

**Questions from Senator Tillis**  
**for Matthew Turpin**  
**Witness for the Senate Committee on the Judiciary**  
**Subcommittee on Intellectual Property Hearing**  
**“Foreign Competitive Threats to American**  
**Innovation and Economic Leadership”**

1. As early stage innovators develop new products for market, to what extent are strong IP protections necessary in raising capital?

To date, our existing IP protections seem to be sufficient to raise capital for new products. It is difficult to do the counterfactual of whether additional capital could have been raised if IP protections were stronger or whether less capital would have been raised if IP protections were weaker. Given that the United States has an incredibly deep and vibrant ecosystem of angel investors and venture capitalists, it would appear that those investors are not deterred by the lack of stronger IP protections.

2. How big of a threat is China’s involvement with Standard Essential Patents (SEPs), especially in light of their connection to critical international technical standards such as the 5G telecommunications standard?

Over the past few decades, a non-governmental process of international technology/technical standards has developed which sought to mitigate national and corporate preferences for their own standards and adopted a model based on technical merit. This development of international standard setting created various Standards Developing Organizations (SDOs) in which technical experts from across multiple countries and companies could collaborate under a basic set of democratic values like transparency, openness, impartiality, and consensus.

PRC Party-State entities insert themselves into SDOs, through Chinese commercial entities, to influence the development of international technology/technical standards to advance Chinese military-industrial policies and authoritarian objectives. This is most pronounced in critical and

emerging technology areas like wireless telecommunications, artificial intelligence, microelectronics, energy generation and storage, and PNT (Positioning, Navigation, and Timing).

PRC Party-State entities view each of these technology areas as critical for both economic prosperity and military advantage, and they view these technology areas as traditionally dominated by the United States and other democracies. Meaning that Beijing views that the values embedded in the existing international technology/technical standards reflect the values of democracies and undermine the objectives of the Chinese Communist Party. To offset this preference for the values of democracies, PRC Party-State entities actively 'tilt the gameboard' of these SDOs to favor PRC interests and objectives, violating the underlying premise of the non-governmental international standards-setting process.

In the past month, the Administration has issued its National Standards Strategy which draws attention to this challenge posed by the PRC and seeks to organize U.S. entities and the entities of like-minded countries to push back on these harmful activities by the PRC.

While many hope that Beijing will appreciate the value of a well-functioning, global system for setting international technology/technical standards and cease its efforts to manipulate the system in its favor, that is unlikely to happen. The Party will not abandon its efforts to tilt these standards in its favor and to undermine the democratic values embedded in the existing system. As the U.S. and other countries respond, we are likely to see a further bifurcation of international technology/technical standards into systems that privileges an open, transparent, market-based system that protect human rights and an alternative system that privileges a closed, state-directed system that favors the interests of a ruling party over individual citizens. While this development is unfortunate, a bifurcation is likely the next best option when compared with allowing Beijing to succeed in achieving its goals across a globalized technology standards system.

We can already observe this bifurcation in internet and digital payments platforms, as well as surveillance technology and generative artificial intelligence. This trend towards bifurcation is likely to spread to other critical and emerging technologies as the cold war between the PRC and its democratic rivals accelerates.

**3. Approximately 80% of all economic espionage prosecutions brought by the DOJ allege conduct that would benefit the Chinese state and approximately 60% of all trade secret cases involve China.**

## What steps can and should the DOJ take to further address this critical issue?

This critical issue goes far beyond the remit and capabilities of the Department of Justice alone. Perhaps our greatest failure so far has been to view these activities narrowly as discreet crimes of “economic espionage” and “trade secret theft.” These individual cases are a part of a much broader whole: a PRC Party-State directed, resourced, and controlled campaign to gain economic, industrial, and technological advantage in a geopolitical rivalry with the United States and other like-minded countries.

By continuing to pretend that these are stand-alone criminal cases or just the byproducts of an underdeveloped legal system in the PRC, we limit our response to the insufficient tools available to the Department of Justice.

When the second largest economy in the world is waging a multi-decade, whole-of-society campaign to undermine the liberal, rules-based international system and challenge the United States militarily through the accumulation of comprehensive national power, our response cannot rest on DOJ prosecutions. The PRC has been waging a cold war against the United States and like-minded countries for at least a decade and our justice and judiciary system has not adapted to that reality.

Beijing is desperate to prevent the United States and other countries from responding to their malign activities in a more forceful and comprehensive way. PRC leaders understand that their campaign relies heavily on, and succeeds largely due to, the permissive environment of globalized trade and manufacturing. Whether we choose to call this de-risking or de-coupling, the United States and other like-minded countries must take comprehensive trade, national security, and industrial policy actions to prevent the PRC from achieving its twin objectives: 1) overturning a liberal, rules-based international order premised on limited government intervention in the market; and 2) replacing it with an international order that favors authoritarian regimes and state-directed economic activities.

For the Chinese Communist Party, participation in the liberal, rules-based international order and market-economy is a means to an end, not an end in and of itself.

### 4. How important are strong IP protections to sustaining U.S. leadership in economically and strategically important industries that are R&D intensive?

Strong IP protections alone have not protected U.S. leadership in economically and strategically important industries.

Where we lost leadership in these critical industries, we relied primarily on IP protections and other legal/contractual constructs left to individual companies. Where we have maintained leadership, we relied on a combination of strong export controls, foreign investment restrictions, and other regulatory actions to protect U.S. companies from Beijing's predatory behavior (and often circumscribed where those companies could do business). In the latter case, some U.S. companies and their industry groups have complained that these comprehensive restrictions (export controls, foreign investment restrictions, etc.) limit their market opportunities in the PRC. But when compared with companies in industry sectors where these comprehensive restrictions weren't in place, U.S. companies armed with just IP protections and a licensing agreement often did not survive for long after their rush to "seize" these opportunities.

Two examples are worth comparing: Telecommunications Equipment Manufacturing and Jet Aircraft Engine Manufacturing

Example #1 – Telecommunications Equipment Manufacturing

In the 1990s, the United States largely lifted export controls, investment restrictions and other regulatory actions on the industry sector that produced telecommunications and networking equipment that had been in place during the first cold war. As U.S. telecom and network equipment manufacturers eyed the world, they saw enormous market opportunities in the PRC and moved aggressively to sell their products to an ever-expanding Chinese information technology ecosystem. The companies relied almost entirely on Intellectual Property protections and other contractual agreements to protect their positions as they sought to gain market share and were forced by state-imposed joint venture agreements and other licensing requirements to move their technology, IP, and manufacturing to the PRC.

Fast forward two decades and by the early 2010s nearly all those American telecommunications equipment manufacturers had gone bankrupt or disappeared to be replaced by the same PRC entities that violated those flimsy IP protections. The contracts and licensing agreements that those companies thought would protect them turned out to be no more than sheets of paper. Over the past decade, PRC telecommunications and network equipment manufacturers moved to the global cutting edge and the United States and like-minded countries were forced to expend enormous resources and energy to prevent the PRC from dominating the global market for that equipment and prevent a complete dependency on the PRC. Beijing's success has given them incalculable advantages in surveillance, espionage, as well as the economic heft in the industry to shape global telecommunications standards in a direction that favors the PRC's authoritarian objectives. We are now fighting a rear-guard action and relying on our continued, protected position in advanced semiconductors to prevent an collapse of our position in that industry.

In essence, our ill-considered decision to rely solely on contractual agreements and IP protections gave an entire critical industry to the PRC with consequences that we still cannot fully calculate.

Short-termism and the rush to gain what was perceived to be enormous profits ended up costing not only the companies, their employees, and their shareholders dearly, but also the American public who now must pay far higher costs in terms of lost economic opportunity and heightened national security risks.

#### Example #2 – Jet Aircraft Engine Manufacturing

In the 1990s, the United States did NOT lift export controls, investment restrictions and other regulatory actions on the industry sector that produced advanced jet aircraft engines. Despite the end of the first cold war, the United States still viewed the technology and manufacture of advanced jet engines as a critical national security concern, unlike the way it viewed telecommunications and networking equipment. The companies involved in the manufacture of advanced jet engines certainly lobbied hard to lower those regulatory restrictions so that they could take advantage of new markets and the “efficiency gains” from off shoring their manufacturing, but their lobbying largely failed. U.S. companies that made the most advanced commercial jet engines were very interested in gaining market share in an expanding Chinese commercial aviation market and they were able to do so, but the U.S. Government prevented those companies from agreeing to one-sided joint ventures and licensing agreements with the PRC and simply sold their U.S.-manufactured jet engines to the PRC via finished aircraft produced in the U.S. and Europe and later as finished engines to emerging Chinese aircraft companies.

Three decades later and those U.S. jet engine manufacturers are still around and still producing the most advanced jet aircraft engines. The United States benefits enormously by the continued existence and success of those companies. From an economic perspective, those are valuable jobs and U.S. remains a world-leader in exporting those engines. From a national security perspective, it is even more valuable. By giving the U.S. military unequal access to the most advanced jet engine technology, the U.S. maintains a qualitative advantage over potential adversaries to offset their quantitative and geographic advantages. This means that U.S. military aircraft continue to have an overwhelming qualitative advantage over anything else produced in the world. The PRC is still multiple generations behind in producing indigenous jet engines and up until last February had to rely on Ukraine to supply them with the most advanced military jet engines they could get for Chinese military aircraft.

By keeping that broad set of interlocking export controls, investment restrictions, and other regulatory actions in place over the last three decades, alongside IP protections, the United States has maintained incalculable economic and national security advantages.

The lesson we should draw from the last three decades is that if we still live in a world of serious geopolitical rivalry, then relying on IP protections and contracts alone will be grossly insufficient to protecting our interests in the most critical industry sectors.

5. Have changes to U.S. patent law contributed in some way to our nation's inability to keep pace with China? If so, what reforms to our patent system are necessary?

I don't feel qualified to provide an answer aside from the observation that participation in our patent system should be predicated on reciprocity and a broad national security alignment between the United States and the third country participating in our system. If those conditions cannot be met, then the U.S. patent system should discriminate against the entities from that foreign jurisdiction.

6. In 2022, the Biden Administration helped lead an effort to waive IP rights on COVID-19 vaccines. After decades of pressing the world to strengthen and respect IP rights, the U.S. is potentially now seen as willing to give away valuable U.S. technologies to foreign competitors. Despite the President signing a bill announcing a formal end to the pandemic, the Administration is considering granting additional waivers – this time for the production and supply of COVID-19 diagnostics and therapeutics and there have been talks to expand waivers to other technology areas.

a. Is waiving IP rights the way to solve global problems?

Waiving IP rights does not appear like an appropriate solution, but I don't have the expertise to answer fully.

## b. How do our foreign competitors view this sort of posturing, which comes at the expense of our nation's IP system?

The PRC will like to employ any technique (legal or otherwise) to undermine the ability of the United States and other advanced economies to maintain a technological advantage over them. The PRC will likely continue to advocate for these waivers, as Beijing seeks to portray itself as the 'champion of the Global South,' and will seek to weaken our IP system for their own interests (and certainly not for the broader interests of the 'Global South').

It serves the PRC's interests to portray the United States and other rich, developed economies as selfish and more concerned with Intellectual Property rights than with the welfare of citizens of the 'Global South.' Much of the narrative around access to vaccines that Beijing and Moscow amplified was an adaption of anti-imperialism and anti-colonialism themes that the Communist Bloc used effectively during the first cold war. Beijing and Moscow have largely pulled out the old playbook in which the U.S. is portrayed as the defender of an evil capitalist and imperialist international system and that the PRC and Russia are the only countries standing up for countries that don't want to live under the thumb of Washington. The United States must be mindful of this battle for global influence and take steps to show good faith to those in need, while simultaneously challenging the hypocrisy of the PRC and Russia.

As we adapt to this second cold war, we will need to develop effective means to dispute these narratives, illuminate the hypocrisy and failures of the systems that Beijing and Moscow represent, and provide better outcomes for citizens that live in countries with fewer resources and who have historically been marginalized. Given those considerations, the United States must also avoid sacrificing our own advantages just to "win" a battle for influence.

This second cold war has an important ideological component and the controversy around access to COVID vaccines was just one example of the kinds dilemmas we are going to be faced with.

One of the most important things we can do to prepare for these dilemmas is to level with the American people and citizens of the rest of the world that a new cold war exists between a Sino-Russian Entente and a portion of the world's democracies. Here is a potential narrative the U.S. could employ:

*The United States did not desire this new cold war and tried for decades to welcome Beijing and Moscow into the liberal, rules-based international system where their citizens could prosper alongside citizens from other countries. The United States wanted them to be strong, responsible stakeholders of that system, but unfortunately leaders in the PRC and Russia rejected these overtures because they value their own personal hold on power more than they value the prosperity of their own citizens.*

*The United States regrets that Beijing and Moscow have chosen this path of confrontation, hostility, and war, but Americans will not shy away from protecting and advancing the interests of peace and prosperity that the world enjoyed after the collapse of the Soviet Union. Leaders in Beijing and Moscow want to be exempted from the accountability that all citizens expect from their political leaders, they recoil at the thought that governments must be limited and respect the dignity of their own citizens. Leaders in Beijing and Moscow want to turn back the clock in a vain effort to insulate their own power and privilege. They appeal to grievances and amplify national victimization as a distraction from their own failures. They silence the legitimate desires of their own citizens to rule themselves.*

*The door is always open for the Chinese and Russian people to participate in an open, free, and prosperous world, but leaders in Beijing and Moscow must accept the responsibilities of participation that are commensurate with their great power status. Just as they started this second cold war, they can end it by living up to the accountability that all citizens demand of their political leaders.*

c. What cost does this waiver exact terms of lost jobs, investments made, and capital flowing to other nations?

I am not qualified to provide an answer.

d. What are the risks to innovation and to U.S. leadership in these fields if waiving IP protections becomes the norm?

Rob Atkinson, President of the Information Technology & Innovation Foundation, provides an excellent overview of the implications that the PRC's harmful activities have on our innovation ecosystem in his January 2020 report, "Innovation Drag: China's Economic Impact on Developed Nations." Further weakening U.S. IP protections would presumably exacerbate the harms Atkinson describes.



7. Malicious foreign actors sometimes use the U.S.' system and culture of openness as a weapon against us. The Global Intellectual Property Center found that online piracy costs the U.S. economy at least \$29.2 billion in lost revenue annually. Other democracies, such as the U.K. and Australia, have developed what some consider more effective means to enforce their rights online than we have here in the U.S.

What can Congress do to address this purported gap and what can the U.S. government do to ensure that the U.S. supports progress towards more effective online enforcement?

Congress should require greater transparency from companies that are victims of economic espionage, IP theft, and trade secret theft. The incentives that companies encounter skew heavily towards remaining silent about these crimes, particularly when they involve the PRC. Management and boards rightfully perceive that these crimes will harm their valuations if they become public, they view the responses by the U.S. Government as inadequate to the challenge, and they view that the PRC will retaliate in ways that the U.S. Government cannot protect them from.

Without a requirement for transparency, or a shift in the incentives, we cannot know the full scope and scale of these harmful activities, nor can we formulate a proper response when we don't have a comprehensive picture. As long as companies can use their discretion in reporting these activities, the United States will find it very difficult to construct an effective response.

One potential way to incentivize companies to report and pursue legal remedies for these crimes is to make it easier for victims to recover assets and compensation from PRC entities. Shift the burden towards a presumption that the PRC Party-State is committing a larger conspiracy to violate US law.

Since these crimes are a part of a wider, state-directed, state-controlled, and state-resourced campaign, victims should be able to recover assets and pursue compensation from the PRC sovereign in U.S. courts, rather than allow PRC entities to hide behind claims of sovereign

immunity. The Executive Branch and Judiciary could make it easier for victims to pierce the “corporate veil” of multiple levels of subsidiaries and affiliates that are being directed centrally by Party-State entities. Since the process of discovery is purposefully obstructed by the PRC Party-State and the PRC has recently implemented laws which criminalize legitimate due diligence and collection of business information, Congress should implement requirements for the Executive Branch to assist victims in collecting the information they need and Courts to presume a degree of collusion between PRC commercial entities and the Party-State. When the PRC Government refuses to comply with legitimate information requests or uses security services to intimidate potential witnesses and their families, the courts should take this pattern of behavior into consideration.

The PRC Party-State will continue to wage this criminal campaign as long as they judge the benefits are worth the cost; and it is clear that Beijing judges that the benefits still greatly outweigh the costs. Congress should take significant action to change this cost-benefit analysis to make the costs greater than the benefits from the PRC’s perspective. The statutory changes should be specifically confined to activities that involve the PRC Party-State and be time-limited with the ability to extend and expand those statutory provisions if the PRC refuses to cease its harmful behavior. The costs should be imposed on the entities that are most valuable to the PRC Party-State, rather than simply the individual or entity that committed the crime on behalf of the PRC Party-State.

## 8. Which countries besides China should U.S. foreign policy focus on, and what are the best tools at our disposal to monitor and combat their behavior?

Based on the evidence we have (which is limited given the reluctance to go public by the victims), the vast majority of this behavior is from the PRC. The PRC is alone in having both the intent and the capability to wage such a broad campaign against us.

It remains appropriate to treat IP theft from other countries as discrete events, as no other country appears to have such a broad campaign in place. For that reason, DOJ and the judiciary should be the primary actors in formulating a response to those specific cases.

The PRC should be treated as a unique case, an intentional state-sponsored, state-directed, and state-resourced activity that requires a whole-of-government response from the United States and in collaboration with like-minded countries.

## 9. What should the U.S. government be doing with its allies in the Indo-Pacific region to ensure that the U.S.

## does not forfeit its leadership in IP to competitors like China?

Our innovation ecosystem is not regionally bounded, so our coordination response should not be confined to the Indo-Pacific alone, nor should it be bounded by concerns solely for U.S. technological leadership. The rules-based international system we value and its market-economy depends on a broad, interconnected network of countries, companies, universities and individuals working together.

The U.S. should continue to collaborate with like-minded countries globally to address the harmful practices of the PRC. Our default response should be to coordinate with like-minded countries, but the United States is uniquely positioned to act first when other countries feel too intimidated to act. Beijing has spent years focusing its economic coercion and threats against our closest allies and partners. They have a long-term goal of rapturing the network of alliances, security partnerships, and habits of cooperation among democracies, the United States should be mindful of this dynamic, but also hold allies accountable for carrying the burden of maintaining a liberal, rules-based system that benefits us collectively.

10. Huawei cannot build products with advanced semiconductors and their sales in the U.S. and elsewhere are severely restricted due to national security reasons. However, Huawei continues to accumulate U.S. patents and enforce patents in U.S. Courts.

a. In light of this, is Huawei becoming a patent assertion entity?

Huawei is a “Party-owned Enterprise” that has criminally rejected the U.S. legal system (to include collusion with the PRC Party-State on hostage-taking as a way to escape prosecution). Huawei, and other serial violators of U.S. law, should not be permitted to operate in the United States or gain advantage from the U.S. legal system while it thumbs its nose at U.S. courts. Huawei should have no standing to submit or seek enforcement of patents in U.S. courts.

The U.S. Treasury should impose financial sanctions on Huawei, using IEEPA, to preclude the company, its affiliates and subsidiaries, from participating in the USD-dominated global financial system until the company resolves its outstanding criminal charges.

The fact that the DOJ in essence dropped its charges against the Huawei CFO in exchange for the release of two Canadian hostages seriously undermines the entire U.S. legal system. Any partner who has an extradition treaty with us will think twice about acting on our request after the PRC successfully used hostage-taking twice against Canada. (Kevin and Julia Garratt were held for two years, 2014-2015, after Canada arrested Su Bin on charges of economic espionage on behalf of the United States; Michael Spavor and Michael Kovrig were held for nearly three years, 2018-2021, after Canada arrested Mang Wanzhou on charges of financial fraud on behalf of the United States)

b. Does this seem like a deliberate strategy by Huawei to manipulate the U.S. patent system for their own advantage?

Huawei is taking advantage of the gaps and seams that exist in the U.S. system for its advantage. The U.S. patent system does not seem to have a workable response to a criminal enterprise which has the full backing of the world's second largest economy.

c. Are there any other conclusions that we can we draw from this?

The Executive branch continues to fail to conceptualize a whole-of-government response to the PRC's campaign to steal technology and violate U.S. law.

11. Huawei has sued U.S. companies in Germany for their use of standardized WiFi technology. These companies are now at risk of injunctions that would block sale of their products there.

How can we work together with our allies to assure that Huawei does not weaponize the international patent system against U.S. industry?

U.S. Treasury financial sanctions under IEEPA should be imposed on Huawei, its affiliates, and subsidiaries.

12. In recent years, there has been growing concern about the involvement of foreign interests – and particularly of foreign sovereign wealth funds – in funding U.S. patent litigation. This potentially creates a serious risk is that litigation will be manipulated to the benefit of foreign competitors or with the intent of harming the competitiveness or technological leadership of U.S. industry. This risk is particularly concerning with respect to patent litigation because it often involves sensitive or emerging technologies.

Do you agree that the involvement of foreign governments in funding domestic patent litigation raises significant concerns with respect to U.S. national and economic security? If so, what can be done to adequately address this?

I do not have any specific insights into foreign sovereign wealth funds supporting U.S. patent litigation. However, it appears to be a vector that could be used by a hostile foreign power to undermine U.S. national and economic security.

Perhaps similar to the way that the Executive Branch provides national security judgments to the Federal Communications Commission when it is weighing whether to grant a license to an entity with foreign ownership concerns, Congress could require that U.S. Patent courts and the judiciary receive national security judgments (including information derived by the Intelligence Community) from the Executive Branch. Under the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector (Team Telecom), elements of the executive branch with expertise in national security provide the FCC with judgments on the national security risks of a particular license or other action by the Commission.

This is done under the assumption that the FCC lacks the expertise and resources to appropriately judge the risks and vulnerabilities that arise from foreign ownership and/or control of U.S. telecommunications services. The U.S. Patent courts and the judiciary writ large, also lack this national security expertise and access to data and intelligence that would allow them to accurately understand the risks and vulnerabilities involved in allowing foreign sovereign wealth funds and other foreign controlled entities to participate in and benefit from these disputes.

To fully operationalize this effort to prevent hostile foreign powers from manipulating the U.S. legal system to their advantage, Congress likely needs to define and explicitly grant the U.S. Patent courts and the judiciary the authority to dismiss cases involving hostile foreign entities or preclude their participation. Additionally, Congress would need to establish safeguards to prevent hostile foreign powers from gaining access to sensitive information and intelligence through the U.S. Court system.

13. TikTok has a history of undermining artists and their intellectual property rights around the globe. In Australia, TikTok has used hit music to drive up the popularity of its platform, but has restricted user access to the copyrighted music, hurting artists and fans in an attempt to devalue IP globally. TikTok is not a trustworthy partner when it comes to protecting U.S. IP, creative industries, and user privacy.

What steps can and should the Congress and/or the U.S. government take to address this?

Beijing-based ByteDance, and its wholly owned subsidiary TikTok, should not operate in the United States and Congress should take unambiguous action to prohibit social media and internet platforms controlled by a hostile foreign power from operating in the United States. This should extend beyond TikTok to include WeChat and other PRC controlled platforms in the United States.

If ByteDance's TikTok were a radio station or television station it would require a telecommunications operating license from the FCC. And given that ByteDance is a foreign company, its license to operate a radio or television station could be rejected or revoked by the FCC. Because of a historical quirk, we have allowed social media and other internet platforms

to fall outside these long-established rules (for radio station licenses see Section 310 of the Communications Act of 1934).

In 2013, the FCC relaxed its automatic prohibition on foreign ownership of more than a 25% stake in a TV or radio station, but it still has the authority to judge each license on a case-by-case basis. Social media and internet platforms should be brought under similar requirements.

14. America's copyright sector exported \$230 billion in 2021. The core copyright industries account for more than 52% of the digital economy and 48% of the digital economy's employment. These initiatives that the Administration is negotiating – Indo-Pacific Economic Framework (IPEF), U.S.-Taiwan Initiative, Americas Partnership for Economic Prosperity (APEP) – include digital trade chapters.

Do you agree that it's imperative for these digital chapters to include obligations to provide meaningful enforcement and that U.S. Trade Representative Tai should not miss this opportunity to take action?

Yes, the United States should insist on high standards for protecting copyrights in the digital economy for any negotiations conducted by the U.S. Trade Representative and/or the Commerce Secretary.