

China Tech: Revolution or Evolution?

Featuring: **Nina Xiang**, Founder, China Money Network, **Zhen Wei**, Managing Director, MSCI Research

Adam Bass ([00:03](#)):

This is MSCI Perspectives, your source for insights for global investors and access to research and expertise from across the investment industry. I'm your host, Adam Bass, and today, is January 21st, 2021. This week, China may not be the first place you think of when someone utters the words, "tech innovation," right? China's the world's factory; good at assembly, great at scale, but high technology? Give me Silicon Valley or give me, well, maybe not death, but not China either. Right? Today's story is one about misperceptions. So we're going to be talking about China tech and we have a special guest to help us do so.

Nina Xiang ([00:49](#)):

My name is Nina Xiang and the founder of China Money Network. We are a data and media platform tracking China's venture capital and technology sector.

Adam Bass ([01:01](#)):

Before we talk China tech specifically, we're going to need to talk about the Chinese economy. Compared to the rest of the world, it has weathered the pandemic fairly well in part, because of the way that China reacted to the outbreak of COVID-19. Here's Nina's rather unique and personal take.

Nina Xiang ([01:19](#)):

In the beginning of 2020, we actually moved from Hong Kong to the greater DC area. In early February, everything was just getting really intense in China. We flew in and then when we got to the airport, we just threw away our masks and we're like, "Hurray, we're away from the virus. No need for masks. Freedom." We were so happy. Starting in March, everything just started spreading very rapidly in the US and we ended up until now, still battling the virus, but in China where my family lives and where my former colleagues, they pretty much returned to normal sometime around late March. People were going to movies. People were able to fly, to travel. Restaurants are open. Everything was opening up. A two month period, the virus was put down in China very effectively, even though obviously, the method was brutal.

Adam Bass ([02:32](#)):

Brutal? Maybe. Effective and efficient? Absolutely. You could say that China was able to scale its virus response much the same way that they've been able to scale production capacity across industries, but especially in manufacturing. Maybe that's not a coincidence. More on that later. For now, it's important to note one of the effects of China's quick suppression of the virus.

Nina Xiang ([02:57](#)):

China ended up being the only major economy growing this year, companions who owe the other economic, powerful countries are suffering declines.

Adam Bass ([03:08](#)):

We're all used to hearing about China's role as factory for the world, but in many ways, COVID-19 shut down demand globally. How did China continue to grow while every other major economy was in decline?

Zhen Wei ([03:22](#)):

I think there are a few things, right?

Adam Bass ([03:25](#)):

That's Zhen Wei, MSCI's head of China research.

Zhen Wei ([03:29](#)):

The so-called 13th five-year plan that basically starting to 2016 that ends last year, China really said it's focus into domestic consumption, plus technological innovations. The last year is basically a demonstration of that domestic focus.

Nina Xiang ([03:50](#)):

Many people may not be aware that domestic consumption is actually a big part of China's growth nowadays. Remember in the 2000s and 2010s, early part of 2010s, we had this talk all the time about how China should rely less, explore the investments and more domestic consumption. That transition actually happened. Consumption contributed to about 58% of China's growth in 2019. 58% is a very significant proportion of the economy.

Zhen Wei ([04:29](#)):

During the past few years, China already become a middle income country in terms of GDP per capita, and that per capita consumption gross is maintaining double digitals during the past three to four decades. That consumption transformation has significant meaning for the country as a whole in terms of economic positioning.

Adam Bass ([04:54](#)):

Like the response to the pandemic, this transformation, this new growth, it starts at the top.

Nina Xiang ([05:00](#)):

I feel there are three places we can look at specifically for the growth. One is the policy support in China that focuses on building up a digital economy infrastructure. This is one of the many government policies in China that focuses on technology and innovation. Especially since the past decade, the focus on Chinese government to push innovation and technology has intensified partly because the old way of economic growth was not sustainable and partly because China has entered the stage where it must move up the value chain and technology and innovation is a key in that. The latest policy initiative is called the new infrastructure initiative. The Chinese government really pushed this policy to the forefront during the pandemic last year. It basically calls for the government to spend over \$1 trillion US dollars to invest in anything that's going to support the future digital economy.

Adam Bass ([06:14](#)):

And what might be included in the digital economy?

Nina Xiang ([06:17](#)):

5G networks, data centers, artificial intelligence.

Zhen Wei ([06:27](#)):

They bring technology, automation machinery, cloud computation.

Nina Xiang ([06:27](#)):

Just think about if you go to China nowadays, you fly into the [inaudible 00:06:31] airport. You go take a ride on a high-speed road tram, which is fascinating. The infrastructure in China [inaudible 00:06:40]

The traditional infrastructure, they're incredible. As we move forward, the new economy infrastructure, 5G networks and AI and smart cities and all that, you're going to see China move up on that track very quickly too.

Adam Bass ([06:59](#)):

While doing my research for this piece, I came across an interesting quote from Nina herself. And I decided while we were talking to throw it out there for her to respond to. Sometimes this goes well with guests, other times, not so much, but here we go. I'm going to quote you to you here from a talk I heard you give earlier this week, that Chinese consumers, when it comes to autonomous driving, I think you said 72% were excited in China about it versus 70% in the West not trusting it. That's a startling difference.

Nina Xiang ([07:38](#)):

Yes, exactly. I think the data you just mentioned, it's just very indicative of the kind of acceptance that exists in China versus a type of resistance in other markets. So I feel like maybe Chinese consumers, for my generation, we sort of come from an age of relatively lacking material possessions when I was a child and coming to a place of wonderful possibilities and therefore, were very accepting of new products and not to mention the past 40 years in China have really seen really momentum changes in every aspect of life or economy. So I think the customers are used to being challenged with new things and they're used to seeing everything change overnight. So that's why they're so quick in adopting mobile payment. They're so quick in using your phone to unlock a bike on the street and ride it.

Adam Bass ([08:47](#)):

Zhen Wei agreed.

Zhen Wei ([08:49](#)):

Yeah, I think there are various studies that the Chinese consumers are more willing to test new forms of technology that matters to their daily lives. I think that's basically supported by the fact that China has the world's largest internet users, the largest populations [inaudible 00:09:11] usage of telecom infrastructure, the smart mobile phones, for example. That basically, building the foundation for the consumer to better interact to various mobile base, internet base, and even other type of interface consumer technologies.

Adam Bass ([09:29](#)):

And that 5G connected mobile early adopter spirit can enable China to do some pretty incredible things. And I mean things beyond what we always hear about. I'm not talking here about super apps

that let you take out small business loans while ordering food and reserving a car to take you home the next day. I mean, things like...

Nina Xiang (09:50):

Smart manufacturing, which means making the whole manufacturing much more intelligent and smarter, more efficient or smart logistics. Think about how the whole logistics sector being more efficient, assisted with drones and robots, the warehouses much more intelligent, moving products much more rapidly. You can get your packages much faster. Or to industrial robots where China is, of course, the number one country in terms of installed industrial robots. We see that as having a lot of growth potential as well. Technology is going to oncoming and disrupt and make everything much more intelligent and much more efficient and therefore, more competitive. Everything is reinforcing each other. So remember we talked about that new infrastructure initiative. So the 5G networks, the data centers, the AI choose and platforms, that's going to make the industrial internet or smart factories much more easier to build because you have this very good infrastructure that assists you. Then the smart factories are going to make Chinese products, the whole production process, much more efficient and their products much more competitive. That in turn, would allow Chinese companies being able to invest into more technology and innovation. So it's like a virtuous cycle.

Adam Bass (11:21):

... and smart cities.

Nina Xiang (11:23):

A smart city is something that has been deployed and being pushed out across the country rapidly already. China is going to spend tens of billions of dollars on this initiative. I actually visited Alibaba's center where they hosted the so-called city brain system in one of their halls. We were basically looking at this huge screen.

Nina Xiang (11:54):

Think of it as like a sci-fi movie control center type of scene. You have a huge floor to wall screen, and you're able to see the map of the city and you can zoom into certain places. You can see how our traffic is flowing. You can see certain congestion in certain places. You can see fire stations, where they are, and you can see potential problems, or there is an accident on the road. I'm actually quite excited about the smart city becoming materialized because one of the example is [inaudible 00:12:35] can become much more intelligent. They can be assisted with AI vision. So nowadays, basically when I drive every day, I have to wait very often at red light, even though there is absolutely zero car. I always tell my children, I said, "Well, when you grow up, this will never happen hopefully"

Adam Bass ([12:57](#)):

Much of what we're talking about here is application. And as Nina says...

Nina Xiang ([13:02](#)):

For thousands of years, China has been pretty good in technology applications.

Adam Bass ([13:09](#)):

But what about fundamental research, the original thinking and often slow grinding work that leads to these kinds of breakthroughs in the first place, the kind of thinking most people associate more with Silicon Valley?

Nina Xiang ([13:24](#)):

So overall, I like to use maybe three words to describe to answer this question, which is scale, speed and gap. So when you should think about China tech, remember that the industry leads in terms of scale and speed, which means it's growth rates are very, very rapid compared to many other countries. But remember the gap part. China is very good at application. The process of turning 1 to 100, it is relatively lacking in the original technological breakthrough aspect or the process from zero to one. So take the AI sector, for example. The whole alpha go frenzy came out from a British research lab. Chinese companies were able to quickly turn that technology into a lot of real life applications and we see Chinese companies quickly developing very effective commercial products and deploy them rapidly and grow many unicorns in that sector. We haven't really seen a fundamental technology co breaks through coming from a Chinese entity yet.

Adam Bass ([14:47](#)):

Why is that?

Nina Xiang ([14:48](#)):

Let's first recognize that it's a long process. If you look at AI space again, as an example, the deep learning method that was pioneered by a number of AI researchers, they have been working on it for nearly two decades. I feel like patience is really, really not the thing that people in China are good at. Investors want quick returns and entrepreneurs wants to become the number one company in two years. So you see a lot of that. So the whole mentality is about speed, is about taking over everything.

Adam Bass ([15:30](#)):

It's hard to overcome that gap without the patience to carry out that fundamental research. And that's what led China to fall behind other advanced economies in some pretty critical areas.

Nina Xiang ([15:42](#)):

Let's look at semiconductors and manufacturing. Currently, the leading Chinese semiconductor manufacturing company, as I see, they're moving on to the [inaudible 00:15:54] ... their processes. The globally leading company, TSMC in Taiwan, they're already onto five nanometers and moving on to three nanometer processes. So China is about several generations behind.

Adam Bass ([16:10](#)):

And because China is still reliant on external inputs for advanced manufacturing, as well as other processes, those deficits can be exacerbated greatly by external instability; trade wars, for example. That's why, according to Zhen, the Chinese government is focusing more on building up its domestic production, as well as research and development capabilities or R&D.

Zhen Wei ([16:35](#)):

One also interesting trend that's emerging is that a lot more talent used to work in the Western countries for R&Ds, they moved back to China during the past few years and this trend accelerates, I think.

Adam Bass ([16:53](#)):

He went on to state the idea that...

Zhen Wei ([16:56](#)):

It is not true China can not do this zero to one innovation. It has a lot to do with the type of talent and it has a lot to do with R&D spending and technological research environment. So if we look at the absolute levels in nominal dollars of R&D spending, China is already worse, number two, just behind the United States. But if you count in, for example, purchasing power comparison, China is already bigger.

Nina Xiang ([17:33](#)):

The biggest risk will be the kind of geopolitical uncertainties we have seen in the past few years. That gives a whole industry much, much higher uncertainty and that's what markets don't like as you know. So it's very, very disruptive to the whole industry's growth. What happened to [inaudible 00:18:01], basically its growth path was significantly disrupted and reverse in certain places. It was actually able to design quite advanced chips before the export ban. Now, it sits in limbo, but it's not a risk that could really throughout the whole thesis we laid out earlier.

Nina Xiang ([18:26](#)):

Even if, let's consider the worst case scenario, there is a complete decoupling between the US and China, China tech sector will still manage to grow very rapidly and to grow to be some of the biggest and also relatively leading market positions in many different sectors, not to mention China still has opportunities for its international expansion and not to mention China's incredibly large size domestic market. The engine of China developing its own certain critical sectors like semiconductor, like its own ecosystem in terms of operating systems and other key supply chain security elements, I feel that engine has started and it's unlikely to be reversed. So China is likely to continue pushing on that direction.

Adam Bass ([19:31](#)):

That's all for today. Our thanks to Nina and Zhen, and to all of you for listening. If you'd like more details on China tech, you can catch a replay of a recent webinar called, "Seizing the Opportunity. Capture the Growth Potential of China's New Economy." That's available at MSCI.com. Next up on Perspectives, the world seems serious this time about combating climate change, including the new occupant of the US White House. We'll look into what that and other ESG trends may mean for investors in 2021. Until then, I'm your host, Adam Bass, and this is MSCI Perspectives. Stay safe, everyone.

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