THE BROOKINGS INSTITUTION

SAUL/ZILKHA ROOM

HOW CHINA'S TECH SECTOR IS CHALLENGING THE WORLD

Washington, D.C.

Thursday, October 10, 2019

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P R O C E E D I N G S

MR. HASS: Good afternoon. My name is Ryan Hass. I'm a fellow here at the Brookings Institution and it's my pleasure to introduce you to today's event where we will feature Rebecca Fannin's latest work, Tech Titans of China. This event is cohosted by the Brookings Institution and the U.S.-China Business Council.

Rebecca's writing and reporting is well known to many of us here. She has been at the leading edge of understanding and explaining China's technology boom for years as a prominent author, commentator, and journalist with CNBC and Forbes, and as a regular commentator on a slew of news outlets.

Her latest book sets out to update America's understanding and appreciation of the major shifts underway as China's tech sector continues to blaze ahead. She traces the evolution of China's technology sector from copycat to leading innovator in key sectors, such as mobile commerce, electric vehicles, drones, biotech, as well as financial technology. And she raises profound questions about the implications of China's technology ascent for the American economy, for the U.S.-China relationship, as well as the distribution of power within the international system.

And her work comes at a critical time. Never in the past 40 years of U.S.-China relationship have technology issues assumed such a central role in the overall relationship or had as profound of an impact as they do now. And so we are very pleased to have you with us today, Rebecca, to help us explore these critical questions.

I will soon invite Rebecca to take the podium to walk us through her book, but before I do so let me just give you a quick run of show. After Rebecca provides a presentation, she will take questions from all of you. After that, I will invite Cheng Li, Craig Allen, and David Dollar to the stage to provide commentary on the book. Our event will conclude by 5 p.m. today, and Rebecca has kindly agreed to sign copies of the book following the program.

So with that, Rebecca, over to you.

(Applause)

MS. FANNIN: Thank you so much. It's a pleasure to be here and see so many faces in the audience. I never could have expected this 10 years ago, let me tell you, because China tech has become center stage all of a sudden and we know for many reasons.

I've been tracking this field for 15, 16 years since the entrepreneurial boom began in China about 2001, 2002. And back then I got to meet some of the leaders who were rather unknown, like Jack Ma of Alibaba. That's me with Jack in Hangzhou in 2006 in his office. I think he's become much better looking since then. And certainly better dressed.

And on the other picture is me with Lee Kai-Fu of Google China, and now he's with Sinovation Ventures and he has gone on to bigger and better things. Both of them have. And I just say that 10 years is a really long time. Ten years is light years in China because of the speed of everything that is happening.

So what have we seen emerge in China? We've seen these tech titans come up suddenly and we have seen Baidu, Alibaba, Tencent emerge and become among the 10 most publicly traded companies in the world. And we've seen the founders of these companies become billionaires many times over. That is Joe Tsai in the middle, who now owns the Brooklyn Nets. And I interviewed Joe many times as well. That picture I took of him in Shanghai last year at the 11/11 shopping festival. That's Robin Li in the other photo to the left and that was at Baidu World in Beijing.

So these companies have really morphed into a number of sectors way beyond their original focus. Baidu was originally in search. Alibaba was originally in e-commerce. Tencent was originally in gaming. Now, each one of them have gotten into new fields, like payments, artificial intelligence, and other sectors as well, e-commerce. And they're fighting with one another for turf in China.

In the meantime, a whole new brand of tech entrepreneur has arisen in China and they're called TMD. I know that maybe is now a good word in Chinese. It doesn't translate well. You can look it up yourself. But TMD has become a common acronym to describe Toutiao from Meituan. Toutiao is the sister or brother of TikTok, which is also in the news today but the company behind it is ByteDance. And

ByteDance is considered the newbie of the Baidu, Alibaba, Tencent. It's really a very aggressive company, one to watch out for, and they're also getting into search.

The M is Meituan. It's a super app, and these super apps are something that were made in China, invented in China. We don't really have an equivalent in the U.S.

Didi, we do have an equivalent in the U.S. It's called Uber.

The X is Xioami, which is China's Apple phone, the iPhone.

And the last which I like to add is because they're a world leader is DJI. And this is the drone company which, of course, is also in the news a lot today, too, because of security issues.

Now, in the book I also chronical how China was always entrepreneurial historically. China was the inventor of paper, gunpowder, the compass, abacus, and many other things, so this in a way is tracing back to China's heritage regaining its past glory, becoming very ambitious in new areas such as technology, which drives so much of our economy today.

And a new era has sprung up. This new era is not just about the copying. In the beginning, these Chinese companies were copying all of the Silicon Valley and Seattle and West Coast brands that were emerging, such as Facebook, Apple, Google, Yahoo, Amazon, you name it. Those brands were all copied in China by Chinese entrepreneurs who came to the West and they got their education here at our finest schools and they got their career training at our finest companies and went back to China and copied everything.

Well, that era is gone now. That is way over. That happened a decade ago. Today, what's happening is these Chinese companies are proving to be innovators. So what's happening today is their innovations are being copied from the West. So copy to China to copy from China in a decade.

And I illustrate this in the book by comparing Facebook with WeChat and Toutiao; Amazon with Alibaba; Starbucks with Luckin Coffee; LimeBike, the bike-sharing company with Mobike and Ofo. All of these companies have followed the China lead, and I think it's remarkable that this is happening today. It's a pivotal moment for the U.S. and China and for global innovation as a whole.

And speaking of global, these Chinese companies are going global today. So TikTok has

a global following. It's very popular. You know, it's on TV shows today. It's digital entertainment. Does everybody know what TikTok is? How many people have used it? A few? Okay. But, you know, the 15-second video app, it's a selfie done to music and most of them are really silly and goofy but I guess that's what society wants or needs right now because TikTok has gone global.

Xiaomi, China's smartphone maker that I mentioned before is kind of an Apple counterpart. It's also going international. It's the number one smartphone brand in India. DJI, the drone company has gone global. Seventy-five percent market share globally from China.

How is China getting ahead? One of the reasons is this whole entrepreneurial culture of 996. How many people know the 996? Okay. So when I go to China where I go pretty regularly, at least five times a year, it's more like 10 times 7 is what I think, there's no weekends. In Silicon Valley, the parking lots of many tech companies are empty. In China, all the coworking spaces are flooded. The coffee shops are flooded. Everything is just moving at hyper speed.

What has this whole tech boom created? China is getting ahead in many of the leading tech sectors of today and you could argue, and I will get into this a little bit later of whether China has a true advantage in many of these areas such as AI, such as 5G, such as robotics, biotech, passenger drones, yes. Sharing economy, yes. Facial recognition, yes. Social credit, yes. Some of these things will not be accepted in the U.S. granted. Facial recognition is not looked at here in the same way that it's looked at in China. We have privacy issues here. We have data collection issues here. These things are rather accepted in China's today society.

Social credit. If you jaywalk, if you don't pay your bills on time, that's a no-no and you get a negative score. That negative score could impact whether you get a bank loan, whether you get a train ticket. This is Big Brother at work in China today.

So one of the reasons I think China has gotten ahead in this new tech era is the leapfrogging effect. China never really got into credit cards or email to that effect or personal computers or business cards. China leaped right over all of these things that are so accepted today in America in the western world and went to QR codes. PCs to mobile. Everything is mobile. Email. That's dead in

China. Both cash and email are dead in China. WeChat has replaced both of them and Alipay has replaced it to a large extent today, too.

If you look at the infrastructure that China has today, I think no one could dispute China's progress in infrastructure -- the high speed trains, the bridges, the highways, all of this is putting our American system in a weaker spot.

New airports, too. The new airport that just opened in Beijing now two rather new airports in Beijing. And in different parts of the city because it's all a planned economy. So China has been able to get ahead in many sectors because it is a planned economy. It is a top-down directed economy.

I mentioned before the mobile aspect, that China leaped right over the personal computer. I remember being in Beijing in Shanghai and I would get my computer out at coffee shops and people would look at it in amazement. That's because they were already onto mobile. So China today is a very mobile-centric society. You get on the subway and everyone is on their mobile app doing payments, doing TikTok digital entertainment, booking tickets, buying things. All of this is very advanced in China today and it's all done through the mobile app. And there are many of these brands that have sprung up in China to facilitate.

And these are the numbers. I'm going to take you through some indicators here of China's tech innovation and entrepreneurial boom. You'll see here China has the world's largest number of Internet users, the world's largest number of smartphone users, and also WeChat has one billion users, and that's mainly in China. So everybody in China is on WeChat all the time. It's the number one question I get when I'm a conferences or networking events or whatever is do you use WeChat? Yes, I use WeChat. I have to use WeChat to stay in touch with people who are doing business and who are active in China.

And so it's amazing that Facebook, you know, it's a global, global brand. Of course, it's blocked in China but 1.9 billion users, WeChat has one billion users, and WeChat is actually not that old of a feature or service. Facebook is much older.

All right. I have this photo up of a venture capitalist, a famous venture capitalist in China. By the way, I took almost all the photos that are in the book. I think actually, I did take all the photos that are in the book. So this one is in the book, and that's Hurst Lin of DCM Ventures. He's one of the Internet pioneers in China. He was a cofounder of SINA, which was Yahoo, the Yahoo equivalent. But after he made a lot of money from that he decided to become a venture capitalist. Maybe that was an easier road or path ahead than being a Chinese entrepreneur in the fast-moving China landscape.

But I took this photo because he's using -- I don't know if you can see it there or very well or not but he's using two mobile phones. Two different types of mobile phones to stay in touch with what's happening in the market because of this hyper speed.

Here I list many of the factors behind China's tech boom, the catalysts. And I think I mentioned some of them already -- the consumer boom, the venture capital, the infrastructure, the entrepreneurial culture, the government priority, things like Made in China 2025, which is a roadmap for China to become a global champion within many technology sectors that really matter toward our future. And the Belt and Road Initiative where China is making friends with its neighbors and building bridges and building ports and building highways and building highways. And the U.S. is not making friends with our neighbors as well as China is with its neighbors in Asia.

You could argue it's an unfair advantage that China has gotten ahead because, look, they had all that government support. They had all those subsidies. They had a lack of respect for IP. They blocked Facebook, Google, Yahoo, Twitter, Instagram. All those brands are blocked. You can't get on them in China. So their local brands succeeded because of lack of competition.

There are many funds for China's tech boom including in AI, and there are even cities that have their own AI funds. And it's a large amount of money. So AI is really important because it's a foundational technology. It's an underlying technology for many, many aspects of technology to take root.

You could also say that, yeah, China copied the U.S. tech titans. All they did was copy. But look, I'm going to argue that a large number of these U.S. companies, they failed in China on their own right. They mismanaged. They brought in the wrong managers who couldn't speak the language,

who didn't understand the culture, who didn't put the features in place to compete with the Chinese tech titans. So there are many cases where the American company lost out to the China company. Uber was taken over by Didi. It's in the book. EBay, Alibaba. Another one Google, eBay, I mean, Google, Baidu. LinkedIn should have had the market in China but instead the market went to WeChat. How did this happen? And I think more American brands are going to fail in China. WeWork is probably in trouble because there are so many coworking brands in China today that are really fired up, like Ucommune which I wrote about and I met the founder and interviewed him. Starbucks is fighting a local challenger, Luckin Coffee, which invented the on-demand coffee delivery system. Okay, you want your coffee in five seconds? Boom, have your coffee. Have your coffee at your office? Boom, you can get it. Starbucks is all still about lingering in Starbucks with your friends and enjoying a cup of coffee half the day. But believe it or not, Starbucks is now copying Luckin Coffee's model in China. They were losing market share so, hey, what are you going to do? Copy the Chinese competitor.

So in the book I do document some rather revealing statistics of China's tech progress and how it compares to the U.S. This is the patent applications indicator. China, 21 percent of the world's patent applications. This is from the World Intellectual Property Organization in Geneva, by the way. U.S., 22 percent. Patents enforced, U.S. is number one. U.S. is number one on both of these scales but China is the second right behind the U.S. And this was not the case eight years ago, 10 years ago. China has come way up the curve.

Which company is the number one filer for patents globally? The company that's been in the news the most from China, Huawei.

R&D spending. I cite the National Science Board's statistics in the book. And as you see here, China is rapidly catching up to the U.S. on national R&D spending. And the National Science Board predicts that China can surpass the U.S. in a few years.

Academic scientific research papers. China, again, on the rise.

Venture capital investment. Venture capital investment is an important indicator. It's the feeder of these startups from China that have had such an impact in China's economy and have become

the Facebooks, the Amazons, and the Googles of China today.

So last year the amount of investment that went into China was about equal to the amount of investment that went into startups in the U.S. And you could see that in 2010 it was nowhere near.

Venture capital fund-raising. The same trend. And I'd like to quote Don Valentine from Sequoia Capital who says that China was just too far and too foreign for them to ever invest in and that was 10 years ago. And everyone who has been following venture capital knows that that was so wrong because Sequoia Capital China became the number one venture capital investor in China and the top performer.

That's Neil Shen of Sequoia Capital right there with his hand in his pocket. I took that photo as well in Hong Kong. And Neil was the number one venture capitalist measured by *Forbes*. And I actually wrote a column for *Forbes* so you can check that out. But he's the number one ranked venture capitalist in the world from China. And not just one year but two years in a row.

He's not the only one. There are many other *Forbes* listers. It's called the Midas List. There are many other *Forbes* performers on that list like Hans Tung of GGB Capital and Jenny Li of GGB Capital, and Richard Lu of Morningside, and Steven Ji. And also James Mi of Lightspeed. And they're financing a number of these startups that I write about in the book.

Okay. Well, there was all this flood of money that went into China, but sometimes in venture capital, if you have too much money it becomes a bad thing. So this happened in the bike-sharing field. China really invented the bike-sharing business model of the dockless bike-sharing business model where you unlock the byte with a QR code and you don't have to park it in a designated spot. You could just return it anywhere. Well, the market became flooded with all these Chinese bike-sharing companies and there were too many of them and they were way too ambitious and their management was way too young. And one of the flops was Ofo. And I can tell you that some of the financers behind these venture capital funds, they lost a lot of money in the bike-sharing book in China. So look, it is a risky field. It's very risky. It's not for the shy at all. So not all of them made it.

But on the other hand, there were a lot of unicorns that emerged in China. So China, again, is second in the world for the number of unicorns right behind the U.S.

So what is a unicorn? Everybody knows; right? Okay. Unicorn is a term in venture capital that refers to the valuation of the startup and its funding. So if it's worth more than one billion dollars in the funding, it's a unicorn. This is something that actually has emerged in venture capital probably over the past five, six years, and China has gotten into this just like Silicon Valley has. China has actually copied a lot of the Silicon Valley venture capital boom and bust.

So when you have venture capital funding, what do they want? They want an exit. What is an exit? An exit is an IPO on NASDAQ or the New York Stock Exchange or the Hong Kong Stock Exchange. And last year there were 31 Chinese companies that went public in New York. Now, today, and I'll get into this in a minute, there are reports of possible delisting of Chinese companies, possible ban on Chinese companies going public in the future in New York.

But last year, four of the top IPOs from China in the U.S. were from China. Four of the top IPOs in the U.S. last year were from China. And there they are.

So in the second half of the book I delve into the tech sectors that matter most for the future, and I describe the companies that are most representative of those tech sectors in China and how they compare globally, how they stack up globally.

So AI, you have Baidu. And I know you've been reading about these new AI startups such as SenseTime and Face++ and iFlytech. But there are a whole host of AI competitors that have sprung up in China.

Fintech is another area, very pronounced in China.

Mobility and autonomous driving. China is getting ahead in autonomous driving and electric vehicles.

Facial recognition, robotics. These are the areas. E-commerce, digital entertainment, on demand services, telecom, 5G. That's an area to watch for sure as 5G rolls out for our new telecom standard that's going to speed up everything and make today look like snail's pace. All of our

communications will be in hyper speed and all of our devices will be talking to one another much more rapidly than they do today.

Okay. So you can see I've added three question marks after the word "advantage." And I think everybody knows in this audience if you've been reading the Washington Post and reading other publications as well why the question mark is there. And that is because these three leading AI companies from China have been earmarked for no, they cannot buy -- U.S. companies cannot sell to them. And these are the leading Chinese AI companies. And if the U.S. puts this block on them, which they have just this week, then these companies, their future is in jeopardy. Now, I've heard from both SenseTime and Face++ over the past day, of course, they feel that they've been unjustly targeted and they say that really most of their technology has not gone into the surveillance technology that has been very much in the news. So this is an area to watch because these companies that are partially dependent upon the U.S. for core technologies, if they can no longer get that core technology from the U.S., they're going to be restrained in their growth going forward.

Now, I actually interviewed the founder of SenseTime two years ago and back then they had 130 Ph.D.s on their staff out of 1,000 employees, 130 Ph.D.s. And those Ph.D.s are from the U.S. and China. MIT, Stanford, Tsinghua University. SenseTime has hundreds of patents and SenseTime came out of the Hong Kong Science and Technology Park, out of their machine learning technology.

Okay. Two minutes. Uh-oh.

5G. Question mark, 5G. U.S. says no; we're not going to go with Huawei equipment. Asia probably will to a larger degree, although Japan, Australia, and New Zealand have already said no to Huawei equipment. Europe is on the fence. Canada is on the fence. 5G is rolling out over the next year. It's a really important thing to watch because this could create a separate universe of telecom standards. We don't want this separate universe of telecom standards. We don't want to have competing standards. It's going to slow down global innovation. But that's what's happening right now because countries are having to choose which system they're going to go with. Which company they're going to go with. Are they going to go with Huawei and ZTE, the Chinese companies? Or are they going to go with Nokia and

Erickson? That's the choice.

The new Detroit. I call it the new Detroit because all these electrical vehicle makers have sprung up from China. And they've gotten a lot of funding from Alibaba, Tencent, and from the West as well. This photo I took here of the founder of XPayne Motors, he has an R&D facility in Silicon Valley. He sold his first business to Alibaba for $4 billion and he's poured his fortune into creating this Chinese electric vehicle maker.

He's not the only one. The guy behind Nio, which is considered, or has been called the Tesla "killer" in China, same thing. China is greenlighting electric vehicles in a big way, subsidizing. China is adopting electric vehicles much faster than we are here in the U.S. The entire bus fleet in Zhejiang and Shanghai is electric.

E-commerce. Alibaba's new retail puts Amazon Go to shame. I've been in the supermarkets, in Alibaba's supermarkets in Shanghai and Beijing and everything is robotic. QR codes, mobile payments, on demand delivery, and the food is great, by the way. You can eat in the supermarkets at the restaurants where your food comes on a conveyor belt controlled by robots. I'm serious.

Pinduoduo has come out of nowhere, went public last year in New York. In three years times, a huge amount of revenues. Number two brand right behind Alibaba. Why is it important? Because it's created a whole new e-commerce model which is social commerce, combining gaming, e-commerce, shopping. We don't have anything like it in the U.S.

Okay. This is the one you've been waiting for. What could go wrong? The list keeps getting longer and longer. Wow. Security concerns, restrictions, ban on sales of Chinese products, distrust of Chinese brands, blocks on capital flows, tech cold war. These are the outside factors that are impacting China's tech boom. On the inside there's a whole host of other factors.

Tech investment from China to the U.S. Plunged. Where has it gone? Southeast Asia and Israel where it's more welcomed.

Why is this important? Because some of our U.S. tech innovators and venture capital

funds have depended on Chinese capital. If it's going to go elsewhere, we're going to see an east-west swing. This is important.

Okay. New term for maybe some people in the audience. Splinternet. Where is this going? Splinternet. I know some people like decoupling. I like splinternet. Decoupling, delisting, splinternet. That's where we're headed. Parallel universes. While we're pushing China to develop its own technologies faster with more vigor than ever before. And in Silicon Valley, I can tell you that there's scarcity of venture capital for new funds, for startups that once were dependent on China.

I think China's tech ambition is unstoppable no matter what. Whatever happens with the tech and trade war, I think it's unstoppable. We're not going to stop China's ambition. And it's not just me saying that. There are all these other experts out there that have been saying it for a long, long time and you can read their quotes right here.

I would like to end with this slide because we're going to go into the discussion now and talk about some of these issues. What should the U.S. response be? Should we do nothing? I mean, what should we do? When can this conflict be resolved? Should we even try to resolve it? These are big, big issues.

If you want to follow the story, please look at Silicondragonventures.com where I've been writing about this and talking about this quite a bit lately.

Thank you very much. I appreciate it.

(Applause)

MS. FANNIN: Okay. I'll take a few questions now.

Yes? The smiley man in the third row.

SPEAKER: One question. Do you feel that local communities' livelihoods, jobs are more created by the Chinese models that are being developed, the same, or is it less because I know originally Jack Ma used to say that livelihoods were very important and part of the reason for his model being so different from Amazon because he didn't have any stock but he was managing the logistics so that local communities could thrive.

MS. FANNIN: That's true.

SPEAKER: Does that play forward in many other models? And if so, wouldn't the whole rest of Asia probably prefer the Chinese models to American models?

MS. FANNIN: Well, we'll have to see as this splinternet develops. If these Chinese brands go global, which they are starting to do, and Alibaba is a representative of the global trend and Alibaba is creating jobs here in the U.S. by its trading platform, and it's created a lot of jobs in Asia and in China, too, that small companies and big brands can get on that trading platform and sell back and forth and trade back and forth with China. So Pinduoduo, it's not global yet, it's just in China, but it's an e-commerce model as well. It's social commerce. It could do the same thing.

And there have been a number of business models that have been invented in China that I go into in the book but I didn't have time to go into them quite as much here, but the whole livestreaming and the idea of virtual gifts online is an idea that originated in China. And it's a new revenue stream for Internet models, for mobile apps invented in China. Very, very popular.

Yes? Yes, here.

SPEAKER: (Inaudible)

MS. FANNIN: Yes. Yes, I do think so. And we are seeing traces of that already. There have been -- there has been talk that Jack Ma basically stepped down from Alibaba. There was some pressure around that. Look, the Chinese government wants to be the number one power. And these tech titans have gotten so much power and so much influence over society that it is -- it does create this tension.

Yeah? With the greenish tie on. Glasses. Yeah.

SPEAKER: If Chinese 5G standards become dominant, does that matter from the point of view of the conflict of values between techno authoritarianism and liberal art or whatever you call we have now? And how would that work?

MS. FANNIN: Well, that's one of the issues at the point of the key issues in the decision-making over which system to go with. Besides the security issues is the whole ethical issue of human

rights violations.

Well, it's more of a China -- it's the China -- it's the overall China distrust issue. It's represented by 5G because 5G is something that's rolling out internationally and that countries have to choose which system they're going to go with.

It's not direct. It's not direct. It's not direct. It's indirect. Okay?

Yep. Behind you in the blue shirt. Oh, okay.

SPEAKER: So you mentioned that China is not number one in aerospace or focusing on aerospace. Is that because venture capitalists people, investors don't believe that it's worth the investment or is it more just lack of established --

MS. FANNIN: Well, it's just a huge investment. So you know, it's a state-owned company and the aerospace market that has a chance of becoming a Boeing or an Airbus. It's not a venture capital play.

Okay. You can decide. Go ahead since you have the microphone.

SPEAKER: So I have a similar question like a previous question. The first one is we see that China is going to a data driven nation civilian system to the whole country and also at the same time we see the naturalization of private companies. And so you also see -- in your trend for venture capital we see the increasing trend. However, in the current year we see the huge job in the venture capital investment in China. So how do you think, I mean, emerging forces hurt the pace of technological progress in China?

MS. FANNIN: Oh, yeah. This is definitely happening. And I'm seeing some firms from Silicon Valley, they used to invest in both China and the U.S., that they're only investing in the U.S. or they're only investing in China today. This is part of the splinternet and the decoupling. It's already happening. And this is going to impact startups' progress in China, as well as the U.S. because there's been this cross border collaboration and cooperation, U.S.-China in Silicon Valley it's just very common to see that. But today, you're seeing some firms that used to say rah-rah, China, we're behind China. Now they're saying we're a global venture capital player. So all of this, all of this will impact the pace of

startups.

Here?

SPEAKER: China is very dependent upon components from the United States and the United States is starting to withhold components. So China doesn't have a really well-developed semiconductor industry. Will they be going ahead to develop that industry? And if they do, will it then backfire on the United States where China will become a big competitor with the U.S. semiconductor industry?

MS. FANNIN: Yeah. I just did a TV interview on this backfiring question today. And yeah, I do think we're pushing China into a corner, and China will become more reliant on its own technology. It has to. It has no choice. And in the semiconductor field, this is one of the areas that China Government has highlighted as one of the areas that they want to lead. They are not nearly as advanced as Japanese, Korean, Taiwanese, U.S. chipmakers, but they are putting money behind it. I visited one of those companies, SMIC, and I've seen the progress that they're making. Look, I'm not a technologist but I can sort of understand it and write about it. So don't ask me about the technology behind chips because I know it's very like fine tune, fine tune, fine tune, fine tune, years and years to get to the next level. And that's what China's working on. That's what the U.S. is working on, too, and other markets, too. Semiconductors is another one of those foundational technologies like AI.

You asked one before, so the person behind you with his hand up high. No, the person behind you. I think you asked one already. You didn't? Oh, okay. I'm sorry. We'll come back to you. So whoever has the mic now.

SPEAKER: I'll be quick.

So I notice of all emerging technologies that another one, Blockchain hadn't been included either.

MS. FANNIN: Oh, Blockchain.

SPEAKER: Definitely. But like I'm just curious, what is China's position on Blockchain? Are they active in development of that technology or was there a reason for the omission?

MS. FANNIN: Well, crypto was -- that became an issue in China and those that were behind it in China had to move offshore, take their crypto plans offshore. And so I still think that it's happening to a degree in China. I think there's some push behind it. But it's not one of the sectors that I'm following regularly that much. But look, the whole fintech space is being shaken up in China, mostly through mobile payments and peer-to-peer lending and QR codes. Thank you.

Anyone else? Oh, yes, the blue shirt.

SPEAKER: You mentioned briefly about sort of like the Big Brother is watching you in China for the social credit scores. And China has recently, or just very broadly started talking about exporting some of that technology to other countries. So is that something that the U.S. should be concerned about in terms of the potential impacts to human rights, for freedom of expression, things like that if the Big Brother is watching you, anything like that?

MS. FANNIN: Yeah. Well, in the U.S., we are seeing pushback to this surveillance technology. In China, it's pervasive. It's on every street corner. It's on every lamp post. It's everywhere you look. Access to health clubs, access to banks, access to payment. But in the U.S. facial recognition is getting a bad, bad name. We don't want this kind of surveillance. We don't want this kind of social credit system that China has. So I think -- I don't think we're going to see them -- well, it's definitely not going to be as widespread as it has been in China. And I think it comes down to privacy issues in the U.S. And of course, in Europe, it's a huge issue. So I think some of those brands that were thinking about going global will have to rethink the plans now, particularly in light of the tech cold war that's ongoing.

Thank you again. I appreciate it.

(Applause)

MR. HASS: Well, thank you very much, Rebecca, for such a stimulating presentation as well as question and answer.

It's now my pleasure to bring to the stage three good friends: Cheng Li, Craig Allen and David Dollar, who will provide commentary on Rebecca's work.

And while they're getting set up, I would like to just make one public service announcement about the event that will take place here at Brookings tomorrow with Winston Lord, in conversation with Strobe Talbot. Winston Lord has recently written a book that is sort of a meditation on his life's work in the diplomatic field and he will share that book with us tomorrow.

MR. LI: Thank you, Ryan.

Well, first of all, thank you to Rebecca for that really very rich presentation. More or less, you present U.S. western views about this very important subject. Your research is really based on your solid understanding of what's going on in China. So it's really fascinating to see so much information presented.

And as we know it, today in this town there is an important meeting on trade negotiation. Whether they can cut the trade deal, we still do not know, but I think in everyone's mind it's fair to say there is some even more challenging issues such as tech war or the tensions or competition in this area.

So we are fortunate to have the two leading scholars on the Chinese economy. Both of them work in the U.S. Government, and both of them also spent years in China's U.S. Embassy in Beijing and both of them also worked for, in your case, the Commerce Department and negotiated with the Chinese. In David's case, in the Treasury Department. And also, Craig is currently the president of a very important institution, the U.S.-China Business Council, and plays a crucial role in the bilateral relationship in this important front. And we're so fortunate to have you and also have your organization as co-host for our event.

Now, I'll first let each of you speak for like five to seven minutes. Then I will lead some discussion. And also, we will have questions from the audience. So maybe start with Craig.

MR. ALLEN: Okay. Well, thank you very much for the opportunity to be here. Thank you, Cheng. Thank you, David. Thank you, Ryan. And thank you very much, Rebecca, and thanks to all of you for being here.

I enjoyed Rebecca's book enormously. It was like going to a museum in a place I kind of heard a lot about and I kind of knew a little bit about but I didn't really know any of the details. And so

with her book and the profiles in the book I got a much better understanding of how these companies fit together, how their history, the individual niches that they've occupied within a very fascinating ecosystem which is indeed very different to ours. And the more you learn about this, even for the China hands and it's even worse if you're an old China hand because you don't have the high tech side and the Internet and the digital side as much, it is a fascinating museum with many really interesting companies and individuals who are playing a role on the world stage. A very important role on the world stage.

And as time goes by, I think that what we're seeing is that the interaction between these companies and these individuals, with many American companies also, is shaping a very dynamic environment. So this is going to be the most dynamically evolving tech ecosystem in the world. And it is interfacing with American tech ecosystem in a very unusual manner.

One of the things I learned from Rebecca's book was how much Chinese investment had been sprinkled into American high technology and how much, and Rebecca went through this in her presentation, about how much American money had been sprinkled. Not sprinkled, but really deeply rooted in the Chinese ecosystem. But the rules of the road between the United States and China, how do our technology companies cooperate, how do our technology companies compete, is all very much up in the air as the WTO largely is silent on many of these issues.

I come from a Japan background, and much of the debate that I hear in Washington these days is very reminiscent of Japan 30 years ago. And if we recall back to those days, companies like Sony or Hitachi or Toshiba or Mitsubishi, Panasonic, et cetera, were about to take over the world. And under, of course, MITI's tutelage, and the role that MITI played at that time is vaguely reminiscent of Made in China 2025 today. And I will argue that the demographics, the culture, the industrial structure, a lot of the entrepreneurial drive is actually very similar.

But it turned out history shows us that MITI's involvement in high tech in Japan was actually not really very helpful. And indeed, the high tech Japanese companies that did emerge from that frame, companies like Kyocera and Sony and others, were largely successful despite MITI's help rather than because of MITI's help. And I suspect something similar is happening here with the Chinese

entrepreneurial companies. I don't think Wangxing or Alibaba or Jack Ma or Pony Ma or the others are waiting for Made in China 2025 instructions. They're not. They're moving ahead and the Chinese private sector is very, particularly these innovative companies, are innovative despite many of the -- much of the support of the government.

And so I would advise the Chinese Government really to look at the Japanese model. When you do have a lot of government support, the history in Japan shows us that the problem of a Galapagos syndrome can come forth and be a real problem, and that is that technology is developed in Japan for Japanese sake and it becomes unexportable. And I suspect that that is a threat that the Chinese Government and Chinese companies should look at very carefully because if this technology is not welcomed elsewhere, then the rest of the world is going to congeal around other technologies.

My final comment is that when you look at U.S. and China high tech, it is remarkable to me how incredibly integrated, synergistic, interdependent the two high tech sectors are. And it is also remarkable to me how indeed both governments are uneasy with that integration and are actively taking measures to reduce that level of integration, particularly in national security sensitive areas. And the Chinese side is certainly trying to reduce foreign input into their critical information infrastructure. Programs such as indigenous innovation, technology self-reliance, reinnovation, or the multilevel protection scheme, and I could go on and on, are schemes to keep out foreign technologies. And what is that, if not a form of decoupling from the global technology innovation system, but particularly the American version.

I would also argue that Made in China 2025 is WTO illegal probably across five chapters of the WTO and thus it's understandable that the Chinese have kind of put that on the back burner publicly but have the programs and has the support gone away? I think we have every right to be skeptical about that and demand that the Chinese meet their WTO obligations. And that is a subject that as Cheng referred to, Ambassador Leitheiser is hard at work at probably right now.

Also, I think that the Chinese Government could do a much better job of bringing its policies on SOEs, standards, subsidies, technology innovation into better WTO compliance.

Now, on the U.S. side, there's also certainly a head of steam behind the decoupling program. And I think that the expanded interpretation of our export control law and the clarification of our CFIUS project is really a blunt form of decoupling. It is designed for that purpose.

So earlier this week, Secretary of Commerce Wilbur Ross stated that the Deparmtent of Commerce would put Hikvision on its Entity List because of human rights violations. And I'm not here to debate the merit of the call but I think that it is reasonable and historically accurate to say that this is the first time ever that human rights violations has been used as a rationale for putting a company on the Entity List.

And the Treasury Deparmtent, under the Treasury Department, CFIUS, the expanded CFIUS regulations are also a clear signal that has fed into the rapid reduction of Chinese investment in high technology and elsewhere that we have seen. Chinese investment to the United States is down 80 percent, and particularly if you're a poor American in an economically depressed area, that would not be something to be happy about.

I suspect that under the new regulations, especially with regard to PII or personal identifiable information and cross-border data flows that this technology integration, which has benefitted the global innovation ecosystem enormously in my view, is going to be changing.

So I think that Rebecca's book has given us a wonderful snapshot really of where we are. The profiles are magnificent. And I think that we should recall our history of the last 40 years of engagement and collaboration which has led to enormous successes for both the Chinese and the American economy in the global innovation space. But I worry that this might become a thing of the past. Thank you.

MR. LI: Thank you.

David?

(Applause)

MR. DOLLAR: Thank you very much. It's a great pleasure to be here. I really enjoyed Rebecca's book. You know, we hear about all these companies. I travel to China regularly. We're

familiar with all of that. It was great to get a lot of background about their origin, about some of the technology transfers, financial flows. So I really enjoyed the book very much.

I want to introduce three points into the discussion. First, like Craig, I was impressed at how much integration there is between U.S. and Chinese innovation. So when you think about the flows of people, technology, money, it's really quite extensive in both directions, and I would argue we have a pretty successful open innovation system in which both the United States and China, and frankly, the rest of the world is prospering. We benefit when China invents technologies. I don't think we'd be happy if they monopolized all advanced technologies but that's never happened in history, frankly, even when the United States was the power. So as long as we've both inventing technologies I think this is potentially a mutually prosperous world.

Now, I would say that given that, for the United States to be actively cutting ourselves off from Chinese innovation and technology, I personally think this is a big mistake. I think it's going to lead to a slowdown in our own innovation and productivity growth.

I think China is a real challenge. That's one thing that comes through from reading these stories. This is a serious challenge for the United States. But to me the logical response to that is to do our own homework. So we have various weaknesses in the United States. A lot of our innovation comes from immigrants. We need to reform our system of immigrants. We should be getting more students. We should be giving our more green cards. So we should be creating a friendly environment for the world.

And then we need to improve our infrastructure and education. And we're not doing as much R&D proportionally as we used to. So there's a lot of homework for the United States to do. There's a danger in this moment that it becomes easy to criticize China, blame China, and focus our action on discriminating against Chinese companies or Chinese students, for example. These measures are not likely to make the U.S. prosperous, and I worry mostly that they really distract from the serious homework that we need to do.

Now, the second point that I want to make is that while I think China is a serious

challenge and there are a lot of great stories, we should not imagine that China is 10 feet tall. So there's some very impressive successes documented in this book, for me as a macroeconomist, it's really striking that it doesn't seem to have much effect on the overall Chinese economy. We don't see the effect. China's economy has slowed down. You know, before the trade war was ever an idea, the Chinese economy was slowing down very dramatically. It's growing about half the rate it was growing just a few years ago. Some slowdown is natural but this extreme slowdown, you know, this is really quite worrisome. There are a lot of signals of problems in China, the massive build up in debt relative to GDP for example. And I don't want to get too technical, but you know, we economists like to look in particular at total factor productivity growth, how much you're producing out of a given bundle of capital and labor. And not only has that slowed down in China, it's actually become negative in the last few years. So every year China produces left with the same amount of resources. That's the macro economy.

And given the real innovation that we're talking about, it suggests that the Chinese economy is extremely dualistic, that there have to be highly inefficient backwards sectors that coexist with some of this innovation in modern sectors that we're talking about.

Now, the third and last point kind of follows naturally from my second point. When I look at the dualism, I see very much the difference between the private sector and the state sector. Most of this innovation that Rebecca is talking about is from private firms. We can argue a little bit about how private exactly Huawei is but there is a large private sector in China. It produces 95 percent of patents. So most of the innovation comes from private firms. But most of the credit in the banking system goes to state-owned enterprises. So a lot of this dualism is this mismatch between China is financing the losers and it's not really financing the winners.

And I agree with Craig that China should make its industrial policy WTO consistent, but ironically, I actually think that this is going to be a big benefit for China because I think this program, a lot of which is aimed at state enterprises, aerospace is a good example. China doesn't have much hope in aerospace because it's dominated by a big Chinese state enterprise. When you get things dominated by big Chinese state enterprises, you tend not to get innovation. So it actually helped China to be WTO

consistent in a sense of not providing benefits to these state enterprises, opening up the economy more. If you're going to have incentives for particular technology, the rational thing is to make those available to all the players in the market.

So I just want to end by saying that I think while a lot of impressive things are happening in China, China does face these very serious challenges that I alluded to at least indirectly in terms of state enterprises the buildup of debt. The United States, as I said, I think we face very serious challenges in terms of maintaining an innovation culture and an open economy, open society in the United States. The happy outcome is both of us do our homework and then you're going to get a world with lots of innovation and growing prosperity. And of course, other parts of the world are important, too. When we talk U.S.-China, it's easy to implicitly be a little bit insulting to Europe and other players but, you know, the U.S. and China are the two big sources of innovation in the world right now. And if that continues and if we have an open innovation system, that's our best hope for having a prosperous, stable world. Thank you.

MR. LI: That's great.

(Applause)

MR. LI: Well, both of you clearly put Rebecca's excellent book in the broader context even for assessing the future trajectory about the tech world, especially the two major powers. And also linked to the policy debates going on in Washington, D.C.

Now, let me ask three quick questions for both of you.

The first one is actually for Craig. You made a comparison between China and Japan. Of course, there are some similarities in demographics and otherwise. But I would just push to present the different perspective, arguing that comparison could be misleading. Demographically, China's population is ten times that of Japan. When talking about e-commerce, this is a very important factor. Talk about urbanization, China is only 60 percent of urbanization. Japan is probably 99 percent. And talk about aging society. Yes, both are facing serious challenges, but at a different level.

But on the other hand, China, despite -- because of the demographic changes, but also

the fact that MITI is only one aspect of Japan's development. China's state-owned enterprises and China's political system really have the mobilizing power that Japan has far less.

And finally, the relationship between China and Japan with the United States is completely different. The United States has a lot of leverage to influence Japan, shape Japan, but China is already in a state as you see that the kind of occasion, that they've got competition. So maybe it also plays in China's favor.

So this is my first question. Could you answer, respond? Let me finish my question.

The second is for David. I really appreciate you put more balance in view should neither overstate or underestimate. So my view is I think you probably share the tech war with the decoupling from the U.S. side. Certainly, it's a big challenge for Huawei, but I think that Huawei is probably strong enough to survive but probably not strong enough to kick the U.S. out of the game. So this is probably I think you will agree.

But my point is on the last point you mentioned. Ten years ago, actually Rebecca said we did not talk about innovation. Five years ago we really did not talk about China's innovation. Ten years ago we did not even know there's a private company IT that was so powerful. At that time it dominated IT, dominated by China Mobile. You know, there's no space (inaudible) and others. But all of a sudden things changed. Now, BAT dominated at least the most innovative sector and also innovation became a real challenge.

So my point is that maybe sometimes we will kind assume the things -- of course, China has a lot of problems. I agree with you. But even in aerospace, you know, I see the point that they talk about that state dominated, there is a lot of problems, but even that industry, there's lack of development. I mean, China is the country that landed on the far side of the moon. The United States could not. No country could not. Does that show something? You know, it's not just that China is copying us. In certain areas, crucial areas, 5G, 6G, you know, AI, could undermine American strengths.

This is my third question, last question for both of you. Decoupling. Technological decoupling. It's very much happening. But of course, some of the American prominent former decision

makers and economists or experts on China, like Hank Paulson and also Ambassador Zhou both said technological decoupling sounds like it hurts China but it actually hurts the U.S. I want you to comment on their view.

MR. ALLEN: So let me start out on Japan. And like any model, it's not exactly the same. But are there parallels from which we could draw inferences? And I believe that there are many parallels. It's not to say that it will have the same outcome, but these are things that are interesting to watch.

I think that along with the demographics and the cultural similarities which we don't need to go into, I would note two things. Firstly, in my view anyway, both economies are too centrally managed. MITI had far too much power in Japan over industrial investment and tried to lead it in a way that is similar to Kung Xing Bu or the Ministry of Information and Industry. And that over centralization of authority I think is a cultural analogue between China and Japan, and I think that it will ultimately hurt Chinese growth.

And one way of saying this is what's more important, growth or control? And in the case of MITI and MIIT, I think that they come down, well, we need more control. But you only get that control by giving up growth and allowing the free market to work. And at least so far as I'm concerned, in both Japan and in China that excessive centralization is a real problem.

The second analogue that I think is very interesting to look at that is worthy of exploring is the analogue between the Karatsu and the SOE or the state-owned enterprise. In my view they're both very similar in many respects. They both have ties to the party. The both have ties to the banks. They both are very large. They're both very poorly managed. They both waste enormous amounts of capital.

At one point we tried to enumerate all the subsidiaries of China Petroleum and we stopped at around 1,500 because it became clear that there were almost an infinite number and that there was no way to manage this. And I would argue that that's very similar to the Japanese Karatsu. Now, it's changed in the Karatsu case. I would say that the Chinese are going in the wrong direction on this of over centralization, over party dominance, over government demands, over regulation. And the Chinese economy is going to pay a price to the extent that that's true.

So let me pause there and turn it over to the real economist, and I'm happy to comment on decoupling.

MR. DOLLAR: Okay. So my response to the second question is that a big economy like the United States or China, these are just unimaginably complex. You just have to think about so many different sectors, so many different occupations. So in either case you can have very impressive productivity growth in a few select areas but it doesn't necessarily have a powerful effect on a whole economy. We actually had the same problem in the U.S. We had these allegedly high tech firms out there in Silicon Valley but they seemed not to have much effect on the overall economy. And I think it's probably just that we have so many different sectors.

So, for example, the biggest sector in the United States now is healthcare. Okay? And parts of it are actually fabulously efficient but parts of it are not. It's a hard area to reform. The financing of it is a huge controversy in the United States. So China, I realize that China has made this tremendous advance in some of these areas we're talking about. But on average, China is at about one-quarter of U.S. productivity. That's an average across all sectors and activities. And I think we can expect the U.S. is not going to go backwards; right? Maybe we won't go forward very much but we we're not going to go backwards.

So to catch up to the United States, China has to quadruple productivity. Historically, no one has done that for a whole economy except over long periods of time. China, it started out at four percent of U.S. productivity. It's gone from four percent to 25 percent in 40 years. It's likely to take many decades for it to get to U.S. productivity level, get close, and that would be looking -- and then it's likely that that would reflect China being the world beater in a bunch of areas and then lagging modestly behind the U.S. in other areas, and it could get close to U.S. productivity on average.

I end this point by saying don't forget that 25 percent of U.S. productivity, that's the average for the whole economy.

MR. LI: My last question for both of you.

MR. ALLEN: Decoupling.

MR. DOLLAR: Why don't you go first?

MR. ALLEN: Okay. So you know, decoupling, I think, while it is unstated by the administration, I would say that both governments are pursuing policies that at least will have the effect of, if not the intent of decoupling. And I think that when you look at the national security concerns, both countries have very legitimate national security concerns.

I think that also that there may be a tendency to exaggerate those concerns. And if that is the case, then exaggeration will lead to an over response to the threat. And I see that in China all the time. And I am seeing it in the United States as well.

And I worry that decoupling could go beyond the national security areas to include many, many other areas. So the case of Huawei is a very interesting case. I won't opine on it except to say that there are legitimate national security concerns in the telecom space. I think that we would all recognize that. But I also see moves to ban Chinese electric vehicles from a private Chinese company. And I think it would be a gross exaggeration to say that that would be a national security threat. I also see moves in Congress to bank Chinese active pharmaceutical ingredients from coming into the United States on "national security" grounds. And I think that that should be questioned. Are we really safer having our APIs coming from India or a third country? I think that that's a very hard argument to make.

So while our national security should be paramount, I think that exaggerating our national security is very much not in our national security. And a deliberate exaggeration of the national security will lead to an over response that will be echoed on the other side. And I think that we're caught in that echo chamber of exaggeration that will have a profound effect on the global innovation ecosystem. And ultimately on our national security. To state that our economy security is our national security and then expand that to include everything from the other country is profoundly mistaken.

MR. LI: Thank you.

MR. DOLLAR: So I largely agree with Craig so I'll just briefly add I think really serious technology decoupling between the U.S. and China, it's definitely going to be bad for both economies. It's certainly going to be bad for the United States.

I'm skeptical that our big pharms would even go along with this to be perfectly honest. You know, China is a big, fast growing market. It's putting out five million STEM graduates per year. Our firms want to do research there. They want to be involved there. They want to have partnerships. I think if we try to pursue this, a lot of our firms, they'll develop subsidiaries. They'll find a legal way around this. You know, so I don't think they're going to follow us down this road, but we'll end up isolating our domestic economy to some extent, and we'll end up paying a price for that.

MR. ALLEN: Let me just add, you know, to decouple you've got to be a couple. And we're not a couple. (Laughter) And what we have seen is that once a Chinese company has been on the Entity List, which requires American companies to stop providing them with their U.S. exports, our Japanese and European and Korean friend are in the door. As the Americans are leaving, the Europeans and Japanese are happy to take over that business.

And so how does that help our national security? Does that not lead to a diminution of our national security? I think being in the market and being active in that market is the way to ensure our national security. Abandoning that market or walking away from it for reasons that are mandated by the government but which no other government recognizes seems to me to be an own goal. Shooting the basket into the wrong -- I shouldn't bring up an NBA analysis. That was profoundly mistaken. So I take that back. (Laughter) That was a soccer analogy.

MR. LI: Thank you, both Craig and David for so thoughtfully answering my questions.

So the floor is open. We only have 10 minutes. We will probably take a few questions together. And please first introduce yourself. The young man, yes?

SPEAKER: Hello. My name is (inaudible). I'm a recent graduate of the Fletcher School of Law and Diplomacy up in Boston, and I'm an Indian citizen.

My question is directed to Mr. Craig Allen, though I would appreciate comments from the other discussants as well.

I do agree, and I think most of us would agree here, that there is a lot of exaggeration when it comes to the fears regarding Chinese business interests in the U.S. However, there have also

been very credible reports of espionage and other mal-intended actions by Chinese companies. Though perhaps we can agree that the current response might be a bit too heavy handed, what would you recommend the appropriate response would be?

MR. ALLEN: Okay, great question.

MR. LI: Hold on. Hold on.

More questions? This gentleman. Yes?

SPEAKER: Thank you very much. I want to thank the panel and Ms. Fannin for a great presntations.

Ms. Fannin mentioned the Belt and Road Initiative in terms of economics and trade, which is largely the subject of this talk. I served in the State Department and national security and intelligence communities, so I'd like to have any answer you have on the mercantilist intent of this Belt and Road Initiative in terms of the international influence of the PRC.

MR. LI: Great.

Any more questions?

Yes. Yes.

SPEAKER: Hi. Thank you again for the excellent panel discussion today. My question actually has to do with Vietnam.

So in light of recent events between China and the U.S., to what extent do you think Vietnam can actually benefit from the supply chain relocation and what policies do you think its government needs to pursue to put itself in the best position possible?

MR. LI: Actually, this reminds me that my colleague, David, is also running a podcast that's called Dollar and Sense. And one of the recent episodes is about Vietnam, I guess. He just visited Vietnam. And so we have three questions.

The first one for you. Maybe two. And the second one you can also hit if you like. But certainly, the second and the third, also, is David's expertise.

MR. ALLEN: So I would agree with the assumption that there are many maligned

activities. I think that we should accept that as a useful presence.

I would say, however, that we need tall walls around the narrow garden rather than a tripwire around the whole farm or around the whole city. And what I see when we're talking about the banning of Chinese active pharmaceutical ingredients or buses that are built in Los Angeles is putting up a tripwire around the small area.

I think that also, so the issue is where is our true national security concerns? And defining that, different people could have different -- reasonable people could have reasonable definitions, but I would argue it's not buses. And I would argue it's not APIs.

The other thing that I think we should think about is the use of the law, the export control laws, for apparently competitive purposes. Now, the history behind the export control laws is so that we don't export machinery or equipment or technology to be used to make a nuclear bomb or other weapons of mass destruction. We don't wish to export those products. And that's why we have the law. But if the law is to be used to slow down other countries' or other companies' competitive industries, then that is an expansion of that law that is quite profound. And if we are to use that law as the secretary of commerce just said two days ago to protect human rights, again, that is a profound expansion of our export control laws into territory that we've never seen before. And I think it's similar to the 232 on steel and aluminum on national security purposes in a manner that Secretary Mattis at the time did not support. So let us be careful by the over definition, by the wholesale use of that national security term to get away with what may be essentially policies taken for commercial purposes.

On Belt and Road, Belt and Road is enormous. I would agree with the premise of your argument that it is made mostly to benefit Chinese SOEs and other companies. I would agree with the premise of your argument that it is profoundly political and that it is using the loans for the most part to elites in a manner that certainly helps the Chinese companies that may over the longer term provide complications to the receiving country.

That said, the money and the expertise -- it's not only the money. It's a lot of expertise that the Chinese are offering. It is very welcomed in Central Asia and in Africa and elsewhere. This is

money to build infrastructure that is very much needed. I think that the recipient countries should be very concerned about having the digital Belt and Road, for example, put into their markets. At what price comes that very cheap loan for the telecom infrastructure or the software? Or the smart cities? And I would encourage robust democratic debate on that subject for all of the recipient countries.

MR. DOLLAR: So just very briefly on Vietnam. I was able to talk to private sector and government officials. They all pushed back against the idea that Vietnam was a big winner from this trade war. Their exports to the U.S. are up very significantly this year but their imports from China are up by almost exactly the same amount. And you can cynically say some of that is just relabeling stuff but I think it's not mostly that. I think when we talk about value chains, we often ignore the fact that China is at lots of different positions along many value chains. And what's happening is the final labor intensive assembly is moving to places like Vietnam, but China is still producing an enormous amount of content basically. So China is now exporting components to Vietnam and Vietnam is assembling them. They're coming to the U.S. They're doing an end run around the tariffs. That is one more reason why the tariffs are a dumb strategy. And it's a little bit beneficial for Vietnam. It generates a small amount of value added. But it doesn't really generate that much. And now they're worried the United States is going to turn its trade war weapons against Vietnam because their exports are going up and their trade surplus with the United States is going up.

And then just if you ask what Vietnam can do, the striking difference between China and Vietnam, in both of these countries the exports come from multinational firms, but in China, most of the value added comes from the domestic private sector. And Vietnam has not built those backward linkages. It doesn't have a big formal domestic private sector. It's got foreign firms. It's got state enterprises like China but it doesn't have the private enterprises, the formal private sector you find in China.

MR. LI: Great. Before concluding the panel I just want to remind you of two things. One is that Rebecca will very kindly sign books outside of the room. And secondly, tomorrow, Ambassador Winston Lord, the most distinguished strategic thinker, will talk about *Kissinger on Kissinger*, the new

book he wrote. Talk about American leadership and diplomacy and the making of foreign policy. It sounds like a very timely topic, and particularly what we need. So one o'clock tomorrow afternoon.

So let me ask the audience, really, I am impressed by your comments, to join me to thank our panelists. Thank you.

(Applause)

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I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

Carleton J. Anderson, III

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