



A podcast about the economics of trade & policy
with Chad P. Bown

Episode 176. The Cold War scandal over export controls.

The Toshiba-Kongsberg Incident

[Episode webpage](#)

January 29, 2023

Transcript

(lightly edited)



Apple Podcasts



Spotify



Google Podcasts



Stitcher

Chad Bown: Beginning in 1981, companies from Japan and Norway conspired to sell military technology to the Soviet Union. This was during the Cold War, and it was against the rules. The companies were in US allies, countries that were supposed to be on America's side in the ongoing fight against the spread of Communism.

Years later, the American government found out, and there was a huge scandal. Congress convened hearings and was so upset, the United States imposed sanctions on these military allies.

The Norwegian company was called Kongsberg. You've probably never heard of it.

But the Japanese company you probably have. Toshiba, at the time, was already a giant multinational corporation. One small part of the company made the stuff that was supposed be kept away from the Soviet Union.

Other parts sold billions of dollars of advanced semiconductors, as well as massively popular consumer electronics like televisions and stereos, stereos that nine members of the US Congress destroyed with sledgehammers in front of the US Capitol, in a dramatic show for the media in 1987.



A podcast about the economics of trade & policy
with Chad P. Bown

US Capitol incident: *To the board of directors and chairman of Toshiba, I have to say that there was a large supporting cast. That supporting cast is in the highest echelons of the Japanese government. And perhaps some of those people deserve this award and deserve the consequences that should properly go with it.*

Chad Bown: In this episode, we'll tell the Toshiba-Kongsberg story. We'll explain the difficulty that even allied governments have when trying to coordinate limits on exports of sensitive technologies to military adversaries. We'll also describe lessons from Toshiba-Kongsberg for the even bigger challenge to cooperating over export controls today.

To help me tell this incredible story, I'll be joined by a very special guest. Eric Hirschhorn began his government career in export controls in the late 1970s as part of the Carter administration.

Eric Hirschhorn: When I was on Carter's staff, I played a very small role in the administration's putting together what became the 1979 Export Administration Act. And that led me to a job at the Commerce Department in 1980 as Deputy Assistant Secretary for Export Administration.

Chad Bown: From there, Eric moved to the private sector, where he would work with industry on export controls for the next 30 years. Finally, in 2010, Eric went back to the Commerce Department as Under Secretary for Industry and Security and ran export control policy for the Obama administration.

Chad Bown: Hi Eric.

Eric Hirschhorn: Hey Chad. Good to be here.

Chad Bown: You are listening to an episode of *Trade Talks*, a podcast about the economics of trade and policy. I'm your host, Chad Bown, the Reginald Jones Senior Fellow, at the Peterson Institute for International Economics in Washington.

THE COLD WAR

Chad Bown: During the Second World War, the United States and Soviet Union were aligned in fighting against a common enemy – Germany and the Nazis. Shortly after the war ended, the Americans and Russians started going after each other.



A podcast about the economics of trade & policy
with Chad P. Bown

By 1948, the two were already disagreeing about reconstruction plans for Europe. Soviet Premier Joseph Stalin instituted a blockade, preventing food and other supplies from getting to West Berlin. That led to the Berlin airlift.

In 1949, the Soviet Union helped China's communists leading to its Revolution. On the Korean peninsula, in 1950, the Communists in North Korea – aided by the Soviets and China – invaded the South, triggering a military intervention by the United States. Nearly 5 million people died in the Korean War.

In 1961, with newly elected American president John F. Kennedy now in charge, Soviet premier Nikita Khrushchev decided to build the Berlin Wall, permanently separating the eastern and western parts of the German city.

The following year, Kennedy and Khrushchev then brought their two countries to the brink of nuclear war. The American shipment of nuclear weapons to Italy and Turkey was matched by the Soviets setting up missiles in Cuba

US President John F. Kennedy (October 22, 1962): *This government, as promised, has maintained the closest surveillance of the Soviet military buildup on the island of Cuba. Within the past week, unmistakable evidence has established the fact that a series of offensive missile sites is now in preparation on that imprisoned Island. The purpose of these bases can be none other than to provide a nuclear strike capability against the Western Hemisphere.*

Chad Bown: Not long after the Cuban missile crisis was resolved, another Communist threat led the United States to go to war in Vietnam. That one lasted nearly a decade. Another 3 million lives were lost in that war.

In 1979, Russia invaded Afghanistan. The list goes on and on.

TECHNOLOGICAL KEEP AWAY

Chad Bown: Throughout the Cold War, new technologies played an incredibly important role.

It began, of course, with nuclear weapons. The United States was first, with the atomic bombs dropped on Japan at the end of the World War II. The Soviet Union secretly conducted its first successful nuclear weapons test in 1949. Then came outer space. With Sputnik, the Soviet Union was the first to launch a satellite in 1957 and to get a human into space in 1961.



A podcast about the economics of trade & policy
with Chad P. Bown

On the American side, whenever it invented some amazing new military technology – like a spy plane or a missile or a super quiet nuclear submarine – the Cold War would turn into a game of technological keep away. The Soviets would try to get the new American technology, as this approach was often cheaper than spending the resources to try to invent it on their own.

Export controls were one important policy tool of the keep away game.

Winning the keep away game was easier though when the United States was the only one inventing these amazing technologies. It became harder as America's allies recovered after the Second World War. Soon Japan as well as countries in Western Europe also had booming economies and were inventing amazing technologies too.

Yet, if the United States and its allies didn't coordinate their export controls, no one country's unilateral export limits would work. If American companies were the only ones who couldn't sell abroad, the Soviet Union would just get the technology from a firm in an allied country looking to make a profit instead.

To be clear, export controls are weird. They push against normal economic forces. Remember, the allies were fighting communism and authoritarianism and state-run economies. They wanted to spread democracy and liberty and markets where firms would compete. Their companies were supposed to want to maximize profits. Capitalism meant companies were constantly trying to enter new markets to earn new profits. That was all normal.

Except in this one instance. Here, for the reason of collective military security, the United States and its allies needed to work together. They would have to agree to stop all of their companies from exporting sensitive technologies to the Soviet Union.

COCOM

Chad Bown: The way the allied countries controlled exports together – or tried to do it – was through something called COCOM. Here's Eric Hirschhorn.

Eric Hirschhorn: After World War II and the rise of the Iron Curtain, and the beginning of the Cold War the United States in a number of like-minded western countries got together to consider whether they should control high-tech exports to questionable destinations, and in particular the Soviet Union. And the result of that was the formation of what was called the coordinating committee, or COCOM for short, in around 1949-1950.



A podcast about the economics of trade & policy
with Chad P. Bown

Chad Bown: COCOM was not a formal treaty or binding agreement like NATO, the North Atlantic Treaty Organization. It also wasn't anything like the GATT, the multilateral trading system created around the same time that came up with more general rules for international trade.

Eric Hirschhorn: It was not a formal treaty organization, but it did have a rule of unanimity, which was very important from the viewpoint of the United States because we basically could veto any export of a covered item. And the members of COCOM agreed by consensus on what would be covered, but with a lot of influence from the United States at that time. The United States, and any other country theoretically, was in a position to veto any export of a high-tech item on the COCOM lists to the Soviet Union or to any of its satellites in Eastern Europe.

Chad Bown: The Soviet satellites were the Warsaw Pact countries including Poland, East Germany, Hungary and others in Eastern Europe. COCOM was made up the United States, Japan, Canada, the UK, West Germany, France and almost all of the other members of the NATO military alliance. Australia would later join as well.

The way COCOM worked was member countries started with their own, national lists of export products they wanted to control. A new technology was invented. Some country would pitch it to the group.

Getting a product on the COCOM list did require consensus – all countries had to agree for something to be put on the joint list. But then once a product was on the list it would need a license to be exported, and any country could veto granting that license.

With that consensus, COCOM would end up having a minimum list of products that all members agreed to control.

The United States had its own longer list. It wanted more products to be controlled, to put more things on the COCOM list that wouldn't get there. The United States was the worrywart when it came to what the Soviet Union might do. For a number of reasons, Japan and countries in Western Europe wanted fewer products to face controls.

Eric Hirschhorn: You'd have to be pretty shortsighted to not think that keeping the Soviet Union under some control is in your own interest. If you are Germany, or you are France, or you are Italy they're a lot closer to you than they are to the United States.



A podcast about the economics of trade & policy
with Chad P. Bown

I don't think it was so much a question of self-interest as a fear of misuse of the system for other than security interests; that's always been the big bugaboo.

There was, from the beginning, a concern on the part of allied countries, members of COCOM, that the United States, in addition to using the idea, multilateral controls to restrict the military capability of the Soviet Union that we would fudge the proposals to benefit our own companies. I've been working in this area since the late 1970s. I have never seen evidence of that ever. But nevertheless, there always was a suspicion that this was somehow benefiting some US company to the detriment of some British, Belgian, or French company.

Chad Bown: There were other reasons for differences between the allies on how strict they wanted these export controls.

The United States was a big source of the financing that was covering the costs of the collective military defense. If some military technology slipped through the cracks and got to the Soviet Union, it was the American taxpayer who would have to foot the bill to fix the problem.

Economically, at least initially, much of the technology being controlled was American. The Second World War had left the US economy pretty far ahead of its allies.

Trade mattered though too. The geographic proximity of Western Europe and Japan to the Soviet Union made those countries more likely to be natural trading partners. Controls would have a bigger negative impact on their firms and their economies than the United States.

But another key reason for the differences between the United States and its allies was who in their governments was making the decision of which export products to control.

Eric Hirschhorn: An important part of the story here is organizational as well. We were the only member of COCOM whose defense ministry was involved in the process.

All the other members, it was handled by the trade ministry and their commerce departments. The trade ministry was not super national security oriented by nature. They were oriented to trade, to jobs, to building up their economies, which were in pretty dire straits after the war. So their whole outlook coming to the table was different from ours.

We would occasionally encourage our security counterparts in other COCOM members to get more involved, and they rarely had much success. Their governments viewed this as mostly a trade issue and wanted to minimize the controls.



A podcast about the economics of trade & policy
with Chad P. Bown

Chad Bown: In addition to allied differences on which products to put on lists in the first place, they also differed on enforcement.

COCOM was a completely voluntary agreement. There was no external enforcement. The American government could not really go after a French or British or Japanese firm for violating the COCOM list. For COCOM to work, national governments would have to hold their own companies accountable under their own laws.

Now, in 1951, the US Congress did pass something called The Battle Act. This law did have a provision that threatened to cut off American aid to any ally whose companies exported strategic items to the Soviet Union and other Communist countries.

And when COCOM started, that Battle Act threat probably had more bite. Revoking US aid would have been a big deal for Western Europe, which was relying on the Marshall Plan to help its economic recovery from the devastation of World War II.

Over time though, Marshall Plan funding ended. American assistance increasingly took the form of in-kind military protection. It came through NATO and the protection provided by American personnel and equipment stationed at military bases in Europe and in Japan. Cutting off US aid became a weaker and weaker threat – or incentive – for allied countries to strictly enforce their export control laws.

As more and more time passed, this combination of factors resulted in differing levels of enforcement across countries.

Eric Hirschhorn: The enforcement varied a lot. No country had the level of enforcement that we've always had. I think that there were differences as to how license applications would be handled, how much enforcement there was, because it's much harder to tell if another country is fudging a little bit at the margins on what's controlled and what isn't by what they license or whether they give a wink to the exporter.

Chad Bown: Despite these differences, to outsiders, the secretive COCOM process seemed to work. Allies did differ as to how many products they wanted to control, and how strictly each would enforce the rules that would prevent its firms from exporting a given technology. But the allies stayed together and COCOM appeared successful at keeping the Soviet Union from getting access to some of the most sensitive Western high tech products. At least publicly.

That is, until enforcement problems were revealed in the 1980s through a scandalous case involving nuclear submarines.



A podcast about the economics of trade & policy
with Chad P. Bown

NUCLEAR SUBMARINES

Chad Bown: Nuclear-powered submarines were an incredibly important weapon of the Cold War. Both the United States and Soviet Union had a fleet. Nuclear power meant a submarine could go long distances, under water, without ever being seen.

The initial technology had been diesel-powered submarines. Those couldn't dive that deep. Their engines were sort of loud. Diesel submarines also couldn't go too far away from port because they needed to refuel.

Eric Hirschhorn: Once you moved, starting in 1955, to nuclear submarines, they were much bigger, they did not have to return to Pearl Harbor for fuel every month. They could stay underwater for months and months and months. They could dive deeper.

They could carry not just torpedoes, which you can use on a vessel that's 2000 yards away that you can see through your periscope, but they can launch missiles that go over the horizon. There came a point when they carried intercontinental ballistic missiles in the nuclear submarines, and that's an incredible advantage if the enemy doesn't know where the platform is.

Chad Bown: In addition to not being seen, the Navy also did not want its submarines to be heard. If they could be heard, adversaries could track them down.

Eric Hirschhorn: The big strategic benefit of submarines, as opposed to surface ships, is that you can't see them. But if you can hear them, you lose the benefit. So you not only want them to be able to be submerged under the water, not visible to the naked eye, but you don't want them making a lot of noise.

Chad Bown: Getting super quiet submarines meant keeping all of their mechanical parts as silent as possible. Including their propellers.

Eric Hirschhorn: In a nuclear submarine, you don't have an engine that's making noise, but you still have propellers if you want to go anywhere. And making the propellers quiet is very, very important to the submarine service.

And the kind of milling and the advantage we had in machine tools and milling capability was everything to the Navy.



A podcast about the economics of trade & policy
with Chad P. Bown

Chad Bown: The US Navy's nuclear submarines were quiet – providing an important platform for the NATO defense – because of American superiority over the milling equipment that was used to make their propeller blades.

THE TOSHIBA-KONGSBERG INCIDENT

Chad Bown: In 1981, that began to change.

Toshiba Machine Tools and Kongsberg – two foreign companies located in American allies – began a conspiracy to sell milling equipment to the Soviet Union. The scheme would suddenly allow the Soviet military to also make super quiet propeller blades for their own nuclear submarines.

Eric Hirschhorn: It came to public attention and the attention of the US government that the Soviet Union had acquired some very sophisticated milling machinery and software from the affiliates of two companies. The parent company in one case was Toshiba, a Japanese company, and in the other case, Kongsberg, which was a Norwegian company.

Chad Bown: Kongsberg's numerical controllers were the computer software of the day. The controllers were needed to guide Toshiba's milling equipment – this equipment was reportedly two stories high and weighed half a million pounds – the controllers and machinery combined to make the propeller blades the Soviets so desperately wanted.

Eric Hirschhorn: The beauty of this kind of equipment is that enables you to be very, very precise about the shape of, for example, a propeller blade that might be used to propel a submarine.

Machine tools are what are called dual-use equipment. They can be used to make a very nice coffee table, or a sculpture, but they have a military use, which is to make very precise propellers.

Chad Bown: This sudden revelation that the Soviet Union had gotten access to these quiet propeller blades created a massive problem for western security. If policymakers thought the 1962 Cuban Missile crisis was bad – Cuba was still 90 miles away from the United States.



A podcast about the economics of trade & policy
with Chad P. Bown

If the American military and its allies could no longer hear Soviet nuclear submarines, the Soviets could set up weapons platforms even closer than Cuba. Their weapons could now be right off the coast of the United States or Western Europe or Japan.

On the legal side, this was not a case of two companies inadvertently selling something to the Soviet Union. Both the milling equipment and numerical controllers were on COCOM's export control lists.

Toshiba and Kongsberg had conspired in an elaborate scheme to deceive the Japanese and Norwegian governments. They falsified documents to convince export control officials and COCOM that they were selling something else to the Soviet Union. They disguised what was being shipped. They covered their tracks. They made \$17 million of sales over 1983 and 1984.

Eric Hirschhorn: It seemed fairly deliberate. It extended over some period of time. It involved numerous corporate officials. It involved substantial sums of money. I think that it was basically we are busted and nothing other than that.

Chad Bown: Nevertheless, when the Japanese government was first quietly alerted to the problem, "You're busted!" was not the government's reaction. It conducted an internal investigation, but Toshiba continued to cover it up. The Japanese government – perhaps not wanting to find evidence of wrongdoing, that would also implicate its lax export control system – initially let it go, and hoped the issue would disappear. But it didn't.

The story was eventually leaked to the American media, and it blew up publicly in the United States.

Eric Hirschhorn: What put it into the limelight is that the Navy is batshit when it comes to underwater technology, and the idea of allowing the adversary to have quieter submarines sent them right through the roof, and they went nuts.

The Navy really, really, really cares about that. And when they learned that the Soviets had gotten access to very precise machine and milling technology, they were incredibly upset. And as I say, justifiably so, our advantage is we are quieter. That's still our advantage. We are quieter. We're much harder to find, and boy that's important.

Chad Bown: In addition to the Navy, the American political reaction was massive. Toshiba hired a bunch of lobbyists, including former members of Congress, to help them manage the public relations fallout.



A podcast about the economics of trade & policy
with Chad P. Bown

Eric Hirschhorn: The congressional response was quite substantial – lots of calls for the heads, at least figuratively of Toshiba, Kongsberg. Anyone else who might have been involved in this kind of conduct.

Chad Bown: There was also that Congressional smashing of Toshiba stereotypes that we mentioned at the beginning.

Toshiba brought in a fancy US law firm to do an independent investigation. The Norwegian government did one of its own. The public reports of these investigations were fascinating. I am holding the Norwegian one in my hand right here.

What makes them so interesting is that these reports also revealed – or at least alleged – that companies in other COCOM countries had been doing the same thing. The only difference was that the companies in Japan and Norway got caught.

Norway reported that Kongsberg had been working with other machine tool companies in West Germany, Italy, Great Britain, and France since the mid-1970s to sell similar pieces of milling equipment to the Soviet Union.

These accusations made other COCOM governments conduct their own investigations. The French investigation came up with even more examples of companies violating export controls in ways that had previously gone undetected.

What all this finger pointing really revealed was that the COCOM system of voluntarily enforcing national export control laws had not been working that well after all.

Eric Hirschhorn: They did what they had to do to make the United States happy, but they never loved it. It was the trade ministries who were the COCOM representatives. They did what they had to do, if we would bring something to their attention, they'd fiddle with it. But fundamentally they thought this was the United States off on its own frolic and detour.

BAD TIMING

Chad Bown: On the US side, there was another big problem with the Toshiba-Kongsberg scandal – it's timing.

The revelations first trickled out to the public beginning in April of 1987. At that point, the US government was in the midst of a separate effort to reform what had become an overly



A podcast about the economics of trade & policy
with Chad P. Bown

restrictive American system of export controls. The scandal threatened to derail that effort at reform.

Eric Hirschhorn: There had been a continuing effort on the part of industry pushing very hard both on the hill and with the Reagan administration to ease some of the unilateral controls that the United States imposed.

These were controls, in other words, imposed only by the United States; controls that were not imposed by COCOM that reached farther, and of course meant that US exporters couldn't sell these items, but foreign exporters, even the members of COCOM, could sell them freely. And this was not 1947-1948, this was the early 1980s when Europe and Japan were pretty well recovered and coming along quite nicely.

Chad Bown: Before Toshiba-Kongsberg, US export control policy was creating a completely different problem. If allied export controls were too loose, US export controls were too tight.

With more and more companies in Japan and Europe making high-tech products, the United States was looking increasingly unattractive for industry.

It was not just export controls. There were lots of reasons why the United States was losing competitiveness and facing a growing trade deficit. By the 1980s, Japanese companies, in particular, had become hugely successful exporters of products ranging from steel to cars to semiconductors.

But for export controls, in 1987, the US government was finally committed politically to try to change. This was going to be part of a bigger *Competitiveness Initiative* that President Ronald Reagan launched in January during his State of the Union address.

Eric Hirschhorn: President Reagan, in his State of the Union address, at the beginning of 1987, called for a reduction in the number of unilateral controls and a reconsideration of the degree to which we required licensing of listed items when they were going to our closest allies.

And in April, the House of Representatives passed an export control bill that was pretty much along the lines that the State of the Union had suggested, and along the lines that ICOT and other industry representatives had been pressing for many years.

Chad Bown: But then the Toshiba-Kongsberg scandal broke. And for a long time, the scandal just would not go away.



A podcast about the economics of trade & policy
with Chad P. Bown

THE IMPACT OF TOSHIBA-KONGSBERG ON THE LEGISLATIVE PROCESS

Chad Bown: When the American public discovered that these Japanese and Norwegian companies had allowed the Soviet Union access to quieter submarines, Congress got angry.

With US national security now under threat, it was American taxpayers who would need to spend billions of dollars to help the Navy figure out new ways to detect and track those super quiet Russian submarines, so as to keep everyone safe.

Congress held hearings in the summer of 1987. Here is Republican Senator Jake Garn on the MacNeil/Lehrer Report

US Senator Jake Garn: *It is so egregious, so difficult to even estimate what it's going to cost us to overcome. What Toshiba machine tool did, the minimum estimate is \$8 billion of defense expenditures in order to recoup the advantage we had in submarine technology in the quietness of submarines. I can't emphasize why I'm so upset about this. It is a matter of national security.*

Chad Bown: The Senate took that House bill from April and amended it, including its part on export controls.

Now, the legislation did have a lot of other controversial trade stuff in it – beyond export controls. It took more than a year before the House and Senate could agree on a final version that President Reagan would sign into law. And during that period, the Toshiba-Kongsberg scandal refused to leave the headlines.

In March of 1988, the Japanese courts announced Toshiba's punishment for being found guilty of violating the Japanese export control laws. Here is Helen Delich Bentley, one of the Congresswomen who had taken a sledgehammer to a Toshiba stereo nearly a year earlier, now on the House floor:

US Representative Helen Delich Bentley (March 22, 1988): *Mr. Speaker word has just been received this morning that the Japanese courts have moved against Toshiba Machine [Tools] for sale of secret technology to the Soviets. That decision to employees who were involved directly with the sale have received suspended sentences, and the company has been fined \$15,748.03. Big deal. The action in the Japanese courts today confirms our deepest fear. Japan will not punish in any meaningful way for the illegal sale of technology. As a staffer said to me this morning, "\$15,000 is about the cost of one hours lobbying for Toshiba in Washington."*

Mr. Speaker they have lobbied well.



A podcast about the economics of trade & policy
with Chad P. Bown

Chad Bown: The legislative process dragged on and on. Only finally in August did President Reagan sign into law *The Omnibus Trade and Competitiveness Act of 1988*.

WHAT WAS IN THE LAW FOR EXPORT CONTROLS

Chad Bown: On export controls, there were essentially two parts to the new, 1988 US law.

The first part involved efforts to loosen US export controls. Compared to Japan or Europe, where exports of the same product was not being limited, these unilateral controls were making America a less attractive location for manufacturing.

Amazingly, some of the reforms that the American industry has been requesting and that were introduced in the first House Bill – before the Toshiba-Kongsberg scandal emerged – some managed to survive.

Eric Hirschhorn: They certainly moved the system in the direction that industry had been seeking. They did not give industry everything it had been seeking, but they, for example, said, except for certain very sensitive items, you would no longer need a license for exports to and among COCOM countries.

The legislation also strongly discouraged continuing controls that were unilateral in character. Congress recognized that unilateral controls have limited utility.

Chad Bown: The second part of the new law involved new extra-territorial sanctions, or penalties, for foreign companies that violated COCOM's rules.

One set of penalties were directed specifically at Toshiba and Kongsberg for their violating COCOM export control lists in the submarine incident. Despite Congress having threatened to ban all imports from the companies, in the end, the penalties were pretty mild.

Eric Hirschhorn: You might say that that was watered down, but you can also say that it was a reflection of the understanding that this was not a black and white situation. It turned out that there were things that Toshiba and Kongsberg and their subsidiaries made that we used, for not just commercial purposes, but for national defense purposes. So we were hardly in a position to, to say, well, we're going to cut off all imports from Toshiba and Kongsberg.



A podcast about the economics of trade & policy
with Chad P. Bown

Chad Bown: Kongsberg made Penguin missiles that the Department of Defense might need. Toshiba manufactured laptops and high-end semiconductors, also of potential use by the US military.

The second set of extra-territorial penalties set out what could happen to foreign companies caught for a future violation of COCOM export controls.

Eric Hirschhorn: Until 1988, our enforcement of controls – COCOM or US unilateral controls – was limited to companies that we could catch.

For a foreign company, there was not a lot you could do. You can't send a company to jail. So what were you to do? The 1988 legislation sought to plug this loophole or this gap by saying if a foreign corporation violates a COCOM rule, the United States can take action against the corporation by prohibiting them from doing business with the United States. That's something we can reach.

Chad Bown: In the future, foreign companies caught violating COCOM export controls could now be subject to American bans on imports or government procurement.

One problem here, of course, was just what had happened with Toshiba and Kongsberg. How big a deterrent is it, if the US government really needs products from a foreign company caught violating COCOM controls?

Another potential limitation could be if the foreign company fell at the other extreme. What if the company didn't sell anything at all to the United States. No imports also meant no US leverage.

To tackle these problems, Congress included one last set of extra-territorial penalties. The US government permitted itself to also now sue foreign companies damages.

Eric Hirschhorn: The 1988 law also provided that, in the event of a recurrence like the Toshiba-Kongsberg incident, the US Department of Justice could sue the offending companies for damages measured by the amount it would cost the United States government to basically make up the ground lost by the technology leakage.

Chad Bown: In theory, these damages could have been huge.

Suppose the ability to sue for damages had been in place at the time of Toshiba Kongsberg. The Defense Department estimate cited by Senator Garn was that it would cost \$8 billion to restore



A podcast about the economics of trade & policy
with Chad P. Bown

the preparedness of the US military. In comparison, Toshiba had only \$17 billion of annual revenues. If the law had been in effect back then, such a penalty would have probably put the company into bankruptcy.

Stepping back, these new extra-territorial penalties in the US law almost surely created new concerns for COCOM, a voluntary agreement between sovereign nations. Technology was always changing. New things were being invented. To get COCOM to work, the United States needed to convince its allies to agree to put new technologies on the list in the first place.

These new extraterritorial US sanctions may have made allied governments worry. And pause.

Suppose I am an allied government imagining a future Toshiba-Kongsberg-like conspiracy. Now, none of our enforcement systems were perfect. Some company might break the rules. But if the company was caught – and the new penalty for my company could be an \$8 billion American government fine that throws the company out of business, laying off its workers – that could be devastating for my entire economy.

As a policymaker, maybe I should think twice about agreeing to add that company's product to the COCOM export control list in the first place.

The implication is that those new extra-territorial penalties in the US law could have been a big deal. They could have really affected COCOM member countries' willingness to control exports at all.

We'll never really know because the world suddenly changed.

THE WORLD THEN CHANGED BEFORE THE PROBLEM WAS FIXED

US President Ronald Reagan (June 12, 1987): *Mr Gorbachev tear down this wall.*

Chad Bown: The Berlin Wall, separating part of East and West Germany, fell in 1989. The two countries were reunited. The Soviet Union itself dissolved in 1991, as did the Warsaw Pact. Poland, the Czech Republic, and other countries in Eastern Europe became more democratic and more market oriented. Many soon became members of the European Union. Some have even since joined the NATO military alliance. The Cold War was over. COCOM – that secretive export control club – was dissolved altogether in 1994.



A podcast about the economics of trade & policy
with Chad P. Bown

On export control coordination, a new agreement – the Wassenaar Arrangement – did emerge in 1996.

Eric Hirschhorn: After some hiatus, the United States convinced allies to, in essence, re-form something that looked a lot like COCOM called the Wassenaar Arrangement after the city in the Netherlands where the agreement was made.

The biggest difference between COCOM and the Wassenaar Arrangement was the elimination of the unanimity rule, which meant the elimination of the United States' ability to veto any other members' sale of equipment or technology. The allies were not having any part of continuing the unanimity rule. Once the Soviet Union was gone, they were raring to get rid of it, and they did.

Chad Bown: The allies wanted a much weaker export control regime, and the result was the Wassenaar Arrangement. Without a Cold War, Wassenaar was also an attempt to be more inclusive. It has 42 member countries and operates by consensus.

One of the problems with the Wassenaar Arrangement though is that Russia was a founding member.

Eric Hirschhorn: The Russians are members of Wassenaar, which I think, in retrospect, is unfortunate. I think they're a very disruptive presence in Wassenaar.

Chad Bown: Put a different way, when Russia invaded Ukraine in early 2022, the United States, UK, Canada, Australia, Japan, European Union and more than 30 other countries quickly reacted. Almost immediately, they imposed a massive set of new controls designed to prevent technology exports from getting to Russia.

All of that was done outside of the Wassenaar Arrangement.

EXPORT CONTROLS TODAY

Chad Bown: To conclude this episode, I wanted to think about lessons for today.

It is important to remember that the allies never really completely fixed the multilateral export control system before the Cold War ended. To deal with the problem of lax enforcement by allies, the United States passed a law giving itself the right to use extra-territorial sanctions if foreign companies in allies broke the rules.



A podcast about the economics of trade & policy
with Chad P. Bown

We don't really know the consequences of that decision. It may have made allies less willing to put controls on any new products at all. It may have also created diplomatic problems, as allies generally are not happy when the United States sanctions their companies.

Today, coordinating export controls with allies is likely to be even harder than during the Cold War. Compared to the 1950s, and even the 1980s, the United States is even less likely to be the inventor or only manufacturer of some piece of technology critical for military advancement. This was made obvious by the 2020 and 2022 US export controls designed to slow the Chinese semiconductor industry.

In those cases, the United States was worried about Chinese President Xi's policy of "Military Civil Fusion." This policy encourages Chinese companies to do things to help modernize the Chinese military. With an increasingly aggressive Chinese foreign policy, the concern was providing Chinese companies with equipment to make high-tech chips would ultimately make the Chinese military even stronger, threatening US national security.

The problem for US export controls is the reality of today's semiconductor industry. While American equipment companies do play an important part, one of the most advanced pieces of equipment – something called an EUV machine, based on extreme ultraviolet lithography technology – is made by a Dutch company, ASML, in the Netherlands. The ASML machine is not something that US export controls alone could really ever reach.

Today, the United States also seems more worried about China as a national security threat than do most of its allies.

But another important parallel is that the allies remain worried that US export controls are being designed to give American firms a competitive advantage at their expense. After four years of President Trump's American First policy, including tariffs on their exports, they have the right to be skeptical. Their concerns will need to be overcome. The Biden administration did not help itself by including parts of its own flagship climate legislation – the Inflation Reduction Act of 2022 – that negatively impact the allies' electrical vehicle industries.

One result has been that the United States was forced to go alone when it imposed unilateral export controls on its semiconductor equipment companies' sales to China on October 7.

Here is the Biden administration official in charge of export controls, Alan Estevez, shortly after that announcement, at an event at CNAS.



A podcast about the economics of trade & policy
with Chad P. Bown

Under Secretary Alan Estevez (October 27, 2022): *I know there's going to be some questions about where the multilateral is in what we just did. And I will say that's a work in progress. We moved out at this point because we felt we needed to for the national security reasons.*

We're talking to our allies. No one was surprised when we did this. And they all know that we're expecting them to cover likewise. And we're working on those details with specific allies around that.

Chad Bown: Finally, at the end of January, it was reported that those details had been worked out. We don't yet have the facts, and we await even a public announcement, but there may now be an agreement between the governments of the United States, the Netherlands, and also Japan – Japan too has important semiconductor equipment makers that need to be controlled. These three countries may have a deal on how to coordinate export limits on these particular machines.

A US-Netherlands-Japan agreement would be a positive sign. The US controls on this technology would no longer be unilateral. But this experience also shows how hard it is to coordinate export controls. From the date of the unilateral US announcement of October 7, it has taken nearly four months to get an agreement.

In today's climate, with ever increasing concerns over national security, this is almost certainly not the last time the United States will want to add something new to the export control list. The need to coordinate export controls with allies will come up again and again.

Is it worth it?

As one last question, I asked Eric again how he would characterize the problem of a country like the United States not coordinating with allies, but instead, imposing unilateral export controls.

Eric Hirschhorn: I used to say that unilateral controls are like damming half a river. You may feel pretty good about it, but things are still pretty damp downstream.

Chad Bown: Eric, thank you very much.

Eric Hirschhorn: My pleasure.



A podcast about the economics of trade & policy
with Chad P. Bown

CONCLUSION

Chad Bown: Now, nothing about export controls is easy.

But as the United States, the Netherlands, Japan, European Union, UK, South Korea, Canada and other allies think about what to do, when it comes to common military threats today, there are lessons to be learned from COCOM and from the Toshiba-Kongsberg incident.

If the United States fails to do export controls collectively, if it continues to implement them unilaterally, then just like the 1980s, US companies and the US economy will end up less competitive. And equally bad, this will fail to secure America's own national security, let alone that of its allies.

In today's world, the only option is to implement export controls together.

GOODBYE FOR NOW

Chad Bown: And that is all for *Trade Talks*.

A huge thanks to Eric Hirschhorn, formerly a US export control official during both the Carter and Obama administrations. Eric has an amazing paper on Toshiba and Kongsberg published in 1989, with Joseph Tasker. And if you teach export controls, you might also check out the Eric's textbook – now in its fourth edition.

Let me also plug something I just published in *Foreign Affairs* titled "The Return of Export Controls."

I'll post links to these materials on the episode page of the *Trade Talks* website.

Thanks to Melina Kolb, our supervising producer. Thanks to Sarah Tew, on digital.

As always, thanks to Collin Warren, our audio guy.

Do follow us on Twitter or Mastodon, we're on @Trade__Talks. That's not one but two underscores, @Trade__Talks.

<insert super funny double underscore joke here> . ■



A podcast about the economics of trade & policy
with Chad P. Bown

REFERENCES

Eric L. Hirschhorn and Joseph Tasker, Jr. 1989. [Export Controls: Toward a Rational System for Everyone Except Toshiba, with All Deliberate Speed](#). *Law & Policy in International Business* 20: 369-401.

Chad P. Bown. 2023. [The Return of Export Controls. A Risky Tactic That Requires Cooperation From Allies](#). *Foreign Affairs*, January 24.

Chad P. Bown. 2022. [National security, semiconductors, and the US move to cut off China](#). *Trade Talks* podcast episode 170, November 2.