Crossbow Partners
Experience & Discipline

Hong Kong Trip Report

Towards A Bipolar World in Technology

November, 2019

Executive Summary

The next ten years will usher in the glorious era of China's technology, as the upcoming generation of disruptive, leading tech funds will emerge from China, while Shenzhen has already morphed into the global centre for hardware development

In IoT (internet of things) and MoM (message-oriented middleware) most of the applications will be found in China, where 80% of the global smart device units are located, and driven by big data generated from sensors in IoT which serve as the core input for Artificial Intelligence

A shares have handily outperformed H shares in 2019, as confidence in the retail-driven market is up again and most investors now embrace China's policy of targeted stimuli and its promotion of quality growth over quantity

Investors underestimate the transformation of the Chinese economy which suffered from a ROE compression from 18% in 2007 to 9.2% in 2016, but is now transforming itself into a service-driven economy, rapidly moving up the value chain with capex dropping from 79% to 54% and R&D increasing from 3% to 14%

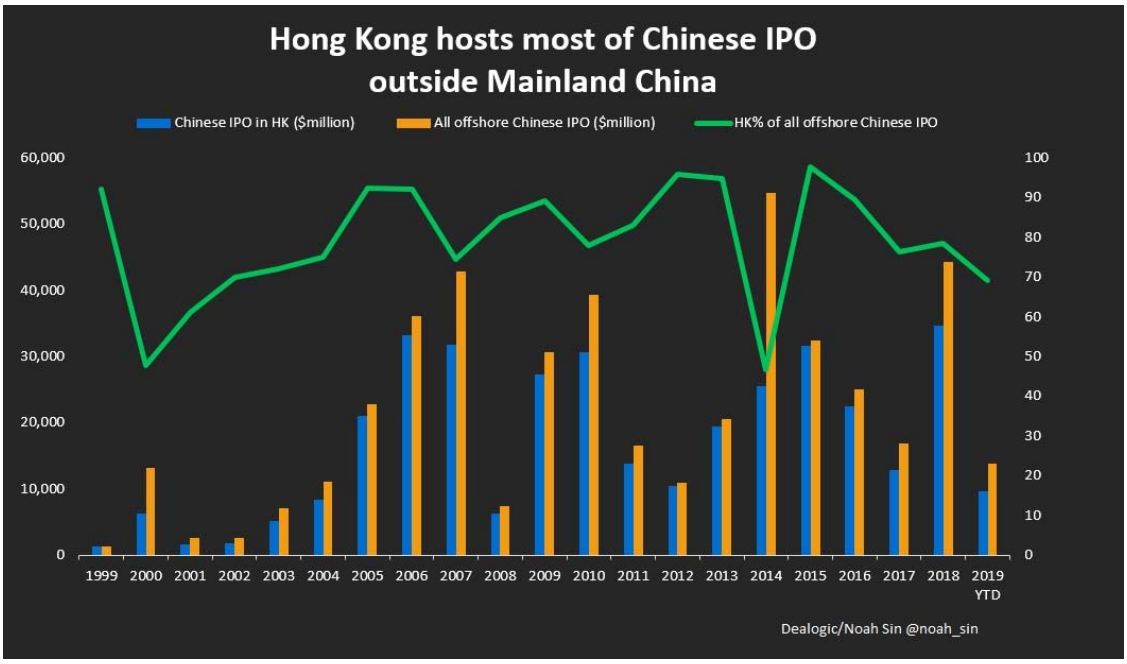
China's longer-term transformation towards a globally leading high-tech industry will only be slowed down by a trade war, but it will not prevent China from building its own high-tech companies and industries, potentially creating a bipolar world in technology

Behind the "Silicon Curtain": Towards A Bipolar World in Technology

1. Hong Kong Remains the Gateway to and from China

The unresolved crisis in Hong Kong represents not only the most profound challenge to Xi Jinping's rule since he ascended to power in 2012, but also to Hong Kong as a global financial centre and as a gateway to and from China. In the past six months since the protests broke out, China has been unable to come up with a recipe to solve the issues with the pro-democracy movement.

Despite the growing violence and the disruptions in the city, the protesters have so far managed to retain support among the population at large – as the sweeping success of pro-democracy candidates in local elections illustrated.

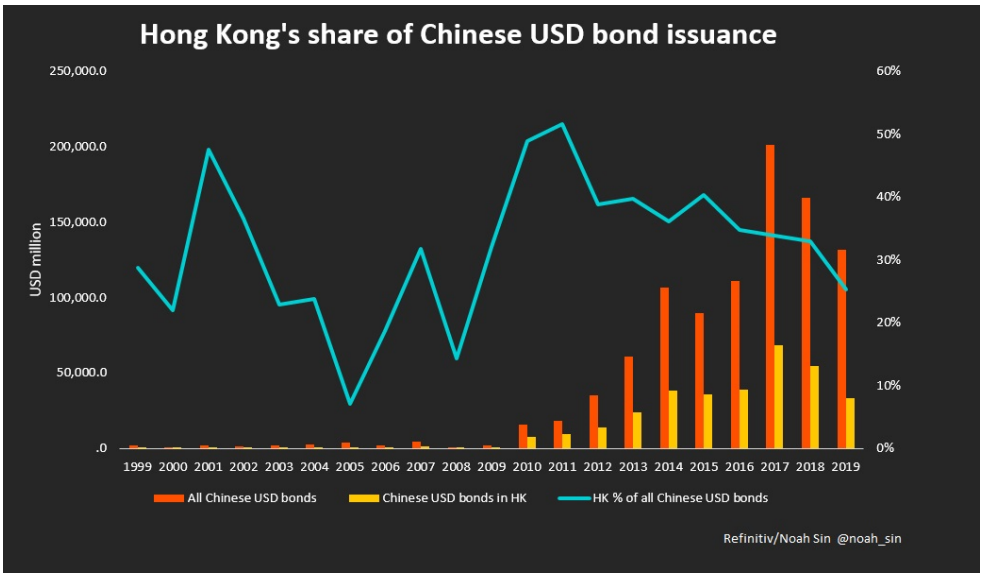


Source: Reuters, Explainer: How Important Is Hong Kong to the Rest of China?, September 2019

Explanations for Hong Kong's unhappiness and unrest range from economic discontents (i.e. high costs of living, and, particularly, housing) to a surge of mainland money and immigrants to political concerns (i.e. the fear that freedom of expression and rule-of-law are under threat and the potential convergence of the two systems towards and after 2047). It seems that Hong Kong is "uncomfortable with its history, unhappy with its present and unsure of its future", as Ben Bland aptly diagnosed in his book "Generation HK: Seeking Identity in China's Shadow".

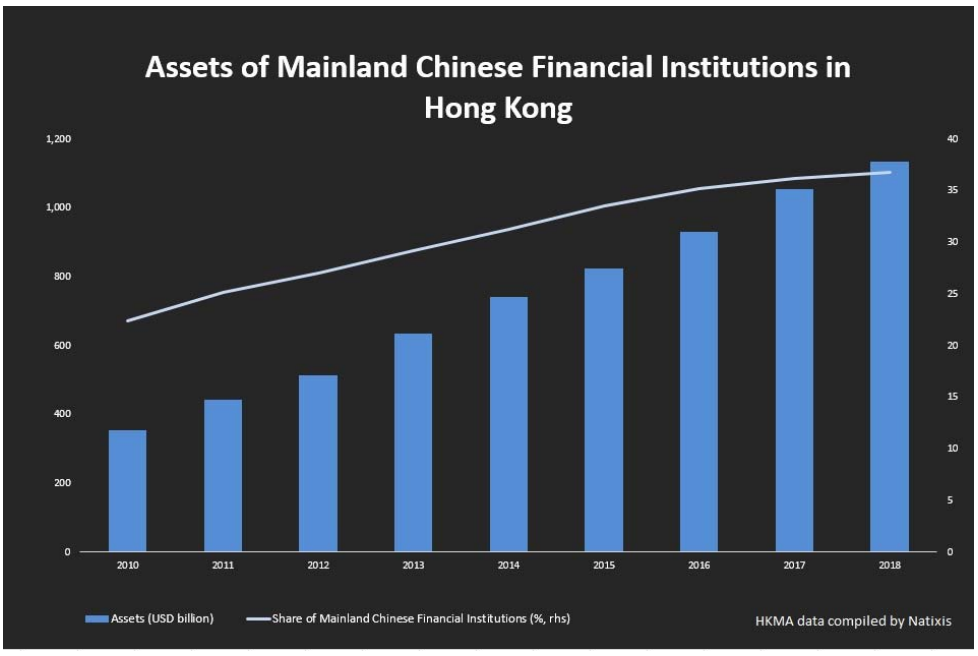
Despite the recent turmoil and reports about asset outflows to Singapore Hong Kong's future as a global financial centre looks assured, as it remains China's window to the world. The city state remains the market where China and its companies get access to the USD market and where they can tap into a global investor base. Most of China's largest firms have listed in Hong Kong which often serves as a springboard to international expansion. Last year, Chinese companies raised USD 64.2 bn globally, of which USD 35 bn came from Hong Kong. Alibaba's

"homecoming" IPO in November is just the latest indication that China seeks to strengthen Hong Kong as a financial centre, sending a message to the U.S. that there are other places to list than just New York and that the city is open for business despite the unrest.



Source: Reuters, Explainer: How Important Is Hong Kong to the Rest of China?, September 2019

As long as the Chinese Renminbi is not freely convertible, China will need Hong Kong. It is China's indispensable dollar cash machine, as Hong Kong is the only place in the second largest economy of the world where capital can freely come and go at its discretion, governed by a stable legal system and underpinned by a freely convertible currency pegged to the US dollar. And, clearly, international investors and Chinese companies prefer Hong Kong's basic law and its legal system for contracts.



Source: Reuters, Explainer: How Important Is Hong Kong to the Rest of China?, September 2019

President Trump's threats to delist China groups from U.S. exchanges is just another potential scare tactics that eventually strengthens Hong Kong's position in the longer-term. Hong Kong looks unchallenged when it comes to the listing of top Chinese companies outside of China, but it equally draws Hong Kong closer into China's sphere of influence.

Yet it is also evident that the unrest has at least temporarily damaged Hong Kong's reputation as a financial centre, as notably rich private and institutional investors have voted with their feet and moved money to Singapore. According to a report from J.P. Morgan, foreign exchange deposits in Singapore have gone up sharply in recent months, while Goldman Sachs indicated that Hong Kong might have lost more than USD 4 bn from June to August 2019. But it is too early to tell whether these flows will evolve into a structural trend and whether investors are trying to find a permanent replacement within the region.

2. China Building Its Own Tech Ecosystems

While China and the U.S. reached an agreement on a "Phase One" trade deal in December, many details remain unknown for now. And, as many market pundits have pointed out, it will de-escalate the situation in the short-term, but it will not mark the end of the trade war. The fundamental issues that caused the trade war to erupt have not been solved. America's dispute with China is driven by more than just the trade deficit. The deliveries of electric goods or the purchases of agricultural products are only proxy fights, but do not represent the real issues at stake. What is really at stake is the battle for global power, domination and supremacy in the 21st century between an incumbent superpower and a rising challenger. It is the battle between "America First" and "Made in China 2025".

In the West, there is a common understanding that the structure of the Chinese economy and how it is run and managed by the Chinese Communist Party is at the heart of the problem, as it disadvantages foreign companies when competing with Chinese rivals and forces foreign companies to hand over technology if they want to participate in China's domestic market. The real objective of the Trump administration is therefore to force China to dismantle its state sector, to open up its economy and to operate on the standards and practices of a market economy as defined by the West.

This year China was shocked to find that some of its leading tech companies have been named to the so-called "entity list" by the U.S. What sounds innocuous is a tool used by the BIS (Bureau of Industry and Security) of the Commerce Department to restrict the export of certain sensitive technologies and components to organizations that threaten the national security or foreign policy interests of the United States. Earlier in the year, telecom group Huawei was put on the entity list for violating sanctions on Iran. In October the U.S. doubled down and added another 28 Chinese high tech companies to the list with the argument that they had been implicated in human rights violations against the Uighur Muslims in China. Among the blacklisted firms there are eight leading Chinese technology companies, including artificial intelligence champions Hikvision, iFlytek, SenseTime, Megvii, and Yitu. The human rights concerns behind the announcement and the allegations must be taken seriously and any human rights violations are rightly criticized. Yet the move also fits with the Trump administration's objective of protecting U.S. interests in China.

Chinese AI companies have been repeatedly identified as key partners of the Chinese military and intelligence services, and the U.S. is keen to ensure that technology is not used in ways that threaten U.S. national security. In addition, Chinese AI companies are suspected of engaging in intellectual property theft and anti-competitive practices, while selling their advanced technologies to (authoritarian) regimes around the globe.

China has been determined to end its dependence on U.S. technology for quite some time and has been investing heavily in its domestic capacity for years. Yet, after the U.S. had earlier banned ZTE and then, notably, Huawei, China most likely seeks to move its timetable forward, accelerating the development of its domestic supply chain, as the ability of the U.S. to cut off Chinese technology companies from their supply chain has been made abundantly clear.

It therefore comes as little surprise that our hedge fund managers in Hong Kong recently pointed out that they learned that big Chinese tech companies are seeking to replace foreign supplier by domestic suppliers at a fast rate even though the national suppliers can compete neither on quality nor on price for now. The hedge fund managers had only expected this move to happen within the next two to three years when domestic suppliers were supposed to have closed the technological gap to more manageable levels. But it seems to be now a “national duty” for leading Chinese companies to support the government’s efforts to build a competitive domestic supply chain and switch to domestic suppliers over the next three years (import substitution). This will lead to the rise of both national software and hardware companies and to the creation of a strong domestic ecosystem, offering exciting opportunities for investors. This development is also underpinned by the increasing demand of Chinese companies bent on improving productivity and internal efficiency through software upgrades to mitigate slower top line growth and margin pressure.

Evidently, China will face substantial challenges in doing so, as they have to address significant structural hurdles. Today, only 16% of semiconductors used in China are produced domestically, and only half of those are made by Chinese firms. Producing advanced semiconductors requires a set of skill and know-how that cannot be acquired by simply investing vast amounts of money.

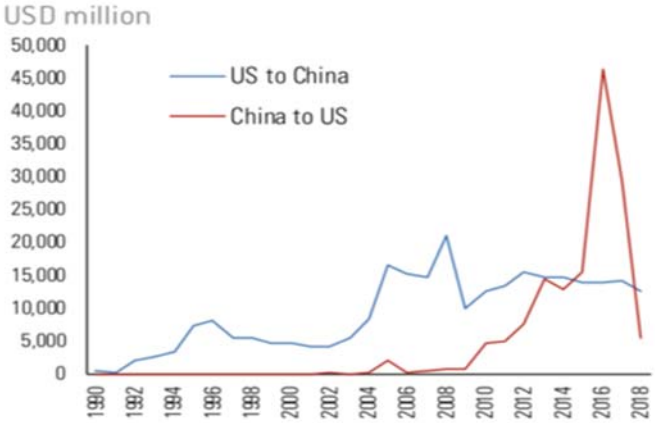
The U.S. is considered to be two to three generations ahead in semiconductor production, creating a gap that will take years to close. And China also still struggles to produce more advanced CPUs, GPUs (graphics processing units), and field-programmable gate array (FPGA) chips. But many observers concede that China’s political and financial commitment to developing its domestic semiconductor industry will eventually bear fruit, as China will now redouble its efforts to close those gaps.

A recent article in “Forbes” pointed out that four emerging trends are indicative of the emerging bipolar world. They have unfolded in China in 2019 and are expected to persist in the near future: 1) Foreign direct investments from China to the U.S. plunged by almost 88% from a peak of USD 46.5 bn 2016 to USD 5.4 bn in 2018, as the “New York Times” reported. And it is expected that China’s FDI into the U.S. will evaporate even more in 2019, as it has become the new norm among various levels of government and state-owned firms to exclude the U.S. from new investments, redirecting funds elsewhere. By contrast, U.S. foreign direct investments into China are likely to have actually risen in 2019.

2) A second trend is the regionalization of supply-chains. More and more companies in China and Asia seek to get around the potential impact and sanctions of the trade war. They want to serve customers from nearby markets, especially as the purchasing power in many Asian nations is rising. China is doing its part to boost trade with Asian and European nations by

promoting free-trade agreements. Beijing landed a coveted breakthrough in November, when fifteen Asia Pacific nations signaled they planned to sign a free-trade agreement in 2020. Beijing and Brussels are also planning to finalize a EU-China investment agreement next year that is meant to boost both investment and trade.

Figure ES-1: Annual Value of FDI Transactions between the US and China, 1990-2018*



Source: Rhodium Group. *See Appendix in the full report for data description.

Another consequence of the trade war – the third trend – is the fact that Chinese students are turning away from U.S. universities. U.S. universities hosted more than 360'000 Chinese students in the year 2017/18. This number is expected to fall significantly, as both the Trump administration's anti-immigration rhetoric and the efforts of the Chinese government to encourage high schools to send students to Northern Europe and the U.K. will take their toll on the international student population of U.S. universities. The Chinese government recently warned its citizens about studying in the United States, due to U.S. visa policies and trade tensions, fueling a brain drain of Chinese scientists from the U.S. to China, while the best Chinese researchers now are more inclined to stay in their home country, as salary levels were boosted and have become very competitive recently.

4) And, last but not least, the potential start of a "tech war" would also seriously hurt innovation and could lead to a global split in technological standards in telecom and other areas with potentially unintended consequences in many industries.

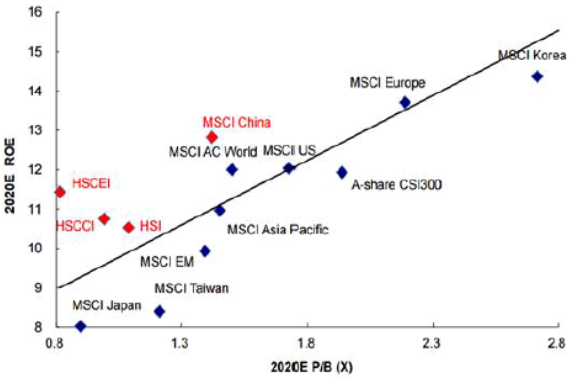
3. Implication for Investors: A "Silicon Curtain" Is Descending

What does it imply for investors? Countries and firms all over the world that do business with companies on the entity list (i.e. such as Huawei) will have to think hard about whether they want to do business with firms officially sanctioned by the U.S.

China, by contrast, claims that the U.S. sanctions are largely meant to contain China's rise and to block its ambitions to become a global superpower by 2050. Many tech observers believe that the Huawei ban ultimately means the end of global tech, as tech's globalized model is

falling apart and a “Silicon Curtain” is descending. It will split the world into a U.S. dominated tech hemisphere and a China dominated hemisphere which is exacerbated by China’s vigorous push to control information. Through its “Great Firewall” it seeks to control the internet ever more rigorously, while also exporting the technology globally.

Chinese equities in general, and Hong Kong stocks in particular (right hand graph) do not look expensive – contrary to some developed market equities:



Source: CICC

Thus, it is not yet too late to build a position. If investors seek to gain exposure to the second largest economy of the world, to the rise of the Chinese consumer, to China’s drug and tech innovators and to the technological “arms race” in AI, mobile payments, robotics, 5G, and industry 4.0, etc., they will have to invest in excellent, actively managed China funds that anticipate these developments and which can identify the major beneficiaries of these moves behind the “Silicon Curtain” in China. We identified a stable of excellent Chinese managers who are independent thinkers. They offer a significant footprint on the ground and are well positioned to deliver strong returns over time.