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# The Institute of World Politics:

# Does America have the Industrial Base it needs to be a Great Power?

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# TRANSCRIPT

# **Featured Participants:**

**Dr. Jeb Nadaner:** Executive Vice President of Government & Public Affairs at SAFE, Executive Director of SAFE's Commanding Heights Initiative

Dr. James Anderson: President of the Institute of World Politics

<u>See SAFE Event Page for Video</u>: <u>https://secureenergy.org/commanding-heights-joins-iwp-does-america-have-the-industrial-base-it-needs-to-be-a-great-power/</u>

#### James Anderson:

Good afternoon. My name is Dr. James Anderson; I'm the President of the Institute of World Politics. Thank you for watching this virtual lecture event hosted by the Institute of World Politics. For those of you who are new to IWP, we are a graduate school focusing on national security, international affairs, and intelligence, located in the heart of D.C.

We have five master's degree programs, 18 certificates of study, a new doctoral program, and two online Master of Arts programs. If you are interested in learning more about us, please visit iwp.edu.

It is my distinct pleasure this afternoon to introduce our guest, Dr. Jeffrey Jeb Nadaner, who currently works at SAFE, Securing America's Future Energy. He is the Executive Vice President of Government and Public Affairs at SAFE and is also the Executive Director of SAFE's Commanding Heights Initiative, which is focused on securing and advancing the U.S. and critical allied supply chains. By way of background, Dr. Nadaner has served in many capacities in government and the commercial sector. Fairly recently, he served as the Deputy Assistant Secretary for Industrial Policy. Prior to that, he served at Marine Corps University as the Director of the United States Marine Corps Krulak Center of Innovation. Earlier in his career, he served as the Vice President of Engineering and Technology at Lockheed Martin.

Dr. Nadaner has a Ph.D. from Yale in history, a J.D. from the University of Pennsylvania, and a B.A. from Duke University. Jeb, it's great to have you this afternoon as our featured guest, and thank you for agreeing to share some insights on this crucial topic this afternoon.

#### Jeb Nadaner:

Glad to be here with the Institute of World Politics. Thank you, James.

#### James Anderson:

What a rich and important topic we have at hand here; this issue comes up in the news in so many ways that are frankly concerning with respect to our national security.

One of the points that we emphasize at the Institute of World Politics is thinking about the different elements of national power. Certainly, economic and industrial power don't always receive the attention they merit, frankly. So all the more reason that we welcome you this afternoon, and maybe just by way of easing into this topic, if you could help us a little bit with some terms.

So we know what we're talking about here—we'll get into the defense industrial base, but when we talk at the highest level, the United States and its industrial base—what do we mean by that? Then you could also share with us how that industrial base has evolved and changed over time with respect to international supply chains.

Sure. Every country has an economy; that economy consists of a set of capabilities. Some people call it industrial capabilities. Those capabilities include information, research, and development know-how. Then there is fabrication-making, with vast supply chains running between the two. The third significant element is people who are educated, trained, and who have the opportunity for the entrepreneurial release of their energies. That is the totality of an industrial base.

The United States started as a Republic with a very small industrial base, and in the 20th century, we developed the most significant industrial base in the world. That industrial base was so compelling that it won two World Wars for the Allied powers. It was so compelling that millions upon millions of people from around the world wanted to participate in that industrial base, in addition to our democracy, and they still keep coming.

The problem is that since the late sixties or early seventies, we as a country have been through several waves of de-industrialization. This process doesn't mean you lose everything, but you lose some value. The first big wave of de-industrialization was with the rise of our allies, which was a project the United States wanted.

The U.S. wanted Germany and Japan to rise up from the ashes to participate productively in an international trading system. There was some pain in the United States, but we achieved a major goal of having these prosperous economies on both sides of us, and the rise of our other allies as well. Then at the end of the Cold War, we cut the defense budgets significantly and with that, closed a whole series of industries and American capabilities.

Most recently, we went through the third wave of de-industrialization after granting China nearcomplete access to the American economy and, in extension, to the WTO. Today, the result is that the United States lacks critical abilities in a whole series of sectors.

We saw this vulnerability manifest itself during COVID; we don't have the ability to make masks, syringes, or pharmaceutical agents. For those who look more closely at the American industrial base, there are a lot of other weaknesses as well, and we could be suddenly cut off from a supply from abroad and find that life changes here at home. So the real issue is: Are we going to go through a fourth wave of de-industrialization, or are we going to begin to re-industrialize?

#### James Anderson:

Thank you for helping to frame the big issue here, and I'm glad you mentioned China because we will certainly talk more about the country throughout this discussion. Having outlined these different changes over time, as well as the point we are at now, maybe you could introduce the audience to some of the tools that the United States government has at its disposal to create the condition for companies or industries that can be helpful. So what are some of those tools? Then maybe say a few words about some of the pressing legislative items under consideration now, or those that have been passed recently in this realm.

So the government has several tools, one of which is tax policy. That's very important. What do you tax? How do you tax it? Generally, if you tax something more, you get less of it. Another issue is, does the overall tax system favor the owning of existing assets rather than producing new assets?

For example, do you get a more favorable tax treatment from owning a bond or from putting that money into the production of a factory? Different countries have different incentives. I would say in the U.S., we've leaned heavily towards bonds and stocks. You can often get a better return for your dollar than actually investing in a factory. Another consideration is: What are the requirements to enter the U.S. market? Every country employs such tools, and they have requirements and barriers.

How low are those barriers? Are there taxes for the importation of goods? And what are the requirements? All countries have to decide on how much reciprocity they want. Over many decades, the U.S. has aired on the side of insisting on virtually no reciprocity in its trade relations. Also, we have perhaps the lowest tariff rates in the world.

Those are some of the main tools. Other important tools to consider include the items the U.S. government buys, whether in the defense budget or elsewhere, and what subsidies it offers industry. Subsidies play a huge role all across the world. Sometimes subsidies are incredibly bad bets, and sometimes it turns out, they can be quite shrewd.

#### James Anderson:

Since we're talking about U.S. government efforts in this area, is it a question of picking winners in certain industries? Or is it more broadly setting conditions where certain industries can flourish with respect to foreign competitors?

#### Jeb Nadaner:

Over the last 40 years, you had bipartisan consensus emerge around the time of Ronald Reagan, the first President Bush, and really synthesized by President Clinton. That was to lower the tariff barriers immensely, integrate China into the world order, and let the market that existed determine winners and losers. The result was the loss of many critical industries in the U.S.

From my perspective as a conservative, if anything, conservatives should be empiricists; they should look at what actually happens as opposed to theory. A number of conservatives and a number of liberals are taking another look at the issue. The last 40 year-long experiment didn't work out as we planned. So what do we need to do? Though there may be some people who want top-down policy, there aren't very many in the U.S., left or right, that want to pick winners and losers.

The government will say: "This company's got a great technology, let's pump a hundred billion dollars; they'll set up huge factories and they'll make a certain product." There is a question about whether the government should be awarding subsidies to particular categories of industries, or

whether the government should create conditions that encourage fabrication and manufacturing. I am very wary of a federal program administrator deciding in this sector, for example, that we should award these eight companies subsidies for their capital expenditure, so they can erect a factory in the U.S.

I'd much rather have the market do that, but the government could set the market conditions. For example, if the government created a tax break, a significant tax break for any company that wanted to erect a manufacturing facility in a strategic sector—let's say a 35% tax break for seven years—that would be a huge spur to manufacturing in the U.S. And then the government wouldn't be deciding who gets it—the entrepreneurs would decide: Do I want to seize that opportunity or not?

#### James Anderson:

Thank you. You served in the Pentagon when COVID came upon us and worked in the response effort, Operation Warp Speed. We learned about certain weaknesses of supply chains. In some cases, they were brought to light, painfully revealing some of the vulnerabilites that we have as a nation, a nation that has to compete, and is competing with some real strategic competitors. What do you think we learned from COVID about our supply chains? And what is the United States government doing?

#### Jeb Nadaner:

I think COVID was a window into the shocking degree of dependency the U.S. had, and still has, on overseas supply chains, but particularly on adversaries, strategic competitors. It's one thing to be dependent on Canada or Mexico, which can actually be a great thing. It's a great synergy to be dependent on Japan, Korea, or Taiwan. Those are all allies and friends. However, to be dependent on The People's Republic of China is another thing.

For example, if China had not agreed to send us pharmaceutical agents, if they had not sent us syringes, we would've had no COVID response. We would've been crippled. So this time they were nice. Maybe next time they won't be so nice. You could see this issue of dependency on authoritarian regimes that are hostile to the U.S. and our allies playing out right now in Ukraine: Germany has an unforgivable dependence on Russian natural gas.

This vulnerability to Russia is something that successive U.S. administrations of both parties were opposed to. This goes back all the way to Ronald Reagan and Secretary Haig. They thought this was a very mistaken policy, and you can see today that Germany cannot act on its principles, and perhaps even in its own interests, because it's so dependent on Russian energy. Have the Russians cut off natural gas to Germany in the past? No, but now it could happen. China supplied us during COVID this time. The next time they may not, or there may be a very high price that we can't accept geopolitically, such as concessions on Taiwan.

# James Anderson:

That's a great contemporary example of energy security and dependence. Another one that comes to mind was an incident in 2010 between China and Japan. Japan had detained a Chinese

fisherman or troller, and for a few months or so, China actually cut off some rare earth minerals to Japan, really making a strong point.

#### Jeb Nadaner:

As a country, we have repeatedly cut off other nations from critical supplies; we are very aggressive about this. In Washington after Pearl Harbor, some people said it was Secretary of State Cordell Hull's war because of the export restrictions that we had put on Japan. These were very legitimate restrictions, but we must understand that other countries can do this to us as well.

Sometimes they have; we had an Arab oil embargo in the seventies that put the country on its knees. This could easily happen to us and repeatedly so. The average defense department military system is stock full of Chinese semiconductors and microelectronics. They're not the high-end semiconductor microelectronics. It just so happens that they are extremely powerful.

Even semiconductors made 35 years ago can enable a defense system to hit a target within a meter. Defense systems tend to use parts that are proven and reliable. Again a significant portion of our systems are dependent on China. What happens if the Chinese cut off those supplies? That would put the 25 or 30 key sites in which we build most of our weapon systems out of commission.

#### James Anderson:

In the news recently, Intel announced that it's going to fund some major fabrication plants in Ohio. They're putting down an initial investment of 20 billion dollars. According to press reports, this funding may grow even more substantially over time. What's notable about this, at least to my eyes, is that this is actually the first time in decades that Intel has created a chip factory, or planned to create a chip factory, in the United States.

And this goes to your point about the vulnerability that we have. And yes, do you think this one example of Intel is a harbinger of a manufacturing rebirth with respect to microelectronics and silicon chips? And is this something where there were government incentives at play, or is this a situation in which Intel, just for the sake of its own corporate health, decided that it needed to build these new factories.

#### Jeb Nadaner:

The semiconductor was invented in the United States, and to this day, the United States produces the leading designs for semiconductors. However, in the actual making of the semiconductors, we've gone from roughly 45% in 1990 down to around 12.5% of current global production. And we're getting lower. The prime reason for this is something called capital expenditures, CapEx. It's not especially labor.

Because a semiconductor facility does not use a lot of labor, it's largely a question of what is called CapEx. It costs seven to 15 billion to put up a semiconductor foundry. And by the way, it's only good for a few years before the thing basically needs to be re-gutted and all the machinery

taken out. What happens is that, in Asia, there are substantial subsidies in one form or another, either huge tax breaks, free land, or direct subsidies.

The PRC has the greatest subsidies; they have the most catching up to do. The reality is that a lot of the manufacturing drifted over toward Asia to a dangerous point now. Because China is such an insecure environment, Western companies are coming to realize that whatever they build in China, they may not get to keep. I think a number of companies are interested in coming back home, coming back to the United States.

Companies like Intel or Micron are looking into expanding their U.S. operations. Intel has had very significant U.S. operations, but they're looking to boost them even more. And this is a good trend, this recent announcement out of Ohio. I'd also note that some of the best manufacturing technology exists among allied companies like Samsung and TSMC out of Taiwan. We have the best designs; they have the best manufacturing.

It's vitally important that we have those companies investing in the United States and setting up foundries here. It's a win-win. First of all, we get exposure to their latest manufacturing techniques. Second of all, it brings our countries closer together.

It's good for them, because remember—Korea and Taiwan—they're on the front line; they're at risk. This way, they get to diversify their assets, so it's a win-win. We want to see these allied companies such as Intel all come back to the U.S. Now, how does it happen? These companies need to make some significant investments, but also the state and localities have been involved. State and localities do industrial policy.

They always have, whether they're red states or blue states, and they do it well. They give tax breaks, land, and trained workforces. The federal government, I think—and this is what's at play in funding the CHIPS Act that is now being debated in Congress—needs to play a role to level the playing field between the United States and other countries.

The issue is: Do we want fabs? And different people in Congress think differently: Some want to see a subsidy process for more foundries; others want to see a tax break. There's something called a FABS Act put forward by Senator Cornyn and Senator Warner, who also leads on the original CHIPS Act.

We'll see how this plays out, but the country's going to have to make an investment either through tax or through subsidies to even out this playing field. If it evens out the playing field, many U.S. companies, as well as allied companies, will want to move back to the United States. So it's promising, but we need to act.

#### James Anderson:

So, if I heard you correctly, it's not so much the labor costs that are deterring or have led companies to go overseas and might deter them from coming back, but some other factors. How about the rise of inflation, which now seems to be less temporary and more permanent? Looking ahead a few years, is that going to discourage people from coming back to the United States as manufacturers?

Five percent inflation rate means that some entities are going to lose 5% a year, and actually some are going to lose more than that because it's never even. So inflation is an awful draw for foreign investment. It's very unfortunate that this has happened, because there's been way too much stimulus in the last few years in the economy. And one would hope for the sake of the American economy and American citizens, that there is going to be a serious effort to reverse inflation.

#### James Anderson:

So Jeb, we've been talking mainly about manufacturing, but how is it on the innovation front? I mean, the terms are sometimes used interchangeably; but, while they are related, they are not synonymous.

Is it safe to say, in terms of the innovation process and prowess in creating these huge companies, that their origins come out of somebody's garage? Do we have a strong advantage—are we in a good place—with respect to fostering, cultivating, and promoting innovation, as opposed to the manufacturing dimension that we've been talking about?

#### Jeb Nadaner:

Yes. America is very strong in innovation, in part because it's quite hard to disincentivize Americans from being creative, since they want to see concrete results. But the innovation has especially been on the software side—the creation and growth of the internet, as well as the progression into its new platforms: social media, metaverse, and gaming. These are actually largely unregulated areas.

We see a lot of entrepreneurship, but innovation in terms of the manufacturing has really suffered because there's so many disincentives in the United States, whether it's CapEX, the extended permitting process, or extensive private litigation processes, to actually making something. But at the end of the day, unless it's a video game and someone lives in the metaverse, for the rest of us, we need hard goods.

The U.S. military needs hard goods. We need hard goods in our towns and cities, in our homes and businesses. We need hard goods in our hospitals so that we can get medical care. That's been the lack. The innovation's there, the spirit's there, but we need to rebalance. And then also many of the great products in the world often have their origins and design in the U.S.

It's very important for us to keep that design ecosystem strong, vitally important. That's the secret sauce, but we need that other piece also, the making. We don't need to fabricate everything here by any means, we do need to make more.

#### James Anderson:

Could you say a few more words about our dependence on rare earth minerals, and maybe even about lithium. We talk about the Department of Defense and its dependence on microelectronics. Also, the Defense Department is very reliant on batteries for all sorts of components—for drones, for planes, for chips and so forth. And yet when we look at the supply of lithium, my understanding is that we are very dependent on foreign sources.

And, in contrast, China is actually indirectly or directly in control, of—what? Three quarters of the lithium supply. So, if that's accurate, what is the remedy here? What do we need to do? And how do we approach bringing back microelectronics even more, not just for the United States military to reduce its dependency, but as the United States thinks about moving forward with electric vehicles and reducing carbon emissions over time? How do we do that if we are so dependent upon foreign sources for lithium batteries?

#### Jeb Nadaner:

Yes. Listen, every hard substance that we use comes somewhere off the periodic table of elements. There's a reason why we all learn it in grade school or high school, and all those elements exist somewhere in the world and need to be processed and turned into chemicals. And then there's the issue of rare earth elements, which are rare, but not as rare as one might think. Different parts of the world have different geology.

The U.S. has a fair number of minerals and rare earth elements, except compared to our history, we do much less mining now. Basically since the sixties, there has been a vast decline in mining. It's not a very attractive place to open up mining because of the number of regulations and litigation. And then, even more important than the mining, is the processing. And we do virtually no processing in America anymore. So, in addition to whatever it has under its own land, China has locked up contracts for many major important mineral and rare element supplies from around the world.

China outcompetes everyone else through subsidies to get those contracts, and then furthermore, they do a huge amount of processing. Even more problematic, this processing is often done in the most environmentally devastating way, something that no American right or left would find acceptable, not to mention the greenhouse gases.

The major environmental laws in the U.S. got passed in the late sixties and early seventies. We're now in the year 2022—technology's advanced a lot. A factory that makes, for example, silverware is a lot cleaner and a lot different than it was in 1968. The same principle applies to mining; our ability to mine today in an environmentally responsible way is much greater these four to five decades out. This also applies to our ability to process; we have the ability to process cleanly today. These are steps we can take.

For reasons of both national and economic security, as well as the environment and CO2, we need to be doing a lot more of the mining and processing in the U.S. And the same thing goes for allies like Canada and Mexico. They can all do it cleaner than China does it. One of the large tasks that the United States has in terms of looking at its allies and friends around the world is how do we create an alternative supply chain.

Some actions we need to do here include unlocking the system in the United States and updating it for 2022. We need to work with other countries and say, "Perhaps it can be done in India.

Perhaps the processing can be done in Mexico using the latest technology." And that will become our alternative supply chain for many of these minerals and elements.

Electric vehicles and batteries have been a big part of the U.S. economy for a hundred years. They are essential on every naval ship. Every soldier goes out with batteries, and we all have batteries for our kids' toys, which are vitally important. But everything depends on batteries. Hospitals have batteries in addition to generators. So batteries are key. If electric vehicles become more common and the market grows for them—and there's a good chance that they will—with, or without government intervention, demand for batteries will escalate even more. The guts of those batteries right now coming from China.

When you read those stories about battery plants being opened up in the United States, those are largely factories that are assembling the precursors that are made elsewhere. Remember that a battery starts with some sort of raw mineral. It has to be processed umpteen times, then gets turned into battery cells, and battery cells then get assembled into battery packs, which are then assembled to batteries.

The United States has worked so hard over the last 35 years after the trauma of being cut off from Arab oil to open up natural gas. We work so hard to open up residual oil that exists in our geology with something called fracking. It would be a shame if we traded away the measure of resiliency and independence that we got and handed it over from a turbulent Middle East to a despotic China. So, according to my analysis of the trends, electric vehicles are coming.

I think people are going to find them very attractive. I don't know in what year there's a tipping point, but I do see the risk of our desires as Americans to get what we want now leading us to import electric vehicles and their requisite components. And that would become a problem if suddenly they're cut off. So the only alternative is to begin to develop our own supply chains.

And we've actually set up in our organization, SAFE Commanding Heights, a Center for Mineral Strategy. We're the only Center for Mineral Strategy in a think tank in town, because we think this may be one of the seminal issues of the next 20 years for the U.S. economy and U.S. national security.

#### James Anderson:

We've been talking largely at a macro scale here of trends and U.S. government policy, but maybe you could say a few words about companies. And, with regards to companies that have moved overseas, it just seems to me that they're naturally going to pursue the bottom line. They're going to try to maximize shareholder value.

And this has become, for the reasons that we've discussed, a tad problematic. And we used to have that old cliche, what's good for General Motors is good for the United States. In certain cases now, companies operating in China may not be good for the United States. So, your thoughts on the company-level motivations with respect to the national good that we're talking about.

Yes. Listen, companies are owned by shareholders. They have to respond to the shareholders, and they have to return as much profit as they can to the shareholders. And almost everyone today has some stake, some market portfolio, whether through a 401k plan or personally. I think the problem is the boundary conditions, the market conditions. We have a situation in which the U.S. has basically an open market, and it's competing against a very capable country, namely China, that has a relatively closed market with lots of subsidies.

So the result is that companies have an incentive to go make things in China and return more profits to their American shareholders. The only way to redress this situation is to reset the boundary conditions. I think we have to make it much more difficult for Chinese goods to be imported into the United States if we don't have the same access there.

And we know now over 35 years, we do not have that access there; we will not get that access there. If we get access, it'll be a very short window. So there is no choice, I think, but for the United States to face up to the fact that it's going to need to make adjustments.

We keep demanding equal access, but after three and a half decades, we need to stop demanding and just raise a border adjustment. We need to have import duties. In that case, it won't always pay for a U.S. company to make something in China. It may suddenly make sense to make it in the U.S. or make it in Thailand, but we do need some made out of China—that is vital for us. We need diverse supply chains.

#### James Anderson:

Okay. So, your thoughts and your insights are generating a lot of questions from our viewing audience. So, let me bring some of those questions to your attention. This question here is about the Defense Production Act, which goes back to 1950, and whether that needs to be updated or refined in a way that's going to help some of the concerns that we're talking about this afternoon.

#### Jeb Nadaner:

The Defense Production Act is a very powerful tool provided it's funded. Particularly in the COVID era, Congress and the executive branch have sought a lot of funding for the Defense Production Act in order to flow funds for the purchase of items for Corona-related supply chains. And also we need to direct funding to companies that produce what we really need. But historically, or at least in the last 10 to15 years, the Defense Production Act hasn't been that active because it wasn't funded that much. So I think it's potentially a good tool if properly funded.

I think Congress and the administration need to think through these issues carefully, given that we are in a strategic competition with China that's going to last decades. And they're very formidable. We need to think through, for example, what is the level of funding that something like the Defense Production Act needs on an ongoing basis. Because if you had a certain level of funding, there could be planning—business can plan around it; the Department of Defense can plan around it. That's the key question.

If the funding goes back to historic levels, it's extremely low. So we need to think beyond Corona and target the number of sectors that are really strategic, that the entire country depends on. And we also need to prioritize manufacturing technologies that are game-changers—that give the United States a two to three times advantage over China, economically and even militarily.

#### James Anderson:

Okay. So, on the issue of funding, we have another question here about the CHIPS Act. And the question is: If there's an addition of significant short-term funding for innovative manufacturing, are you confident that these entities will retain or source sufficient funding for long term fabrication and production, as chips develop over time? In other words, do we have more than short-term incentives here in terms of additional funding?

#### Jeb Nadaner:

Right now, there are various proposals on the Hill and they're changing. Until we see the final draft, we don't really know what it's like. But eventually this legislation will enter conference; whether it's in the next month or a year, I don't know. It's going to be vitally important that the funding be of sufficient size to make a difference, so that it can be geared toward development. There certainly should be an element for R&D to keep up the United States' edge. But for there to be enough funding for fabrication, the funding needs to be able to move out quickly.

And then the whole thing has to be not about dealing just with the chip shortage right now, but how to position the United States so that we don't go from 12.5% of global production to 10% of production in the next few years. Could we even climb up to 14%? That would be an accomplishment. I've got lots of opinions on how the legislation should be crafted, but I think it's premature. We don't know how this will play out on the Hill, which is occurring in closed doors. And it's changing almost week by week.

# James Anderson:

Then we have a historical trend question here. The questioner notes that there was some deindustrialization that actually began back in the sixties and seventies, prior to the rise of Chinese industrialization. So, even if we are able to protect ourselves against China and remedy the situation there, might we just find that elements of our manufacturing base are going to be exported to other other nations? In other words, isn't the problem larger than just China?

# Jeb Nadaner:

Yes. The problem is larger than China, but a prime difference is that most of those other countries are not hostile to us. They're not hostile to our way of life. They have a lot in common with us. There's a lot of things that we can negotiate with them; Japan and the U.S. had huge trade conflicts in the 1980s.

And because Japan had an interest in maintaining a solid and very intimate relationship with the United States as a result of that alliance, Tokyo made a number of concessions. Did it make all the concessions the United States wanted? No. Would we have liked them to make more

concessions to even out the playing fields? Yes, but they made a lot of concessions. Look at all the Japanese car plants in the United States. That was an outcome of that trade dispute resolved nicely; with China, this is a different problem.

We are not worried about Japan or Germany cutting us off from vital supplies. But I think we should worry about China. We should worry that, should it begin to interrupt shipping out of Taiwan, we suddenly will not have enough high-end semiconductor chips. So it's a different matter. While it'd be nice to deal with all the problems immediately, I think we need to deal with the most important problems now.

#### James Anderson:

And if we broaden this discussion beyond congressional actors to public support, this poses another question: How do we garner more support for American industrial policy? How do we do that? I mean, you have your organization of course, which plays a clear role in this, but what else can be done in terms of educating the public on this issue?

#### Jeb Nadaner:

The concept of industrial policy likely has a number of different meanings to different people. I tend to think in terms of economic strategy and industrial strategy; industrial policy often has a connotation of the government picking winners and losers among particular companies. I think what's unfortunate is the country went through yet another wave of significant de-industrialization.

And if you look at the political landscape, there's hardly any discussion of it at all. Ross Perot raised the issue when he ran against President Clinton and the first President Bush. He raised the issue, didn't get a lot of support. Trump ran on this and he began slowly but surely on a number of policies and began to change the debate, yet the debate needs so much more attention.

There's so few politicians that talk about manufacturing and what it means for American prosperity. We know that manufacturing is the key to middle class jobs. In a country that's suffering from inequality, manufacturing could make a huge difference. In fact, I think a lot of the discontent right and left in America has to do with the fact that too many people live in hollowed-out towns. And there's really not the range of economic opportunity for them.

Not everyone is geared to be an accountant or write software, but, while some factory jobs are undesirable, today, the kind of factory that Lockheed Martin has in Fort Worth bears little resemblance to 1955. To operate the equipment you don't necessarily need a college degree, but you need to be smart. You need to be able to go through electronic blueprints.

To operate a complex machine tool takes lots of training. These are very satisfying jobs. We have too few of them in the country. I think one of the issues we're going to see right and left in the coming years are a number of politiciansbeginning to grapple with the issue of economic capacity. How do we create more jobs for middle class lives? And I'm hoping that there'll be more debate. For us as an organization at SAFE Commanding Heights, this is what we're about.

And we bring together Fortune 500 leaders that care about this issue. We bring together retired four star generals and admirals that care about the issue. So, we're at the early stage of a movement, but we intend over the coming year to bring in Democratic and Republican leaders to ask probing questions about these issues and offer our research. And I think we're going to be pushing on an open door. But I think Americans need to ask for more discussion of these concerns, because I don't think they hear enough about it.

There is virtually nothing Americans cannot do. We have proven that repeatedly in our history. I walk down the street and I just look at the energy of Americans—immigrants, people that have been here multiple generations. We are really among the most talented people in the world, but we have to set our minds to do it and get the public policies right. And then I'm convinced we have the citizenry to do this kind of work and to do it brilliantly.

#### James Anderson:

So we've got another question on the legislative front from somebody viewing us on Facebook. And they're asking if you could say a little bit more about the U.S. Innovation and Competition Act and the America COMPETES Act, on the Senate side, as well as on the House side, and how those two pieces of proposed legislation will help improve our microelectronics industry with respect to the defense industrial base.

#### Jeb Nadaner:

So each piece of legislation has some excellent elements in it. Senate and House conference will come together, and there'll probably be a few pieces from each legislation that enters a final bill. Whether that final bill could then attain a majority in each chamber, I don't know. There are a number of details we have to work out. I've been in the legislative business for two decades. My experience is that whatever you see in the public document will have vast changes by the time it becomes law.

So a lot of those changes happen at three in the morning and we are active in this process. That's about as far as I can go, but we're going to be working for the best piece of legislation for semiconductor microelectronics capacity to the U.S. And we very much want to see a level playing field in which U.S. companies can invest more and do so profitably. And we also want to see allied companies come to the U.S. and invest as well.

#### James Anderson:

Okay. We have another question about the workforce that would be able to populate this effort to bring manufacturers back to the United States. And the question notes that for big companies like Lockheed and Boeing, they had the resources to fund and advance credentialing and skills training, but how will more medium-size and small enterprises be able to fill the workforce with capable workers?

#### Jeb Nadaner:

The first point I would make is that few people go to school and study an area that they think there'll be no jobs in. So we need more manufacturing capacity for our technical schools and our universities to produce the people. Secondly, I would agree that the large companies invest a lot.

I have to say that small and medium-sized businesses invest a huge amount as well. Very few people, especially in manufacturing, come in with the exact skillset. What they are looking for are people who have good quantitative skills. They have to have good work habits.

So the issue in the United States is to create a demand signal. This is a role in which the federal government, and state and local government certainly can play a role. We do have a number of companies, including some of the Fortune 500 companies, as well as smaller companies, that have come together to form consortiums all over the country to train people.

And the reason why companies participate and invest in this is that they figure someone will get the trained worker. So we have a decent amount of it. We can use more. I think that as a country, in terms of our economic strategy, we are overweighted. Many people who go to college really would be much happier with a post-high school technical degree.

I am referring to the kind of educational opportunities offered in Germany, where students learn some of the quantitative and other skills needed to operate machinery. College won't necessarily give them that set of skills. So we invest a lot of money—as a society, as families, and as individuals, in college degrees—when perhaps a two-year degree that had more of a technical focus could actually lead to a much higher paying job in the future, that would also be more satisfying.

#### James Anderson:

I'd like to return to some of our allies and partners on this. We talked earlier this afternoon about Germany and its precarious situation now that it's become so dependent on Russian energy supplies. When we think about some of our other allies around the world—the UK, France, Japan, Australia—how are they thinking about the China issue and supply chain vulnerability? Are they generally in alignment with us? Are they sympathetic? Are we working with them to coordinate, to reduce mutual vulnerabilities with respect to the PRC—your thoughts?

# Jeb Nadaner:

Japan, particularly, after its experience of getting a cut off of certain rare earth elements, watches China closely. Japan already started moving out a few years ago to build alternative supply chains, to begin to reassure more businesses back home. The U.K., Germany, France, and Italy are also thinking about this problem. The U.S., during both the Trump administration and Biden administration, has spent a considerable amount of diplomatic time talking to allies about the risks of using certain Chinese products, the need to create alternative supply chains.

What's missing, I think, is that the administration needs a serious diplomatic economic initiative, a multilateral initiative that says we need to create these new supply chains in the world. We need to have the supply chains for the technologies of the present and of the future; and invite India, the UAE, the Southeast Asian nation countries, and Australia to join in this mission.

So we need to bring together the QUAD, along with the NTIB— Canada, Mexico, and a number of the European countries. I mean, I'd love to see a presidential-level summit that comes out with a declaration that says: "We are going to do this. We're going to create the public policies. We're going to make the investments."

And they're going to be a lot of winners out of this. Different countries may specialize in different aspects of the supply chain, but we are going to have a diversified set of supply chains, which manages risk. That would be a wonderful thing, and I think that's something that would generate a lot of bipartisan appeal. It would catalyze the fence sitters among some allies. And I think for other allies, like India, it'd be welcomed.

#### James Anderson:

Jeb, we just have a couple minutes left. I'm wondering if there's any big issues that we've missed in the past hour that should be raised at this point.

#### Jeb Nadaner:

The largest issues in the United States are going to be: Can we get tax policy right to incentivize manufacturing as opposed to outsourcing? And then: What is the border adjustment for countries that are not reciprocating and taking advantage and engaging in cyber theft of our I.P.? That's really the two top issues. And that's what we need to grapple with. And if we could get those policies right, and we could get a bipartisan majority around it, I think that in 15 years we would see a very different landscape in America.

And by the way, the policies I'm talking about—reciprocity, border adjustment, tax policies these issues are right out of Alexander Hamilton and Henry Clay's and FDR's playbook. And Eisenhower's playbook. This is vintage American economic policy. And I think our big problem is that we strayed from it and we need to return back to our roots. So I'd encourage everyone, not just to listen to Hamilton the musical, but read Hamilton.

#### James Anderson:

Jeb, on that note, I want to thank you on behalf of the Institute of World Politics for sharing your experience and your insights tonight on really a crucial topic, the vital importance of the defense industrial base and how we remain competitive and minimize vulnerability.

Thanks to you, we've covered a lot of ground tonight, so we very much appreciate it. I'd also like to thank everyone who tuned in here on Zoom and Facebook for attending. If you're maybe interested in attending other IWP events, webinars, or supporting IWP or applying to one of our graduate programs, please visit iwp.edu. That's iwp.edu. Again, thanks to all and have a great evening.

#### Jeb Nadaner:

Thank you.