

## **Peter Harrell Responses to QFRs from May 2019 Senate Judiciary Committee Hearing on “5G: National Security Concerns, Intellectual Property Issues, and the Impact on Competition and Innovation.”**

### **Questions on U.S. participation in international standard setting bodies:**

Senator Tillis and Senator Coons, thank you for questions regarding U.S. participation in international standard setting bodies for 5G technologies. As my co-panelists noted, the Chinese government, Huawei and other Chinese telecommunications companies have actively “flooded the zone” in relevant standard-setting bodies in a bid to shape technical standards. Chinese nationals, for example, represent the single largest share of the members of 3GPP, one of the primary 5G mobile network standards setting bodies. But we also should be careful not to overstate China’s influence: while Chinese nationals represent the single largest share members of 3GPP, they still make up less than a third of 3GPP’s members--and some of the Chinese nationals work for the Chinese subsidiaries of international companies.

Although the U.S. has helpfully sought to increase U.S. engagement in relevant standards-setting bodies over the past year, the U.S. also inadvertently hindered U.S. engagement following the U.S. decision to put Huawei on the Entity List in May 2019: immediately after the Department of Commerce put Huawei on the Entity List, restricting exports to Huawei, U.S. companies had questions about the extent to which they could continue to participate in international standards setting bodies where their participation might require the disclosure of data, designs, and technology to Huawei as part of discussions over standards. Fortunately, the Department of Commerce issued a license clearly allowing participation in certain standards setting bodies and later issued a General Advisory Opinion on the issue. However, discussions with industry indicate that there continues to be uncertainty about the full extent of some of the licenses and there is concern that if the U.S. takes similar action against other Chinese companies U.S. firms might again face difficulties participating in relevant standards setting bodies. The U.S. should take all available steps to ensure that our own trade controls measures do not inadvertently block U.S. companies from setting international standards.

### **Questions on encouraging investments in 5G and 6G technologies**

I thank Senators Grassley and Coons for their questions regarding ways to encourage investments in U.S. 5G technologies and to develop a larger number of trusted vendors for 5G equipment. And I thank Senator Graham for his question on steps that the United States should take to ensure that the U.S., not China, leads in the development of 6G networks.

With respect developing more diverse and trusted 5G supply chains, I welcome initiatives such as the U.S. Department of Defense’s decision last year to bolster Defense Department investments in 5G technologies. But ultimately, the market for 5G is going to be a primarily civilian market and the private sector will have to be responsible for investing in new suppliers. With that in mind, signals about the rapidity of deployment, size, and stability of the 5G market will encourage U.S. and allied firms (e.g., European and South Korean firms) to up their game in developing and deploying 5G technology. Potentially one of the most useful near-term steps is for the FCC to move forward

expeditiously with plans to repurpose certain spectrum to be auctioned for use in U.S. 5G networks, which will enable a much broader national rollout of mobile 5G. Recent moves by the FCC to ban the use of federal dollars to deploy Huawei equipment in U.S. telecommunications networks, guaranteeing that other companies will win market in the U.S., also send a market signal that U.S. and allied private sector firms should invest in making the products.

With respect to 6G, I urge Congress and the Trump Administration to establish an “innovation fund” to expand public funding for innovative communications technology research. I also urge the U.S. government to establish a joint industry-government working group to ensure that the U.S. government and industry identify barriers to U.S. leadership in 6G and ensure that U.S. leads development in the technology.

### **Questions regarding U.S. antitrust policy:**

I thank Senator Grassley and Senator Booker for their questions about whether U.S. antitrust policy can either foster or impair U.S. leadership in 5G technologies. I ultimately believe that U.S. leadership in 5G technologies, as in other technologies, is advanced when the U.S. has a robust, competitive domestic market and that monopolistic activities ultimately undercut, rather than strengthen, the market. As a result, I am skeptical of arguments that robust antitrust enforcement against large U.S. companies involved in 5G will undermine U.S. leadership in the technology and expect that, on balance, strong U.S. antitrust enforcement will actually promote U.S. 5G leadership by ensuring a competitive and innovative U.S. market.

### **Questions regarding Huawei’s Entity Listing**

Senator Booker, thank you for the questions regarding the impact of the Commerce Department’s May 2019 decision to put Huawei on the Entity List, restricting U.S. exports to the company.

The myriad and complex issues that have arisen since the U.S. put Huawei on the Entity List encapsulate the full suite of complex and difficult choices the U.S. must make when it comes to deploying economic weapons against China. Huawei is undeniably a bad actor in many respects: It is alleged to have violated U.S. sanctions and trade controls on Iran, and the U.S. government’s concerns about the security vulnerabilities associated with using Huawei-built telecommunications networks are well-known. On the other hand, prior to the decision to place Huawei on the Entity List, Huawei purchased more than \$10 billion annually in equipment from U.S. companies—revenue that U.S. companies could plow back into R&D to maintain U.S. technological superiority over the long term. Since the U.S. put Huawei on the Entity List, Huawei has been able to substantially blunt the impacts by increasing sourcing from third countries, developed Chinese-centric supply chains, and by beginning to develop software to compensate for the loss of access to popular U.S. platforms such as Google-made products.

I support the Trump Administration decision late last year to begin issuing licenses to enable U.S. companies to sell some products to Huawei that Huawei could otherwise simply procure from foreign suppliers, or domestically within China. But the reality is that the costs of the current U.S. approach to Huawei are likely to continue: Huawei, and China more broadly, have responded to the ban by doubling down on efforts to wean themselves off of U.S. suppliers, a trend that will have

long-term costs for U.S. companies. For example, I fail to see how it is in the U.S. interest to essentially force Huawei to develop a mobile operating system and suite of apps that will soon compete with Google and Apple globally, rather than keeping Google Android and Apple iOS as the two overwhelmingly dominant global mobile platforms.

While it is entirely reasonable and appropriate U.S. companies to bear costs for U.S. government policies that actually achieve U.S. policy objectives, the current approach to Huawei does not appear to be accomplishing much. While the Entity Listing did slow Huawei's commercial growth, especially outside of China—Huawei sales were essentially flat in Europe in the second half of last year, and Huawei has conceded that 2020 will be challenging—strong growth in China meant that Huawei recorded a nearly 20% increase in revenues in 2019 compared to 2018 despite the U.S. measures. In addition, the U.S. has failed to convince even close allies to fully block Huawei equipment from their 5G networks, as was illustrated by the U.K. decision announced in January 2020 to allow Huawei equipment to be used in “non-core” parts of 5G networks in the U.K.

The U.S. needs a new approach to Huawei that focuses on three issues. First, as discussed during the hearing, and as the Senators suggest from several of their questions, we need an approach that boosts U.S. investments in 5G equipment so that U.S. and allied firms are able to better compete with Huawei in the marketplace.

Second, we need to figure out how to use our legal and trade control tools to increase, rather than decrease, our leverage over Huawei. As Huawei further weans itself off of U.S. suppliers, and particularly as it strengthens Chinese domestic supply chains, U.S. leverage over the company actually decreases. This not only means U.S. companies lose revenue, it also means at the end of the day we have less ability to constrain Huawei's actions. Picture a world where the U.S. finds a smoking gun that Huawei facilitated Chinese espionage in a third country. In a world where Huawei still relies on U.S. supply chains, the U.S. can leverage that reliance to penalize Huawei over its actions. But if Huawei is fully independent of the U.S., U.S. retaliatory measures will be limited.

I urge the Trump Administration to look at its comparatively successful action against ZTE as a model. After ZTE violated U.S. sanctions on Iran, and then violated an initial settlement agreement with the Commerce Department, the U.S. leveraged trade control tools to extract a settlement in which ZTE not only paid more than an additional \$1 billion in fines, but in which ZTE agreed to overhaul its compliance programs and appoint numerous U.S.-national, U.S. government-approved compliance officers to manage the company's compliance program. This actually increased U.S. leverage over ZTE. While the U.S. certainly cannot fully trust ZTE and I support measures to restrict the use of ZTE telecommunications equipment in the U.S., from a global perspective the U.S. is in a better position relative to ZTE than it would have been if ZTE had simply separated itself from the U.S. The Trump Administration should see if it can settle the current Iran sanctions charges against Huawei in a way that expands U.S. leverage over the company.

Of course, even if the Trump Administration settles the Iran sanctions charges in a way that increases U.S. leverage, the U.S. will still want to limit Huawei's advantage in 5G. I do think that it is appropriate to keep in place narrowly-targeted trade restrictions barring the sale of 5G and truly high-end equipment to Huawei over the long term. Plus, if the U.S. narrowly targets the measures, I expect that the U.S. will have more luck persuading our allies to join in the U.S. measures, increasing the actual impact of the measures.