Raging Capital China Trip – March 2018

A team from Raging Capital recently visited China (and Hong Kong) in order to help develop a framework about the country and to cultivate local investment relationships. Although we have very few direct long or short investments in Chinese companies, the country is "the tail that wags the dog" for many facets of the global economy. In fact, many of our portfolio positions are impacted by developments in China, as is the direction of global markets. Ultimately, we believe this trip should help us make better portfolio decisions.

Over the course of 12 days, we had over 50 meetings with a range of public and private-equity investors, venture capitalists, bankers, entrepreneurs, executives, business owners and educators. We also interacted with many "ordinary" Chinese people, including hosting a student focus group. These interactions provided us with invaluable insights and anecdotes. Overall, it was an eye-opening and enlightening trip.

High-Level Thoughts

We visited China at a momentous and important time. During our trip in March 2018, the Chinese Communist Party amended the constitution in order to remove the term limits on President Xi Jinping's tenure. Trade and security tensions also began to escalate between China and the U.S., as Trump initiated a series of new tariffs and prohibited Broadcom's proposed acquisition of Qualcomm. In the future, we may look back at this time as a pivotal turning point in the relationship between the world's two largest economies.

It is difficult to distill a complex economy like Chinas into just a few bullet points. Even so, that is exactly the lofty goal of this memo. Please forgive us in advance for our broad generalizations, oversimplifications, ignorance, and other miscalculations!

In a nutshell, we believe there are five dominant themes that are core to China's ongoing and future development:

- China's Scale Creates a Long-Term Competitive Advantage
- An Efficient Industrial Policy Focused on Vertical Integration & Future Tech
- A Difficult "Baton Pass" from Property & Infrastructure to a New Economy
- Property Markets Are Bubbly, But Also Equity Rich and Controlled
- Can China Keep the Water in Its "Golden Bathtub?"

Our visit to China was a cross between seeing Silicon Valley in the late 1990s and what America must have been like in the booming, post-war/interstate highway era of the 1950s. The cities we visited pulsed with energy, growth, and ambition. Given that China has not had a recession in 30-years, optimism and risk-taking spirits are high.

In general, we were impressed with China's scale, focused leadership, and industrial policy. Like an organism that adapts to changing circumstances in order to survive and thrive, Chinese "communism" has evolved into a system of aggressive, state-directed capitalism. This has led to a dominant export-based economy that is now the second largest in the world. For its next act, China is aggressively investing in order to vertically integrate and move up the economic value chain. The sheer scale of its workforce, marketplace, and manufacturing machine gives China a head start in these efforts.

For all of its ebullience, China faces a challenging "baton pass" as it evolves its economy from one that is heavily driven by exports and top-down investment in property and infrastructure to a capital- and pollution-light economy powered by consumer consumption, services, and advanced technology. Property markets are also richly valued, but they are a key lynchpin for a society that the government is focused on keeping stable.

In our own words, what holds China's growth machine together is its "Golden Bathtub." China has poured an astounding amount of credit creation, government spending, and what is effectively quantitative easing into its bathtub — creating an enormous boom. To keep this money from "leaking" outside the country, China maintains a strict system of capital and information controls. This system allows China to manage prices, dictate policies, and force capital to be recycled back into virtuous domestic development.

The relationship between the U.S. and China sits at an interesting juncture. China is no longer the backward country that Deng Xiaoping remarkably reinvented, and the joint fear of the Russian Bear that led to rap-prochement between the U.S. and China during the Cold War has fizzled. Instead, China is beginning to flex its geopolitical muscles and move up the economic value chain. The country is also taking an increasingly active role in pushing and protecting its international interests, while courting Asian, African, and Latin American markets and partners for the future.

Although the U.S. economy is far more diverse and mature today, it may ultimately face a "scale" issue in competing with China. To overcome this, the U.S. ultimately requires more, not less, trade partnerships and immigrant engineers and entrepreneurs. Like China, we need to incubate, support, and protect our key future industries, including AI and quantum computing, for both economic and security reasons. Finally, the U.S. needs to work hard to create win-win trade and geopolitical relationships with China, as the world is never a zero-sum game.

We came away from our trip less skeptical of China and more open minded about investment opportunities in the country. Despite the near-term froth, growth opportunities abound and it is a long ballgame. China is focused on cleaning up its financial markets and increasing local listings and investor participation. Further, China is increasingly cognizant of its need to be a reliable counter-party in the global financial system. That said, as an offshore minority investor in a Chinese company, you have limited legal, property, or governance rights. Further, the line between what's good for shareholders vs. what's good for the State is inherently blur-ry. The net result is that investors need to carefully manage the complex risks associated with investing in China.

More specifically, the most important detailed takeaways of our trip are as follows:

<u>China = Scale</u>

The one word that describes China is *scale* – scale in the sheer size of its fast-growing marketplace; scale in its large, industrious workforce; the unparalleled scale of its cities, logistics, and infrastructure; and scale in its long-term ambitions. Even though only a fraction of China's 1.4 billion people are middle or upper class, that growing fraction now accounts for ~300 million people (compared to the total U.S. population of 375 million). To put this enormous scale in perspective, the United States has only one city (New York) with more than 4 million people, while China has 21 or more cities with more than 4 million. Astonishingly, Shanghai alone has the population of the top nine U.S. cities combined.

Interestingly, business owners told us that we would be mistaken to believe that China's economy is purely driven by "cheap labor": more important to them are the scale of the market and logistics; the quality and reliability of the large labor force; the stability of the governing system; and a government that is open for business. Other "cheap" locales like Mexico or Vietnam lack many of these attributes, driving up the effec-tive cost of doing business there.

Although the GDP of the U.S. economy is still over 50% larger and far more diversified and higher on the value chain, China's economy is growing rapidly and there are wide-open greenfield opportunities. <u>The com-bined purchasing power of China's population is already the largest on the planet</u>. Notably, despite all of the

headlines about trade deficits with the U.S., the reality is that China is actually the second-largest global importer at $1.7 trillion, compared to $2.3 trillion for the US. Even if China is a difficult market to penetrate, it is a giant market that cannot be ignored.

Notably, as we will discuss below, China is very strategic in how it grants access to its massive market, allowing it to gain virtuous benefits from its scale.

China = Aggressive Industrial Policy & Vertical Integration

China's one-party system certainly creates many issues as it relates to individual freedoms; governance; property rights; and the inefficiencies associated with a bureaucratic, -top-down-driven system of establishing priorities and allocating resources.

However, our takeaway is that China's governance system, in many ways, is actually fiercely capitalistic, with layers of corporate-like incentives and goals throughout the system. Further, China's current system often seems to be more responsive to tackling both problems and opportunities than the "democratic systems" of the US or Europe. In its own way, China's State seems intently focused on getting "re-elected" and perpetuating their firm grip on power.

This system, along with the scale of its marketplace, has enabled China to develop a powerful industrial policy. It often demands advantageous terms - including requiring a local manufacturing presence, local joint-venture partners, and sometimes even technology transfers - from the international companies that want to operate in China. These deals provide China with a flow of technology and talent, which over time has enabled the country to become more vertically integrated and less dependent on outside imports. In some systematically important industries, foreign competition has been blocked in order to allow domestic production to develop.

China is very focused on vertically integrating into higher-value added areas of the economy. Due to its large internal market and exports, China imports half, or $200 billion per year, of the world's integrated circuits. To reduce these imports, China is focused on developing and acquiring technology to produce more of these semiconductors in-house. Although China lacks its own homegrown CPU, GPU, FPGA, and (most) 5G technologies, in the near future it will become a major producer of mobile DRAM memory and is investing heavily in foundry capabilities. Similarly, China is encouraging ARM-based alternatives to Intel's CPU. The head of one major foreign semiconductor company operating in China that we met with told us that it is just a matter of time before SMIC, the leading Chinese fab that is still two generations behind TSMC and Intel, catches up.

The auto industry provides another example. China accounts for 30% of global auto volumes and 50% of the global profit pool. In fact, again highlighting the scale of the Chinese market, 50%+ more luxury autos are sold each year in China than in the U.S (luxury accounts for around 11% of both markets). Foreign automakers have enjoyed most of the profits of this boom, since they own the high-end brands and leading combustion engine technology. In contrast, domestic Chinese automakers have primarily gained market share in the less profitable, low-end portion of the market.

China's strategy is to skate to where the puck is going: electric vehicles (EVs). The country has mandated aggressive sales targets for EVs, and these targets are likely to be accelerated. Because of the scale of China's auto market, every major auto company will have to play ball. This transition provides China's domestic automakers a golden opportunity to win market share in a greenfield market, and possibly position them to be global leaders in EV cars. It also enhances China's leadership in important future technologies that are supporting EVs, such as batteries, inverters, and semiconductors (and likely driverless cars as well). The cherry-

on-top is the fact that EVs also help China to tackle their major pollution problems as well as its substantial oil imports.

The scale of China's marketplace, combined with its large export business, puts China in a powerful position to vertically integrate up the value-chain. U.S. policymakers need to be focused on how America creates global scale in its own marketplace, while insuring that it doesn't cede future technological leadership to China the same way we relinquished our manufacturing base. Further, the U.S. needs to consider what happens if and when Taiwan re-integrates with the mainland, giving China control over Taiwan Semiconductor and other leading global semiconductor companies?

China's "Baton Pass" to a New Economy

Property and infrastructure spending has driven much of China's growth in recent decades. This investment has enabled hundreds of millions of workers to upgrade their productivity by moving to the cities. This flow of people has fed China's manufacturing and logistics engine, creating a virtuous cycle. Highlighting the power of this investment, the 50+ million residents of Hong Kong, Shenzhen, and Guangzhou, which is the largest urban area on the planet, will soon all live within a one-hour bullet train of each other.

China has borrowed heavily to finance this investment and its economy is now overly dependent on property and infrastructure investment. In total, infrastructure spending accounts for more than half of China's GDP, an enormous amount. Also, for much of the past decade, the growth of China's debt load has far exceeded its GDP growth.

One negative result of this rapid growth is China's suffering environment. On our trip, we experienced poor air quality particularly in Beijing as well as in Hong Kong and Suzhou. In Suzhou and Beijing, the heavy haze from the pollution made our lungs hurt. Shanghai's air was slightly better, thanks to its proximity to the coast and a determined effort by authorities to move the factories out of town (probably to Suzhou!). China clearly has significant pollution problems, with corresponding quality of life, health, and the overall global climate ramifications. This is an investable theme, with pollution control, LNG (natural gas fuels only 5% of China's power mix), and other clean technologies likely to thrive.

In the face of rising financial leverage and pollution, China is now talking about "high-quality" economic growth rather than "high growth" alone. This is a major change. The path forward includes greater growth from capital- and pollution-light sources such as consumer consumption, services industries, and advanced technologies. China's rising middle class and its massive store of real estate equity and family savings is the primary engine for this transformation. Consumer credit markets are particularly nascent in China and could provide compelling investment opportunities.

However, this "baton pass" is anything but a sure thing. China's property and export sectors are far more mature today than in the past. Furthermore, economic growth that is driven by entrepreneurs and consumer spending is inherently more organic and less predictable in nature than top-down mandated construction spending. The volatility of China's economic growth should rise, as the state should have <u>less control</u> over near-term output.

Credit growth has begun to slow and interest rates have increased. More hiccups likely lie in the future, and the country may be more susceptible to global trade risk or economic downturns until its domestic development is more mature. Investors need to pay special attention to this change, as the knee-jerk commodity trades that Westerners typically associate with China won't power this next phase of growth.

China's Property Enigma

Although perceived as a bubble in the West, China's property markets proved to be much more of an enigma than we anticipated. To start, property prices are extraordinarily high, particularly in the major coastal cities. For example, Shanghai real estate prices - even on the outskirts - rival those of Manhattan, even though equivalent incomes are only 20-25% as much. Some of this is explained by the income stratification across such a large population base, as well as superior job opportunities in the coastal cities. Even so, prices are still very high. Outside of the coastal powerhouse cities, prices vary greatly, but overall are less exorbitant.

The foundation of the real estate market is very positive though. Many people were simply given their homes for free in the 1990's land reform, creating enormous equity value. The government continues to fund resettlement of up to 6 million families per year. For new buyers, the government requires 30% down payments for a first mortgage and 40% down on a second mortgage. No third mortgages are permitted, nor are mortgage or cash-out refinancings. The concept of home-equity lines is nascent. There are no property taxes (yet). Typical mortgage rates are around 5.5%. Owning an apartment is a key requirement for a young man seeking to get married. Meanwhile, married couples, that were born in the "one-child" era often have the benefit of eight grand parents and four parents (most of whom grew up with a savings mentality) to help them with their purchase.

On the demand side, there are many, many people in China (!!) and few investment alternatives to real estate (equities are not well understood or trusted). On the supply side, the government controls the land market and is careful to support prices and not overwhelm demand. Thus, even though prices are high, there is still pent up demand in coastal cities and no overwhelming supply response.

Add it all up, the average person is sitting on massive real estate equity due to the fact that real estate prices have risen 10-20% per year for many years. Surely, some of this equity is being channeled back into real estate speculation, but it is hard to measure. A US-style real estate crash seems unlikely given the plethora of equity, lack of leverage, and overall supply/demand dynamics.

China's "Golden Bathtub" of Capital & Information Controls

Imagine, just for a moment, that the United States decided to borrow $10 trillion (roughly 50% of GDP) and spend it over the next five years on building roads, bridges, high-speed trains, homes, and the like. Of course, the economy, wages, and asset prices would absolutely rip! And the new airports and trains would certainly be impressive! Now, think about what would likely happen next… substantial inflation, a falling currency, and a rush to sell expensive domestic assets. After initially rushing in due to the attraction of growth, money would likely move offshore in an attempt to preserve purchasing power.

In essence, this spending spree is what happened in China over the past five years: an enormous $5 trillion building plan, accounting for roughly 50% of GDP, financed via enormous bank and shadow bank lending. Notably, this building spree effectively replaced a similar program that took place the prior five years, and so on. So what happened? Well, quite predictably, economic growth, wages, and asset prices all exploded higher.

However, despite a brief panic in 2015, the Chinese growth machine has marched on. Part of the reason for this relative stability was the fact that a large portion of its populace was underemployed, thus inflation remained manageable as underutilized workers became more productive. Further, China's balance sheet was previously under-leveraged, so it had room to add debt.

That's only part of the story, though. China has a controlled system that allows it to manage prices, dictate policies, and force capital to be recycled back into domestic development. Think of China's economy like a "Golden Bathtub." It keeps filling up with new spending, while existing capital is forced to stay in the bath-

tub, creating a virtuous and powerful cycle. The government allows very few leaks from the tub: businesses and people are limited in their ability to move capital outside of the country. Likewise, strict information controls help to maintain the status quo. Meanwhile, China's robust export industries are able to fund the country's hard currency needs, thus alleviating external pressures to revalue the RMB.

When capital does leak out of the bathtub, such as into real estate markets in Vancouver, New York, or Sydney; or the casino junket rooms in Macau; or in the French wine future markets; it is easy to see that the trickle of leaked money would quickly turn into a flood if it were allowed. In such a scenario, the currency would drop, asset prices would decline, and the virtuous capital recycling that has nourished China's boom would be undermined. All of this would have serious global ramifications.

China today continues to take steps to gradually integrate its currency and financial markets into the global financial system. This is steadily happening: oil contracts now trade in RMB in Shanghai; China's sovereign bonds are being added to major global indexes; global central banks are including RMB in their currency baskets; and many equities will soon have cross-listings in Hong Kong. This growing free market of capital flows, however, runs in the face of the tight controls that underpin the "Golden Bathtub." As a result, China is being forced to walk an increasingly challenging tight rope in the near term, and potentially setting up for an inevitable clash in the future.