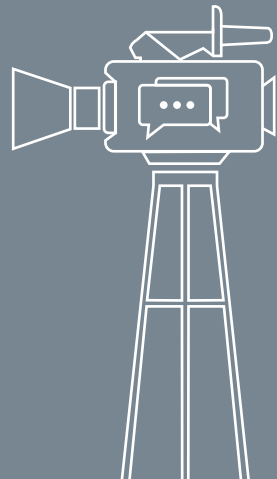


# IN HIS OWN WORDS

DIALOGUES WITH REN

2019.06



VOLUME IV

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## Reaching the remotest village

In 2011, Huawei implemented a turnkey project in Cambodia to deploy sites for many of the country's remote villages, some of which were scattered across forests and isolated from the outside world. To get to these sites, Huawei's engineers rode motorcycles and ox carts, and sometimes even walked long distances. We were able to bring the most advanced telecommunications technologies to the villagers, better enabling them to access the outside world.



## Covering the Arctic Circle and the world's northernmost base station

In May 2011, we deployed wireless broadband in the Svalbard Islands for a Norwegian customer. This was the first-ever LTE network in the area. The islands lie close to the Arctic Circle, and temperatures there can reach as low as  $-50^{\circ}\text{C}$ . The terrain is also very complicated. To transport equipment, we used all kinds of tools, including snowmobiles, forklifts, helicopters, and small airplanes. We also had to carry a loaded gun at all times to prevent attacks from polar bears.



## **Heroes are forged, not born.**

During World War II, the famous IL-2 kept flying even after being riddled by anti-aircraft shells and machine-gun fire from other planes. Although badly damaged, it finally made its way back home.

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## A Coffee with Ren

June 17, 2019 Shenzhen, China



**Tian: Absorb the energy of the universe over a cup of coffee. I'm Tian Wei. They say a good conversation could be just like drinking a cup of black coffee and as stimulating as it is hard. I'm not sure whether today's conversation is going to be a really difficult one, but it should certainly be stimulating intellectually and thought-provoking. If you take a look at the panelists on the stage, they're trailblazers in their respective fields and certainly very outspoken about the challenges that we are facing today. I hope it's a conversation among minds without borders.**

First up, A Coffee with Ren, so let's start with Ren. Ren Zhengfei, founder and CEO of Huawei. Of course, a legendary entrepreneur from China who has made China one of the world leaders of 5G. Huawei now, as far as I understand, is the world's largest manufacturer of telecommunications equipment and the second largest maker of smartphones. So, Mr. Ren, welcome.

On his right, Nicholas Negroponte. The reason I introduce Mr. Negroponte second is because he has just accepted Mr. Ren as his student. Big news. A tech visionary and co-founder together with Jerome B. Wiesner of the MIT media lab. And he has been providing funding for start-up companies around the world, including WIRED magazine and Sohu. He has also decided to devote the remainder of his time, which is a lot, to open science and global connectivity. Good to see you, Nicholas.

Next, we have George Gilder, certainly a fun individual, as well as a tech guru and a futurist, according to many. George is President Ronald Reagan's most quoted leading author and has been a venture capitalist in the US and Israel on many important projects. He enjoys his time as a runner and also as a skier. George, good to see you.

Last but certainly not least, we have a wonderful lady sitting on the stage as well. A long-time commitment to Huawei, 25 years working for this company, and a colleague of Mr. Ren, Ms. Catherine Chen, Senior Vice President and Director of the Board of Huawei, welcome.

**01**

**Tian: Okay, A Coffee with Ren. I really need to start with Mr. Ren. Mr. Ren, is it because you cannot go to the US so you have all your friends coming to China for coffee?**



**Ren:** Professor Negroponte was a teacher of Steve Jobs, and his son was once Jobs' roommate. That means that by becoming his student today, I am becoming one of Jobs' peers. I feel very honored. As for Mr. Gilder, he wrote the preface for *Built on Value*, a book by Professor Huang Weiwei. The preface is excellent, and I greatly admire him. I respect both of them very much. It's also fantastic that we have this opportunity to meet you, a very famous TV host, here today.

02

**Tian: I want to turn the table to both of you here. Aren't you afraid of being politically incorrect, coming to China and sitting here in the sitting room of Huawei while knowing what's going on between the US and China?**

**George Gilder:** No. No, I think that I am contributing to saving the United States from the terrible mistake that it's currently making, epitomized by the outrageous bans and tariffs, as well as restrictions it is placing on Huawei. But also, I can contribute to a re-construction of Internet architecture to address the terrible security collapse across the Internet that is making everybody paranoid and preventing everybody from trusting anybody else. This is really a technical problem that Huawei can address and not a political problem.

**Tian: Are we facing a technical problem or a political**

## **problem?**

**Nicholas Negroponte:** I have more of a feeling that we're facing a cultural problem. I'm here for a different reason, and I invited myself to come here and even told Mr. Ren what day I could come. And it was surprising that George, whom I have known for 40 years, was here on the same day, so I'm very pleased.

We don't agree on political issues. Anyway, we agree on the fact that the United States is making a terrible mistake, first of all, picking on a company. I was on the Motorola Board of Directors for 15 years. One of the first joint ventures you did was probably with Motorola, I suspect. My interest is open information, open science. I come from a world where what we value isn't so much about trade, commerce, and stock values. We value knowledge, and we want to build on the people before, and the only way this works is if people are open at the beginning. Then we can all build on each other, and that's, to me, the priority.

There are other issues, and I'm not denying them, but that's the one I'm focusing on: How does the world collaborate? It's not a competitive world in the early stages of science; it benefits from collaboration.

**Tian: Mr. Ren, some people say this is a technical issue, and some believe it is a cultural issue. What do you think? What kind of issues are we facing here?**

**Ren:** I think the most important goal for our society is to create wealth, so that more people can be lifted out of poverty. Social progress requires collaboration for shared success. It's simply impossible for individual countries to develop on their own in the information world. In the industrial era, transportation problems led to geopolitics and geo-economics, so a country could manufacture sewing machines and tractors entirely on its own. But in the information era, it's impossible for a country to single-handedly make anything. That's why open collaboration worldwide is a must. Only through open collaboration can we meet people's demands, and bring the benefits of new technologies to more people at lower costs.

I believe collaboration is the only way to make social progress. Economic globalization was first proposed in the West. We believe it is a great concept. There definitely have been and will be ups and downs during the process of economic globalization, and we need to take the right approaches to these ups and downs. That means we need to use laws and rules to reconcile and resolve issues, instead of imposing extreme restrictions.

The progress of human civilization is built upon the discoveries and innovations of scientists, the leadership and facilitation of politicians, the products and markets of entrepreneurs, and the joint efforts of all people. That's how we create new wealth. During the Dark Ages,

famine was prevalent in Europe. About 40 to 50 years ago, China was very poor, and people suffered from hunger. But now we have an abundance of food. Why is that? It's not because the natural environment has changed much since then. It is the result of advances in science and technology.

**03 Tian: There are companies who are not providing Huawei with components and parts anymore, despite the fact that you had contracts with them. How will you treat the US companies who wish to keep supplying Huawei?**

**Ren:** All of the US companies that we work with are great companies that hold themselves to high standards in terms of business integrity and ethics. Huawei's development over the past 30 years can be attributed in large part to the support and help we have received from leading companies around the world. The current setbacks we are facing are not caused by those US companies, but by politicians who see things differently from the way we see them.

We predicted long ago that we would encounter market competition issues and conflicts when our growth is fast. But we never imagined that the US government would be so committed to attacking Huawei within such a broad scope. The US government

is banning US companies from supplying components to us. They are also restricting our participation in international organizations and our cooperation with universities. That said, these restrictions will not stop Huawei from forging ahead.

We didn't expect that the US government would launch such precise "strikes" against us, with each "strike" hitting our vital parts. Now we have several thousand "holes", and fixing them will take time. We didn't expect such extreme measures, but we did make some preparations. We are like a bullet-riddled Il-2 aircraft during World War II. We prepared to protect our core parts only, like our fuel tank. We didn't prepare to protect non-core parts. In the coming years, our production capacity may decrease, and our sales revenue will be about 30 billion US dollars lower than forecasted. In 2019 and 2020, our annual sales revenue will be about 100 billion US dollars. But maybe in 2021, we will regain our growth momentum and provide even better services to society. In the next two years, we are going to switch from many old product versions to new ones. In such a massive switchover, it will take time to test whether things work properly, so a moderate decline is understandable. But when this step is finished, we'll become stronger.

When we were not as strong in the past, we were

determined to work more closely with US companies. As we become stronger, we will work even more closely with them, and we won't be afraid of encountering more challenges like the ones we are facing now. We are not afraid of using US components or US elements, and we are not afraid of working with US partners.

Companies that are not as strong as Huawei might be very cautious when it comes to using US components or US elements. This will hurt the US economy in one way or another. But Huawei won't be hurt much. We are already strong, and we can withstand whatever is thrown at us.

**Tian: Did Mr. Ren tell every Huawei employee about his plan regarding 2021, Madam Chen?**

**Catherine Chen:** He talks about that sometimes, and the numbers may not necessarily be the same every time he speaks about it.

**04 Tian: It seems that Mr. Ren gave us a lot of information earlier about the bottom line he is thinking about. What do you think George?**

**George Gilder:** I think it's absolutely important that all these new ventures be founded on a level of a ground state of security on which these innovations can depend and which makes them trustworthy,

recognizably trustworthy around the world. Because a worldwide network or a worldwide Internet of Things or a worldwide 3D virtual reality Internet, smart cities, or all of these various goals will depend on a secure ground state of timestamped factuality.

**Tian: We understand that it's security, security, security. But how? That is the issue.**

**George Gilder:** Blockchain, have you heard of it? It's an innovation and is what the new generation of technologists around the world are working on and developing, and I think it should be incorporated in the Huawei plan for the future.

**Tian: What about standards? Since we talked about security and since we talked about some specific issues. Mr. Negroponte, what about the issues? From your perspective, starting from earlier days and thinking of what's going to happen today, what about standards? Do we have global standards? And how fast can we build the global standards? Do we want to build a global standard?**

**Nicholas Negroponte:** First of all, I've been doing this for so long that when I was first on the Internet, I knew everybody else on it. That's how long ago it was. And nobody imagined how it would grow. And if they're telling you now, they're being revisionists. It was not in any way imagined to be this dominant. And I

experienced over my life, first as a teenager, Sputnik. It's very interesting because Sputnik caused the United States to do things that it wasn't already doing. So this is your Sputnik moment.

What the United States has done created Huawei's Sputnik. You're going to wake up and do things and there is no going back. I saw it again in the 1980s, with Japan, terrified by Japan. There was a whole period when Japan was this enemy and we were not supposed to collaborate and yet that's sort of attenuated. Standards are important, but not as important as they used to be, partly because you have enough intelligence in the system that you don't have to necessarily have a precise standard that everybody is following, as long as the system can recognize what it is, and says, oh, that's that signal, and adapts itself.

So there is a change, but it's important to collaborate on the basis of knowledge. Because if we start going in other directions separately, it's going to be an enormous shame.

**05 Tian: Talking about the basis of knowledge, I really need to ask Mr. Ren. Because right now, Huawei's collaboration with quite a number of American universities and labs has been halted, including some of those where you originally came from. And that is**



**not going to contribute to the open science we are talking about. But to Mr. Ren, it's also going to have a big impact on where Huawei could be in terms of your capacity for science and technology. How would Huawei address the situation?**

**Ren:** Inventions can be divided into theoretical inventions, engineering inventions, and inventions driven by market demand. China is very strong in engineering inventions, but weak when it comes to theoretical research. We have to diligently learn from the West in this regard. The West took several hundred years to invent theories like calculus. They have contributed greatly to advancing basic theories.

Huawei invests heavily in R&D. We have more than 80,000 engineers. Despite that, we have not made any great inventions. Mobile communications were not invented by Huawei, nor were fiber communications, IP transmission, mobile Internet, airplanes, cars, or horse-drawn carriages. When it comes to inventions, we have made little contributions to humanity. We have focused on improving engineering capabilities.

We are now supporting more than 300 universities and 900 research institutes around the world. In doing so, we hope that we can contribute to theoretical innovation. We will not cut our investment in this area just because of the attacks on us. We will work harder. Even if the US

government does not allow some universities to work with us, there are many others who are willing to do so. It is understandable that a few universities are having concerns about working with us. It is just short-term because they don't know much about us.

We welcome more US politicians to come and visit Huawei themselves. Some of them may think we still live in grass huts and wear long queues – a hairstyle from dynastic China. If they come and look at Huawei's pace of innovation, they will believe that it is worthwhile to make friends with us and that we can be trusted.

Just now, Professor Gilder mentioned building trustworthy networks. Huawei is determined to do that. And it is also a decision included in our business plan. In the next five years, we will invest 100 billion US dollars in reshaping network architecture, so that networks can be simpler, faster, more secure, and more trustworthy. At the very least, we should be able to meet the standards of Europe's GDPR when it comes to privacy protection. Of course, our revenue will need to double. If we face financial difficulties, we may cut our R&D investment, but the amount will still be close to that figure. We need to restructure networks and make more contributions to humanity.

We also need to look at Huawei's contributions to society. Huawei employees are everywhere – in the

poorest areas of Africa, in places stricken with malaria, Ebola, or AIDS, and in the wilderness. We don't make much money there. We are there because of the commitment we have to humanity.

Since we have not contributed much to theories, we want to contribute more to serving humanity.

**06**

**Tian: That's a great thing. And having a good market is a good thing, too, I guess. To you, Mr. Gilder, talking about security earlier, Mr. Ren has mentioned that. So there are lots of questions about whether Huawei has backdoors. Mr. Ren, please answer this question as well. Which security is it? Who will guarantee the security? Who are the ones to judge whether one system or another system has security or not?**

**George Gilder:** The question is an objective question – whether a specific telecom system can be tested, whether it is open, whether it can afford to be using the new cryptographic techniques, cryptographic signing of software that can render it inherently trustworthy, because it cannot be changed gratuitously. There are lots of technical remedies for the kind of distrust that arises around this catastrophically insecure Internet architecture that we find ourselves using today. Just as we have catastrophically broken monetary system, which causes trade wars, we also have a catastrophically

broken Internet security system. And I think among all companies in the world, Huawei is probably best situated to solve both these problems and to pursue both these opportunities.

**Tian: Is Mr. Gilder having too much hope for Huawei and is he being too optimistic or pessimistic?**

**Nicholas Negroponte:** Well, I hope he's correct. And there's some evidence that he may be, because our President has already said publicly that he would reconsider Huawei if we can make a trade deal. So, clearly, it's not about national security. We don't trade national security. It's about something else. And this trade war has got to end, and that, I believe, will end sooner rather than later. Crossing my fingers.

**07 Tian: Mr. Ren, has Huawei installed backdoors into its equipment? Are there any security issues? Please tell our good friends, and the audience joining us online what Huawei's position is regarding this issue.**

**Ren:** First, we need to separate the issues of cyber security and information security. Cyber security relates to the networks connecting our society. We can't ever allow these networks to break down or malfunction, and this is a security issue. These networks need to connect 6.5 billion people, tens of millions of banks, and hundreds

of millions of SMEs and large companies. For a bank transaction to take place on a network that connects 6.5 billion people, the transaction must be able to accurately link the right individuals and transfer the correct amount. This is a cyber security responsibility. Huawei is responsible for providing connections to 3 billion people and providing connections for banks, businesses, and governments. Over the past 30 years, Huawei's networks, spread across 170 countries, have never broken down, proving that our networks are secure.

In terms of information security, we provide pipes and taps, which we refer to as networks and devices, respectively. The pipes don't determine what passes through them, which could be water or oil. Instead, carriers and content providers determine this.

In regard to whether Huawei installs backdoors, we don't have any backdoors at all. We are willing to sign no-backdoor and no-spy agreements with any country. Why haven't we signed any, you might ask? Because some countries have required that all network equipment suppliers sign such an agreement. This raises the bar in these countries and makes things more difficult. Why not just sign an agreement with us first? Huawei can set an example, and then these countries can use this example to negotiate with other suppliers.

**Tian: Which countries are you referring to?**

**Ren:** I've discussed this topic with many state leaders. Once we get an agreement signed, we can set an example, and everyone will see that Huawei is bold enough to enter into such agreements. We can guarantee that we won't install backdoors, and we can then take on further responsibilities.

Whether something is secure or not is relative. The thickness of the atmosphere in the physical world is about 1,000 kilometers, but the information cloud will be much thicker than that. In a cloud that thick, errors are inevitable. For example, if a lightning strikes the wrong place, what can we do? We should investigate accountability, correct the mistake, and impose punishments. Attacking a company from all sides without fair reasons is unacceptable. Countries following the rule of law must act based on laws. How can they make judgments without even holding trials?

As the cloud society continues to develop and the number of portals increases, we will become more prone to making mistakes. If a society cannot tolerate even a single error, it is too conservative. Such a society will lose its drive for progress and creation.

**Tian: Ms. Chen, I just asked Mr. Ren which countries he was talking about, but he didn't give a precise answer. I know he has been saying internally that he is a fan of the US. Does he still say that considering the current**

**situation? Things have changed a lot.**

**Ren:** The US is a developed country, but long ago, the US was an undiscovered continent. After the Puritans arrived, they started introducing British laws and regulations. The US gradually became more open and developed into the strongest nation in the world. We have a lot to learn from the US. A few setbacks won't make us suddenly hate the US. The US has a long history, and these recent events only make up a very small part of its history. If we started hating the US forever because of this, we would be pushing ourselves backwards. We must learn from the US. This is the only way that we can remain a leader in the industry.

08

**Tian: Mr. Negroponte, what Mr. Ren just said is very interesting. He seems to want to look at history over a long period, rather than focusing on one specific point of time. So what exactly can we learn from history? I mean, you've already also talked about history, whether this is regarding Japan or Sputnik. What can we really learn? They say it's the rule of the jungle anyway.**

**Nicholas Negroponte:** Well, we can learn by looking at various technologies that were invented in the United States and were then taken elsewhere. The US didn't have the industry, commercial skills, courage, or ability

to develop them because it was too long-term. I'll give you two examples. One example is flat panel displays. A piece of glass in my laboratory in the early 1970s is the beginning of flat panel displays. The United States couldn't bring it forward. It took too much investment, so it went to Japan and then later to other places. The same thing happened even before that with video tapes. There was a big commotion when video tapes were invented, but we didn't develop the technology. The same thing also happened with telecommunications. Government funding in my lab stopped 20 years ago and interest in the telecommunications development went elsewhere.

It's not the United States. Let's say it's Europe, it's Ericsson, and it's Nokia. It's not really the United States anymore. History has shown that the short-term, usually quarter to quarter, view of American industry precludes some of these big long-term developments. And Huawei looks beyond that and has been able to develop things in 5G and other areas. That couldn't happen with the way we're set up. It didn't lend itself to small entrepreneurship and it doesn't lend itself to big American corporations the way they're currently shaped.

09

**Tian: Mr. Gilder, many say, wow, we're already at the very beginning of a technological Cold War. We're**



**going to have to decouple between China and the United States and between China and some of the other countries, technology-wise. Are you as easygoing about the reality as Mr. Ren, or as historical as Mr. Negroponte?**

**George Gilder:** I think Mr. Ren is right to be confident. I mean, he's in a strong position. He has more than 87,000 patents. He has the 80,000 R&D employees. He's focused on the technologies of the future. It's the United States that really will suffer from any effort to decouple itself.

**Tian: Are you bashing America right now?**

**George Gilder:** I'm not. I'm an American and I believe we have wonderful entrepreneurial energy, wonderful creativity, and wonderful technology. But it's always thrived on collaboration with other countries. When we were an underdeveloped economy, Ford, Edison, Carnegie – all our great entrepreneurs that established the oil, automobile, and electrical industries – stole from Europe. Everybody said they stole from Europe, that they sent spies into European companies and brought back crucial insights that made Ford automobile possible. What we see here from historic terms is merely the incumbent established technology power of the United States being challenged by an ascendant challenger, China, and we are trying to beat them back. And that's

a terrible, suicidal mistake for the United States to make.

So, I'm being pro-American when I say America has got to deal with Huawei and with the existence of challenges around the world. We are not in the lead in semiconductors anymore. This idea that we have some impregnable lead in semiconductors that we can use to negotiate and force China into compliance with some requirements that we imagined, is wrong. We don't lead in semiconductors. Taiwan leads us in semiconductors, and Apple's new CPU had to be made in Taiwan. 7nm geometries were not feasible at Intel anymore.

I mean, it's just false that the United States is in an impregnable position that it doesn't have to collaborate with China and other countries around the world. This is an illusion from years gone by and we've got to get over it if we're going to accept the challenges of the future and accomplish the goals we have set.

**Ren:** First, generally speaking, the US still has more advanced science and technology than China. After all, China is still catching up. China has made much progress over the past 40 years since the reform and opening-up, but the US has been developing for one or two hundred years. So the US has a more solid foundation for innovation. Suppose the world is a river, the US is a bit like water at the upper reaches, which will naturally flow downstream. If the water upstream does not flow

down, the lower end of the river will dry up. However, the upper reaches will also dry up without lower reaches. This is similar to our value chain. Downstream market demand is critical for those in the upstream. Therefore, technological decoupling goes against the trends of historical development.

Second, the law of the jungle does not fit into human society. Humans need to collaborate for shared success and various forces need to be balanced. That's why we have adopted a market economy rather than a planned economy. Although the counterbalance between various factors in a market economy will cause some waste, it underpins orderly development of the market. In addition, human society is also governed by laws, regulations, religions, and moral codes. All those factors prevent the world from simply following the law of the jungle. Many countries have also issued anti-monopoly laws to prevent one lion from becoming too strong in order to maintain balanced development.

While Huawei happens to have some leading advantages in 5G, we will not be complacent. We still want to openly collaborate with the rest of the world. So I think technological decoupling between China and the US is in no one's interests. Both sides will suffer.

**Tian: So there is a big jungle which has many players like rabbits and lions. Ms. Chen, it seems like Huawei**

**has figured out a way to survive and thrive after this crisis.**

**Catherine Chen:** I don't like people describing the world using the law of the jungle, either. Everyone knows that tigers and lions are the strongest animals and no one can defeat them. But how have humans achieved what we have today? It is through unity and collaboration. I think that's the law that always holds up well, rather than the law of the jungle. Many people wonder whether Huawei is facing unprecedented pressure and difficulties. Honestly, I don't think this is the biggest problem or challenge we've ever faced during my 25 years with the company. I think the most difficult time was when Mr. Ren founded the company. We didn't have money, technology, or people. I believe Mr. Guo Ping understands this even better as he joined Huawei earlier than me. We had nothing back then, but we managed to develop into what we are today. So I don't think the current challenges and pressure are that a big deal. Once a problem, issue, or challenge appears, Huawei always meets it head-on and works hard to resolve it. That's what we've been doing for the past three decades, and we will continue to do so in the future.

10

**Tian: If it's not that challenging, as all of you illustrated, I feel happy as a journalist. But now, there's another**

thing. We cannot just concentrate our conversation on Huawei and the current specific challenges. But rather, we're going from here, every one of us. Mr. Ren has been very passionate about 5G. That's certainly going to help build the infrastructure in the world to empower communication and many other things. Mr. Gilder has been arguing over the years that artificial intelligence is not going to replace human beings, but human capacity and also the human brain are enormous. Meanwhile, Mr. Negroponte, you have been arguing in many of your speeches and books that biotech is the new digital, as you wrote in the book *Being Digital* back in 1995. You even argued that we can probably eventually eat a pill and learn Chinese, not only through the eyes but from within the body. So, what kind of future do you see?

**George Gilder:** You didn't really say that.

**Nicholas Negroponte:** Yes, I said it, but it doesn't mean it's true.

**Tian:** Let me ask one by one if we can and crossfire is also welcome here on the stage. About what we were talking about, where would you concentrate on a bigger trend? Let's start with someone many call a futurist. Mr. Gilder?

**George Gilder:** I believe the basic challenge of the world economy today is to address the scandal of money. We,

today, see US\$5.1 trillion every 24 hours in currency trading. But this currency trading accomplishes nothing. I believe that the real reason for the trade war is not trade or industrial machinations. It's the collapse of money. This currency trading doesn't even prevent constant hedging of every transaction across the border. It doesn't prevent trade conflicts. It doesn't really accomplish its goal. So I think the great contribution of blockchain is that it allows a new global currency that plays the role that gold played for hundreds of years of the fastest growth of the world economy. And that's really what blockchain provides: not only a new Internet architecture, but also a new global architecture for the world economy.

**Tian: You don't think that's virtual wealth only? Like the stock brokers?**

**George Gilder:** It's [money is] not wealth itself. It's the measuring stick of wealth that guides entrepreneurial visions and creativity. You need to have a measuring stick, just as you need to measure the second, the meter, the kilogram, the amp, the mole, the degree Kelvin, all the various measuring sticks that make it possible to make a chip in Taiwan, and incorporate it into a smartphone in Shenzhen, and send it to Cupertino for marketing and to Israel for amplification. All that is made possible by common measuring sticks. The nanometer is the same in Shenzhen as it is in Timbuktu.

But money, which is a critical measuring stick, is different all around the world. It's being manipulated by national central banks. So we have chaos of money. And that's why the world economy is slowing down now, why trade is no longer growing, and why countries are constantly fragmenting and fighting over valuations. I think this is a big opportunity. I think Huawei can play a key role in surmounting this challenge.

**Tian: Mr. Negroponte, of course you disagree with your friend?**

**Nicholas Negroponte:** No, I don't disagree. I don't know enough about that. It's fascinating to listen to. I believe the question was what some of the big future trends are. I think they all surround one aspect of the scientific and technological world that has changed in the past 30 years. And that is, we can make things and design things and build things that are so small and get smaller and smaller. But there's been a crossover point with nature. When I grew up, the natural world and the artificial world were very different. In fact, I was trained as an architect. Good architecture is architecture that fits well with the natural world. But now, the natural world and the artificial world are the same. And they're the same in the ways that are very surprising. When I founded the media lab, I never imagined that we would have a team like we have today that designs mice. They design

new mice! And are the mice real? Or are they artificial? They're manufactured, and they're walking, living mice.

And so there are certain things that you think about. For example, ten years from now, maybe Huawei will ship base stations as seeds that you plant and water. And they'll grow and guess what? They will grow into base stations that are powered by the sun and the leaves. And then all of a sudden you have base stations in the middle of nowhere! 10 years from now, that's perfectly plausible. So, I think the reason why I say biotech is the new digital is more because of synthetic biology and the fact that they're indistinguishable.

**Tian: The digital world is combining with the world of biotech.**

**Nicholas Negroponte:** They're very much the same.

11

**Tian: Growing from a seed is something we can discuss. Mr. Ren, what about your future? What do you think?**

**Ren:** Professor Negroponte was talking about what fundamental changes the convergence between DNA and electronics will bring to humanity. I am not in a position to comment because I haven't done any research on that. But I think in the next 20 to 30 years, the biggest driving force for human society will be AI.



AI is augmenting human capabilities, but not replacing them. Society is getting more and more complicated, trains are traveling faster and faster, and networks are also becoming more complicated. This is not something that can be handled with individual intelligence.

In the future, some tasks that are certain will be directly done by AI, and the problems will be solved on the edge. Tasks that deal with uncertainties will be first transmitted to the central networks, and then undergo fuzzy processing using AI. AI might get it wrong, or get it right. It's a process of deeper learning to promote human progress.

We should be tolerant towards innovation. If there is something wrong with networks, we can now maintain them remotely. Do we still need people to climb up towers to do maintenance? This will generate high costs. So we need to be tolerant of future-oriented innovation. This is the only way for us to build a great society. AI should not be seen as something negative. AI is an extension of human capability.

As Professor Negroponte just mentioned, the concept of AI has existed for decades, but it failed to become a reality. Today, we have what it takes to make AI a reality. AI will help create more wealth for humanity, rather than replace humans. How could AI appreciate music? How could AI understand jokes? These will be addressed

in the near future. Now AI is mainly used to improve productivity.

**Tian: So, the teacher and the student. Mr. Gilder, it seems they are disagreeing to a certain extent with what you just said.**

**George Gilder:** Well, I've been studying connectomes for a while, and for years, I specifically studied the connectome of the Internet. That is, how voluminous all connections are, all across the entire global Internet, and how they are connected to all its memories. And I was often focusing on the point where the connectome of the global Internet would pass a zettabyte. That is, when would all the memories and all the connections take a zettabyte,  $10$  to the  $21$ st power, to map.

Recently, I've been studying the connectomes of the human brain. The connectome of one human brain takes an entire zettabyte. In other words, one human brain has as much connectivity as the entire global Internet. Yet the entire global Internet consumes gigawatts, terawatts of energy, while one human brain runs on  $12$  to  $14$  watts of energy. So, I believe what will really determine human progress and prosperity is unleashing the individual human zettabytes running on  $12$  watts. That's  $6$  billion you're interconnecting through the Huawei fiber optics and wireless, not creating some super mice out of a pill. Life is not the same at

electronics. It manifests electronics but it's a different phenomenon which is not well understood and is not illuminated by facile statements that we're going to be able to read Shakespeare by taking a pill.

**Tian: Mr. Negroponte, I think it's a perfect time for you to speak out.**

**Nicholas Negroponte:** Look, whatever is true, in computation and connectivity, I can make more of it. I can make more and more out of it. And some of that can happen naturally. So, a lot of people have worked on really two kinds of, or really two distinct AIs. There's the AI, if you will, that helps to do as well as or even better than the human brain. That's the one called the classic AI, the one that the people of the 1960s and 1970s, very deep thinkers, were thinking about. It's not an AI composed of 7.5 billion people, I don't know what you're doing with other 1.5 billion when you're talking about connecting everybody, but when you have 7.5 billion brains connected, you have something times 7.5 billion. That's a different area and a fascinating one. And whatever happens computationally, I just know I can make more of it. I can't make more of the human brain and that's not going to change that much. So, things will change, George.

When I say you learn French by taking a pill or Chinese, that is part of a very different agenda of how

you interact with the human brain. And the breakthrough was the idea of going from the inside instead of the outside. Instead of trying to radiate, what if you went through the bloodstream and what if you access the neurons from that direction? That's pretty interesting. I don't know where French lives. Does it live in a part of your brain? Probably not. But the process to speak French certainly does. Can you put that there? Can you take it away? It doesn't matter whether that is correct or not right now. It's certainly a very exciting way of thinking about it and people will do things and change things as a consequence of taking that kind of step.

**12**

**Tian: To take pills or not is not the question. The question is what we're going to see in the future. Let's talk about the future a little bit more. For example, lifelong learning, Mr. Ren, that's extremely important for everyone no matter what future we're talking about. So for all of you, how does that happen? What is the best tool for this? What is your method for achieving lifelong learning? I'm sure you have had to learn very fast, particularly recently.**

**Ren:** No matter how fast you are, you cannot be as fast as machines. No matter how long you commit yourself to learning, your life is always limited. AI will be extremely capable of inheriting human civilization

in the future. Scientists' ideas and the way they think can be passed on to future generations. For example, Einstein's thinking can still be useful after hundreds or thousands of years. In addition, with super-computing and massive storage, computers can comprehensively extract a number of excellent ways of thinking through machine learning. Calculations can then continuously be performed and be improved through algorithm models. Since AI cannot die in a traditional sense, it can accumulate intelligence over thousands of years, continuously building its strength. That's why I think AI will create enormous opportunities for humanity. What will the opportunities look like? I don't know. But I'm sure it will create great wealth and benefit society.

Today, it's hard to imagine what future society will look like. But I think lifelong learning is an incentive for individuals. Learning at a societal level, however, is a never-ending iteration. During the iteration process, revisions and new models will constantly be made through machine learning and algorithms. Someday, simple methods will be used to understand sophisticated problems. That is to say, although many people are currently needed to deal with sophisticated problems, in the future such problems may be resolved with just a few people. So the issue of lifelong learning should not be discussed at an individual level, but should be explored at a social level. Lifelong learning should be

conducted across borders and disciplines.

People from our generation have this notion of geopolitics. That's because when we were young, we never traveled outside of our county, let alone our country. Only when we grew up did we leave our county. So we have this notion of being tied to one location. But because of the Internet, today, the younger generations are not tied to individual locations, and this way of thinking is dying out among them. They have looked at the world differently since they were very young.

I think future society will be even better. Some people are terrified by the possibility of AI replacing humanity, but this is just something imagined by sci-fi writers. After all, we have laws, religions, ethics, and other measures to counterbalance this. So this kind of phenomena will not happen or be very rare. We think wealth will only increase, rather than decrease.

Some say that Chinese people are getting richer and consuming more fish, which will cause a shortage of natural resources. But if you look at Google maps, you'll see that the coastal areas of China are full of net cages. That means most of the fish we consume is artificially bred. We aren't actually consuming that many natural resources, and this is a new wealth created by the release of productivity. Surely, I advocate a society of economy instead of luxury. As you know, Norway is a highly

developed country. But what impresses me the most is that Norwegians live in small houses and drive small cars. Employees at our field office in Norway cannot afford to buy their own cars. So, when I go to Norway, I take a train to visit our field office. This shows that a wealthy country can also be economical. There is an abundance of wealth, but people can still live in a frugal way. In that way, we can avoid consuming too many resources. On the contrary, we will be more capable of creating resources. So I don't think a war is possible.

**Tian: You not just mentioned lifelong learning and you also mentioned how society can continue to improve. Now I have a question for Ms. Chen.**

**Catherine Chen:** Well, I think all three of you are expressing a very long-term view, looking out over the next 30 years and beyond. I will only talk about what I envision for the next three to five years. Technology will lead us to a better life. What I most expect is that Huawei, Nokia, Ericsson, Vodafone, and China Mobile will work together, and deploy 5G as soon as possible. The other day, my son went to the US to watch some NBA matches. He supports the Warriors and I support the Canada Raptors. So, when a 5G network is deployed, we can watch the basketball together, even if he is in the US and I'm in China.

**Tian: It's an interesting world, isn't it? It's a bigger**

**world than many people imagined. Good job.**

**George Gilder:** It's no bigger than Ren's universe in a cup of coffee. I think we get a sense of his visionary horizons when he discourses AI. I don't think any other corporate leader in the world could give such a sophisticated and wide ranging analysis of this absolutely central theme of technological development. And that's why the United States has to come to terms with Huawei. It's a resource for the world. It's not a trivial problem of backdoors and security patches.

**Tian: You really sound like quite a fan of Huawei.**

**George Gilder:** Yes.

**Tian: Mr. Negroponte?**

**Nicholas Negroponte:** Well your description is certainly poetic among other things, which is very important. I would like to go back to your initial question about lifelong learning, and I would like to just remind people that learning is what you do for yourself and education is what people do for you. Let me just separate the two. And if you look at the best education in the world, it falls in two very distinct groups. There is the group, which is characterized by Finland, Sweden, and Norway, where students do very well, but there are no tests, shorter hours per day, shorter days per year, and no competition at all. So, the kids do very well. And then, there is the



other method. As you connect kids and bring this connectivity to very remote places, thanks to Huawei, it's amazing what kids can do.

I'll bore you with one experiment we did. We went to two villages in Ethiopia that had no electricity. No adult had ever seen a word, a written word. Then we put in the village a number of tablets equal to the number of kids, with no human beings and no instructions. Then we left. But one exception is an adult went the day before and showed another adult how to put the solar panels outdoors instead of indoors. That was it. We could monitor this remotely. Within two hours, the kids found the on-off switch, which is pretty hard because they had never seen on-off switches in their lives. Within a week, they were singing ABC songs. Within two weeks, they were using 50 apps per day for seven hours per day. That's how long the battery lasted. Six months later, they hacked Android. And today they speak, read, and write fluent English. No pill and no teacher. And it's very important that you can do a great deal of something. I want to advocate that's the way to do with anybody. But it's amazing what kids can do, and we underestimate them all the time.

**13**

**Tian: Finally, you agree with Professor Negroponte on something, Mr. Gilder. OK. But there's one thing I**

**also want to ask you about. You've talked about the potential beauty of a world in which everyone can work together and overcome this current bump, but a lot of people that I have been talking to have real concerns about whether their children's generation is going to enjoy the kind of life you guys have been enjoying over the decades, which is that you see your life going up, getting better; life is getting better all the time. But maybe the next generation, some are concerned, is not going to be as beautiful as that. Mr. Negroponte, you've been working with kids a lot. \$100 laptops for them to go into the digital world. What do you think? It's actually a question of optimism or a little bit of pessimism.**

**Nicholas Negroponte:** Right. In full disclosure, I was born very lucky. My parents were rich, and their parents were rich. Everybody went to college; they went all over the world. I had been to 10 countries by the time I was six years old. I didn't think of that as a privilege. None of my brothers went into business. They all went into the civil service or academia, and a couple of them are artists. Our measure was not the same measure you're talking about. Very often, we take these measures simply as the measure of economic growth. But after that economic growth, you have a purpose, and you die unhappy if you didn't have a good purpose. You look back on your life and say, "What was that all about?"

But some people don't have that question, because they have a purpose and they're bound to have it. But if you're struggling the whole time, it's harder. So, I think that when I hear that young people won't have the same opportunities, I say to myself, well, you know, I don't think that's necessarily true because they do have something we didn't have. It didn't matter if you were rich or poor; there was a belief that you had to work for a certain period of time; and probably hate your work, as a lawyer, as a banker, at a hedge fund. I mean, hedge funds – what an empty life that is! Then at the end, you start doing something with the rest of your life, and something happens. I think young people have learned about how to be more integrated. I see many, many young people who have mixed money and meaning. I think that's the key.

**Tian: Mr. Ren, do you think that our future generations will feel that they are always growing and their lives are becoming better, just like what you have experienced in your life?**

**Ren:** What is happiness? We must be clear about this. I think future generations will always be better than the previous ones. We shouldn't be always pessimistic about the kids of today. Maybe they haven't lived through the difficulties we lived through, but they are quick learners and they are quick to absorb new knowledge. Just as

professor Negroponete said, if poor kids can also receive proper education, then mankind will be more able to generate more wealth and lift itself out of poverty, and the world will be a better place to live. So, I feel very positive about the future, and I believe the future generations will definitely be better than the previous ones. The current generations are definitely better than the generations 5,000 years ago, right? All of today's concerns will be resolved in 2,000 years.

**George Gilder:** It's a foolish indulgence of rich people to believe the future will be worse than the past. If you look at the history of China over the last 50 years, of course, every generation has had vastly more opportunities than the previous generation. All around the world, equality has increased because of poor people becoming rich everywhere. It's just in America with our climate cranks and weather bores, teeming with catastrophe theories, that we imagine the future will be worse. But if you live in the world and have some sense of history, you see opportunities opening as wide as Huawei's visions.

**Tian: Now, let me open the floor. It seems I've been taking advantage of this conversation on the stage so much. But I know there are a lot of people who are smarter than me sitting in the audience and they have more fascinating questions than the ones I just asked. But no pressure, by the way. Let me turn to**

our audience, which I understand is made up of the media, people coming from think tanks, friends of Huawei and business partners of Huawei, and those interested in the latest developments of technology. If any of you have questions, raise your hand, and the staff will bring you the microphone. I will give equal opportunities, okay?

**14** I have two questions, one is for Mr. Ren and one is for Professor Negroponte.

My first question is for Mr. Ren: I've been making videos that talk about Huawei a little bit and try to get the discussion to be more fair, especially with the American public. Will Huawei focus more on the relationship with the American people, or more on the relationship with the American government, or both or neither? And which is the most important?

The next question is for Mr. Negroponte: We know that America has an open capitalist system and we know China has a capitalist system governed by the government. But now, we are starting to see that America may be turning away technologies that are the best. So, what happens in a situation when the entity starts to shun or turn down the best technologies?

**Ren:** Well, we focus on communication with both the

American people and the American government. No matter whether it is an individual or an organization that makes a wrong decision, it is only for a short period of time in the grand scheme of things. Generally speaking, most of the decisions the US made have been correct. During World War II, the US sacrificed a lot, and in the recent decades, they have contributed significantly to social development and globalization. And the American people work hard, they study hard, and they have contributed a lot of advanced theories and accumulated impressive wealth. This has all been of great help to us. For the time being, I cannot go to the US, but that doesn't mean our future generations also cannot go to the US. Maybe China and the US will share 8G? Till then, it may not be 5G or 6G. It may be 8G, 9G, or 100G. I think eventually we will be able to serve the American people.

**Nicholas Negroponte:** This G stuff is a little overrated. I think the answer to your question is perhaps best because whatever is closing off now, we just have to stop that. 27% of MIT students come from Asia, and I don't know the exact number, but I'm willing to guess over 80% of them come from China. If you count the Chinese Americans who are born in the United States, both parents are Chinese, this number goes up to perhaps 25% or 30%.

So, we have enormous numbers. If you look at the media lab, 60% are foreign students. When I mention that, people often say, "Wait a minute, you're training our competition." No, we're elevating the whole world. It's so old fashioned to think if you have something, I don't. You're going to take my thing, and so you have it and I don't. Unfortunately, President Trump thinks that way. He doesn't think in a way that accepts that we can both have it and this can elevate us both. And training foreign students is so incredibly important.

I made a mistake 20 years ago. I thought the Internet would make people more integrated. I thought we would get rid of the importance of countries and would get rid of nationalism. And I look around now and it's gotten worse, not better. So I was wrong.

The only thing I can suggest now is intermarriage. Persuade your kids to marry somebody who is not Chinese and that will help going forward.

**Tian: That's a social issue. We're going to discuss that a little bit later.**

**15 I have a question for Mr. Ren. You mentioned a decrease of 30 billion US dollars in comparison to Huawei's plan. What's your specific plan for the future? We have seen that Huawei's submarine cable**

**business went up for sale. Will Huawei put more businesses up for sale in the future? In the next one or two years, what measures will you take to alleviate the pressure you're under?**

**Ren:** There will not be more spin-offs or businesses for sale. The submarine cable business was actually quite successful. We didn't sell it because we were affected by the recent situation. In fact, we have been planning to sell it for a long time, because it is somewhat irrelevant to our strategic business. There will be no need for other spin-offs.

However, we might shrink our business and then relocate the employees who might be made redundant to our strategic business. This will help our strategic business to grow even better and faster. Huawei will not have massive layoffs, but we have been restructuring our business.

I'll give you an example. More than two years ago, we restructured our carrier software business, which had up to 20,000 employees. We spent nearly 10 billion US dollars in this business without producing anything compelling. Therefore, we decided to shut the business down. I went to HR and quietly asked them to increase these employees' salaries before relocating them. However, it turned out that they happily went to the frontline even before they got the raise. How have our



consumer and cloud businesses grown so fast? I think a lot of credit should go to these people. They brought with them experience and achieved extraordinary things.

It's now been two years since the restructuring, and I recently checked up on the progress of these employees. It wasn't until then that I was told they had moved to strategic business departments before they received their raises. They chose to do something big in their new positions. I think their spirit deserves commendation. The department proposed that they roll out a red carpet for 10,000 employees. They told me the red carpet couldn't accommodate 10,000 people and adjusted the number to 3,000 instead, and I agreed. They made themselves medals and I delivered a speech. These medals were not fancy, but Eric Xu said they were valued a lot by the employees because my speech had given these medals meaning.

We cut such a large department two years ago, but that hasn't caused any fuss from inside or outside the company. Actually, we started restructuring long ago for many businesses.

**16 I am a professor at the Harbin Institute of Technology and I used to work at MIT. I have great concerns regarding the research efforts that Huawei proposes for the future, especially now in terms of the disputed moment that Professor Negroponte mentioned. How**

**is Huawei going to address the issue of basic research, which you also mentioned is an important ingredient for the future creation of knowledge? Also, how will you deal with the issues with creativity that exist in China in order to support this basic research effort?**

**Ren:** I think we'll always be willing to work with scientists and universities. We follow the US *Bayh-Dole Act* when working with universities, meaning that when we fund the research of professors or universities, we don't go after their achievements. Academic achievements belong to universities and their professors. We don't usually add our names to their papers. It's okay if certain universities don't work with us right now. There are still many other universities out there. 5G is very much overhyped around the world at the moment. Some people even think that 5G is like an atomic bomb. In fact, the key 5G technology was inspired by a mathematics paper published by a Turkish professor in 2007.

There are numerous universities around the world, so it is not a big issue if some choose not to work with us. I believe there will always be talented people that we can work with. We will not give up on what we're committed to because of short-term setbacks.

**17**

**I would like to talk about China and innovation. How dependent has China's research system been on global**

**innovation networks over the last decade? Will China still be able to produce cutting-edge innovation, if transfer-border collaboration is substantially reduced?**

**Ren:** Mass innovation seems to be booming in China, but I think most of the innovation activities focus on application, and are based on the outcomes of innovation on the global platform. Without the global platform, I believe China's innovation would experience a huge setback. China must invest more in research into basic theories and work harder to solve issues with basic education, and that will take time.

**George Gilder:** I just think that China is doing all sorts of innovation and basic research. You know, in collaboration with the professor in Austria Anton Zeilinger, professor Jian-wei Pan, a leading Chinese innovator in cryptographic research, implemented the first use of quantum entanglement in transmitting certain messages absolutely securely across planetary distances over satellite technology. I mean, there's just all these areas where Chinese are performing both basic research and applied research in many different ways.

So, I think all these beliefs about failure of innovation in China are out of date. There are people talking about what it was like 20 years ago, and I just don't think that's the situation today in China.

**Tian:** Today we heard the great news coming from

**Professor Tu Youyou's team. There are new developments in her area because she's a Nobel Prize winner.**

**18**

**I have a question for Mr. Ren regarding IPR. We know many US media outlets are saying that Huawei stole a lot of trade secrets and intellectual properties from Western companies in its early years. What's your response to this? Right now, Huawei currently owns more than 80,000 patents. Are you going to use that as a weapon?**

**Ren:** Huawei has been operating in accordance with all relevant ethical standards from its very beginning, even when we were still a small company. It would have been impossible for Huawei to become what it is today if we had not had strong business ethics. Even though several IPR lawsuits are currently going on between Huawei and US companies, we have faith in the fairness of the US legal system. Accusations regarding Huawei's theft of intellectual property are groundless.

We own a very large patent pool, but we will never use it as a weapon against anyone. However, intellectual property is created through hard work, so it is perfectly reasonable for Huawei and all other industry players to sign cross-licensing agreements and pay patent holders for the use of patents. Nevertheless, we would never use our patents as a weapon to hinder the development of society.

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**Tian:** I'd like to collect all these questions and then let our panelists answer them together.

**Q:** I have a question for Mr. Ren. There's a report today that Huawei is expecting a 40 to 60% drop in the international cell phone sales. I just want to confirm whether that's true. And can you also clarify the status of the US suppliers? Are most US suppliers not supplying you at this point? Or are they continuing to because of the 90-day reprieve? What's the status?

**Q:** Hello, I have a question for Mr. Ren. We know that Huawei is not just a Chinese company, but also a global company. You have established business and offices in over 170 countries around the world and the professor from MIT mentioned that many students that you recruit come from Asian countries. What's your plan to attract global talent?

**Q:** Previously you mentioned that open collaboration is very important. However, facing the global situation where industry cooperation is interrupted, is it possible for technology companies like Huawei to work with other international giants, as well as science and technology forums and alliances, to explore another development path to drive scientific advances?

**Ren:** For the first question, did Huawei's smartphone sales in the international market drop by 40%? Yes, it dropped by up to 40%, but it is quickly recovering.

That rate has now dropped to 20%, so the situation is improving.

For the second question, Huawei advocates open collaboration, and that will never change. But the government-led cooperation you asked about is pretty much dependent on governmental dialogues.

Do we have another development path? Well that has never crossed my mind. We believe in only one path, and we will move forward along this path one step at a time. We won't give up even if we suffer setbacks, and will continue to forge ahead until we reach the top.

Another question is about how we can attract global talent. We have more than 40,000 local talent from over 170 countries. I don't know the specific numbers in specific countries, but we do have a rich pool of global talent.

**George Gilder:** I think there's been a lot of talk about the Internet of Things, but what's really critical now is to create an Internet of Facts, an Internet of Trust, and an Internet of Transactions. And *My Life After Google* is about how trust can be re-created by using new technical solutions such as blockchain, cryptography, and other advances. Luckily, a whole new generation of technologists are now pioneering these fields. So, many of these political problems tend to dissolve when new technical solutions are presented. And I think Huawei

can contribute vitally to the Internet of Trust, which, at the same time, will make it possible for Huawei to sell its products in the United States again.

20

**Tian: You've been talking about open science and global connectivity. Everybody, use one sentence only to describe the biggest takeaway from the coffee with Ren today.**

**Catherine Chen:** We mentioned that Huawei has no backdoors and our products are open, transparent, and trustworthy. But, but, but, this but is more important: But we'll always have our front doors open. We welcome all, including the media, to come and visit us.

**George Gilder:** I think Huawei is at the epicenter of future technology prospects for the world. How the United States and other countries react to this campaign against Huawei is a kind of Huawei test for people around the world. If they don't pass it, it will signify that the world is taking a very destructive turn. That's demonizing particular companies in the name of vague ideological objections. So, it's the Huawei test and I hope the world meets it.

**Nicholas Negroponte:** I guess I would end by saying, in going through that test, I would not focus on security and backdoors and whether you're going to interact with

the Chinese government, etc. Leave that out. I think you should focus on the 100,000 papers you published, the amount of research, and just make it known. Because I was at a dinner party and I said "Huawei is a great company" and people say "It is? It does?" The world has to know how much you're doing in science and technology.

**Ren:** The world relies on open collaboration for shared success.

**Tian: That's simple but not simple. Thank you so much. And with that, we're wrapping up our first coffee with Ren. We hope there will be many more coffees to come in the future, during which we can talk and interact and certainly be intellectually stimulating one another.**

**Thank you and goodbye.**





## **Ren Zhengfei's Interview with Le Point**

June 18, 2019 Shenzhen, China

01

**Etienne Gernelle: Let's start from your childhood, especially your experience in Guizhou. Today, Huawei is a beautiful, modern company. But I want to learn more about your past.**

**Ren:** I grew up in Zhenning County, Guizhou Province, where I lived throughout my elementary school and until the second year of my middle school. This small town's population is mainly made up of minorities. Today, it has become a tourist destination and the customs of the local people are one of the reasons the town attracts so many tourists. But, back in the old days, we had experienced very impoverished conditions there.

**Etienne Gernelle: So you suffered when you were a child?**

**Ren:** Of course, we lived in poverty. But we were very happy then, because we didn't know that French bread was delicious. I never left this small town until I grew up. The area in which my entire life took place wasn't more than 15 kilometers in diameter. We had no comparisons with the outside world, and we didn't have any idea of what happiness should be, so we were quite happy then.

After the second year of my middle school, my father was transferred to Duyun, a central city in another area that mainly had a minority population. I lived there from the third year of middle school to the third year of high school. In my eyes, Duyun was a very modern city,

as it had a two-story building back then. Some older girls from my neighborhood took us to a local small department store, which was when we first saw a two-story building. We felt that it was amazing. Those girls knew more than us and taunted us for our lack of vision. How could we take Duyun as a big city? It was just a little bigger than a small town. After my graduation, I went to college and left Guizhou. I've never lived or worked there since.

**Guillaume Grallet: Were there times when you didn't have enough to eat?**

**Ren:** You should ask: Were there times when I had enough to eat? At that time, it was very normal for people not to have enough to eat. We were often starving, and it was rare for us to have a full stomach.

**02 Etienne Gernelle: Did you have any idea that you would be in the middle of a geopolitical war after so many years?**

**Ren:** Definitely not. Over all these years, we climbed upstairs step by step, without knowing what the second floor was going to look like. For this reason, I hope the Chinese education can start reforming, so that children in rural areas can envision what the second floor looks like and then climb toward this floor, step by step. We

didn't have well-known mentors to guide us. We didn't have valuable resources to help us. We just kept climbing upstairs until we reached the second floor and were able to see the grand view ourselves. Nowadays, the Internet has helped greatly broaden the horizons of children in rural areas. Looking back on my younger days, children had limited horizons.

**03** **Guillaume Grallet: Many are interested in your military experience. What was your job in the military?**

**Ren:** I served as an engineer in the military. The first project I joined was in Liaoyang, Northeast China, working to build a synthetic fiber factory that introduced technology from two French companies – Technip and Speichim. It was a quite large and modernized synthetic fiber factory in China then, with a high level of automation. See, this is my photo with a French engineer.

**04** **Guillaume Grallet: Your daughter is still in Canada. How is this case impacting you personally and how is it impacting Huawei?**

**Ren:** Meng Wanzhou has not committed any crime. Canada's detainment of her is inappropriate. But we believe that Canada is a country ruled by law. If

we present evidence and clarify the case, she will be released. We will wait patiently and go through the legal proceedings.

**05 Etienne Gernelle: The whole issue was caused by the fears of certain European countries and the US over the expansion of China. Do you think China is seeking expansion?**

**Ren:** I don't think China has ever sought expansion. China had remained closed-off for several thousand years. It is now reforming and opening up with the main goal of bringing in what's best from other countries. China is going global mainly in terms of commerce and trade, rather than in terms of political influence, and isn't seeking to spread its ideology around the world.

**Etienne Gernelle: The ships of the Chinese explorer Zheng He were three times larger than those used by Christopher Columbus. Due to domestic political intervention, Zheng had to turn back halfway during his voyage. As China opens its door and goes out today, will it turn back halfway just like Zheng He?**

**Ren:** The story of Zheng He is quite interesting, but the purposes of Zheng He and Christopher Columbus were not the same. At that time, China assumed itself to be the world's most powerful nation. Zheng visited many

countries along the way, bringing them many gifts. Commerce wasn't his goal. Unlike Zheng, Columbus traveled across the Atlantic Ocean in search of treasure like gold and spices. Zheng didn't have a clear goal as a driving force, so he stopped halfway. Nowadays, China has clear goals for its reform and opening-up, which are to achieve economic prosperity and integrate more into the rest of the world. So China's reform and opening-up will not stop halfway.

Columbus' goal was clear: to search for treasure. This was his ongoing driving force, and he ultimately did find treasure. About 3.5 million ships sank during their trips between Europe and Asia. That was kind of economic globalization, which started several hundred years ago. Europeans hoping to find treasure and expand commerce have spread their languages – English, French, Portuguese, and Spanish – to almost all corners of the earth. These people have also spread their culture, philosophies, and industrialization throughout the world. Also, many missionaries have traveled all over the world to preach their religions, so there are Christians and Catholics everywhere. They have done this in hopes that the locals would identify with their ideology.

I'm deeply moved by the dedicated spirit of those European businesspersons. I also have great respect for European missionaries because they built churches

in Africa's primitive forests and the Sahara Desert. Numerous missionaries crossed the oceans on small, shabby ships. When the ships finally arrived on the African coast, only several out of 100 missionaries survived. The death toll was even higher during their journey through forests. When they finally arrived at a local village, they stayed there, built a small church, and began preaching. They would never go back to their home countries because the journey back through the forest and across the ocean could mean death. If it weren't for the efforts of the missionaries spreading their culture in Africa over the past centuries, languages like English, French, and Portuguese wouldn't have been widely used to benefit this continent. Even now, developing a market in Africa is quite challenging. Yet when European businesspersons explored global markets and European missionaries carried out their missions back then, they faced even more difficulties than their successors do today.

I once visited a very remote village in China. It's called Pu'er Village, and it belongs to the Lahu ethnic minority group. About 100 to 200 years ago, missionaries brought a guitar to this village. This reshaped the local culture and turned the locals into music fans. I shot this video of the village last April. The missionaries have advanced the local culture and lifted this underdeveloped village to a new level. I can send this video to you if you want.

**Etienne Gernelle: This is great. Missionaries brought a guitar to this place, while Chinese people are bringing 5G to the world.**

**Ren:** It is what will happen next. Then, musicians all over the world can play the same song at the same time through ultra-low latency 5G networks.

**06 Guillaume Grallet: Huawei is an amazing company, which has grown so rapidly in such a short time. It has a decentralized authority system but is still based on collective decision-making. If I may ask, what gets you out of bed in the morning?**

**Ren:** I want breakfast so I can't sleep any more. We adopt a system of delegating authority level by level but with centralized oversight. It gives people who can hear the "gunfire" the authority to call for resources. We also account for the costs of these resources.

**07 Etienne Gernelle: The West is now scared of China. You said China has never sought expansion, and this has been proved true in history. Do you understand the anxiety when the West is discussing China?**

**Ren:** The US is exaggerating the geopolitical influence of China. Such exaggeration, coupled with the fact that many Westerners have never come to China, has



resulted in misunderstandings. China isn't capable of deploying warships anywhere around the world like the US does. Personally, I think China is building a defense system. China is scared of the US, not Europe.

**Etienne Gernelle: Why do you think China is scared of the US?**

**Ren:** The US wants to rule the world, whereas European countries maintain political diversity and aren't aggressive. European countries are keen on making more money while Chinese people want to buy more luxury goods from Europe. We Chinese welcome European companies to make money in our country; otherwise we have to fly to Paris to go shopping. China has been lowering tariffs on luxury goods, which is a sign of welcome for European goods. China and Europe complement each other economically. China needs Europe and vice versa.

Thanks to China's "Belt and Road" initiative, European products can come to China, and China can export products to Europe. If we run out of fuel halfway, we can refuel in the Middle East or Central Asia, which are our energy hubs. As a result, an economic block will form to connect Europe, the Middle East, Central Asia, and the Far East. If China builds a free trade zone with Japan and South Korea, then the economic block will be much larger than the US in terms of GDP. When this happens, the

US will find it hard to rule the world, and that's why they don't want to see countries in this block working together.

08

**Guillaume Grallet: You mentioned at the meeting yesterday that Huawei is ready to sign "no-backdoor, no-spy" agreements with other countries. Is Huawei ready to sign such an agreement with France?**

**Ren:** Sure, anytime.

**Guillaume Grallet: Have you ever met President Trump before?**

**Ren:** Why should I meet him? I would like to meet President Macron.

**Etienne Gernelle: The Chinese government has issued the National Intelligence Law, which requires companies to cooperate in national intelligence work. Considering this law, how can you sign such an agreement with France?**

**Ren:** We can try [if you don't believe it's possible]. We can sign such an agreement with French companies, and we can also ask the Chinese government to sign such an agreement with the French government.

09

**Guillaume Grallet: Can you describe your own or Huawei's relations with the Chinese government?**

**Some think that Huawei has developed so rapidly because of support from the Chinese government.**

**Ren:** We are subject to Chinese laws in China and pay taxes to the Chinese government in compliance with the law. As a company, we make independent business decisions. We haven't received even a penny of capital from the Chinese government. Our annual reports were audited by KPMG. Here is our 2018 Annual Report.

10

**Etienne Gernelle: Apart from capital, if the central government requested you to submit the information you have obtained from your routers or network equipment, how could you decline such a request?**

**Ren:** First, we are always responsible for our customers. Second, the Chinese government has never asked us to do that.

We only sell customers bare equipment, like water pipes and taps. Device products are like taps and connectivity equipment is like water pipes. The stuff flowing through them, whether water or oil, is decided by information systems. The systems are controlled by carriers themselves, not us. So we have no access to data, and we promise we have never installed backdoors. I hope you can interview US companies and ask them to sign the same "no-spy" agreements with the French

government as Huawei.

**Etienne Gernelle: You don't think Google or Facebook can make that promise?**

**Ren:** I don't know.

**Etienne Gernelle: How about Cisco?**

**Ren:** I have no idea either.

**11** **Guillaume Grallet: Have you ever wanted to access customer or user information for business purposes?**

**Ren:** Why would I do that?

**Guillaume Grallet: Because information is as important as oil in the 21st century.**

**Ren:** Oil is of no use to us. What we need is petroleum, and we can buy that from gas stations. Similarly, customer information is of no use to us. What we find valuable is the information that is made public on the Internet and across society.

**12** **Guillaume Grallet: What is the key to Huawei's success and what is the biggest difficulty you have faced?**

**Ren:** The key to Huawei's success is our dedication to creating value for customers. That's why our customers trust us. Even in such bad circumstances as we are seeing

today, our customers are still buying 5G equipment from us. This is an example of customer trust in Huawei. The US is the most powerful country in the world. Yet, despite its harsh attacks on Huawei, customers are still buying products from us. This is the result of our years of commitment to customers and creating value for them.

What I worry about most is that we are too successful and our employees may become too complacent to take hardship positions or go to hardship regions. Now, President Trump has energized us and helped remove this complacency from our employees.

**13****Guillaume Grallet: Can you tell us about your Hongmeng OS?**

**Ren:** We have thousands of printed circuit boards (PCBs) and each one must be supported by an operating system (OS). Huawei's Hongmeng OS ensures a fixed latency. The end-to-end latency is 5 milliseconds or less, with the possibility of being reduced to sub-milliseconds. With such a low latency, the Hongmeng OS is useful for IoT-enabled automated production. Take autonomous driving cars as an example. The gears within a car rotate with a latency of a few milliseconds. If the latency is not fixed, the gears can miss each other and will be unable to work together properly. The purpose of our OS is to enable a world where everything is connected and

intelligent.

**Etienne Gernelle: Does this mean that the Hongmeng OS will be faster than Android or iOS once it is released?**

**Ren:** We haven't done a comparison yet. It's likely.

**Etienne Gernelle: Is this a business argument?**

**Ren:** It's a technical argument rather than a business one. Compared with Apple's iOS and Google's Android, our weakness is that we have no ecosystem around our OS. It's just a technical system that operates telecommunications networks.

**Etienne Gernelle: There are two parts to the US-Huawei issue. The first is about business. The US government wants to stop Huawei from exporting its technology and equipment to their country. The second part is about suppliers. It's about European and American suppliers selling semiconductors to Huawei. If both parts of this issue went wrong, which one would have a greater impact?**

**Ren:** First, the Hongmeng OS is not designed for phones as everyone thinks. We didn't develop the OS to replace Google's OS. If Google does not open its high-end OS to Huawei, will we start building an ecosystem around Hongmeng? We don't have a clear plan yet.

**Etienne Gernelle: Do you mean Plan B?**

**Ren:** No. The operating system is essential for networks to run properly. It was originally designed for telecommunications networks.

Second, if the US or some other countries choose not to buy our products, we won't feel much of an impact. Over the past 30 years, many customers have chosen not to buy our products. After the huge amount of publicity Mr. Trump has given us, there are actually more customers buying our products. That's because this publicity has had a huge influence. Our own publicity might not work so well, because some customers might not believe what we say. However, when Trump says we are good, our customers believe this must be true.

If some countries choose not to sell components to us, both sides stand to lose. Our sales might shrink, but so will theirs. Since Huawei is not a public company, we won't be greatly affected if our business results suffer a little. But if their companies release disappointing financial statements in July, their stock prices will fall. So both sides will be affected.

**14**

**Etienne Gernelle: Will Huawei consider forging alliances with some European semiconductor companies, because you mentioned the "Belt and Road" initiative? Is it a feasible plan?**

**Ren:** Definitely. As you can see, we are purchasing more components from STMicroelectronics.

**Etienne Gernelle: If the friction with the US continues, will you forge alliances with some European companies?**

**Ren:** Yes. We will buy more products from European companies.

**15 Guillaume Gallet: My uncle wants to buy a Huawei phone. What suggestion do you think I should give him? Should I tell him to buy one right now or wait and see how the US sanctions play out?**

**Ren:** There's no need to wait. In terms of photography, Huawei's phones are the best in the world and we have many other exclusive functions to offer.

**16 Guillaume Gallet: As you mentioned Huawei wants to build an ecosystem. How long will it take to build such an ecosystem?**

**Ren:** It will take many years.

**Guillaume Gallet: China has many powerful software companies, and Huawei can also forge alliances with them. To be frank, do you worry that Huawei's position will be weakened?**



**Ren:** I think our company may fall a little bit from the top in the short term. But when our center of gravity becomes lower, we will be able to stand more firmly. When we climb the mountain again, we might reach an even higher point with more strengths than before.

**17** **Guillaume Grallet: If Orange and Bouygues sign 5G contracts with Huawei, will you have any problem with equipment supply?**

**Ren:** Of course there won't be any problems with supply. Besides, our 5G equipment is the best in the world. No other companies will be able to catch up within two to three years. Supply won't be a problem. Our production lines are working flat out these days.

**18** **Etienne Gernelle: Some people might think that European carriers are not rushing to roll out 5G. It seems that the only profitable 5G application is autonomous driving cars. Other applications seem to be less profitable. Is this true?**

**Ren:** I don't think so. Why did Europe develop earlier than China? It is because Europe developed its rail and maritime transportation systems centuries ago, while China was still mainly relying on horse-drawn carriages for transportation. This was slower than trains and

could carry far less than ships. So European countries were among the first to develop their industry. When information transmission speeds increase, we will see incredible economic growth. 5G is at least 10 times faster than 4G, and faster speeds will drive rapid economic and cultural development.

**Etienne Gernelle: This seems like more of an argument that concerns governments. Carriers invest their own money, but they will not be able to see returns right away.**

**Ren:** That's not true. If carriers charge the same rates as they do with 4G when they switch to 5G, their profitability will increase significantly.

**Etienne Gernelle: Why is that?**

**Ren:** The cost per bit of 5G is one-tenth that of 4G, as is energy consumption per bit. While consuming the same amount of energy, 5G is 10,000 times faster than 2G. Advanced products should not be costly and should provide greater value. When 5G becomes widely used, you will probably find that the US is falling behind in this area.

19

**Guillaume Gallet: During my visit to Huawei's campus at Dongguan's Songshan Lake, I found you really appreciate European architecture. Do you**

**think Europe should speak as one voice in regards to telecommunications?**

**Ren:** Let me start by saying that the buildings on our Songshan Lake campus were designed by a renowned Japanese architect. He got his bachelor's, master's, and PhD in the US, yet his English is not that good. But he's a genius. He's great at drawing and designed our entire campus at Songshan Lake. That's how the campus came to look the way it does today; it's not something we planned ourselves.

**20 Etienne Gernelle: Former US Secretary of State Henry Kissinger asked a famous question, "Who do I call if I want to speak to Europe?" Who do you think can speak on behalf of Europe: Emmanuel Macron, Angela Merkel, or someone else?**

**Ren:** I don't think there's anyone who should speak on behalf of Europe. Every country has its own interests and thinks from its own perspective. The EU just needs to strike a balance between all of its member states.

It makes perfect sense to locate the headquarters of the EU in Belgium. If the EU had been headquartered in Paris, then France would have come to represent Europe. If it had been headquartered in Berlin, then Germany would.

All European countries are seeking their own economic development rather than trying to dominate the world. Therefore, I believe Europe is a very valuable partner.

**21 Guillaume Grallet: You just said Europe has very advanced rail and maritime transportation systems, but many people say Europe has lagged behind in these areas.**

**Ren:** What I was saying was why Europe was able to gain global prominence more than 300 years ago. I wasn't saying that Europe has an advanced rail system today. Back then, Europe gained global prominence because of its advanced rail and maritime transportation systems, while China was backward because we still used horse-drawn carriages for transportation.

**Guillaume Grallet: An AI researcher said Europe has been erased from the technological landscape. What's your view on this?**

**Ren:** I don't agree with this. Europe was the birthplace of the Industrial Revolution and has the "pearls" necessary to make a difference. It just needs a string to put those pearls together and make them into necklaces. Africa doesn't yet have these same pearls needed to make such necklaces; their pearls are in mineral resources.

What I mean is that Europe has a very strong foundation in technology. Mathematics is the foundation of artificial intelligence, and the world's top two countries for mathematics are France and Russia.

**Guillaume Grallet: France has a wealth of researchers, but no French companies have become giants over the past 40 years, like Huawei, Google, and Alibaba have. What's your view on this?**

**Ren:** The pearls are still there, but they can't become necklaces by themselves. This is where entrepreneurs and the government come in to play. We use software from Dassault Systèmes in our production systems. Europe is still great. You can visit our production lines. After returning to France, you can interview Dassault Systèmes and ask them about their successful collaboration with Huawei.

But I do believe there is one thing that needs improvement in the business environment in France: Workers are being given too much protection. As a result, many entrepreneurs don't dare to hire anyone. That's why it's difficult to build large companies that can go global.

**22**

**Etienne Gernelle: Is the conflict between Huawei and President Trump about technology or about business?**

**Ren:** I don't know what's on President Trump's mind. I assume the conflict is mostly political. The US doesn't possess many communications technologies like 5G and optical switching. So there is no competition between Huawei and the US in terms of technology. In addition, no US companies sell telecom equipment similar to that provided by Huawei, which means there is no competition in products. We really have no idea why the US government is targeting Huawei. Nevertheless, what the US has done could help Ericsson and Nokia, so that means they are essentially helping Europe.

We are happy about that. Huawei's ideal is to serve humanity, but we don't necessarily have to do it ourselves. This ideal can also be realized if humanity is served by Ericsson and Nokia.

**23**

**Guillaume Grallet: None of Huawei's major competitors, like Ericsson, Nokia, and Samsung, are US companies. What mistakes have Lucent and Nortel made over the past 15 years?**

**Ren:** I don't know what mistakes they made, but I do know we have made a lot of mistakes ourselves. I am actually criticized every day. Our Blue Team has even published an article online listing the 10 mistakes that I have made. We are constantly working to correct our mistakes.

We are glad that Ericsson and Nokia are able to serve humanity along with Huawei in the 5G era. That means countries that exclude Huawei will still be able to use 5G. Like the appreciation I have shown to Apple, I also appreciate Ericsson and Nokia. Technically speaking, Ericsson and Nokia are our teachers. Switches were developed by Ericsson more than 100 years ago. Nokia was originally engaged in rubber and wood products, and produced the world's best mobile phones in the 20th century. They are both our teachers, and we respect them.

**24**

**Etienne Gernelle: There are several black swans in the lake outside. Is this because you predicted that Trump would cause trouble to you?**

**Ren:** I really don't like those black swans, and they are not kept by me. They always eat the flowers and grass on the lakeside, and destroy our garden, but I want those plants to flourish. I want the swans to eat the fish in the lake, but they always eat grass.

**Etienne Gernelle: There is a book about black swans that was published before the financial crisis in 2007.**

**Ren:** Yes, that's why some people put the black swans in the lake. The swans even lay eggs and have cygnets, and we cannot get rid of them. If I find out who put those

swans in the lake, I'll ask them to feed the swans with vegetables after lunch every day, so that the swans will stop eating our flowers and grass.

25

**Etienne Gernelle: An economist once wrote a book, saying that China had been the world's largest economy until the early 19th century. Do you think the current rapid growth of the Chinese economy is only a return to its normal state?**

**Ren:** Over the past three to four decades, China has made huge progress. However, we still need to improve the quality of our development in order to make more contributions to humanity. In this regard, we still have a lot to do, and European countries, Japan, and the US are still ahead of us. It's true that China has a huge GDP in total, but much of this is generated from low and mid-end goods and China's per-capita GDP is still low.

I know that you've visited Guizhou. You must have seen that people in many remote places there are still very poor. The central government has been emphasizing that we must lift more people out of poverty. Governments at all levels have been striving to facilitate development and alleviate poverty. Helping people rise out of poverty is the only way to make them feel reassured and live and work at ease. When people get richer, they will focus on work and development, and will not bother engaging in the



color revolution that the US dreams of.

You may not have been to Tibet. I think Tibet has better traffic conditions than Shenzhen. It has great infrastructure, and its economy and people's lives have significantly improved. Under such circumstances, I do not believe there will be chaos. The Chinese government has put a lot of efforts into solving poverty problems in this country. That is the right approach. On the contrary, the US hasn't properly dealt with this issue. They used to relate poverty to race, thinking "White people were rich and black people were poor." But today, this is no longer the case. Many of the poor population in the US are now white. With the current trade war, the tariffs have actually increased the costs of daily consumer goods in the US, putting heavier burdens on the American people.

We all know that China's exports are already at the lowest possible prices. If these prices were further reduced, many companies would go bankrupt. Therefore, the prices didn't change after the US imposed tariffs. As a result, it is the American people that pay for the tariffs. If the US government cannot reduce poverty among the American people, there will be chaos. In contrast, it is absolutely correct that the Chinese government is determined to eliminate poverty.

26

**Guillaume Grallet: I've noticed that Huawei has adopted a unique governance system with the separation of powers. Which do you think can get people out of poverty: the socialist system or the capitalist system?**

**Ren:** I think Deng Xiaoping designed the foundation of China's system when he adopted the reform and opening-up policy, and that is "socialism with a market economy". Socialism emphasizes the concept of fairness, which was mistakenly understood as equalitarianism in China in the past. In fact, fairness in a socialist society means more pay for more work. In other words, people who contribute more should receive more. For example, suppose you and I are carrying bags at the dock, and you can carry three bags every time as you are tall and strong, while I can only carry one because I'm old. In this scenario, your income should be three times as much as mine. But however strong you are, you can never carry five bags at once. Physical differences between people are not without limits. However, in a capitalist system, there are no limits for income gaps. You may have 10 billion US dollars while I only have 100,000. If our profit margins are both 10%, you will earn a profit of 1 billion US dollars, while I can only earn 10,000. So huge wealth gaps are created due to capital leverages, rather than differences in labor.

Deng Xiaoping thought that the basic principle of

China's socialist society should be more rewards for more work, but we need to take the path of a market economy to achieve that. A market economy will surely have capital leverages, so China must ensure checks and balances between capital and labor. Who should be responsible for this? The government. They should make reforms to maintain the balance. When China started its reforms, its economic foundation was extremely poor. What was the first thing to be changed? It was the value distribution system. You could try to imagine how many conflicts and struggles would explode into life when you attempted to change the value distribution system for such a large population. Therefore, China needed a strong government to take control, preventing the country from falling into chaos. So Deng Xiaoping proposed the Four Cardinal Principles, insisting on reform, opening-up, and development while preventing chaos. Only a strong government could do that and control the direction and pace of reforms. When governments at lower levels were too slow or came to impasses in reforms, Deng Xiaoping said they could "be braver and walk faster". When reforms were too fast and conflicts arose, he just guided them to go more slowly while following the Four Principles. That is how China has transformed over the last 30 years.

Where does the national capital come from? It's from the people. How can the government give the

money back to the people? This can be done by building infrastructure like high-speed railways and highways. Can the government earn money by building high-speed railways in Tibet? You can think about that. Capitalists wouldn't invest in such projects. China is building highways, high-speed railways, and other infrastructure on a large scale and at a high speed. This is being driven by the government and it's the people who benefit. These efforts have helped to balance the conflicts between different strata. Therefore, China did not experience the color revolution that the US dreamed of.

**27**

**Etienne Gernelle: I think politics plays an important role in Huawei's business. When I came here via Hong Kong, I saw the demonstrations. The world is gradually splitting. Trump doesn't believe in China or China's system. At the same time, the Chinese people don't believe in Western media. Will this lead to a divided world?**

**Ren:** I don't engage in politics, so I don't know. You can ask me technical questions instead.

**28**

**Guillaume Grallet: Just now you mentioned education. What do you think children should learn? General knowledge or mathematics and IT?**

**Ren:** There are now several systems of education. In Northern Europe, there are almost no tests, so children can grow up with joy. Children in these countries can determine their development direction when they find out what they like. Although the Nordic countries are relatively small, many big companies, including Ericsson, Nokia, ABB, and Equinor ASA are based there. This is proof that their education system is successful. China is such a large country that it is really difficult to determine who is talented. Therefore, China has set different levels of tests. These tests can turn the children into "little nerds" and they lose their creativity. But a small number of those who make it through are geniuses.

**Etienne Gernelle: What do you recommend parents teach their children? Something like programming or mathematics?**

**Ren:** I think the most important thing is to give full play to a child's talents. We don't know in which areas children will be able to develop the best. So children should discover their own talents and set out on the right path early. In this way, children can grow effectively. Unfortunately, some parents don't know their children at all. To give you an example, this lady's husband majored in electronics, but it wasn't until he turned 50 that he realized he was a talented artist. You may go upstairs later and take a look at a painting he donated to the company.

It is a copy of Napoleon's coronation at the Louvre. It was painted shortly after he started to learn painting. If he could have leveraged this talent from an early age, he might have grown into a famous painter. Therefore, children must find their best direction of growth, and move in that direction to avoid wasting their energy.

**Etienne Gernelle: It might have been quite late when you discovered your talents. You majored in architecture right? But you became successful anyway.**

**Ren:** At that time, I lived in a remote, mountainous region. I had no idea what the wider world looked like, and no one gave me any advice on it. So I didn't have the chance to discover my talents when I was young. Now that the Internet is so developed, children have much broader horizons, and they should quickly discover their talents. Therefore, the information society has been a great catalyst for the progress of humanity.

**Guillaume Grallet: Are there any writers or philosophers whose books really inspired you?**

**Ren:** There are so many. Socrates, Plato, Confucius, Mencius, and many French philosophers.

**Guillaume Grallet: Are there any inventors, scientists, or creators that you particularly admire?**

**Ren:** I admire all of them. Their inventions, big or small, have all represented great contributions to humanity. We

cannot use a scale to measure people's contribution to society. Just like rescue and disaster relief, some people donate a lot of money, while others may donate just one dollar. It doesn't mean that those who have donated more are the greatest. Otherwise, the world would have never given Mother Teresa such amazing recognition. Therefore, when we evaluate a scientist, we should not use a scale to weigh their value. As long as a person has made a contribution to this society, then they are great. It is true that society will not always give you a medal. You could simply make one for yourself by engraving something on a radish, and then hold it to your chest. As long as you are happy, then that's enough. You have not only made a contribution to humanity, but also baptized your soul.

29

**Etienne Gernelle: There are now numerous emerging technologies, such as 5G, AI, and quantum computing. Which technology interests you the most?**

**Ren:** First, it depends on how these technologies can create value for the future of humanity. Second, Huawei has limited capabilities and cannot be interested in everything.

30

**Etienne Gernelle: Huawei is playing a very important**

**role in 5G, and there is no US rival to compete with Huawei in this regard. Do you think this moment is similar to when the US found Russia was ahead of them?**

**Ren:** Actually, we were aware of this issue years ago. A balanced world needs three pillars. If there were only China and Europe, the world would be unbalanced. In earlier years, we considered selling our business to Motorola. But when their new chairman took office, he dismissed this acquisition. Later on, we had plans to acquire Motorola, but this acquisition was rejected by the US government. Our aim was to create balance with three pillars. Now, there are only two pillars, which is unstable. This conflict will appear sooner or later.

**Etienne Gernelle: What are the two pillars you just mentioned?**

**Ren:** China and Europe

**Etienne Gernelle: What do you mean by pillars?**

**Ren:** Here, pillars means industries. This world needs to be shared. If the US does not take any share in this industry, it leads to imbalance, and the world becomes unstable.

**Etienne Gernelle: Why does the US want to prevent the spread of Huawei's technology? Do they want to buy some time to develop their own new technology?**



**Ren:** The wheel of time always runs forward. No one can stop it.

**31 Etienne Gernelle:** It has been a tradition in Silicon Valley that a new king takes the stage after each transformation. IBM, Microsoft, Google, and Facebook have all been the king. When a new king comes to power, the old king steps down. Do you think Huawei has become the new king of the world for the first time?

**Ren:** I'm not a lion. I'm just a rabbit trying to find a corner to hide in. I can't find a corner right now, and I don't know what to do.

**Etienne Gernelle:** You don't look like a rabbit.

**Ren:** But I am much less like a lion.

**32 Guillaume Gallet:** Huawei was among the first companies to enter the African market. What do you think about future development in this continent?

**Ren:** Africa and Latin America are the two most recently developed regions. Most natural resources in Europe and Asia have already been developed, but natural resources in Africa are yet to be developed. I think we will see a new wave of development in Africa.

33

**Guillaume Grallet: Do you have any particular interest for France? Are there any French architects that you particularly like?**

**Ren:** The building that houses our Beijing Executive Briefing Center was designed by Jean-Marie Charpentier, a French architect. This is the last building he designed.

**Guillaume Grallet: You're a frequent visitor to France. Do you like French wine?**

**Ren:** I'm not much for wine, but I do like mathematics in France. Ecole Normale Superieure is a top university for mathematics. In the future, we will continue to increase our investment in France.

**Guillaume Grallet: In what fields will you invest?**

**Ren:** Our investments will mainly focus on R&D.

**Guillaume Grallet: Huawei now has five research centers in France, right?**

**Ren:** We will have more and larger research centers there in the future.

**Guillaume Grallet: Your France Rep Office now has about 1,000 employees. What will be your total workforce in France?**

**Ren:** I'm not sure about the figure, but I am sure about one thing: The number of scientists we have will increase significantly. As we gradually move toward AI-enabled

production, we will not see a significant increase in our workforce, but we will greatly increase our exploration into future new technologies.

**34** **Guillaume Grallet: Some entrepreneurs in Silicon Valley say that their ambition is to change the world, but you always say that your ambition is to make your company survive. Do you think they overstate their ambition or you are being too humble?**

**Ren:** If we were just 25 years old and we sat down for a cup of coffee, I would be as ambitious as them. Just imagine a guy was sketching a model on a napkin, and several others were talking about the structure. They were talking about starting their own business. This company later became known as Intel. Silicon Valley encourages restlessness, which fits well with young people. If they don't have passion or ambition, they wouldn't be able to succeed. I think I did the same when I was young. Now, I'm an old man. I have encountered many setbacks, and I now talk more sensibly.

**Etienne Gernelle: Did you think about all this when you were back in Guizhou?**

**Ren:** No. How could I have thought about this back then? When I was in Guizhou, all I thought about was getting out of my parents' control and studying

in another province. When I heard that I could go to another province to study, I was so excited because I had never been out of our county before. I don't think it's a bad thing for young people to be restless. They could source energy from each other. There could be one to ignite the fire, and the one who ignites the fire can hire the others. I think the restless spirit in Silicon Valley should be advocated.

**35**

**Guillaume Grallet: You just said that in the era of AI, there may be less employment. Do you think everyone will still be able to get jobs in 10 to 20 years?**

**Ren:** Let's take a look at an example. When we designed base stations in Africa in the past, an engineer could design at most 4 base stations a day. However, with the help of AI, an engineer is now able to design 1,200 base stations a day. I once asked an engineer why the number was specifically 1,200. He said, "The contract contains only 1,200 base stations in total." This increase in productivity will help improve the quality of our lives.

With the help of AI, less people will be needed to create wealth. At the same time, more wealth will be created to support more people. If someone considers working to be necessary, they would study hard and then get a job. This will also promote the development

of society. Income differences between people who work and who don't work will also be significant. If you visit our production lines, you will find that there are barely any workers.

**Guillaume Grallet: I think everybody would still like to work. But how could everyone get a job? Lifelong learning or minimum salary?**

**Ren:** The fears we have about AI may be similar to the fears people had about textile machines in the past. When textile machines were first introduced, some people even tried to destroy them. We are facing a similar situation now. How can we adapt ourselves to new technologies in the future? I don't know. It's still an unsolved issue.

**Guillaume Grallet: Could a good solution be to impose some restrictions on AI applications?**

**Ren:** I don't know. Currently, AI is mainly used to improve productivity, and it is not used in any fields that involve emotion.

**Guillaume Grallet: So you think some jobs can never be replaced by robots?**

**Ren:** Yes, of course. There are many jobs that can't be replaced by AI. For example, AI can't taste coffee. If you were sick and felt bad, and a robot came in and gave

you an injection without any emotion, wouldn't you feel cold? In such situations, humanity is needed, and the patient's experience matters.

**36**

**Guillaume Grallet: What do you think Huawei will become in 30 years?**

**Ren:** I don't know whether Huawei will still exist in 30 years, so I can't predict what will happen. If possible, I hope you can visit us and have another interview in three years.

**Guillaume Grallet: If President Trump wanted to visit Huawei, would you welcome him?**

**Ren:** Of course I would. We could discuss how the world should open and collaborate for shared success. Maybe this would change his mindset.

**(Video interview)**

**37**

**Guillaume Grallet: President Trump said Huawei was an enemy of the US. How would you respond to that?**

**Ren:** First, Huawei has been promoting happiness and prosperity for humanity. How could Huawei be an enemy? Over the past 30 years, we've been staying in the front line to serve humanity. Huawei can always be found anywhere at any time, be it in war-torn or

disease-ridden regions, or during natural disasters like the nuclear leakage in Japan. How could Huawei be an enemy? President Trump's thoughts about Huawei could be wrong.

**38** **Guillaume Grallet: What is Huawei's goal? Satisfying employees, governments, or the world?**

**Ren:** We want to satisfy society and people, because our ultimate goal is to serve our customers. Who are our customers? 6.5 billion people, and possibly more in the future for more IoT connections. Therefore, we are committed to creating value for customers and ensuring we satisfy people's needs.

**39** **Guillaume Grallet: Does Huawei have any plans in France?**

**Ren:** France is a country with a great investment environment. France is one of the most advanced countries in terms of math-related science and technology. This is largely attributed to Napoleon's national policies of focusing on mathematics several hundred years ago. The foundation of AI is mathematics. We will put more effort into the development of AI, and we will continue to increase our investments in France.

We've just experienced the impact of AI. Currently,

Huawei's phone cameras are the best in the world. This should be attributed to the designs of French mathematicians. They helped us use math-related technologies to combine images. AI will develop in a wider range of areas and we need to attract an increasing number of excellent mathematicians to join us.

**40****Guillaume Grallet: What's your favorite proverb?****Ren:** Collaboration for shared success.





## Ren Zhengfei's Interview with CNBC

June 19, 2019 Shenzhen, China

01

**Deirdre Bosa: Mr. Ren. Yesterday, President Trump tweeted that he had a conversation with your president, Xi Jinping. The US sees Huawei as being at the center of the trade war. How do you see it?**

**Ren:** First, Huawei has virtually no presence in the US, so the trade relations between China and the US have nothing to do with us. Second, if we compare China and the US to two basketballs, Huawei is just like a small sesame seed stuck between them. There's no way we can buffer the relationship between these two countries. I believe the US is a country ruled by law. Ultimately, we will settle our issues with the US through the courts. We have confidence that the court will reach fair decisions.

02

**Deirdre Bosa: As you said, you do not have much of a presence in the US. You don't want to be at the center of the trade war, but you have been caught in the middle. Do you have any hopes that when President Trump potentially meets with President Xi Jinping at the G20, Huawei will be a topic of conversation?**

**Ren:** I don't think we are so important that these two great men would want to talk about us. This seems impractical to me.

**Deirdre Bosa: That has been the case, though. President Trump spends a lot of time talking about Huawei, as do other US officials.**

**Ren:** It's because they are in good health and have energy to burn. They must have a lot to attend to. I feel grateful for their attention; they flatter us. We don't deserve such attention.

**Deirdre Bosa: You may not think you deserve high attention, but the fact is that, in the US, a lot of politicians, President Trump included, spend a lot of time talking about Huawei, your company.**

**Ren:** Maybe it's because we can't be beaten, no matter how hard they try. It is possible that we will survive for a long time. If they continue to care about us over the next few years, will they get tired out? We have been communicating with the US through different channels. The US is a country ruled by law. Legal proceedings are also a valid means of communication. Through this means, the US needs to present its evidence in court. We do as well, so that the court can decide whether we are right or wrong and to what extent we may be wrong. This is what really matters. I don't think we deserve to be treated as a bargaining chip in their negotiations, and I don't want to be a bargaining chip either.

**03 Deirdre Bosa: You may not be willing, but it doesn't change the fact that President Trump has said you are a bargaining chip and the so-called attack has already affected your business. You said earlier this week that,**

**it would hit your revenue by 30 billion US dollars.**

**Ren:** The 30-billion-dollar decrease in our predicted sales is just a small thing for us. Our sales will still exceed 100 billion US dollars this year. This has little impact on our business operations. We will mainly cut down on some non-core products, so the US sanctions won't have significant impact on us.

**Deirdre Bosa: I think many people would call 30 billion US dollars a material impact. It's nearly third of your revenue last year. This affects your employees who are shareholders, does it not?**

**Ren:** No. According to this year's plan, our revenue was expected to reach 135 billion US dollars. Even if our revenue does drop by 30 billion US dollars, we will still have 100 billion US dollars left. Our sales revenue is still growing. By May, we had grown a bit over 20%. We are just predicting a decrease in revenue over the next few months. We haven't actually seen any hard signs of such a decrease yet. As of yesterday, our financial report showed that our revenue was still growing. We are still not sure how things will turn out by the end of year. I think a revenue drop of 30 billion US dollars doesn't mean much to us. We can afford it. We are not a public company, so we don't care that much about revenue. We care more about the actual quality of our own operations.

**04 Deirdre Bosa: Okay, let's talk about the quality of the performance in your fastest growing business unit, your consumer business, your smartphone business. You said earlier this week that smartphone shipments had declined by 40%. How can your business continue to grow if your fastest growing unit is taking a hit from what's happening between China and the US, with the US putting an equipment ban on Huawei?**

**Ren:** Our consumer business in China is not declining, though we previously saw a record decline of 40% in overseas markets. But it is now bouncing back, and its decline outside China is less than 20%. It is recovering rapidly. Throughout this year, our overall consumer business won't experience a huge decline like what we previously saw overseas.

For Huawei as a whole, our estimated revenue for 2019 may decrease from 135 billion US dollars to 100 billion US dollars, a figure equal to that seen in 2018. But our profits are higher than before, and they are growing faster than we could have imagined. This means we must increase our strategic investment. A recent financial briefing was finished within minutes. Now that our financial performance is better than I had expected, what's the point of listening to these briefings?

05

**Deirdre Bosa: You said profit isn't the most important thing to you. But what about your employees who are shareholders and are paid dividends based on profits that Huawei makes? How are they feeling? Are you talking to them?**

**Ren:** Our employees are becoming more energetic and working harder than ever before. We will make every effort to win this "battle" of sanctions, and we know we have what it takes to win. So we are full of confidence. If you get a chance, you can talk to our employees about this.

**Deirdre Bosa: Are you saying that your employees don't mind if profit decreases and their pay decreases?**

**Ren:** Their salaries won't decrease. Huawei is completely able to pay all our employees, and we are refining our compensation structure. We have even fast-tracked the promotions of many employees who are performing well in these critical times, and given them pay rises. When it comes to long-term earnings, we need to look at our financial reports at the end of the year. They may be slightly lower than what we planned at the beginning of the year, but I think they will be better than I expected, because our profits are still very high. This gives me assurance. Therefore, I have asked our finance team not to report to me, so that I can spend more time on our technology.

06

**Deirdre Bosa: How would you characterize your relationship with Google? What happens if you lose access to Google's Android operating system?**

**Ren:** I believe Google is a great company. We have great respect for them. Huawei and Google have always shared common interests. If our products don't use their Android operating system, Google could lose 700 million to 800 million existing users. Their losses may be significant if the 200 million to 300 million new users that we are predicted to acquire each year cannot access the Android system. Our sales revenue will also drop by a certain degree in the short term, and we will have to bear these losses. This concerns our common interests. We will not replace the Android system without good reason. But if we have to take that step one day, we can still use our own operating system. Then our growth will recover.

**Deirdre Bosa: Will your customers accept that? Already, in the Philippines, Huawei has said they would offer a full refund if their devices cannot run Google and Facebook apps. What if more customers demand this?**

**Ren:** There have been impacts in global markets, but these are not as significant as many imagined. Many of our new phone functions, such as photography, are independent of Google's operating system. The most important thing that Google offers us is its ecosystem,

which is excellent.

**Deirdre Bosa: How can you be certain if customers are already saying they don't want to use Huawei phones if they will not have the Android operating system? How can you be so certain of this?**

**Ren:** The US is now the strongest country in the world. Though the US is launching a global campaign against Huawei, the number of our customers is still on the rise. This means our customers have stronger confidence in Huawei than the US government does. This campaign has not had much impact on us, which can be clearly seen in the statistical reports coming from various business lines. We are not feeling much pressure.

**Deirdre Bosa: I'm sorry, Mr. Ren, my question was, how can you be certain that consumers will want to choose the Huawei operating system over the Android operating system? What makes you confident that this will not hurt your business more than it already has?**

**Ren:** Things are already at their worst, so they cannot get any worse over time. We have over 80,000 R&D staff and invest 15 to 20 billion US dollars in R&D every year. Can't we solve our problems in regards to survival and development? This is where our confidence comes from.

**Deirdre Bosa: Mr. Ren, I'm sorry, but I'm going to ask you one more time. What makes you confident,**



**though, that customers will be willing to use your operating system? Is it ready to roll out and what happens if, in mid-August, Google is no longer able to supply Huawei with the Android operating system?**

**Ren:** I do not think anything will happen. The only thing that may happen is that while a certain number of customers may not choose Huawei, others will.

**07 Deirdre Bosa:** Okay, one strategy that you are pursuing in the US is stepping up licensing patents. Even that, though, is threatened now. Senator Marco Rubio is filing legislation that will prevent that. What do you think? What is going on in terms of your patenting business and your ability to make that for some of the shortfall distinguished now through that means?

**Ren:** The US is a country ruled by law and has the most patents in the world. Will its image be affected if the Senator's recommendation is approved by US Congress? That depends on how the world's 7.7 billion people view this matter. I have no say on that.

**08 Deirdre Bosa:** I know that you have a lot of admiration for the US. You have talked about it in the past, yet you are also a student of history. You know that empires and countries, they can decline over time. What makes

**you have so much trust in the US right now and so much conviction that they will treat you fairly?**

**Ren:** The US was an uncivilized country over two centuries ago. So how has it grown into the most powerful country within 200 years? The answer is openness. Talented people from around the world are willing to go to the US, where the legal, innovation, and property protection systems are mature. This has made the US what it is today. We have to learn from the US, so that we can grow stronger.

The US has a long history, and one little incident does not represent its entire history. Our respect for the US won't change just because of the setback we have met. Just like we won't hate our parents because they spanked us when we were young. This is because we have lived with our parents for decades, and they spanked us only for a couple of seconds. We won't break our ties with them over those few seconds. Similarly, the incumbent US government's attack against us will play a minor role in its long history. And we have no idea how the next US president will treat Huawei.

09

**Deirdre Bosa: You said in the past, though, that number one breeds complacency. The US has been the number one economy in the world. Does it risk becoming complacent? Is it complacent?**

**Ren:** Perhaps. If it were not complacent, why is it falling behind others?

**10 Deirdre Bosa: The metaphor that you just used, that Huawei is similar to a child being spanked by their parents in terms of their relationship with the United States. Is there a worry that the child could be hit too hard? Are you worried about Huawei's survival?**

**Ren:** No. Adding Huawei to the US's Entity List will affect only our non-core products. What the US has done may lead us to cut some non-core businesses, but our globally leading products will not be impacted.

**11 Deirdre Bosa: You said that Huawei will see a new life in 2021, when the pain from the US attacks will be over. How do you get there? Does that assume that the US export ban will be lifted?**

**Ren:** We compare ourselves to a bullet-riddled Il-2 plane. As serious as the damage may be, the plane's engine and fuel tank are still functioning. We can mend the holes as we fly. When they are all fixed, the plane will be working as well as a normal one. We don't expect the US to lift their ban on us. Instead, we are repairing our plane so that it can continue to fly.

**Deirdre Bosa: How are you preparing? Are you now**

**developing your own chips as the ultimate goal to not rely on the US suppliers? How are you preparing to repair that airplane that you talked about?**

**Ren:** We are always making preparations. If we don't want to die, we need to fix our problems and weaknesses. We must first find the biggest hole in the plane and fix it. After that, we will mend the smaller holes. After they are all fixed, we will be able to fly high in the sky.

12

**Deirdre Bosa: Two years from now, are you still buying the same amount of components from the US?**

**Ren:** We may be buying even more. US suppliers have contributed to Huawei's growth over the past years. If they're allowed to sell to us, we would have no conscience not to buy from them. We definitely want to buy from them. If the US doesn't allow them to sell to us, it won't be our fault. It is our hope that we can continue to buy from them. Now we are continuing to place orders to them. It is just that they need to get approval from Washington. If they can get approval, we will still buy from them; otherwise, we will have to find other ways.

**Deirdre Bosa: Are you able to find those other ways? Have you already put preparations in place? What**

**are those?**

**Ren:** Yes. We have to repair each of the hundreds of holes, so that the plane can return safely. See, this is the bullet-riddled plane I mentioned. Huawei is like this plane, as we are also seriously damaged. It is impossible for me to explain every detail of how we are doing it. If you are interested, you can interview some of our ground-level employees, and they will tell you how we do it. I myself am not a repairer. I welcome you to visit us in two years to see whether we are having a better time than we are today.

**Deirdre Bosa: I would love to see that, but I'm very curious, and I still haven't received an answer or any strategy that really explains how you will get there. Will you depend on other overseas suppliers or start making the components yourself, which I know you already are, but to a greater degree?**

**Ren:** These two approaches are both possible. But we will mainly rely on ourselves and focus on improving our own capabilities.

**13 Deirdre Bosa: Are you hopeful that the trade talks between China and the US will be resolved?**

**Ren:** We have nothing to do with the trade between China and the US, because we barely have any sales in the US. Trade between the two countries is a huge

subject, and we don't know what they are negotiating. We only care about our own business. We hope that they don't mention us. We are not worth mentioning in their dialogues.

**Deirdre Bosa: Have you spoken to President Trump or any US officials?**

**Ren:** We've been communicating with the US government through the District Court for the Eastern District of New York and the Texas court. We think we'd better solve problems through the courts.

**Deirdre Bosa: Let's imagine that it really was President Trump. Would you be willing to take a phone call from him?**

**Ren:** Of course I would be willing to take the call. We could discuss potential collaboration for shared success. The information society will be huge, and we should work together to build that society. Everyone should contribute their own efforts. Huawei has only made some accomplishments within a very narrow scope. The US is still the most powerful country in many of the remaining areas. We should work together to build the information society. That's what I would like to say.

**Deirdre Bosa: What would you tell him about national security concerns regarding Huawei?**

**Ren:** I would tell him that the atmosphere is only about

1,000 kilometers thick, but the cloud of the information society will be several thousand kilometers thick. That will mean a huge market and numerous opportunities. It won't be a zero-sum game, and everyone will need to work together to build such a huge information society. Huawei is just a step ahead of others in the field of connectivity. The US has a wide range of strong capabilities, and can secure a large share in this huge cloud.

**14**

**Deirdre Bosa: Have you spoken to the Chinese president or any other senior Chinese officials about Huawei's role in the trade war and these sorts of attacks that the business is facing?**

**Ren:** How could I set up a meeting with them to discuss such specific issues? Huawei's issues are small issues to China as a whole. They are as small as a sesame seed to the US. I don't think they are worth discussing. We can solve these issues on our own. We believe in US law, and we can solve the issues between the US and ourselves through the law.

**Deirdre Bosa: You have 180,000 employees. You are one of the biggest companies not only in China but also in the world. Why would it be strange to talk to Chinese government officials when you are such an important company to China and the world?**

**Ren:** We are capable of solving our own issues, and we are fully confident of this. Why should we ask others for help? The US released its sanctions list against Huawei a while ago now. However, nothing has changed in our company. If you tour around our company, you can see how our employees are doing, and that everything has been business as usual. You should visit our production lines, which are operating as usual. Therefore, we don't need help from anyone.

**Deirdre Bosa: I didn't ask if you would ask for help. I asked if you would speak to Chinese officials. What happens to Huawei will affect the Chinese economy, will it not? Maybe not now, but it will if your business continues to decline. Your revenue is more than that of Alibaba and Tencent combined.**

**Ren:** We are not under any pressure. We believe the attacks by the US government are a test for Huawei. If we can survive this, we will become stronger. In China, we say "rise from the ashes like a phoenix" and "from the ashes the phoenix is reborn". If we manage to survive the fire, we will become stronger. During this process, we will be able to identify outstanding employees and promote them faster. Those employees who lag behind can choose to leave Huawei. In this way, our team will become stronger in three to five years. By then, we may have already put the difficulties we



are facing behind us, laying a solid foundation for rapid development in the future.

**Deirdre Bosa: You are saying that you do not talk to Chinese officials about Huawei's business?**

**Ren:** That's correct. When a couple has two children and prefers one to the other, the child who is loved more often turns out to be mediocre, and the other, who gets less attention, usually ends up becoming outstanding. Why is that? The spoiled child is usually unmotivated to become better.

Huawei is like the other child. Throughout our 30-year history, we have relied on ourselves to grow. We have become very tough and are able to stand any pressure or attacks. In the current situation, we must continue relying on ourselves, get up off the ground, and forge ahead. I believe we will survive this. That's why we have compared Huawei to an aircraft riddled with bullet holes. We want our employees to fix those holes. We have no idea which exact hole each employee can fix, because all of our 180,000 employees are busy fixing holes.

**Deirdre Bosa: If Huawei is a child though, and the Chinese government is the parent, the child would be talking to the parent, would it not? I find it hard to believe that you don't discuss business with (Chinese government) officials. In the US, companies regularly talk to lawmakers.**

**Ren:** US companies must abide by the law. It's perfectly normal for them to talk to the government. Regarding our relationships with the US, we can overcome the difficulties we are facing, and we don't need help from anyone to do this.

**15 Deirdre Bosa: The export ban against Huawei is already having an effect on American companies that sell to you. We are seeing it in their forecasts for revenue and profits in the year ahead. Are they talking to US officials on Huawei's behalf? Are they trying to lift the export ban or at least get some exemptions?**

**Ren:** I don't know whether US companies will be able to lift the ban or not. The US attacks on Huawei are hurting both Huawei and US companies. Our revenue will drop, and so will theirs. In fact, many of these US companies are public companies, and drops in revenue will have a bigger impact on them. Huawei is not a public company, and we don't have to take responsibility for drops in revenue. That's also one benefit of not going public.

**Deirdre Bosa: Do you or your executives talk to executives at American companies, your suppliers?**

**Ren:** I think all our senior executives have reached a consensus on this. The attacks against us by the US government did not divide our senior management

team. We are actively communicating with US suppliers, and continuing to request deliveries and place orders. We will not stop placing orders with US suppliers due to US restrictions. If the ban is lifted one day, how will they be able to ship products to us if we haven't placed orders with them? So we are still sending delivery requests. It's another issue that our US suppliers currently cannot deliver to us. We are trying to find a solution for that.

We still respect US companies, and we feel sorry for them. They have helped us in the past. Now they are also suffering, because of their partnerships with us. But what can I do? It was the US president who made this decision. There is nothing I can do to change the situation.

**Deirdre Bosa: Are they advocating on Huawei's behalf?**

**Ren:** I don't know about that.

**16 Deirdre Bosa: Who has more to lose in the trade war: China or the US?**

**Ren:** The trade war has nothing to do with me. How could I know whether the US or China has more to lose? We have virtually no sales in the US, so the tariffs imposed by the US government have nothing to do with Huawei. We are not engaged in these affairs at all, and I don't care about the trade war between China

and the US.

**Deirdre Bosa: Mr. Ren, you are the CEO of a global company. You have business all over the world. Are you saying that you don't care about the outcome of the trade war?**

**Ren:** No, I don't care.

**17 Deirdre Bosa: Do you care about your ability to do business in the United States? Do you think that it's appropriate for US companies like Google, Facebook, and Twitter to be banned in China while you advocate access to the US market?**

**Ren:** No, I don't care. I would guess we will not be able to do business in the US for a long period of time, so I don't care whether the US will let us into their market or not. Even if they open their market to us, we may not be able to do business there, because it takes a long time to build a system.

Whether it's the US banning Huawei or China banning other companies, these are actions taken by sovereign states. This has nothing to do with our company.

**Deirdre Bosa: You are not advocating for access to the US market?**

**Ren:** No. It would only be a waste of resources.

**Deirdre Bosa: Would it be a waste of your resources? Because you are putting a lot of resources into it. Again, you are sitting here with me. You have hired lobbyists. You employed executives to speak to American media on a regular basis. Why bother if you don't want access?**

**Ren:** We have been investing resources to engage with the media not because we want to enter the US market, but because we want to dispel the many misunderstandings the US has about us. The US government is not just going against us within the US, it has been lobbying against us around the world. Pompeo has been flying worldwide for all kinds of meetings. And Huawei is one of the top three items on Trump's meeting agendas during his visits to other countries. So we also need some publicity in the US to exert some influence.

18

**Deirdre Bosa: Do you care about your access to other markets like Europe and Australia that are now considering their relationships with you?**

**Ren:** We have been engaging with European customers for 20 years and our customers there have great trust in us. Europe has not rejected us up until now, so we will continue to provide better services to European people.

This is a commitment we are not going to change.

**Deirdre Bosa: How important is it for you to keep that access, and doesn't that depend on what the US does, as they put pressure on their allies to stop doing business with Huawei?**

**Ren:** It hasn't affected us much, because our customers still trust us. If they still trust us under such high pressure, their trust in us will only increase when such pressure is relieved. What if we can't meet their demand then? I'm actually more concerned about this right now.

**Deirdre Bosa: Mr. Ren, you are already losing customers across the world. Australia has banned Huawei equipment.**

**Ren:** Australia has the right to make its own decisions. Why would I worry about this so much?

**Deirdre Bosa: Europe is a big market and one of your most important markets. They are considering the same measures?**

**Ren:** Not that I'm aware of. Europe still welcomes us.

19

**Deirdre Bosa: Mr. Ren, for many years you didn't speak to the media. In the last six months, you have spoken to many media outlets. Why are you here sitting down with me, a journalist from an American organization,**

## **if you don't care about the trade war, and you don't care about doing business in the US?**

**Ren:** First, since last December, over 90% of the global media coverage on Huawei has been relatively negative, because the media didn't know the real situation. Our public relations department believes that we need to show the real Huawei to the world. Since I rarely spoke to the media, our PR people thought that the media might be a bit curious about me. So I started meeting and talking more with the media. Positive coverage now accounts for around 27%, and is slowly increasing to 30%. This is helping people worldwide learn more about Huawei. I've spoken a lot over the past six months, and will probably speak more in the next six months. I hope these efforts can help the world understand us better.

Besides, I have enjoyed today's interview, because your questions are sharp. You don't dance around things, and I'm very sincere. I haven't avoided any of your questions. This way, we want to show the real Huawei to the American people. After all, they still don't know much about us. Many Americans have never been to China, and many of them have probably only seen films showing China as it was 100 years ago. They may think Chinese people are still very conservative, wearing their hair in long queues, like they did during the dynastic period. Many American people don't know that China

has made huge progress in the Internet age. The more I talk, the better people will know about the real Huawei.

**Deirdre Bosa: You said you haven't avoided any of my questions. With all due respect, I disagree. You have avoided some of my questions, such as what is your strategy for the export ban that is already hurting your business?**

**Ren:** I think I have answered your questions. We don't rely on chips from the US. We have developed our own chips and our own operating system, and we will continue to mature as time goes on.

**Deirdre Bosa: You didn't tell me what makes you optimistic that your customers around the world will accept your operating system, not the Android operating system.**

**Ren:** In reality, we haven't seen a drop in our total orders worldwide. Most of our orders are for networking equipment, and that's our major product. We have barely seen a drop there. There has been a lot news about countries saying they are launching their 5G networks. Many of them are using Huawei's equipment.

I think only our consumer business has felt some of the impact. But our consumer business is a peripheral business; it's not our major business. Because of this, I don't think it's a big deal that this business has been



affected a little bit.

**Deirdre Bosa: The consumer business is not the most major business of Huawei? I've seen your financial results. It's the fastest growing and the biggest part of Huawei. And you said earlier this week that smartphone shipments have declined 40% in the last month.**

**Ren:** Then why is the US attacking our 5G, rather than our consumer business? Because we are a leader in 5G, and 5G is networking equipment, not devices. I think what really matters is our position in the international market for networking equipment. Our consumer business outside China has been affected a little bit, but our consumer business in China is actually growing. Overall, there is not a big drop, and I don't think it's a big deal.

20

**Deirdre Bosa: Mr. Ren, I know that transparency is very important to you. That's why you are sitting down with me and other members of the media. Why does Huawei continue to be a private company? Have you considered becoming a public company?**

**Ren:** Would Huawei survive if it were a public company today? Our share price would have fluctuated or even plummeted, causing the company to collapse. As we are a private company, we will not see a big impact even if

our revenue drops by tens of billions of US dollars. We will still be able to pursue our ideals.

In this way, I think being a private company works better for us than being a public company. Public companies mainly focus on short-term interests and their current financial results, and they dare not make long-term investments. But we are different. We can invest in things that are 10 or even 20 years away. This will enable us to stay far ahead of others, rather than just take the narrow lead that we have today in 5G. These are the benefits we enjoy as a private company.

**Deirdre Bosa: Mr. Ren, companies much bigger than yours have not only survived hard times but survived as public companies. And Huawei has a transparency issue in the US. So, I'm not sure I understand your argument as to why you wouldn't become a public company. And talking about R&D, there are also companies bigger than yours that are public and they spend just as much, if not more, on R&D.**

**Ren:** Then they should have done better than us, right? But why does the US attack our 5G?

**Deirdre Bosa: Let me give an example. Facebook in the United States is under attack, but their share price has continued to grow as they adjust their business. So why would being a public company prevent Huawei's survival?**

**Ren:** First, I want to say we fight for our ideals. If we were a public company, many employees would sell their shares and leave the company under today's circumstances. But now, our employees are more united and work even harder. This is how we are overcoming these difficulties. I think this is the benefit for not going public.

Second, public companies are very rich. We are the poorest tech company. Despite that, we are the world's fifth largest investor in scientific research. We will further increase our investment in this regard, despite some financial difficulties that we are facing today. Our business might shrink a little bit, but we will not reduce our investment in scientific research during hard times. We will continue to invest 15 to 20 billion US dollars into scientific research each year.

**21**

**Deirdre Bosa: A lot of Huawei's current problems stem from issues with trust and transparency, and skepticism that Huawei operates separately from the Chinese government. Have you considered creating an autonomous subsidiary outside of China that would be beyond the reach of Chinese law?**

**Ren:** No.

**Deirdre Bosa: If not, how can you change the**

**perception that Huawei is an extension of the Chinese state?**

**Ren:** Who can unify the thinking of 7.7 billion people around the world? People think differently. As long as our customers understand us, then that's enough. We don't need to take additional measures to make everyone understand us. It doesn't matter if some people don't. History will prove what kind of company we are. It has already done so over the past 30 years. If we can survive in the next 30 years, history will further support us. Why do we have to prove ourselves by going public?

**Deirdre Bosa:** I'm not asking about being listed. I'm talking about creating an autonomous subsidiary outside of China if that would help your business if it continued to suffer around the world, and if that prevented the 30-billion-dollar hit to revenue. Would you consider creating an autonomous subsidiary outside of China if it would help your business and ensure Huawei's survival?

**Ren:** 30 billion US dollars is not a big deal. We don't have to change our overall operating mechanism. We will prove to people around the world that Huawei is a good company. We want customers to find this out through their own experiences. We don't need politicians who know little about technology to understand us.

**Deirdre Bosa: So, under no circumstances would you consider creating an autonomous subsidiary outside of China, under no circumstance whatsoever?**

**Ren:** We have subsidiaries in more than 100 countries. They are independent. They were not set up to prove ourselves to politicians, but to ensure compliance. We are committed to abiding by the laws of the countries where we operate, as well as UN resolutions and international laws.

22

**Deirdre Bosa: I want to ask you about your daughter, Meng Wangzhou, being held in her own home in Canada, awaiting her extradition trial. While this is certainly an undesirable position, she does have access to her home, to visitors, and to her lawyers. The Canadians detained in China are not getting the same treatment and from Canada's point of view, they are being treated unfairly. Do you think that's appropriate?**

**Ren:** First of all, my daughter is not guilty. She didn't commit a crime. The Skycom business in Iran was clearly understood by the bank throughout the entire process. We exchanged emails, and each email included the bank's logo. They knew about the company and the transaction settlement. My daughter just said something over a cup of coffee with them in a café. This has somehow now become significant evidence of a crime.

My daughter's issue can be clarified and resolved, as long as the court discloses the evidence. The District Court for the Eastern District of New York can ask the prosecutors any questions they need to, and our lawyers can also ask them questions, then both sides can present their evidence. The truth will then be revealed. As I said, the bank knew about the transactions from beginning to end. How can something my daughter said over a cup of coffee become evidence of a crime? But we believe that the US and Canadian judicial systems are open and transparent, and we believe that this issue will be solved eventually. So we are waiting patiently for a resolution, and I don't feel too aggrieved.

**Deirdre Bosa: You believe the system is open and transparent in Canada. But do you think it's appropriate that she is in her own home with access to visitors and lawyers, while those Canadians detained in China are not receiving the same treatment? Do you think that's appropriate?**

**Ren:** That's an issue between countries. I'm focusing all my attention on repairing our aircraft, and checking which parts are riddled with bullets and might need patches. Currently, I don't even have time to worry about my daughter, so how could I possibly care about other things? The issue you brought up will be settled through negotiations between governments.

**23**

**Deirdre Bosa: Mr. Ren, thank you very much for being candid and taking this interview.**

**Ren:** I believe we will have the opportunity to meet again. And I hope that when we meet next time, our aircraft has been repaired and it is still flying. Then you will be welcome to visit us again.



## Ren Zhengfei's Interview with the Financial Times

June 24, 2019 Shenzhen, China



01

**James Kyngé: We have all seen a very famous photo recently, an Il-2 aircraft from World War II. I heard that you like this photo very much. Could you share with us why you like it? Do you think the aircraft is akin to your situation? Is Huawei facing many challenges today, just like this aircraft?**

**Ren:** I stumbled upon this photo when I surfed on wukong.com one night. The website said that this aircraft managed to make its way home. I felt that it was quite like us – we are riddled with bullets from the US. We had prepared a bit for this, but we didn't expect the US government would be so committed to attacking Huawei from so many fronts. The US government has launched precise and systematic "strikes" against us. We didn't anticipate they would be so strong and all their industries would be so united. They even leveraged the media, academic institutions, and standards organizations to push us into a corner. Their "strikes" have hit more than a little software or a few chips, and have left us with several thousand "holes".

That aircraft is quite a bit like us. It has unshakable resolve to fly home. So I downloaded it from the website. I was trying to find a clearer photo of it, but I failed.

02

**James Kyngé: I heard you said last week that you protect your core parts only, like your engine and fuel**

**tank, and aren't prepared to protect non-core parts.  
Which businesses do you want to give up on?**

**Ren:** First of all, Huawei does not have enough energy to defend from all sides at once. This is impossible. To lead the world, we need to develop some cutting-edge parts, and build systems based on these core competencies. We compare these core parts to the engine and fuel tank of the bullet-riddled aircraft. We have worked hard for over 10 years, so we can make it. We won't collapse. We wouldn't be able to make it home if the fuel tank were hit, because the engine couldn't run without fuel. We couldn't fly back if the engine were struck either, even with a full fuel tank. But if the wings were struck with several "holes", we could make our way back, though we may need to slow down.

We believe the US is cracking down on our network connectivity business and 5G is just a small part of that business. This business is fully prepared, so impact on this business will be minimal. We didn't expect that our consumer business would suffer more. Though there is more impact on it than we see in connectivity, we are gradually regaining customer trust. Some of our non-core product lines have been shut down in recent years and their employees have been transferred to our core businesses.

### **03 James Kyngge: The US has added Huawei to its Entity List recently. How will Huawei address this difficulty and challenge?**

**Ren:** I don't think we will collapse because of this. I am sure of this. We are repairing the aircraft while continuing to fly on. Of course, some of the "holes" that we are fixing are quite large, while some others are small. Ultimately, we will get all of them fixed over time. After that, we will be able to survive and thrive.

#### **James Kyngge: Which big holes should be fixed?**

**Ren:** Holes are everywhere.

#### **James Kyngge: Is it chips?**

**Ren:** We don't have too many problems with chips, as we can create most of what we need. But we haven't got prepared as much for some other components as we didn't think they had much technical content. But a machine won't work if a component is missing.

We don't have big problems with our hardware. But there is some impact on our software systems. I think the world has an extremely rich reserve of software talent. The software business is booming in every country, including China. We at Huawei also have strong software capabilities, mainly in embedded operating systems for hardware. We are the strongest in the world in this regard. But we may not be that strong

in software-defined networks, which require a macro architecture for networking. Even if they continue to cut off our supply of these things, we will be able to get the "holes" fixed and catch up.

**04 James Kynge: Do you think you can buy US chips from Chinese companies that have imported them from the US?**

**Ren:** This goes against the spirit of the Entity List, which, in essence, bars any sale of US components to Huawei.

**James Kynge: How could they possibly find out?**

**Ren:** For the past one or two decades, the US has often run unannounced inspections on our equipment. They could enter a few lines of code, and the results would show whether the equipment contained US components and whether it was installed where Huawei promised it would be. If some equipment ever went missing and wasn't installed where we promised it would be, they would beat us to death. There is no way we could buy US components from other channels. If they sold to us, other companies would be under US investigation, too.

**James Kynge: As a result of the US Entity List, when will you experience the biggest adjustment? Is it in three months, six months, or something else?**

**Ren:** We've been making adjustments for years. Our

overall business hasn't been affected much because we have already developed capabilities in chips, which are the most advanced and important part of our business. For smaller components, we can research and develop them rapidly. We can also use Chinese components as alternatives.

If the US opens up to us, we can use their hardware and software to make extremely cutting-edge systems. But if we aren't allowed to use US components, we are very confident in our ability to use components made in China and other countries to make industry-leading integrated systems, because we have world-class capabilities in this regard.

**James Kyngé: Do you mean that Huawei will not stop the production of any products despite the US Entity List?**

**Ren:** We will stop making some non-core products. But we won't do that in our core businesses because our world-class, major products don't rely on US suppliers.

**Yuan Yang: Which products will be ceased?**

**Ren:** In 5G, optical transmission, core networks, and access networks, we are immune to US impact. Our optical systems are well ahead of others in the global market, and we don't need any help from the US in this respect. In 5G, we are at least two to three years ahead

of others in the global market, and we also don't need any US components in this respect.

In terms of core networks, there might be some impact on our servers, but other parts of the business will not be affected. Our TaiShan servers boast quite powerful performance, and they will soon be mass-produced to support our core network business. According to the Entity List, we cannot use the US's x86 servers, so we are facing temporary challenges in the public cloud market.

**05 James Kyngge: It's said that you have developed a new operating system called Hongmeng. Do you think Huawei is able to roll out an operating system that can replace Google's Android system?**

**Ren:** First, the Hongmeng OS was not made for mobile phones, but for IoT applications such as autonomous driving and industrial automation. The OS ensures precise low latency, down to 5 milliseconds or even sub-milliseconds.

Second, we hope to continue using the globally accessible, open operating system and ecosystem for our mobile phones. But if the US restricts our access, we will develop our own operating system. What's most critical to an OS is its ecosystem. It takes two to three years to

build a robust ecosystem.

We are confident that we can rely on the Chinese market to build a global ecosystem. First, China has a huge market of apps. Compared to all other types of Internet software, our OS delivers extremely low latency. If some people can effectively develop low-latency applications with our OS, they will choose Huawei for some of their business. Second, many Chinese content service providers who are eager to go overseas have failed. Embedded in our OS, they will be able to expand overseas.

**James Kyngge: What production apps are included?**

**Ren:** Just now I was talking about our system for phones. We have another system for production. Our production system is, if I may say, leading the world.

While our phones may have weaknesses in the ecosystem and apps, they are strong in many other areas. For example, our smartphones are the world's leader in photography, all-scenario services, and AI, thanks to our mathematical capabilities. Huawei has several hundred mathematicians and several hundred physicists. They shouldn't be likened to Leonhard Euler, though we indeed have an Euler Lab. We do not call them "Eulers" or "Turings"; we call them mathematicians. There isn't just one mathematician. There are tens of millions of mathematicians in the world. Huawei needs

a huge number of mathematicians, physicists, chemists, and neurologists. Their achievements will come out on top, and there will be demand for them.

After Huawei was added to the Entity List, our consumer business saw a huge decline outside China. But it has gradually recovered and is now close to its original numbers. Sales in China have soared. Some Chinese people are even buying Huawei phones because they feel bad for us. I once said, "Buying Huawei phones is not a patriotic act." People can buy our product if they like it, but if they don't like it, then they'd better not buy.

Young ladies in China are fond of taking photos of themselves. Huawei has the world's best photography technology because we have put a huge team of mathematicians into this area. Good photography does not rely on camera lenses. A human eye is composed of several hundred million "camera lenses" and thus sees images pretty crisply. Cameras are nowhere near the human eye. Our mathematicians use mathematical methods to convert incoming light rays through tens of thousands, or even hundreds of thousands, of camera lenses into electrical signals that make up an image. This mathematically calculated image looks pretty real.

Huawei is a world leader in these domains. As of May 30, we had sold more than 100 million phones. That means we reached our goal of 100 million



units 50 days earlier than we did last year. Of course, good performance in the first half of the year doesn't guarantee good results in the second half, because our growth was fast before the US added Huawei to its Entity List. When the blow came in May, we continued growing over the next two months due to the momentum we'd built up previously. We will scale down some of our businesses for the rest of the year and there will be a moderate decline in our phone sales.

**James Kyngé: Do you mean that because of the Entity List, China, especially Huawei's business, has to be localized? Will your imports decrease in the next two to three years?**

**Ren:** Our imports will remain diversified, and we will still buy from the US if they allow us to do so. US component suppliers are also seeking approval from Washington to sell components to us. Once this approval is granted, we will continue buying components from them in large quantities. But we are also looking for alternatives at the same time. We are developing our own components and we have strong expertise in doing so, which will enable us to survive.

06

**James Kyngé: What are Huawei's advantages over Nokia and Ericsson in the 5G market, especially in the international 5G market? Are Huawei's advantages in**

**price or technology? If your prices are cheaper than theirs, could you tell us how much cheaper?**

**Ren:** Our 5G equipment is much more expensive than that of Ericsson and Nokia. For the same type of equipment, ours can deliver far more value to our customers and is thus more expensive. If our products were too cheap, we may have pushed some other vendors out of the market. So we insist on selling products at higher prices, like Apple, so that we can make more money. If we distribute this money to our employees and shareholders, they may become complacent. So we choose to spend a large portion of this money on research and development, and donate a portion of this to universities to support the research of professors. In this regard, we adopt principles similar to how investment works according to the US *Bayh-Dole Act*, where universities own research results that they have achieved using federal funding.

Likewise, we fund university research and don't seek to own the research results of universities. This helps us stay far ahead of others in terms of theory. Even during our hardest times, our annual R&D spending will not fall below 15 to 20 billion US dollars.

We have the aspiration and motivation to move forward, and we will surely achieve our expected results.

**07 James Kyngge: I heard that you have won 46 5G contracts from countries other than China and shipped 150,000 base stations. Is that true?**

**Ren:** Actually we have won 50 5G contracts and shipped 150,000 base stations.

**James Kyngge: How many 5G contracts do you expect to win from markets outside China for this whole year?**

**Ren:** Most customers outside China will choose Huawei's 5G, because we provide the most advanced 5G equipment with the highest practical value. We've worked with our customers for over 20 years, and they won't abandon Huawei just because of a few things others say about us.

**James Kyngge: How many out of the 140-plus countries in the world will use Huawei's 5G system?**

**Ren:** About 135 or 136 countries. The US and Australia certainly won't choose us. Most European customers will, however.

**James Kyngge: How about the UK?**

**Ren:** The UK will, too.

**08 James Kyngge: I heard that the UK is now reviewing the source code of Huawei's systems.**

**Ren:** The UK is reviewing our source code out of their

concern for us, because no system is perfect. The UK has simply pointed out our problems and vulnerabilities concerning security during their reviews. We are both working to ensure security. The UK is not rejecting us; it's telling us that our systems have vulnerabilities. They just don't use fancy words to solve problems. Huawei has been subject to the most stringent reviews in the UK, and is thus deemed the most trustworthy by them.

**James Kyngge: Will this cost Huawei a lot? What is the estimated cost?**

**Ren:** It will, of course, cost a lot of money, but I don't know the exact figure. There must be a consistent standard for cyber security to avoid discrepancies between countries and companies. Europe has proposed to develop a consistent cyber security standard, and has released its privacy protection standards – the GDPR, which we strictly abide by.

This will require us to re-architect and re-develop networks, and make changes to network architecture and code. It will take about five years to re-architect all products, which means a lot of effort across the company. However, the new network and product architecture will be the most simplified, the most secure, and the cheapest for future networks, and comply with the GDPR at least.

Before Huawei was added to the Entity List, we had

planned to increase our revenue to 250–300 billion US dollars in 2023. However, due to the impact of the Entity List, our projected revenue for the next two years may decrease. But this revenue may then leapfrog in the following three years, or even hit the target we previously set.

09

**James Kyngge: Do you think Huawei will get the largest share of the Chinese 5G market?**

**Ren:** We will certainly have a larger share in the Chinese market, because all of the Chinese carriers know us well. During recent bidding for the core network launched by China Mobile, about 44% of the market share went to Ericsson and Nokia, while we got a little over 50%. The West is most concerned about the core network when it comes to cyber security. China is open in this area, so it allows Western companies to have such a large market share in the core network. This also shows that China trusts them.

The UK has made the right decision to allow Huawei equipment to be used in its networks, except for the core networks. 5G base stations are truly transparent. Information packages are not opened while being transmitted, and they are not opened on the access network. They aren't opened and processed until they arrive at the core network. Therefore, it is

understandable that the UK proposes not to use Huawei equipment for its core network because they think this ensures better security. However, not using Huawei's core network equipment could also mean being left behind, because Huawei's core network equipment is the best in the world. There will be more foreign customers willing to buy our core network equipment in order to stay competitive.

China has not allowed a monopoly in the core network market. It has allowed 44% of the market share to go to Nokia and Ericsson. We won't attempt to snatch up too much of the 5G market share. Otherwise, we will be squeezing other companies into a very limited space.

**James Kynge: People think that China will be a huge 5G market. Can you predict how large it will be in around two or five years?**

**Ren:** It's hard for me to make a prediction about the Chinese market alone. I have never thought about sizing up the Chinese market alone. I think the whole world will need at least 12 million 5G base stations, which means the market potential is huge. I'm very optimistic about the future 5G market.

**James Kynge: Does Huawei receive any preferential treatment in the domestic 5G market?**

**Ren:** No.

**James Kynge: Huawei is a leading company not only in China, but also worldwide, so does it deserve to be treated preferentially in China?**

**Ren:** China is a market economy. How can there be any preferential treatment in a market economy? The Middle East is rich, so it makes sense to sell at higher prices there. In Europe, prices are quite high as well, which also makes sense. Our phones sell at higher prices in countries outside of China.

**Yang Yuan: The 50% of market share you mentioned was for the core network. What if we also consider base stations and other equipment?**

**Ren:** China has just started the 5G bidding process, and I'm not sure about our market share in base stations. It is likely that this is also higher than that of other companies.

**10 James Kynge: Let's talk a bit about President Trump. If he gave you a call, would you pick up the phone?**

**Ren:** He is very busy. Would he be able to make the time to call me? I don't think this is realistic.

**James Kynge: If he was willing to do so, would you answer the phone?**

**Ren:** I don't understand English anyway.

**James Kynge: Interpretation could solve that.**

**Ren:** Interpreters don't know much about politics, while I specialize in electronics. We might speak different languages. So there may be some difficulties communicating with each other.

**James Kynge: If Trump called and you answered, what would you say to him? How do you think the dispute between the US and China, particularly the dispute regarding Huawei, could be resolved?**

**Ren:** First, he is somebody, and I am nobody really. How could I possibly meet him? Second, I am busy patching holes and may not have time to meet him. Third, the trade issue is a national issue that is related to the livelihoods of hundreds of millions of people. Why should we get involved and ask people to sacrifice their interests to save Huawei? If China negotiated in Huawei's favor, it would have to make concessions in other areas to benefit the US. I don't think our country should do this. It's fine if we are attacked. We get less money and work harder, which will toughen us up.

11

**James Kynge: We all know that the US government has caused a lot of trouble for Huawei. Do you think the Chinese government will continue to restrict US companies that do business in China?**

**Ren:** In fact, the US is helping us in a great way by



giving us these difficulties. Under the external pressure, we have become more united than ever. The greater the pressure we face, the more resilient we will become. That's how steel is made, through thousands of strikes. We are currently a little bit "fat" as a company because we have been expanding without being tested by many hardships over the past 30 years. These attacks against us will force our organization to become more solid, and our people to become tougher and stronger-willed. This is good for our future development. We are not afraid of such attacks.

However, I don't think China will retaliate against US companies because only by staying open will China have a future. The current situation is that the US is not selling its advanced products to China, not that China is not buying American products.

If China refused to buy from advanced US companies, wouldn't China cause itself to be left behind? Strategically speaking, China will only become more open, not more closed. This is how I understand it from the speeches delivered by China's leaders on television. China will only become increasingly open, especially in the manufacturing sector. In the past, joint ventures were mandatory in the manufacturing sector. Now we can see more and more solely-foreign-owned companies in this sector. They use their own technology, make their own

products, and sell these products on their own. During this process, China is acting as a platform.

The 200-year history of the US shows why being open is the right way forward. More than 200 years ago, the US was an untamed land of wilderness. Over the past 200 years, it kept opening up, attracting talent in great numbers, and extensively optimizing its systems. These factors are what made the US the most powerful country in the world. China needs to learn from the openness of the US.

**12 James Kyngge: Let's discuss the trade war between the US and China. Are you willing to see Huawei included in the trade agreement? Is that possible?**

**Ren:** There is no benefit to us if we are included in the trade negotiations. We barely have any sales in the US. If these two countries were two large balls, Huawei is just a sesame seed smashed between them. Oil can be squeezed from a sesame seed, but where would the oil flow to? We don't benefit from the US, so why should we participate in the discussions between the two countries? We are still focusing on patching our "holes". We don't have enough time or energy to study global trade relations.

**James Kyngge: Is it possible that the US will remove**

## **Huawei from the Entity List and allow US companies to continue to export to Huawei?**

**Ren:** Of course I hope the US will do this. There is no reason to add Huawei to the Entity List. If we are guilty of something, we should be put on trial. However, they have never provided any evidence, and passed judgment without any debates or trials. What the US government did is unfair. In this case, how could the world believe that the US is a country ruled by law? I think they should remove Huawei from the Entity List. But even if they don't, we are not afraid of what we may face. This will only make us stronger.

## **13 James Kynge: It is said that HSBC is cooperating with the US government, which may be causing many difficulties for Huawei. What do you think about Huawei's partnership with HSBC in the future?**

**Ren:** First, HSBC ended its partnership with Huawei quite a long time ago.

Second, there isn't any proof that Meng Wanzhou committed any crime. The bank knew about Skycom's business in Iran from the beginning and also understood Skycom's relationship with Huawei. This can be proven by emails between the bank and Huawei, which have the bank's logo on them. From a legal perspective, they

can't claim they were deceived or knew nothing, because we have evidence.

Meng Wanzhou just casually said something over a cup of coffee, which can't be evidence of a crime. Throughout years of business dealings with Iran, Meng Wanzhou was simply part of one discussion in a café. This cannot be the basis for accusations of a crime. The US court should investigate the reporters. They have accused Meng Wanzhou of crimes, but what are these charges based on?

Under the current circumstance, we need to clarify the facts related to this case and present all the evidence. In addition, Meng Wanzhou hasn't committed any crimes in Canada, so Canada has violated its own law enforcement procedures. Canada is a country ruled by law. They should stop infringing on an individual's constitutional rights by taking the US's side. The country's image could be severely damaged if people stop believing that Canada is a country ruled by law.

We trust the Western rule of law, which is based on facts and evidence. Only with facts and evidence can we judge whether someone is guilty. This issue won't impact our partnerships with other banks. When this issue is clarified, we still need to seek further collaborations in the future. Finance is already a globalized system.

**Sue-Lin Wong: Has HSBC provided any explanation**

**regarding the end of their partnership with you?**

**Ren:** HSBC ended its partnership with us and stopped all transactions. It's HSBC that called a stop to this, not us. They didn't explain and simply stopped providing services to us. We will partner with other banks.

**Sue-Lin Wong: Do you think you have been treated fairly? If these issues are properly addressed, will you continue to partner with HSBC?**

**Ren:** The world is never fair. It's all about whether you are strong enough or not. We have the strength to resolve these issues, so we don't care about how we are treated. Now is not the appropriate time to discuss partnerships. The most important thing to do right now is to complete these legal proceedings.

**James Kynge: Ms. Meng's case has been going on for a long time. What do you think the next step will be? Should the US speed up to resolve this issue?**

**Ren:** Meng Wanzhou is innocent from all legal perspectives. She shouldn't be extradited to the US. First, this case is based on groundless charges. Second, Canada detained Meng Wanzhou based on the direction of the FBI. They severely infringed upon her basic rights multiple times. Third, the arrest of Meng Wanzhou is an affront to double criminality, a foundational principle of Canadian extradition law, because Canada does not

impose financial sanctions on Iran. Fourth, the political factors affecting the extradition procedures will impair the fairness of this case and also infringe on the legal rights of Meng Wanzhou.

Saying we haven't communicated with the US government is just not true. We have sued the US government in several US district courts. This is how we communicate with them, through courts and with evidence. Decisions cannot be made over a cup of coffee. If that was the case, you couldn't say the country is ruled by law.

**James Kyngge: As the father of Ms. Meng, do you have the opportunity to speak with her over the phone? What do you say to comfort her?**

**Ren:** She's studying every day, and I frequently talk to her about various topics. She doesn't need me to comfort her because she's a very strong woman. The US is wrongfully holding her. They thought they would easily get the evidence they needed by arresting her.

**Sue-Lin Wong: What is Ms. Meng studying?**

**Ren:** She is studying many things, but I don't know what subjects she is studying in particular.

14

**James Kyngge: It is reported that the US attacked Huawei in 2013, and Mr. Guo Ping also said the US**

**hacked Huawei's system and stole emails and source code. Did you ever analyze that issue or how much harm was caused to your company?**

**Ren:** Back then, when developing our own IT systems, we decided to use American bricks to build our own Great Wall. This Great Wall was not built to defend against the US government, the Chinese government, or any other government in the world. If they just have a look at our systems, that would not do any harm. We only use our Great Wall to prevent malicious competitors from stealing our trade secrets. If we had wanted this wall to defend against every government, it would have been extremely thick and very costly.

We don't have anything that is worth the US government hacking. Our company doesn't do bad things. If they find any issues and let us know, we will make corrections so that our systems become stronger. So we are not worried that the US government may get anything from our servers.

**15 James Kyng: Some people from the White House have claimed that Huawei has ties to the People's Liberation Army and China's Ministry of State Security. Some even said that Madam Sun used to work in the Ministry of State Security. What's your response to these allegations?**

**Ren:** In the US, many people who worked in the military later worked in companies and even held very senior positions in them. Such things are more common in the US than in China. It's true that I was once a soldier, but that does not mean that Huawei has ties to the military. Madam Sun worked as a technician in China's Ministry of State Security, responsible for installing 200-line switches, but she has no other background. Otherwise, she would not have quit her job. After China implemented the reform and opening-up policy, many people left their public service jobs and started their own businesses.

Huawei has no relationship with China's military or Ministry of State Security. Our relationship with the Chinese government is very simple: We abide by the law and pay taxes in accordance with the law. We have no other relationship beyond that.

Huawei is a completely independent company. If our success was due to ties we had to the Chinese government, China would be much more prosperous, because there are numerous other companies that have ties to the Chinese government. We have become what we are today because we are able to make our own decisions, including our decision to become an industry leader.



16

**James Kyngge: Regarding Huawei's revenue and profits, you said last week that Huawei's revenue in 2019 will be about 30 billion US dollars lower than forecasted. Would you please share with us your forecast on profits?**

**Ren:** Our original revenue forecast for this year, made at the beginning of 2019, was 135 billion US dollars, which we have now reduced to around 100 billion US dollars. Our net profits are expected to be around 8 billion US dollars. Actually, I stopped listening to a financial briefing our finance personnel were delivering, because their conclusion regarding our business results was much better than I thought. So I told them to go back to work and not to waste time on reporting. I am a bit pessimistic, you see.

**James Kyngge: So Huawei's addition to the Entity List will not have a large impact on your business results?**

**Ren:** Our original revenue forecast for next year was more than 150 billion US dollars, which has now been changed to around 100 billion US dollars. This year, our workforce will expand from 188,000 people to 194,000. Why the large increase? We are going to need a lot of manpower for R&D, supply, sales, services, and other domains in order to phase out many old versions of our products and release new versions. We will bring in more than 10,000 fresh graduates in July and August. We will

continue to grow despite the difficulties we are facing.

**James Kynge: I've heard that Huawei is such a popular employer that there are up to 20,000 people applying for one job position at Huawei. Is this true? Or maybe this number is wrong.**

**Ren:** This has been exaggerated. We welcome people who want to join Huawei, but we also have requirements. Huawei University has developed a system that consists of many different exams. One must pass all relevant exams before being given an interview. For example, if you won a gold medal in an international computer competition, you may get a salary 5 or 6 times higher than the average starting salary. There are just 40 gold medal winners around the world every year, and we recruited many of them this year, because we offered higher salaries than Google. We have recruited several young geniuses this year, and more will join Huawei next year. Talent, rather than land, helped the US develop into the world's most powerful country. We can learn from the US to attract more outstanding talent. We believe more such talent will join Huawei in the future.

**James Kynge: Are these young geniuses from China or other countries? How many of them are from abroad?**

**Ren:** Both. Of course, these dozens of young geniuses are not all gold medal winners; some are silver and bronze medal winners. There are maybe 50,000

contestants in the world's computer competitions every year. After rounds of screening, only 4,000 will be left, which will then become 400. In the end, only 40 will be winners. There are nowhere near enough Chinese contestants in these competitions. China should encourage more university students to participate in these international competitions. These competitions have established rules and very strict coaches, which can help assess the participants' abilities and improve our education approaches. After these geniuses join Huawei, they will activate our organization and inspire our team.

**Yuan Yang: You just mentioned that the world's software market is very flexible. Have you recruited more people from your American carrier customers or partners?**

**Ren:** In principle, we don't hire Americans in this domain. As long as a person has an American passport, green card, or permanent residency, they may be considered to have American elements. Hiring them will make us subject to the US government's long-arm jurisdiction.

**Yuan Yang: You don't recruit their employees?**

**Ren:** No. Because the US government has long-arm jurisdiction. If we hire people who have a fixed presence in the US, their work results may be subject to the US export control laws.

17

**Yuan Yang: Many governments now require tech companies to hand over data. For example, the US government required Apple to hand over user data in order to unlock their phones. If the Chinese government raised some lawful requests which might go against user interests, what would you do?**

**Ren:** Apple is our model.

**Yuan Yang: Will you stand against the government like Apple?**

**Ren:** No. Actually, Apple is not a mobile phone company, but an Internet company, a kind of carrier. Only carriers can control user data. Apple has established a platform on which a full ecosystem has developed, so Apple owns that data. After we sell pipes (network equipment) to customers, everything transmitted through them, be it water or oil, is controlled by carriers. We don't own any data. Sovereign states have the right to manage the data of carriers within their territory, but no sovereign state can manage data across borders.

**Yuan Yang: What if the government requires Huawei to unlock a phone?**

**Ren:** Users control their own data, not us, so how could we unlock their phones? Data is owned by our customers, not us. Carriers have to track every user; otherwise no phone calls could be made. It's a carrier's

duty to track user data. We, as an equipment provider, don't track any data. So this issue doesn't apply to us.

**Yuan Yang: But you know the operating system, so you could help unlock a phone. If the Chinese government raised a lawful request, could you reject it? Would you be put in prison for rejecting such requests?**

**Ren:** Why would I agree to that? We will never do such a thing. If I had done it even once, the US would have evidence to spread around the world. Then the 170 countries and regions in which we currently operate would stop buying our products, and our company would collapse. After that, who would pay the debts we owe? Our employees are all very competent, so they would resign and start their own companies, leaving me alone to pay off our debts. I would rather die.

At the Munich Security Conference, Yang Jiechi, a member of the Political Bureau of the Communist Party of China (CPC) Central Committee and Director of the Office of the Foreign Affairs Commission of the CPC Central Committee, made it very clear that the Chinese government never requires companies to install backdoors. Premier Li Keqiang then reiterated that position at the press conference held after a recent session of the National People's Congress. Recently, when Premier Li Keqiang visited our booth at this year's 16+1 Summit in Croatia, he told our staff not to install

backdoors. The Chinese government cannot make it any clearer that it will never ask any company to do that.

Now the EU is preparing to set a unified standard which will require all equipment vendors and carriers to guarantee there are no backdoors in their equipment and networks. We strongly support this initiative and are willing to take the lead to sign an agreement based on this standard. Unfortunately, such an agreement cannot be signed for now, because we need to wait for other equipment vendors and carriers to agree and for the EU to establish the system. But overall, this is a great initiative from the EU.

**Yuan Yang: I am a little bit surprised to hear your answer about user data. Both Tencent and Alibaba have said publicly that, if requested, they would hand over some user data to the Chinese government. They have also said that these are lawful requests so they have to accept them. Is Huawei different in this regard?**

**Ren:** We are a company that sells water taps and pipes. Why would they request water from us? Tencent and Alibaba are the sources of information, so they have the water. But we don't. How can anyone ask for water from a hardware store like us? We only sell the equipment. The data is stored in your mobile phones, not in our systems.

18

**Yuan Yang: Regarding the Entity List, it's difficult to localize some components of core servers. What are the most difficult holes to patch? How long do you think this will take? 4 years, 5 years, or 10 years?**

**Ren:** It's impossible to take that long. If we are not allowed to use the x86 server, we can use our own server, TaiShan, instead. Our server is probably more advanced.

**Yuan Yang: What are the most difficult holes to patch?**

**Ren:** We are working to patch these holes. I don't think there are any problems in this regard. Otherwise, how would I be able to smile and talk with you about this issue today? I would be very nervous.

**Sue-Lin Wong: How long will it take you to break free from reliance on the existing supply chain?**

**Ren:** I don't think it will take long. Most of the issues have already been solved.

**Yuan Yang: How will you patch these holes? Will you hire more people?**

**Ren:** Not necessarily. We already have a large workforce. After we cut some of our peripheral businesses, people from these businesses will be transferred to our core businesses.

**Yuan Yang: The US has a monopoly over the world's**

**chip designs and the software market. Could you patch these holes in high-end software like this?**

**Ren:** We have obtained a permanent license for these tools and software. This will not be a problem. But it's hard to say whether there will be issues with upgrades.

**19 Yuan Yang: You'll never accept the US's requests, right?**

**Ren:** Unless they release Meng Wanzhou and remove Huawei from the Entity List with no strings attached, I don't think we would have anything to discuss. Other issues should be handled by the court.

**20 Yuan Yang: The US sees 5G as one of the most important "battlefields". Just now you also mentioned IoT. Do you hope for Huawei to set the global standard for IoT in the future?**

**Ren:** Certainly, IoT will be even more powerful than 5G.

**Yuan Yang: If Huawei becomes the global "king" of IoT, what do you think the US will do?**

**Ren:** They will also attack our IoT.

**Sue-Lin Wong: How will they attack?**

**Ren:** They eat a lot of beef, which makes them strong. And they don't get tired easily, so we can't beat them on the football field. To stay healthy, they need to burn a



lot of calories. So they spar a lot and don't need to go to the gym.

**Sue-Lin Wong: But they are not good at playing table tennis.**

**Ren:** Table tennis does not consume as much energy as football does.

21

**Yuan Yang: Huawei has some friends in the US, though they have a smaller voice. For example, many semiconductor companies and carriers in the US do support Huawei. Are they talking to the White House on Huawei's behalf? Do you think they can speak for Huawei in the US?**

**Ren:** We don't know what they are doing. We are now focusing on patching the holes on our aircraft, and we don't have the time to think about the rest of the world. Now we have switched from seeking development to fighting for survival. We're trying to gather together scientists to make the most advanced future technologies, so that we can fight back. These people are very competent. It's very easy for them to solve key challenges and difficult problems. They can solve many problems within a short period of time.

**Yuan Yang: Will you work with them to make some plans and strategies?**

**Ren:** Our procurement team should be talking with them. After all, we have to sign contracts and place orders. When Washington allows them to do business with us someday, how can they ship goods if we haven't placed any orders? So we should keep discussing supply chain matters with them.

**Yuan Yang: Considering the Entity List, Huawei is facing a lot of uncertainty. If some foreign carriers wanted to buy a lot of Huawei's 5G base stations, but now they become more cautious and hesitant, how can you convince them to buy your products?**

**Ren:** We don't need to convince any of them. Actually, there are many carriers rushing to buy from us.

**Yuan Yang: They are not affected by the uncertainty?**

**Ren:** We have worked with them for two to three decades, and they trust Huawei. So we should have no supply issues.

**22 Sue-Lin Wong: What do you think is the biggest difference between the relationship between the US government and US tech companies and the relationship between the Chinese government and Chinese tech companies?**

**Ren:** The Chinese government manages private companies through legal frameworks and taxation.

They don't intervene in their business operations. I don't know why the US government micromanages its tech companies as much as they do. They act like a mother-in-law, and if they get too involved, their daughters-in-law might run off.



## Ren Zhengfei's Interview with The Globe and Mail

June 27, 2019 Shenzhen, China

01

**Nathan VanderKlippe:** Thank you very much for your time today. I'd like to start by asking a few questions, just about recent news. Can you help me understand what is happening with FedEx and the Huawei packages? Is there anything special in these packages? They said that this was an operational error. Do you believe that?

**Ren:** Each year, we ship over 100 billion US dollars in goods to different destinations across the world through logistics service providers such as DHL and FedEx. All of these goods are normal goods. There's nothing to hide about them. As for why FedEx delivered packages destined for another country to the US, we have no idea. Only FedEx can tell us what really happened.

02

**Nathan VanderKlippe:** Can you explain what you're doing with Futurewei in the US? You've said many times that you have no intention of splitting off part of the company, but isn't that in fact what you're doing with Futurewei? Can we expect to see more of this sort of thing in the future?

**Ren:** According to the US sanctions rules, as long as a component or technology contains US elements, it will be subject to US sanctions. Work involving Americans may also be considered to contain US elements. So, Futurewei is a special case that was designed to meet

the US's legal requirements.

**Nathan VanderKlippe: Is that one way for you to solve other problems for Huawei in the future? To divide up parts of the company and locate them in different places around the world?**

**Ren:** No. I don't think there is any other country in the world that would adopt this Entity List practice that the US does. So we won't duplicate the Futurewei model in other countries.

**03 Nathan VanderKlippe: You've said that Huawei does not cooperate with the military on research, but we learned today that a series of people have co-authored research papers with the Chinese military, and identified themselves as working for Huawei. Does this not prove that Huawei cooperates with the military in China on research?**

**Ren:** Huawei has no research partnerships with the military at an organizational level. These few people must have acted on their own, in their own interests. We are not aware of why they chose to do this. You can speak to them directly and ask them why they did this.

**Nathan VanderKlippe: Do they still work at Huawei? Will they be fired?**

**Ren:** As far as I know, there is only one person who is

still working at Huawei. All the other people had left Huawei some time ago.

**Nathan VanderKlippe: And will that one person be fired?**

**Ren:** I don't know. I don't know anything about this person at all. He is too many ranks below me.

**Nathan VanderKlippe: What would be your message to other employees? Would you say, "Don't do this"? Would you warn other employees to say, "This is not allowed for Huawei employees"?**

**Ren:** Our products are only for civilian use. If someone works on anything for other purposes, it may affect their performance appraisals. At Huawei, we require every employee to contribute to our core businesses. If someone has made contributions elsewhere, how can they receive recognition from their departments?

**Nathan VanderKlippe: Is military research cooperation allowed for a Huawei employee or not allowed?**

**Ren:** It's not allowed.

**04 Nathan VanderKlippe: You have a number of your most important suppliers, such as Google, Arm, and others, who have been lobbying very hard for exceptions from the US entity listing so they can continue supplying**

**you. What is your expectation for that process? Do you still plan on a sort of complete ban for the US cooperation with Huawei? Or do you expect some of your key suppliers to be given exceptions?**

**Ren:** It's understandable that our US suppliers are actively lobbying the US government in the hopes of being exempted from this ban. Such lobbying efforts are in their own best interests. Likewise, Huawei needs to buy huge quantities of products and technologies from these companies.

Unfortunately, I don't think the US will remove us from the Entity List. They have added Huawei to the list not because we have done something wrong and need to be punished, but because they want to destroy us. If someone wants to condemn you, they can always trump up a charge. That's why I think the US won't let up in the short term.

**Nathan VanderKlippe: So you don't expect any of your key suppliers to gain exceptions as they've been asking for? That's not what you're planning for at this moment?**

**Ren:** I'm not saying that they won't be successful. I just said that their efforts are completely understandable. We're not worried about the impact of the Entity List, and there are three major reasons why I feel this way:



First, our team is more united than ever. Before Trump launched his attacks against Huawei, our team was getting sloppy. But because of the attacks, our team has become more united in working towards our goal to survive and thrive. We're becoming stronger-willed, and we are working with increased drive and passion.

Second, we are creating a united front with our partners. We aren't angry with any of those US suppliers who can't continue to supply us. We understand, and we want to cooperate with them whenever it's possible. We will open our arms to embrace cooperation with more companies, no matter if they're Chinese or non-Chinese. We will enhance cooperation with any company that is willing to support us. As the Chinese saying goes, "A just cause attracts much support, an unjust cause finds little." This is how we are building a united front.

Third, we are still moving in the right general direction. The US has been attacking our 5G, but 5G is only part of our network connectivity business. Huawei is a global 5G leader. We are also well ahead of others in the optical transmission, optical switching, access network, and core network domains. In this industry, we can continue to develop by relying on our own chips and software, so we aren't affected by the US move at all.

The impact on our consumer business is relatively larger. By adjusting to the new environment over the

next one or two years, our consumer business will be able to continue growing.

Despite the impact of the Entity List, we sold 10 million of our new P30 series of smartphones within 85 days of the launch. This shows our customers' trust hasn't declined. As of May 30, we had sold 100 million mobile phones. I believe we can gradually resolve the difficulties our consumer business is facing in the second half of this year or sometime next year.

**05**

**Nathan VanderKlippe: You said "adjusting ourselves to the new environment", you figure that in one or two years you will have fully adjusted to the new environment. Can you help me understand what "fully adjusted" means? Does that mean at that point you will have the ability to produce all of your products without relying on American technology or American patents, et cetera?**

**Ren:** We have many patents and so does the US. We have signed cross-licensing agreements with US companies for many patents, and there are no issues with cross-licensing. We would never want to live without the support of US technologies, components, and products. With US technologies and components, Huawei products will be more advanced and better serve humanity.

By saying that we will adjust ourselves to the new environment in the next one or two years, I mean that we won't be struggling to survive after that period.

**Nathan VanderKlippe: Can you help me understand why that is? What will have changed between what you do now and two years down the road?**

**Ren:** Through our own efforts and those of our partners, we will have no problems with our supply.

**06 Nathan VanderKlippe: Earlier this year, you said Huawei would be fine without chips from the US. In mid-May, you said that given some of the issues with the US, it's expected that Huawei's growth may slow, but only slightly. More recently, you've said you expect Huawei's revenue to decline this year by 30 billion US dollars, that's a very significant impact. What's changed? What has become worse than you expected?**

**Ren:** First, we can make all cutting-edge core chips by ourselves, and ensure our products continue to stay far ahead of the industry.

Second, a few components will need to be updated to newer versions. During this transition period, we may find it hard to ensure sufficient capacity. This may have some impact on our development.

Third, people outside Huawei may think 30 billion

US dollars is a big number, but it is not to us. We had forecasted that our revenue would reach 135 billion US dollars this year, and if that figure decreases by 30 billion, we will still have about 100 billion US dollars in revenue. This was our initial projection, but the actual numbers in our financial statements were a little higher than expected.

**Nathan VanderKlippe: So, 30 billion is no longer the forecast in terms of the impact on revenue this year?**

**Ren:** Yes, maybe less than that.

**Nathan VanderKlippe: 20 billion? Can you give us a sense? Everybody's caring about numbers.**

**Ren:** I don't know the exact number. I usually exaggerate a bit when I speak, so that we have a bit of a buffer when things change. We have to wait and see the financial statements for the second half of the year. The numbers in the first half of the year can't represent our business performance for the whole year, because we experienced rapid growth in the first four months. The Entity List had some impact on us in May and June, but the impact was not big because the momentum of production continued for some time. Starting from the second half of the year, the impact is expected to become bigger. But I'm not sure how big that impact will be.

**07 Nathan VanderKlippe: You've got a 90-day reprieve. You're in a temporary reprieve position from the Entity List. But, I mean, presumably you are planning on that reprieve ending when that 90-day period ends. Can you help me understand what happens on that day when this temporary period ends? You said there could be shortages. Where would you see shortages? I mean, what changes? Do we see products no longer available for people to buy? What happens at Huawei on the day of its sort of full entry into this entity list?**

**Ren:** I think the 90-day reprieve was unnecessary in the first place. When Huawei was added to the list, we'd already been well prepared, so we didn't need this 90-day reprieve. As a matter of fact, the 90-day reprieve meant that the scope of the attack against Huawei became larger, not smaller. After Huawei was added to the Entity List, we only faced restricted access to American components and technologies, but with the 90-day reprieve, our engagement with standards organizations, which didn't need permission before, had been restricted. This caused much trouble for many standards organizations. So from our standpoint, this 90-day reprieve was not softening the fall but rather hardening the blow.

I think the US government should remove Huawei from the Entity List instead of postponing its implementation.

It's the American companies, not us, that have suffered the most. Huawei's production lines are working flat out. Our workforce has expanded from 188,000 to 194,000 because we need more engineers to work on new versions of our products.

If you have time, you can take a look at our production lines. They are up and running, and the people working on them are staying busy. If US companies can't sell their components to Huawei, their financial reports will reflect it and they'll feel the sting more than we do. We feel sorry for them because we've been working together very closely, in good times and bad, for the past 20 to 30 years. So the 90-day reprieve means nothing to us; we've been prepared for a long time.

**08 Nathan VanderKlippe: Can you help me understand, the addition of 6,000 people, I mean, that's bigger than most companies. Are those people involved in sort of software development and chip development? What are the specific areas you've been doing the most hiring in?**

**Ren:** They work in many different areas.

**09 Nathan VanderKlippe: I know a lot of journalists have asked you to identify the specific holes. I don't really**

**want to go there. What are your primary concerns? Is it getting your chip technology free of any US influence?**

**Ren:** People outside Huawei are most concerned about chips, but they're not my number one priority. This is because our chips are already more advanced than American ones. Those less important and less technically sophisticated components that we used to ignore are now becoming increasingly important to us. If one small component is missing from a circuit board, you might have to redesign the entire board and that involves quite a lot of work.

So I don't see the US's Entity List as a threat to our survival. You asked me how many holes there are. I think there are hundreds or even thousands of them. We have to send lots of people to check each and every hole to patch them up.

**Nathan VanderKlippe: I know some of this is very technical stuff you probably would not concern yourself, but has any specific, small, unexpected thing reached your desk that has proven to be particularly difficult to resolve from a technology perspective?**

**Ren:** Technically, these holes are easy to fix, but it takes time. Some simple components are actually having a big impact. Say for instance, that the US cut off the supply of three components that we used to ignore, because technically they were easy to make. Every

circuit board may need these components though. If they are unavailable to us, we have to redesign all our boards. This would involve a lot of work. Now if these components become available to us, but we have already made one ourselves over the past two months, then we just need to buy two. We have the ability to fix all those holes. We have more than 80,000 people in R&D, and we spend 15 to 20 billion US dollars in R&D every year. We can send our best people, who are conducting research that is critical to our future development, to work on these simple, urgent problems first. That way, we can solve all of our problems.

**Nathan VanderKlippe: What have you told people? What deadline have you given to your people in terms of the time when you want Huawei to be able to operate in all areas, like hardware, software, and components, without any reliance on the US?**

**Ren:** I won't set a timeline for them. Different teams have different tasks and workloads. I will let them solve the problems they face themselves. We need to try our best to resolve the issues on our own.

**Nathan VanderKlippe: By issues be resolved, you mean that everyone and every component of this company needs to find a way to operate without reliance on the US, am I understanding that correctly?**

**Ren:** Yes.



10

**Nathan VanderKlippe: There are reports that Huawei is seeking a billion dollars in patent licensing fees from Verizon, is that figure accurate? And what is your view on the total amount of unpaid patent licensing fees that Huawei believes it can collect from US companies?**

**Ren:** We have nearly 90,000 patents, among which over 11,500 patents were registered and granted in the US. The US has granted us the legal rights to these patents. The US is a country ruled by law, and every US company that is using our patents should pay licensing fees to us. We are negotiating licensing fees with Verizon, and the fees we ask from them are reasonable. They should understand that. We are less aggressive than Qualcomm when it comes to similar negotiations. I think they will pay us the money. I believe the US is a country ruled by law, so US companies will pay the licensing fees. The one billion US dollars is the total fees for using Huawei's patents over the past five years. The fees don't include those for 5G patents. We will also negotiate licensing fees for using our 5G patents in the future.

**Nathan VanderKlippe: But one billion is a large number. Given that your company has taken about one and a half billion dollars over the last several years in total in patent licensing fees, one billion is a big increase on that. Do you think that's only a small amount of how much you think you can collect in**

**future years, from unpaid royalty fees of American companies?**

**Ren:** I would say one billion is just a small number. We didn't collect many patent licensing fees from others, because for some organizations we engaged with, they also owned patents that we were using, and we needed to pay them as well. Therefore, the net licensing fees we collected were not that much. But for companies without any patents that we were using, they had to pay more. In general, we are not aggressive when asking for licensing fees, and the fees we ask for are reasonable.

**Nathan VanderKlippe:** **When we look at what you're asking for from Verizon, do we expect to see Huawei's demands from other companies in the US alone, or everywhere, such as in Europe, Canada, and Australia?**

**Ren:** It should be from all markets.

**Nathan VanderKlippe:** **Do you have a sense of how much in total Huawei can collect through that process?**

**Ren:** It would definitely be much less than what Qualcomm asks for.

**Nathan VanderKlippe:** **That's still a very big number.**

11

**Nathan VanderKlippe:** **Now onto your daughter. Part of the reason I'm here, as a Canadian, I think is probably**

**because Canada and China have entered into a very different phase in their relationship, in part because of the role of your daughter. She's in Vancouver at the moment. How many times have you traveled to Canada over the years? You've been there at least twice, I think. I don't know how many times in total.**

**Ren:** I've been to Canada many times, but I can't recall the exact number. The most important visit I've paid to Canada was in 2017. During that trip, I travelled from coast to coast and spent more than 10 days there. The primary purpose of that visit was to survey Canada's investment environment and I also visited a handful of universities. I think Canadian universities are really outstanding. The three founding fathers of artificial intelligence (AI) are all from Canada. During that visit, we found that there was a remarkable investment environment and planned to place our theoretical research center for North America, or even the entire world, in Canada.

As the US is becoming increasingly closed off from the world, many talented individuals cannot get US visas. I think they may have to work, invest, and attend conferences in Canada instead. We believe the living environment and standards of living in Canada are pretty similar to those of the US. So we plan to significantly expand our research presence and build

large R&D centers in Canada, like what we previously did in the US. I've already told the head of our research team in Canada that we will buy land in cities like Toronto, Ottawa, Montreal, and Vancouver, and build our new R&D centers there.

I think the collaboration between Huawei and Canada is in the interests of both sides. Scientists work on theories, but sometimes they don't know how to apply their theories to real-world scenarios. As a company, Huawei clearly understands how theories can be applied commercially, but we are not as good as scientists in terms of theoretical research. So it stands to reason that together, we can create synergy and drive the industry forward.

Through these partnerships with Huawei, professors will be able to teach students knowledge that can be applied in real-world scenarios. These students will not necessarily work for Huawei after graduation. Those who work for other companies can drive innovation in society. Some of our employees may leave Huawei and continue bringing innovation to society. I believe Canada will have its own "Silicon Valley" one day.

Recently, there has been enormous hype about 5G around the world, but to some people in the US, it has been more concerning than an atomic bomb. Actually, the 5G standard originated from a mathematical paper

published by a Turkish professor back in 2007. Huawei assigned thousands of our in-house scientists and experts to carry out in-depth studies and analyses of that paper, while other companies in the world also put tens of thousands of scientists and experts. Together, we've turned that paper into a standard for 5G. The Turkish professor didn't realize how his paper could be applied and was amazed to see it developed into a 5G standard.

5G will be a tool for AI in the future. As I just said, all of the three founding fathers of AI are from Canada. They are already prominent leaders in their field. We see no reason why Canada as a country couldn't become the future leader of AI.

If Canada builds strong capabilities in AI, and an AI-powered robot can do the work of 10 people, then the country will become an industrial power with a workforce equivalent to 300 million people. What's Canada's biggest disadvantage? Though its people are brilliant, there aren't a lot of them. This means Canada has no advantages in traditional manufacturing. But with the wide adoption of AI, Canada's strength can be fully leveraged, enabling it to become a big industrial power.

I would like to invite you to take a tour of our production lines. Though we only have a little more than 6,000 technicians in our manufacturing facilities,

they support us in generating revenue of more than 100 billion US dollars.

During my 2017 visit to Canada, I met two of the three founding fathers of AI; the other one was not in Canada at that time. Now, both China and the US are making extensive efforts trying to catch up in the area of AI. Given its first-mover advantage, Canada must seize this strategic opportunity. So far, we haven't changed our strategy of making heavy investments in Canada.

**Nathan VanderKlippe: I wonder if you can help me understand a little bit more. You've talked about four cities. Has the land already been purchased? Like, how much land? How many people do you envision working in some of these centers?**

**Ren:** We have purchased 500 acres of land in the UK so that we can build an optical chip factory. Our optical chips are produced in the UK and have leading edges worldwide. We plan to build a beautiful campus there, just like the one in Dongguan, in order to attract more talent from across the world.

Canada also has a beautiful environment. Currently, while the US tightens its visa policies for scientists, I think Canada should relax its policies to attract more scientists from other parts of the world. This way, more scientists from the Middle East, Eastern Europe, and other countries and regions will be willing to move to

Canada. We will try to recruit such scientists to work on theoretical research in Canada. That's why I stayed in Canada for more than 10 days in 2017.

**Nathan VanderKlippe: Can you help me understand the scale of that project? Because you've talked about a big investment. Is that investment worth 100 billion dollars, or 10 billion dollars? You may not have an exact figure, but what scale of investment are you looking at?**

**Ren:** I can only say that these will be large-scale investments. If the current conflicts between Huawei and the US, as well as between Huawei and Canada, had not happened, Canada would have probably become Huawei's global center for theoretical research. Canada has an advantage: It is very close to the US and has similar social and legal systems, as well as a similar living environment to the US. So a lot of talent who cannot go to the US or don't want to stay in the US can go to Canada.

Over the next several decades, I think that the biggest technology evolution will come from AI and bioscience.

**Nathan VanderKlippe: Regarding this idea of Canada becoming the global center for Huawei on theoretical research, are you still pursuing that, or has everything that's happened in the last seven months changed that plan?**

**Ren:** The direction remains unchanged, but the pace of implementation of this plan has changed. Still, we will not change our strategy to invest and develop in Canada.

**Nathan VanderKlippe:** I just want to explain to readers, I mean, what scale? Presumably this is an idea of billions of dollars; is that fair to say?

**Ren:** At least several billion US dollars. I am quite sure of that.

**12 Nathan VanderKlippe:** There's one thing I want to ask you about your daughter. The first question is for you. Meng Wanzhou obviously had personal ties to Canada. She had property in Canada. Do you have personal ties to Canada? Do you have property or other personal investments in Canada?

**Ren:** No. My English is not good, so I cannot live in Canada. If I lived there, I wouldn't even be able to go shopping or would get lost when I went out for a drive. So I will continue living in China in the future.

**Nathan VanderKlippe:** But Meng Wanzhou was obviously a frequent visitor to Canada. Did she go to Canada in October of last year?

**Ren:** She often traveled. I don't know where she went exactly.



**Nathan VanderKlippe: When did Huawei become aware of the US' arrest warrant against Meng Wanzhou?**

**Ren:** She was detained on December 1, and I became aware of this two days later on December 3. She was supposed to go to Argentina to chair an internal meeting. After learning that she was arrested, I flew to Argentina to chair that meeting myself on December 4.

**Nathan VanderKlippe: So you're saying no one at Huawei had any idea there was an arrest warrant out for Meng Wanzhou?**

**Ren:** No one knew about this. Otherwise, why would she have gone there just to be put up against the wall like this?

**Nathan VanderKlippe: This is my question as well, because every country on that trip that she planned to go to, Argentina, Mexico, Costa Rica, France, has an extradition treaty with the US. Also Australia.**

**Ren:** Some countries were smart and rejected the US request.

**Nathan VanderKlippe: What was the smart move back then?**

**Ren:** Canada should not have become involved in this matter. It's the business of the US, and should be taken care of by the US itself. Since Canada has gotten

involved, it has suffered and so have we. I feel sorry for what's going on, on both sides.

**13 Nathan VanderKlippe: I think you've used the term "victim" in the past. Both Huawei and Canada are victims in this matter. But if the Canadians are victims in this matter, there are now two Canadians who have been imprisoned in China: Michael Kovrig and Michael Spavor. If they are also victims in this matter, why has Huawei not lobbied on their behalf? Why has Huawei not demanded the Chinese government release them as well, if they're also victims?**

**Ren:** I understand these are legal actions taken by the Chinese government. We are only a company, and there is not much that we can do. We believe in the legal systems of Canada and the US. Meng Wanzhou has committed no crime, and we believe this case will be resolved through legal means. So we are resorting to legal means, rather than seeking help from the government.

Meng Wanzhou has committed no crime in Canada or anywhere else in the world. Meng Wanzhou's case does not satisfy the double criminality principle, so if the extradition request of the US were approved, it would violate Canadian law.

If Canada releases Meng Wanzhou, this will show Canada is truly a country ruled by law. If Canada only does so after getting permission from the US, I think Canada's image might be harmed. We hope that Canada can independently enforce their own laws and regulations. Meng has not committed any crime in Canada, and the case does not satisfy the double criminality principle of Canada's Extradition Act. Therefore, the extradition proceedings should be called off. Otherwise, this goes against Canada's Extradition Act.

**Nathan VanderKlippe: There is a debate in Canada now. In Canada, the Minister of Justice has the power to intervene, at any time, to call off extradition proceedings. And there is a debate in Canada about whether the Canadian Minister of Justice should do that. The former Canadian Prime Minister has said Canada should do this. What is your view?**

**Ren:** I think public opinion on this is correct. Based on judicial investigations, there has been proof that Canadian law enforcement authorities have violated the law while they detained Meng Wanzhou at the airport. I think it would be a proactive, wise, and legitimate move if the Minister called off the extradition proceedings. We don't want Meng Wanzhou's case to affect the relations between our two countries, the relations between our two peoples, or any future opportunities

for development.

For me personally, I'm quite open-minded. I don't have any negative views about Canada, despite what has happened to my family. We, as a company, have continued to recruit many more researchers in Canada this year. We are continuing to invest in Canada. We didn't change the normal business plan of our local office there.

I think Meng's case should be addressed through Canadian legal proceedings. I believe right now is probably the best time to settle this issue. Both sides should try to untie this knot. There might be different ways to possibly do this, but I think it may be worthwhile to have the Minister of Justice intervene.

**Nathan VanderKlippe: You said again and again that you trust the judicial process, you trust the court to resolve this. Why are you now asking for a political solution here?**

**Ren:** The Minister of Justice can intervene and exercise this power. That's part of Canada's legal system and it's also consistent with Canada's Extradition Act.

14

**Nathan VanderKlippe: At this point, how do you rate the chances of Canada installing Huawei's 5G technology? What would you put on that?**

**Ren:** I think that's a matter for the Canadian government and Canadian carriers to decide on. It's not up to Huawei. Just like selling clothes at the mall, whether customers buy your clothes depends on their willingness to spend money. We cannot decide for customers. That's beyond our capabilities.

Let me share a story with you. Why did Europe develop faster than China? Several hundred years ago, there were trains and ships in Europe, while China still relied on horse-drawn carriages for transportation. In China, those carriages were definitely slower and carried less cargo, while in Europe, trains ran much faster, and ships could carry even more cargo. Europe had realized industrialized society earlier. So speed is very important to the development of a society. Now, what we are seeing is the transport of information, not of physical goods. The countries that move faster in deploying information technologies will be faster in terms of economic development.

China was very underdeveloped 20 to 30 years ago. Eventually though, it stepped up its efforts to build information systems. This is one of the reasons why China's economy has caught up. 5G is a very high-speed system. When full-fledged 5G networks are in place, per-bit cost for using data traffic will drop dramatically. That will play a very important role in boosting the

development of culture, education, and economy, among other things. Certainly, the US cannot set up advanced information systems on its own. That's because we'll not sell any of our 5G products in the US. If Canada can put in place a high-speed information infrastructure, it's very likely investors from other parts of the world will swam to Canada.

If you are interested, you can look at the correlation between changes to data traffic and economic growth over the last 30 years across different countries. Through this comparison, you'll find that countries whose information infrastructure grows faster will also have economies that grow faster.

If you have time in the future, I will get someone to give you detailed information on the example of South Korea. South Korea has taken quite an aggressive approach to ICT development, and their economy has been growing very fast as well. In the future, the US may not have very high-speed networks. If Canada could put in place high-speed ICT infrastructure, I think Canada will have better chances of attracting investors from other parts of the world.

**15**

**Nathan VanderKlippe: Three of the people that have been among your most senior employees in Ottawa in recent years used to work at Nortel, as did a number**

**of the people that work under them today. Did Huawei steal Nortel's technology, and then build up its own business, particularly in Canada, by taking the remaining employees?**

**Ren:** After Nortel collapsed, we recruited those people you just mentioned. Back then, Nortel didn't have the technology we are talking about today; they only had talented people. When such talented people were out of work, it was just natural that they would find other jobs. When Nortel collapsed, 3G had just started developing in the world. As the industry evolved from 3G to 4G, and then to 5G, those people also improved themselves during the process. What they have contributed to Huawei is what they had in their minds. It's definitely not about intellectual property theft.

One of Nortel's greatest contributions was to improve the capacity of optical transmission networks to 10G. Unfortunately, Nortel collapsed because the IT bubble burst. Today our optical transmission networks boast a capacity of 800G. Of course, we need to build on our predecessors' contributions to achieve greater success. However, there's no intellectual property involved in this, and it is essentially our own invention.

I did once want to acquire Nortel, but the deal never happened because of commercial reasons.

**Nathan VanderKlippe: How much were you going to**

### **pay for Nortel?**

**Ren:** We never got that far. We only talked about the method of acquisition. In 2003, we planned to sell Huawei to Motorola for 10 billion US dollars. But during the very week the deal was supposed to be approved, there was a change in Motorola's board and the new chairman rejected the deal, so the acquisition failed. Several years later, Motorola collapsed. We thought about acquiring Motorola, but was not able to make it happen. It's just one of those missed opportunities in history.

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**Nathan VanderKlippe: Do you believe that a technological Cold War is inevitable and that there is a divide between the American influenced world in terms of technology and the Chinese influenced world in terms of technology? Is there no going back from that path at this point in time?**

**Ren:** I don't think this assumption holds. The world must head towards interconnectivity. If an American has to get a new phone in order to make a phone call in China, or if a Chinese person has to get a new phone to make a phone call in the United States, it would move human society backwards.

Moving forward, the information society will only



become more interdependent. In particular, as software-defined everything and cloud become more prevalent, things would get rather complicated if the world were divided.

It's neither wise nor realistic for certain politicians to look to divide technology into different camps. For example, if US companies cannot sell components to other countries, those companies will shrink. As a result, the cost of their production will increase and consumers will have to pay more.

The goal of globalization is to allocate resources in an optimal way. The cost of services that people enjoy today is relatively low. If the technology community were divided into two camps, economies would suffer. And I don't think Wall Street would be fond of this idea. People in the US say Wall Street has a very big voice, right?

**17**

**Nathan VanderKlippe: I want to ask you a very specific question. You said repeatedly that Meng Wanzhou was not guilty, but one of the pieces of evidence against her in America is a PowerPoint presentation. What is your understanding of how the US received that PowerPoint presentation? Did they receive it through legitimate means? Do you believe that the presentation is a piece of evidence that can be admitted into court?**

**Ren:** The bank was in contact with Huawei from the beginning to the end of the period Skycom was dealing with Iran. They knew about Skycom's business in Iran as well as its relationship with Huawei. That went on for several years. Then the bank invited Meng Wanzhou to a café where she presented several slides and her presentation was not misleading. Why did the bank ask her for the slides? We don't know. We hope that things will be made clear after the trial proceedings have been completed at the US District Court for the Eastern District of New York.

**18**

**Nathan VanderKlippe:** Huawei has been, in some ways, a pioneer for the Chinese corporate sector in terms of a company, a Chinese headquartered company, a Chinese-origin company that has succeeded internationally. Half of your revenues are from international markets. As you know, there are rules, some of them quite recent in China, that mandate sort of intelligence sharing in China. I don't want to ask about those specific rules because I've read your legal opinions on them. But does the existence of those rules in China make it difficult for any other company, any other Chinese company, to succeed overseas? If there are requirements for intelligence sharing among Chinese companies in China, are they obstacles to the

**internationalization of the broader Chinese corporate sector? And if so, have you sort of pushed for those rules to be relaxed in China? Should those rules be changed too?**

**Ren:** We don't have the ability to ask for laws to be changed. However, at the Munich Security Conference, Yang Jiechi, a member of the Political Bureau of the Communist Party of China (CPC) Central Committee and Director of the Office of the Foreign Affairs Commission of the CPC Central Committee, made it very clear that the Chinese government never requires companies to install backdoors. Premier Li Keqiang then reiterated this position at a press conference following a recent session of the National People's Congress. Recently, when Premier Li visited our booth at this year's 16+1 Summit in Croatia, he even directly told our staff not to install backdoors. This is testament to their support for us when it comes to never stealing intelligence from other countries or companies. Therefore, we can sign "no-backdoor, no-spy" agreements with any country.

Content in this publication is based on excerpts of Huawei founder and CEO Mr. Ren's interviews with the media.

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