Mr. Chairman, Ranking Minority Member Cantwell, thank you for the opportunity to testify.

We hear that 5G is a race the U.S. cannot lose. I am not sure what this means. I am sure, however, that if there is a race, we are not losing.

The U.S. has not been rebuffed in Europe. The UK decision is best seen as a partial ban. Europeans agree on the risks of using Huawei and the EU calls China a "Systemic Rival." Where there is disagreement is over how to manage risk.

Germany has a dilemma. If it bans Huawei, China threatens to retaliate against German exports, and China is Germany's largest market. German car companies have allegedly asked Chancellor Merkel not to ban Huawei and Germany is tempted to copy the UK partial ban.

Those who advocate a partial ban argue that if properly implemented, it makes the risk of using Huawei acceptable. A full ban is best, but if countries decide against this, the U.S. needs to help make partial bans effective.

Spectrum is not a major problem. Telecommunications companies say the spectrum allocation process could be faster and cheaper, but spectrum decisions have not put U.S. at a disadvantage. The key issue is finding ways to share spectrum now used by DOD.

Standards are a battleground, but in 5G, it is a battle where the U.S. is holding its own. This could change if American export controls handicap our companies. This is a self-inflicted wound we must avoid.

Telecommunications technology is changing. The telecom supply chain will depend on technologies where the U.S. is strong, like semiconductors. Blocking exports of semiconductor manufacturing equipment is the best way to preserve this advantage.

Nor does Huawei sell the best 5G. A review by a European intelligence agency found Huawei was the most vulnerable to exploitation. Nokia and Ericsson offer better and more secure 5G technology.
U.S. companies are strong in the markets that 5G will enable. We face tough competitors, but chief risk to U.S. strength in 5G innovation is badly designed privacy rules.

The doomsday argument is that because of slowness in 5G deployment and the allocation of the wrong spectrum frequencies, American entrepreneurs will not be able to take advantage of 5G. But the U.S. is not slow in 5G deployment and spectrum allocation is not an obstacle.

5G and Huawei are symptoms of a larger problem. We face a powerful opponent who is using espionage and predatory economic practices, including exploiting American patents. 5G is part of this contest. Our strategy should strengthen America's technology base, work with allies, and hold China accountable.

To summarize; America's 5G problem is overstated. The larger issue is to how to deal with an increasingly hostile China. Thank you and I look forward to your questions.