives'](#) from *People's Daily*, [The groundwater of 90% of Chinese cities is polluted](#) from *Danwei*, [After China's multibillion-dollar cleanup, water still unfit to drink](#) from *Reuters* and [Beijing Air Akin to Living in Smoking Lounge: Chart of the Day](#) from *Bloomberg*
- ¹¹⁰¹ [Beijing smog offers silver lining for some](#) from *Financial Times*
- ¹¹⁰² See [Beijing Air Akin to Living in Smoking Lounge: Chart of the Day](#) from *Bloomberg* and [Survey: Breathing bad air in Beijing like smoking 21 cigarettes](#) from *Asahi*
- ¹¹⁰³ See [Hospital visits rise during Beijing's choking smog](#) from *Agence France-Presse*, [Academic claims air pollution is more frightening than SARS virus](#) from *China Daily* and [Study: Toxic Organic Compounds Found in Beijing's Smog](#) from *Caijing*
- ¹¹⁰⁴ Beijing's air was not even the worst. According to the Ministry of Environmental Protection, 6 out of the top 10 most heavily polluted cities were in neighboring Hebei province. Beijing was 9th. See [Beijing ranks ninth among China's top 10 polluted cities](#) from *South China Morning Post*
- ¹¹⁰⁵ Ibid
- ¹¹⁰⁶ Ibid
- ¹¹⁰⁷ See [New in Beijing: pollution domes](#) from *Financial Times*, [Canned air for sale in China, as blanket of smog returns](#) from *The Sydney Morning Herald* and [For polluted Beijing, canned air](#) from *CNN*
- ¹¹⁰⁸ See [Beijing's heavy pollution a boon for air quality monitoring apps](#) from *IT World* and [Beijing Air Akin to Living in Smoking Lounge: Chart of the Day](#) from *Bloomberg*
- ¹¹⁰⁹ See [Beijing Olympics Met or Exceeded Green Goals](#) from *Scientific American*, [A Stunning Visualization of China's Air Pollution](#) from *The Atlantic* and [China's countrymen struggling with a 'sick' Mother Earth](#) from *The Telegraph*
- ¹¹¹⁰ [China pledges \\$56 billion to cut air pollution](#) from *China Daily*

- ¹¹¹¹ See [PM2.5 kills thousands, researchers say](#) from *China Daily* and [Beijing Air Akin to Living in Smoking Lounge: Chart of the Day](#) from *Bloomberg*
- ¹¹¹² In addition to selling “canned air” one other possibility could be to sell water purification devices like Slingshot created by Dean Kamen which purportedly can produce clean water from nearly any water source (irrespective of pollution). See [Worse Than Poisoned Water: Dwindling Water, in China's North](#) from *International Herald Tribune*, [57% China's urban underground water polluted](#) from *Xinhua*, [Travellers unveil shocking truth about illegal waste water dumping](#) from *South China Morning Post*, [Deng Fei Launches Weibo Campaign to Share Images of Water Pollution](#) from *Tech In Asia* and [Dean Kamen aims to clean water, generate electricity with Slingshot](#) machine from *Engadget*
- ¹¹¹³ [China to contain increasingly severe soil pollution](#) from *Xinhua*
- ¹¹¹⁴ According to Irvin Abercrombie one other limitation that foreigners should be aware of is administrative restrictions at local colleges. For example, at one college he taught at he was informed that while he could help participate in an NGO, other foreign colleagues were asked not to participate in non-school sponsored extracurricular activities.
- ¹¹¹⁵ [A work in progress](#) from *The Economist*
- ¹¹¹⁶ [Rural Bounty](#)
- ¹¹¹⁷ [Small U.S. Farms Find Profit in Tourism](#) from *The New York Times*
- ¹¹¹⁸ [The Demand for Agritourism in the United States](#) by Carpio *et al.*
- ¹¹¹⁹ [California farmers profit from agritourism](#) from the University of California Cooperative Extension
- ¹¹²⁰ [Savvy farmers open the gate to agritourism](#) from *USA Today*
- ¹¹²¹ See a list of participating farms at [FarmStayU.S.](#) See also [Cooking With Mr. Green Jeans](#) from *The Wall Street Journal* and [5 common farmstay questions -- answered!](#) from *CNN*
- ¹¹²² [Entrepreneurs turn to the land for profit](#) from *China Daily*
- ¹¹²³ [Beijing's 'Crazy Bad' Air Pollution Creates Investment Opportunities](#) from *The Wall Street Journal*
- ¹¹²⁴ [Heartless attacks](#) from *The Economist*
- ¹¹²⁵ [Harbin court hears hospital attack case](#) from *Sina*
- ¹¹²⁶ [Nurse and doctor stable in brutal stabbing](#) from *China Daily*
- ¹¹²⁷ [Man killed 1, injured 4 at a hospital in E. China](#) from *Sina*
- ¹¹²⁸ See [Doctor axed to death in N China hospital](#) from *China Daily* and [Female doctor axed to death in Chinese hospital](#) from *The Telegraph*
- ¹¹²⁹ See [Patient-On-Doctor Violence In China Symptomatic Of A Sick And Crippled System](#) from *Economic Observer* and [Chinese man convicted of murder after stabbing four hospital staff](#) from *The Guardian*
- ¹¹³⁰ [How to solve the crisis behind Bribeagate for Chinese doctors](#) from *The Lancet*
- ¹¹³¹ [Survey shows 54% Chinese doctors take drug kickbacks from pharmaceutical dealers](#) from *HugChina*
- ¹¹³² Sun Simiao was the Chinese “King of Medicine” whose text “On the Absolute Sincerity of Great Physicians” is required reading for Chinese physicians. See [Heal Thyself?](#) from *TIME*
- ¹¹³³ [Netizen accuses Zhejiang doctors in new kickback scandal](#) from *China Daily*
- ¹¹³⁴ [Patient's knife attack raises security fears](#) from *China Daily*
- ¹¹³⁵ [调查称 61%医生不喜欢自己职业 8 成认为工资低](#) from *ifeng*
- ¹¹³⁶ This number varies from state-to-state and specialty-to-specialty. If other compensation and perks are added, this number increases as well. See [Occupational Employment and Wages, May 2011](#) from Bureau of Labor Statistics and [Physicians and Surgeons](#) from Bureau of Labor Statistics
- ¹¹³⁷ See [Time Spent in Face-to-Face Patient Care and Work Outside the Examination Room](#) by Andrew Gottschalk and Susan Flocke and [National Ambulatory Medical Care Survey: 2003 Summary](#) by Hing, *et.al.*
- ¹¹³⁸ See [New generations of Chinese doctors face crisis](#) from *The Lancet* and [第四次医师执业状况调研报告](#) from the Chinese Medical Doctor Association

- ¹¹³⁹ [医生职业满意度调查：七成医生不愿子女从医](#) from Sohu
- ¹¹⁴⁰ See [The Madness of China's Mental Health System](#) from *Foreign Policy* and [Freud, psychiatry, and mental health in China](#) by Evan Osnos
- ¹¹⁴¹ See [Mental illness in China](#) by Guo *et al.* and [Mental Illness: Far More Chinese Have Mental Disorders Than Previously Reported, Study Finds](#) from *The New York Times*
- ¹¹⁴² [Mental health in China](#) from *The Economist*
- ¹¹⁴³ [Plan to improve 550 psychiatric hospitals](#) from *China Daily*
- ¹¹⁴⁴ [The heavy toll of depression in China](#) from *Caixin* and [失守抑郁症 专题频道 财新网](#) from *Caixin*
- ¹¹⁴⁵ See [287,000 commit suicide in China each year](#) from *Xinhua* and [Care, Confusion and Depression's Heavy Toll](#) from *Caixin*
- ¹¹⁴⁶ After heart disease and cancer, suicides are one of the leading causes of deaths in China. Traffic-related accidents account for the largest amount of deaths of Chinese people under the age of 45. In contrast, suicides have overtaken traffic-related accidents as the leading cause of injury deaths in the US. For comparison, according to *Xinhua* "it estimated that there are 3.12 million new cases of cancer each year in China. There are 2.7 million cancer-caused deaths, which represents 13 percent of total deaths of Chinese people." [Road Safety Problems Pose Dire Threat in China](#) from *The New York Times*, [Suicides Replace Auto Crashes as Top Cause of Injury Death](#) from ABC News, [Taking traffic regulations seriously](#) from *China Daily* and [Cancer in China influenced by pollution, poverty](#) from *Xinhua*
- ¹¹⁴⁷ The suicide rate for females was three times higher than for males. See [Women and suicide in rural China](#) from World Health Organization and [Alone but alive](#) from *Global Times*
- ¹¹⁴⁸ [Meet the woman making China fashionable](#) from *The Independent*
- ¹¹⁴⁹ [China's suicide rate declines, but still poses a challenge](#) from *Xinhua*
- ¹¹⁵⁰ [Facts and Figures](#) from American Foundation for Suicide Prevention
- ¹¹⁵¹ [Care, Confusion and Depression's Heavy Toll](#) from *Caixin*
- ¹¹⁵² [China American Psychoanalytic Alliance](#)
- ¹¹⁵³ [Report: US Tops China's No.1 Immigration Destination](#) from *Caijing*
- ¹¹⁵⁴ See [China's Brain Drain at the High End](#) by Cong Cao, [China's Brain Drain Dilemma: Elite Emigration](#) from *The Jamestown Foundation* and [China fears brain drain as its overseas students stay put](#) from *The Guardian*
- ¹¹⁵⁵ This trend seems to be changing however. A more recent survey by Nankai University found that "[o]ut of 2.24 million overseas students from 1978 to 2011, 818,400 had returned after studies." And furthermore, "[a]mong those who had returned, more than half, or 429,300, had done so in just three years from 2009 to 2011. And 2011 alone registered 186,200 returned students." See [Fewer Chinese overseas students staying abroad](#) from *Xinhua*
- ¹¹⁵⁶ See [Rich Chinese want to buy happiness -- by emigrating](#) from *Los Angeles Times* and [Wary of Future, Professionals Leave China in Record Numbers](#) from *The New York Times*
- ¹¹⁵⁷ [The Real Reason China's Super-Rich Are Packing Up and Moving Abroad](#) from *WorldCrunch*
- ¹¹⁵⁸ See [Why Some Chinese Should Rethink Value of Green Card](#) from *The Wall Street Journal*, [More Wealthy Chinese Said to Prepare Exits](#) from *The Wall Street Journal* and [Fast track to the American dream](#) from *Chicago Tribune*
- ¹¹⁵⁹ Investors and investment companies should again, do their due diligence and be vigilant against scams. For example, the SEC recently halted an investment scheme from an American (Anshoo Sethi) who fraudulently collected \$11 million in fees from Chinese nationals seeking EB-5 visas. See [SEC Halts \\$150 Million Investment Scheme to Dupe Foreign Investors and Exploit Immigration Program](#) from the SEC
- ¹¹⁶⁰ This is not to say that all high-networth individuals (HNWI) become foreign citizens. According to Boston Consulting Group, only 6% HNWI actually take up foreign citizenship. One reason why is because of tax laws (e.g., US taxes income on a global level) and another is due to political considerations. For instance, Zong Qinghou, one of the wealthiest persons in China gave up his US permanent residency after receiving criticism as having dual loyalties (he is a representative of the National People's Congress). It may also be cheaper to purchase investor

visas and gain permanent residency through new programs offered in Europe (e.g., permanent residency in Cyprus is roughly \$300,000 which is significantly cheaper than similar programs in the US and Canada). See [Why Some Chinese Should Rethink Value of Green Card](#) from *The Wall Street Journal* and [Why Wealthy Chinese Are Giving Up U.S. Green Cards](#) from *The Wall Street Journal*

¹¹⁶¹ [Foreigners to get key rights](#) from *China Daily*

¹¹⁶² In his book [The World is Flat](#), Thomas Friedman details the Indian brain-drain. More than 100,000 Indians — most of whom are highly trained — emigrate to the United States each year. A 2001 UN Development Report found that the “average total cost to India of educating each one of them was between \$15,000 and \$20,000.” In turn, hundreds of these Indians create startups. In fact, immigrants from India founded “more tech startups from 1995 to 2005 than people from the four next biggest sources — United Kingdom, China, Taiwan and Japan — combined.” See [Brain drain costs developing countries billions](#) from *CNN* and [Immigrants Behind 25 Percent of Startups](#) from *The Associated Press*

¹¹⁶³ [1,333 doctors migrated abroad last year](#) from *The Times of India*

¹¹⁶⁴ See [China boosts investment in grassroots healthcare](#) from *China Daily* and [Are China's Doctors About to Get a Major Salary Bump?](#) from *Asia Healthcare Blog*

¹¹⁶⁵ [Heroes dare to cross](#) from *The Economist*

¹¹⁶⁶ Ibid

¹¹⁶⁷ In [Crisis of Abundance](#), Arnold Kling notes that when a patient has a cold or broken arm, that does not mean the patient necessarily needs to have immediate access to the most experienced doctor's from the Mayo Clinic or Johns Hopkins. Not every condition requires having a ‘Cadillac’ doctor. And in many cases a patient could be fully served by a nurse or physician's assistant — thus freeing scarce resources (doctor's) to work with other patients. Since medical professionals and medicines are all finite, scarce resources, allocating them has become the topic *du jour*. A market-based allocation method involves prices and price signals that arise via interaction between market participants (entrepreneurs, investors, customers, suppliers) which continuously reflect supply and demand and would rationally allocate medical professionals in the most efficient manner (e.g., higher costs, lower usage; lower costs, higher usage). Conversely, because central planners would subsidize and reduce the cost of an activity, more of those resources are being bid on — ultimately outstripping the supply of the resources. Thus attempting to rationalize identical resources without organic prices effectively makes planners ‘blind’ — they cannot coordinate and know how, where or when to allocate resources. All decisions would be made arbitrarily. See [What's Really Wrong with the Healthcare Industry](#) by Vijay Boyapati and [Economic Calculation in the Socialist Commonwealth](#) by Ludwig von Mises

¹¹⁶⁸ [Hospitals in China resist bid to reform drug sales](#) from *South China Morning Post*

¹¹⁶⁹ [Doctor removes patient's stitches immediately following surgery](#) from *Global Times*

¹¹⁷⁰ [China plans new medical payment system](#) from *China Daily*

¹¹⁷¹ In economic terms part of the costs are due to “rent-seeking” by monopolies and by other special interest groups through another term called “regulatory capture.” See [Rent Seeking: Some Conceptual Problems and Implications](#) by E.C. Pasour and [The Theory of Economic Regulation](#) from George Stigler

¹¹⁷² Milton Friedman and other economists have explained that “price ceilings” (e.g., price controls) cannot inherently work due to the fact that the inputs and economic fundamentals underlying the demand for a product or service have not changed when artificial ceilings are implemented. For example, if demand remains constant yet supply or the price at which suppliers are willing and able to provide a good or service decreases then a shortage will occur. See [An Interview with Milton Friedman](#) by Russ Roberts and [Price Controls](#) by Hugh Rockoff

¹¹⁷³ See [Rent Seeking: Some Conceptual Problems and Implications](#) by E.C. Pasour and [Rent Seeking](#) from David Henderson

¹¹⁷⁴ Another source explained that many of these billing companies are set up in Anhui because its provincial tax codes are more competitive than others on the mainland with this specific industry. This is different than the Anhui pricing model which was discussed in [Anhui medicine](#)

wrong for China and [The Stakeholders in China's Hospital Reform](#) both by Benjamin Shobert

1175 [Forty Centuries of Wage and Price Controls](#) by Robert Schuettinger and Eamonn Butler

1176 [The Problem of Social Cost](#) by Ronald Coase

1177 [China's Pharmaceutical Price Policies and Practices](#) by Ziyang Wang

1178 This is very similar to how command economies of the Eastern Bloc and Soviet Union directly removed incentives like "profit," replacing them with an arbitrarily set quota-based system.

1179 [China's Medical Boom](#) from *TIME*

1180 See [China opens door to foreign-owned hospitals](#) from *China.org.cn* and [China Opens the Door for Foreign Healthcare Providers](#) from *International Insurance News*

1181 [United Family Healthcare](#) and [ParkwayHealth](#)

1182 Another industry first is a new home medical care service from UFH which includes doctor's visits direct to customer homes. See [United Family Home Health](#)

1183 [A bronchofiberscopy-associated outbreak of multidrug-resistant *Acinetobacter baumannii* in an intensive care unit in Beijing, China](#) from Xia *et al.*

1184 See [Antibiotics: Killing Off Beneficial Bacteria ... for Good?](#) from *Wired*, [Gut-Bacteria Mapping Finds Three Global Varieties](#) from *Wired* and [The Wired Atlas of the Human Ecosystem](#) from *Wired*

1185 See [Overuse of antibiotics concerns officials](#) from *Xinhua*, [Chinese ministry, WHO warn of antibiotic overuse](#) from *Associated Press*, [China further curbs overuse of antibiotics](#) from *China Daily*, [Government warns over antibiotic misuse](#) from *China Daily* and [Shanghai researchers discover how bacteria develop antibiotic resistance](#) from *South China Morning Post*

1186 [When Penicillin Pays: Why China Loves Antibiotics a Little Too Much](#) from *TIME*

1187 Roberta Lipson, the founder of Chindex, was recently interviewed by AM 774 and noted that among other things, that it took some time to convince local doctors to give up their "iron rice bowl" (e.g., state employment for life) to work at the private facilities (*xià hǎi*). Similarly it was a struggle at first to get Western medical practitioners to give-up their careers and move to Beijing and other UFH facilities. See [Thirty three years working within health care providing in China](#) from AM 774 and [The golden rice-bowl](#) from *The Economist*

1188 [Private hospitals begin to nurse big ambitions](#) from *China Daily*

1189 Ibid

1190 Another opportunity could be for manufacturers of ambulances and EMT equipment. According to one report, Beijing needs 600 ambulances but is 100 short and thus 'black ambulances' have attempted to fill in this gap, much to the chagrin of various stakeholders. See [Shining a Light on Beijing's Deadly 'Black Ambulances'](#) from *The Wall Street Journal*

1191 [Private hospitals in China can't tell tea from pee: report](#) from *Want China Times*

1192 [Scandal brews over China tea-for-urine samples](#) from *Reuters*

1193 [Doctor detained over NE China hepatitis C case](#) from *Xinhua*

1194 [Chinese Healthcare Deals in Short Supply](#) from *The Wall Street Journal*

1195 See [Healthcare in China: Entering uncharted waters](#) from *McKinsey & Co.*, [Part 3: McKinsey Evaluates the Private Hospital market in China](#) from *Asia Healthcare Blog* and [Organized healthcare delivery should be the future of private healthcare, in China](#) from *Asia Healthcare Blog*

1196 [Healthcare in China-A Trip to the Orient](#) from *Medical Tourism Magazine*

1197 [Hong Kong to slam door on pregnant mainland Chinese](#) from *Reuters*

1198 [Hong Kong to Limit Birth Quota for Mainland Chinese Mothers](#) from *NTD*

1199 [Mainland Moms Get Jail Time in Hong Kong](#) from *The Wall Street Journal*

1200 [Born in the U.S.A.: Birth tourists get instant U.S. citizenship for their newborns](#) from *NBC*

1201 See [For many pregnant Chinese, a U.S. passport for baby remains a powerful lure](#) from *The Washington Post* and [Pregnant and Bound for America: Why Chinese Moms Want to Give Birth on U.S. Soil](#) from *TIME*

1202 [Chinese birth tourism booms in Southern California](#) from *San Francisco Gate*

1203 [Born in the U.S.A.: Birth tourists get instant U.S. citizenship for their newborns](#) from *NBC*

1204 ["Maternity Tourism": How Chinese couples buy U.S. citizenship for their babies](#) from *CBS*

1205 See [High risks behind Chinese mothers' giving birth in US](#) from *People's Daily* and [Parents](#)

[deliver US citizenship](#) from *China Daily*

¹²⁰⁶ While the typical goal for this form of medical tourism is to provide an alternative educational and lifestyle plan for their children (e.g., allowing the easier access to US institutions) some of these children are actually raised on the mainland for many years while their parents work abroad. See [Left-behind American children in China](#) from *Offbeat China*

¹²⁰⁷ [Born In The U.S.A.? Some Chinese Plan It That Way](#) from *NPR*

¹²⁰⁸ [Born in the U.S.A.: Birth tourists get instant U.S. citizenship for their newborns](#) from *NBC*

¹²⁰⁹ [U.S. Hospitals Worth The Trip](#) from *Forbes*

¹²¹⁰ According to the National Center for Health Statistics, “births of babies on American soil to foreign mothers increased from 5,009 births in 2000 to 7,462 births in 2008.” See [Born in the U.S.A.: Birth tourists get instant U.S. citizenship for their newborns](#) from *NBC*

¹²¹¹ According to Fang Binxing, the ‘Father of the Great Firewall,’ it was “reportedly launched in 1998 [and] came online about 2003.” See [Great Firewall father speaks out](#) from *Global Times*

¹²¹² [Splinternet Behind the Great Firewall of China](#) from Association for Computing Machinery

¹²¹³ To bypass copyright restrictions, VPN uptake has increased over the past several years in several Western countries, as consumers move to alternative methods for downloading copyrighted content. According to a study from Lund University in Sweden, there has “been a 40% rise in the number of 15 to 25-year-olds using such [VPN] services since 2009.” See [File-sharers look to VPNs to overcome Pirate Bay ban](#) from *BBC*

¹²¹⁴ Even with encryption algorithms like AES, third parties which have direct access to even one end of a data stream can conduct packet sniffing and other “side channel” attacks.

¹²¹⁵ See [Five Myths about the Chinese Internet](#) from *Foreign Policy* and [Florida pet spa mystery link to China's great firewall](#) from *New Scientist*

¹²¹⁶ [Great Firewall father speaks out](#) from *Global Times*

¹²¹⁷ In January 2013, Han Weili, a software instructor at Fudan University in Shanghai publicly solicited applications for employment to improve the GFW. In his view there are two problems with the GFW technology, “The first is a lack of transparency in strategy, the second is that Great Firewall strategy execution has a false-report rate that is too high.” See [Great Firewall Engineer Han Weili Calls for Job Applications](#) from *Fei Chang Dao*

¹²¹⁸ In 2011, the US embassy in China issued more than 160,000 student visas for Chinese students to study at American schools. Yet a November 2012 report from Open Doors notes that the actual number is even higher, 194,029. See [Ten Years of Rapid Development of China-US Relations](#) from *Xinhua* and [Students from China add \\$5b to US economy](#) from *China Daily*

¹²¹⁹ [Chinese tourists spend more in US in 2011](#) from *China Daily*

¹²²⁰ [No, Facebook does not have 63.5 million active users in China](#) from *The Next Web*

¹²²¹ Approximately half of World of Warcraft’s 10-12 million userbase is estimated to be from mainland China. See ["Gold Farming": Real-World Production in Developing Countries for the Virtual Economies of Online Games](#) by Richard Heeks and [Converting the Virtual Economy into Development Potential: Knowledge Map of the Virtual Economy](#) from the World Bank

¹²²² Disclosure: I do not currently have any stakes in these products, services or companies. See [Testing five VPNs that'll get you back on YouTube, Facebook in China](#) from *c/net*

¹²²³ A user can remotely set up their own VPN practically anywhere using software such as [OpenVPN](#). The primary key issue is locating a computer outside of the mainland where it can be installed on and reliably connected to.

¹²²⁴ [Sinocism](#)

¹²²⁵ To better understand the importance of CDNs see, [Google and Netflix Make Land Grab On Edge Of Internet](#) from *Wired*

¹²²⁶ [China's 'Wall' Hits Business](#) from *The Wall Street Journal*

¹²²⁷ See [One World, Two Internets](#) by Bill Bishop and [Iran's network in a bottle](#) from *The Boston Globe*

¹²²⁸ [CryptABYTE](#)

¹²²⁹ According to one estimate regarding software application investment for supercomputers in

China, “Less than 10% of supercomputing funding goes to developing such applications, said Chinese researchers who complain that political leaders press them to build headline-grabbing new machines rather than focus on whether they are used to their full capabilities.” See [China's Not-So-Super Computers](#) from *The Wall Street Journal*

¹²³⁰ See [People's Search Engine Denies Layoff Rumors; Says More Jobs Open](#) from *Caijing*, [Jike's attempt to censor news about its 0.0001% market share has backfired](#) from *Shanghaiist* and [You've been Jiked!](#) from *China Media Project*

¹²³¹ [Debt as Tall as Dubai, or How the Singularity Is Not a Guaranteed Phenomenon](#) by Tim Swanson

¹²³² They cannot *a priori* due to the economic calculation problem. See [Economic Calculation In The Socialist Commonwealth](#) by Ludwig von Mises

¹²³³ [The Soviet Machine-Building Complex: Perestroika's Sputtering Engine](#) from the Office of Soviet Analysis published by the Directorate of Intelligence

¹²³⁴ Throughout its existence the Soviet Union tried to incorporate technology in its *Pyatiletka* — Five Year Plans. They even tried to recreate Silicon Valley through the construction of numerous science and research parks called *Naukograd*. Numerous other countries have also tried to emulate the success of the Bay Area with little measurable return-on-investment; this includes Silicon Taiga in Novosibirsk. The Soviet Union was unable to incubate something akin to Moore's Law for the same reason the Soviet Union ultimately failed: without prices, you cannot make efficient allocation decisions. Prices only arise from market interactions, through profit and loss — which signal to entrepreneurs when to buy, sell, trade, and invest capital. Without this organic knowledge Soviet planners were left using arbitrary coefficients to plug into their various economic models with the net result: planned chaos. See [Planned Chaos](#) by Ludwig von Mises.

¹²³⁵ One frequently cited myth regarding Japan is that it was successful in its attempts to centrally plan scientific innovation. This is untrue. See [The Fifth Generation Fallacy](#) by J. Marshall Unger. See also Chapter 9 in [Animal Spirits with Chinese Characteristics](#) by Mark DeWeaver

¹²³⁶ According to the Semiconductor Industry Association, “three quarters” of all semiconductor design and manufacturing takes place in the United States and that 82% of semiconductor sales are outside the United States. See [America's #1 Export Industry Applauds Passage of Free Trade Agreements](#) from the Semiconductor Industry Association

¹²³⁷ See [Cargo Cult Science](#) by Richard Feynman and [In John They Trust](#) from *Smithsonian*

¹²³⁸ [Skyscrapers and Business Cycles](#) by Mark Thornton

¹²³⁹ See Chapter 1 in [Principles of Economics](#) by Carl Menger and Chapter 16 in [Human Action](#) by Ludwig von Mises

¹²⁴⁰ [Xi-Tong Scientific & Technology Industrial Park](#)

¹²⁴¹ According to recent reports, Chinese policy makers are attempting to build a 100-petaflop supercomputer which would be five times faster than the current record holder (*Titan*). As part of this plan, Zhang Yunquan, a professor at the Institute of Software Chinese Academy of Sciences, noted that domestically designed chips may be used. These domestic chips, called *Loongson* are based on MIPS, a chip design developed by a Sunnyvale-based technology firm (MIPS Technologies). Similarly, Chinese policy makers are frustrated by the fact that Android (which is managed by Google) has the lion's share of marketshare and would prefer to have a domestic, homegrown OS used by smartphone makers instead. See [China is building a 100-petaflop supercomputer](#) from *IT World*, [China's godson gamble](#) from *IEEE Spectrum*, [Why China Can't Make Its Own Mobile OS](#) from *Tech In Asia* and [Google controls too much of China's smartphone sector: ministry](#) from *Reuters*

¹²⁴² [China's 'Wall' Hits Business](#) from *The Wall Street Journal*

¹²⁴³ [Economist: China Plenty Creative, Just Not in Right Ways](#) from *The Wall Street Journal*

¹²⁴⁴ [China's self-defeating war with information](#) by Andy Yee

¹²⁴⁵ See [Rich Chinese want to buy happiness -- by emigrating](#) from *Los Angeles Times* and [Wary of Future, Professionals Leave China in Record Numbers](#) from *The New York Times*

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- 1246 [Microsoft's Zhang Sees China as Asia's Innovation Center](#) from *The Wall Street Journal*
- 1247 [Cloud computing investment 'to hit \\$1b'](#) from *China Daily*
- 1248 [ChinaCache investor relations](#)
- 1249 [Foreign-run VPNs illegal in China: govt](#) from *Global Times*
- 1250 [Adding Some Key Facts In WSJ.com's China's Internet 'Wall' Hits Business Article](#) from *VPN*
- Instructions*
- 1251 [China offers new incentives to further boost software and semiconductor industries](#) by Peng Tao
- 1252 For a step-by-step guide to setting up a Sina Weibo account for your brand, see: [Creating an account on Sina Weibo](#) and [How to sign up for Sina Weibo blog](#)
- 1253 Monetizing your company's fan base from social media sites like Sina Weibo is a challenge that was recently discussed by Ken Hong, the general manager of the Sina Weibo platform at Sina. See [Turning Brand Fans into BFFs](#) from *Thoughtful China*
- 1254 See [Tencent's WeChat messaging app passes 300m users, adding its latest 100m in just 4 months](#) from *The Next Web*, [Tencent: WeChat App Set to Surpass 300 Million Users Next Month](#) from *Tech In Asia* and [Weixin Users Exceeded 200 Million](#) from *China Internet Watch*
- 1255 The default language is English: [QQ international](#)
- 1256 For references see: [AmCham Shanghai](#), [AmCham Beijing](#), [EU Chamber of Commerce](#) and [Are You Ready for China?](#) from the EU SME center
- 1257 For a step-by-step procedure, see [Starting a Business in China](#) from the World Bank. See also [New Path for Trade: Selling in China](#) from *The New York Times*
- 1258 See [The perils of prediction, June 2nd](#) from *The Economist*