TRADE talks

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

Episode 179. Why Taiwan restricts high-tech investment into China

Episode webpage

February 26, 2023

Transcript

(lightly edited)

Apple Podcasts | Spotify

Google Podcasts | Stitcher

Chad Bown: Four or five years ago, I started to work on national security, trade, and Taiwan. I kept coming across the name Cindy Whang. Cindy had written really cool papers about export control laws, Taiwan and semiconductors.

But Cindy also had work on Taiwan and a separate policy – foreign investment screening. This work explained a pretty novel government policy. Taiwan's government actually regulates the investments that its companies are allowed to make across the Taiwan Strait into China.

Then, in February, two things happened at once.

First was a story in the *New York Times*. Ana Swanson, the great *Times* reporter, wrote that the US government was getting close to something similar. The United States may soon introduce a policy to restrict how Americans are able to invest in China. This could be huge.

Second, Cindy Whang arrived in Washington, DC. I asked Cindy to come on *Trade Talks*.

To understand what the US government is grappling with today, I wanted Cindy to explain Taiwan's history as well as how and why Taiwan's government restricted its companies' investments into China. Here she is:

Cindy Whang: Cindy Whang, Fu Jen Catholic University, Taiwan. The fundamental aspect from the Taiwanese government is that we don't want all of the corporations to just move to China and leave an empty corporate shell in Taiwan where there's no money here.

Chad Bown: Hi, Cindy.

Cindy Whang: Hi, Chad.

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.

TAIWAN-CHINA HISTORY

Chad Bown: Taiwan is an island off the coast of mainland China.

With China, Taiwan has a complicated military, political, and economic history. We'll start our story in China in 1945, right after the end of the Second World War.

Cindy Whang: The reigning party, the Guomindang, KMT, which later became the government that moved to Taiwan, they fought with the Communist Party, and they fought for another four years. It was in 1949 that the KMT moved to Taiwan, and that resulted in the long standoff between China and Taiwan.

When KMT moved to Taiwan, what they installed was martial law in Taiwan. And part of the reason why they installed martial law was because of the conflict at that time that was still ongoing with China. During the period of martial law, there were a lot of things that the Taiwanese people could not do at the time. A lot of the freedoms we enjoy now – the freedom association, freedom of press – a lot of those were actually really restricted.

Chad Bown: After China's Communist revolution in 1949, Taiwan and China did not really get along. Under martial law, the Taiwanese government restricted what people living on the island could do in an attempt to protect their security. Those restrictions included interactions with people back in China.

Taiwan's policy continued until 1987, when things really changed.

Cindy Whang: In 1987, martial law ended, and as martial law ended, one of the first things that happened was that a lot of the troops that came with the KMT to Taiwan wanted to be able to go back to China to visit a lot of their relatives that they had not been able to see close to 40 years. That started really the movement of people between Taiwan and China.

After 1987, the government allowed people to go back to China to visit their relatives. There were a lot of interactions between people from both sides of the Taiwan Strait. And that eventually led to a lot of considerations of what else can we do together and so investment came later.

Chad Bown: Over nearly 40 years under martial law, trade between Taiwan and China was also pretty much nonexistent.

Cindy Whang: Before 1987, everything was strictly enforced where the two sides had no interactions with each other. There was just no importation or exportation of goods to the other side because of the military standoff.

Chad Bown: Even when Taiwan and China did start to trade, imports and exports were really clunky. Hong Kong was used as an intermediary.

Cindy Whang: A lot of the ongoing trade between Taiwan and China was done through Hong Kong. In Hong Kong there was a lot of imports and export, but by and large it was going through Hong Kong to go to China or going through Hong Kong to come to Taiwan.

Even travel went through Hong Kong. If you wanted to go to China, even though it might be closer to fly directly to China, you had to go through Hong Kong.

Chad Bown: In 1992, Taiwan started changing its laws. It began to accommodate a new economic relationship with China.

Cindy Whang: An important statute that passed in 1992 was called *The Act Governing Relations Between the People of the Taiwan Area and the Mainland Area*. That regulation provided the framework of all future interactions between Taiwan and China, and that included trade and included the economic relationships between the peoples, but a lot of it is also related to trade between Taiwan and China.

Chad Bown: In the 1990s, people in Taiwan and China began to form more and more business relationships. There was more and more trade and even some foreign investment.

Then in 2001, Taiwan and China began to formally implement the *Three Direct Links* policy, which would allow nonstop connections for mail, traffic and commerce.

Mail meant things like postal mail and telecommunications. Traffic meant air and sea transportation. And Commerce meant direct imports, exports, and foreign direct investment. Three Direct Links meant economic activity would no longer need to be routed through places like Hong Kong.

Also, Taiwan and China each became members of the World Trade Organization.

Despite the increasing policy engagement since 1987, the relationship between Taiwan and China has remained complicated.

Cindy Whang: The original idea between some of the investments to China has been that if we use trade and investment, maybe they'll change. Maybe they'll become more open and there might be substantial change, and so it might bring the two sides closer to each other.

One of the interesting things about the relationship between Taiwan and China is that two things can be true – can coexist – at the same time. And what is true is that the tension, the political tension, never subsided. But what is also true is that economic relations between the two sides have gotten closer and closer.

Chad Bown: The economic relationship between Taiwan and China was getting closer and closer. In Taiwan, some of this was driven internally by those wanting to take advantage of new economic opportunities in China.

But some of the need to do more with China came from an external pressure. Taiwan's companies wanted to remain competitive as part of the global economy.

Cindy Whang: The movement to go to China was that everybody was moving to China. If you don't move to China, the feeling was that you will be losing out to the Americans, to the Japanese, to the Koreans that are now staking their claim in the Chinese market. The feeling at that time was that China was the big market. Everybody is going. If you don't go, you're lagging behind. So you should go.

Chad Bown: At the same time, Taiwanese firms had certain advantages in the Chinese market that their competitors from America, Japan or Korea just did not.

Cindy Whang: Of course culturally speaking, compared with other foreign companies, it is a lot easier for the Taiwanese corporations to invest in China because they understand at least the language. And culture-wise, there's more familiarity between the two sides. Compared with other foreign investors from around the world, from Japan, from the US where, culturally there might be some differences, it is easier for Taiwan enterprises.

THE RISE OF TAIWAN'S FOREIGN INVESTMENT INTO CHINA

Chad Bown: The economic relationship between Taiwan and China was quickly moving beyond trade.

Today, Taiwan has a population of only 24 million people. China has more than 1.4 billion people. For every one consumer or worker in Taiwan, there are 60 consumers or workers in China. A Taiwanese company that built a plant in China would have direct access to a lot more consumers. China's giant workforce meant some companies could produce there more cheaply for export back home or to the rest of the world.

To stay competitive, some Taiwanese industries wanted to start manufacturing in mainland China.

Cindy Whang: One of the things that had happened was a lot of the more labor intensive industries moved from Taiwan to China. One of the first industries that moved to China was the textile industry. And, and that's by and large true for a lot of the textile industries where they usually move to where the labor is cheaper. And so that's usually the first industry to move out from a country when the wages start rise. And that happened with Taiwan.

Chad Bown: After textiles came part of Taiwan's high-tech industry.

Cindy Whang: Some of the more labor intensive aspects of the technology industry have been moving to China, gradually moving to China. Some of the packaging firms and some of the testing firms have slowly started to move to China because they were considered more labor intensive.

Chad Bown: Packaging and testing firms are part of the semiconductor industry.

Semiconductors, as we all now know, are those tiny silicon chips that go into everything – computers, mobile phones, video games, cars, you name it.

Semiconductors are also a hugely important part of the Taiwan story. Packaging and Testing are the last stage of the long and complex semiconductor supply chain. This part of the supply chain uses a lot of workers, but workers that don't need to have the most sophisticated skills.

These workers perform relatively routine tasks. They might take the fancy silicon wafer and package it into a tiny case to connect to a circuit board for use in an electronic device, like an iPhone or a computer. The workers also then test this new product to make sure it works. So Package and Test.

Taiwanese companies that specialized in this labor intensive business were some of the next wanting to take advantage of China's abundant, low-cost workforce and the improving economic relations.

Cindy Whang: That had made the Taiwanese government realize that this seems to be moving upwards. Originally it was labor intensive textiles, and then some of the labor intensive technology firms are moving to China. So what's next?

What's next seems to be the wafer foundry business.

Chad Bown: The wafer foundry business – that is TSMC, the Taiwan Semiconductor Manufacturing Company

Today, TSMC is Taiwan's national champion – its pride and joy.

Cindy Whang: One of the interesting things is that the structure of the foundry in industry was found by Morris Chang of TSMC. He saw the opportunity and he went for it. TSMC did a lot by themselves, of course, but the government also felt a little bit proprietary of this specific industry and not just the semiconductor industry as a general whole, because there were other companies – in South Korea, Samsung, and in Japan and in the United States (Intel) – all of these companies, they're all in the semiconductor industry. But the foundry industry, that industry itself, by and large, Morris Chang really founded the wafer foundry industry.

Chad Bown: The wafer foundry industry was a new business model that revolutionized the semiconductor world.

The idea was that one type of company – a foundry – could focus on just manufacturing the semiconductor wafers and not worry about their design.

Semiconductors are a crazy costly industry. What sets it apart from many others is that companies have to pay two massive sets of fixed costs to bring a semiconductor to the market. The first costs are the expensive research and development needed to design a new chip. The second costs are the machines and buildings to produce those chip designs. Each of these costs on their own are pretty big. Combined, they are enormous.

Historically, semiconductors had all been done within one giant integrated firm. In the 1980s, Morris Chang came along with a new idea. Chang had been an executive at Texas Instruments, an American company that was one of those giant integrated semiconductor firms.

Chang's idea was to start a company that would focus on only the wafer production. His firm would be a contractor. Other companies could specialize and pay the massive R&D costs to design the chips. His foundry would specialize in production and only need to cover the costs of building the factory and equipping it with the machines to make the chips. Morris Chang's firm was TSMC.

Now, especially in the early days TSMC was helped with subsidies from the Taiwanese government. There were times when the company almost didn't make it.

But by the 2000s, TSMC's revenues had grown so much that it was now one of the biggest semiconductor companies in the world. TSMC was based on this hugely transformative wafer foundry business model. And the business model was created in Taiwan.

The problem for the Taiwanese government was that TSMC too wanted to expand overseas. It wanted to build wafer foundries in China. For the Taiwanese government, this was different from textile companies leaving Taiwan or packaging and testing companies leaving Taiwan.

Cindy Whang: The discussion of the investment to China was the wafer foundries. There was a lot of debate and discussion on should we allow you to go? There's a feeling of we've fostered this industry, and Taiwan is benefiting from this industry.

Are we going to allow this industry to go to China, and what are the potential repercussions of that?

TAIWAN'S POLICY ON FOREIGN INVESTMENT

Chad Bown: Taiwan is one of the few places in the world where a government reviews and limits the foreign investments that its companies can make.

When it comes to screening its companies foreign investments, what is Taiwan's government most worried about?

Cindy Whang: Because you're moving money out from Taiwan, that's fundamentally the concern is that if you're moving money away from Taiwan and not investing in Taiwan, are you hollowing out Taiwan?

The government spent a lot of time to foster these industries, and we hope that the industries will, of course, flourish. But if they move all of the money out from Taiwan, what is left for the industry, and what is left for the growth of the industry in Taiwan?

Chad Bown: All foreign investments made by Taiwan's companies get screened under Taiwanese law.

Cindy Whang: In Taiwan, all outbound investments are subject to review or filing with the Ministry of Foreign Affairs. If you want to make an investment, you have to file with the government.

What you file depends on the size of your firm and the size of your investment. The threshold right now is $50 million. If you're under $50 million, mostly you have to file. And so the government needs to know that you are making this investment, but it's not really subject to a lot of review. But if you go over $50 million you need to go through a specific case review.

Chad Bown: If a Taiwanese company wants to make an investment in China, the company faces additional regulations and limits on what it can do.

Cindy Whang: The Chinese investment is different. *The Act Governing Relations Between the People of the Taiwan Area and the Mainland Area* – this regulation sets out specific foundations for the investments that needs to go to China, or the screening process.

The Taiwanese government has always done investment screening based on the level of technology. In the regulation there are two clear categories. One is the prohibited category, and one is a general category.

The prohibited categories are the categories where you are not allowed to invest. That prohibited category has always been defined by the different levels of technology.

And then there is the general category. For the general category, you are still subject to the dollar amount limit.

Chad Bown: Taiwan's law regulates its companies' investments into China by imposing two constraints. The first is that Taiwan's firms are prohibited from moving to China the production of certain high-tech products. The second is that, even for products that are allowed – in this general category – Taiwan has a cap on the size of investments in China that Taiwanese people and companies are allowed to make.

Cindy Whang: There's a cap to the amount of investment that can be made according with that regulation. And this is cumulative.

For small and medium enterprises, your investment to China cannot exceed about $2 million or 60 percent of the enterprise's net asset value.

The cap for individuals is $5 million.

And then for other corporate entities, meaning larger corporations, it's determined by your net assets. You cannot exceed 60 percent of your net assets.

Chad Bown: Taiwan had already been regulating its companies' foreign investments for a number of years. But the restrictiveness of the policy became controversial when TSMC wanted to expand its wafer foundry business into China.

Cindy Whang: The wafer discussion started in the 1990s. When TSMC was going to invest in China, there was a lot of pushback from the Taiwanese government because there were two things the Taiwanese government wanted TSMC to do with the investment restrictions.

The first thing the Taiwanese government wanted TSMC to do was leave most of the high-end technology in Taiwan. And part of the investment screening was also that if you want to invest in China, you have to invest in Taiwan first.

The second thing that the Taiwanese government requires is that you cannot invest in the highest level of technology.

Usually the requirement is at least one generation below. For example, if you have a high end wafer foundry invested in Taiwan, when you go to China, you cannot invest in the same level of technology. It has to be a level below.

Chad Bown: If TSMC was making the latest and greatest semiconductors in Taiwan, its plant in China could only producer older technologies and legacy chips.

TSMC was not happy with this policy. It worried about what its foreign competitors were being allowed to do in China. TSMC thought the Taiwanese government was being unfair.

Cindy Whang: This requirement is a requirement that is imposed by the Taiwanese government. At the time, it was not imposed by any governments in other countries. What

TSMC was manufacturing in China was still of a lower technology than what was being manufactured by Intel or other corporations in China.

And so from TSMC'S perspective, they were at a disadvantage compared with a lot of the other firms. They really wanted to invest in the higher end technology.

Chad Bown: TSMC and semiconductors were not the only Taiwanese industry caught up in this government policy limiting their ability to invest China. Another was LCDs, or liquid crystal displays.

Cindy Whang: The same story replicated itself with the liquid crystal displays (LCDs), which are the monitors that we all use for electronic means.

Previously what had happened was that the Korean firms, LG and Samsung all invested in China. And so the LCD corporations in Taiwan made the argument that if you don't allow us to invest in China, essentially the Chinese market will be taken over by the Korean firms and we will lose out in the Chinese market. And so you should allow us to go invest in China.

Some of the lower end technologies are allowed to invest in China, but with the caveat of if you invest in China, you have to invest in Taiwan too. Basically it's the same thing with TSMC – with the wafer foundries – and the LCD factories.

Chad Bown: At the same time that Taiwan’s government was limiting the ability of Taiwanese companies to invest in China, China’s government was making it more attractive for them to come.

China wanted the jobs and for these Taiwanese companies to share their technologies and ideas with local Chinese firms. But it also seemed more than that.

Cindy Whang: The Chinese government has been very favorable to Taiwanese corporations, and part of it is that they do still want to unify. From the Chinese government's perspective, there is still propaganda – the propaganda meaning that if they are better to Taiwanese corporations, then Taiwanese corporations will move to China, and China and Taiwan will move more closely together.

The challenge has always been that corporations do find it easier to invest in China, and it has been hard to invest in other areas of the world.

Chad Bown: To Taiwan's government, all of this investment in China was becoming a problem. It really wanted Taiwanese companies to diversify. It was hard to overcome the fact that China was so big economically and so much easier to navigate culturally.

Cindy Whang: Especially when there have been political tensions between Taiwan and China, the government has really, really tried to use Southeast Asia, Vietnam, Thailand, and a lot of these Southeastern Asian countries as a potential other country that the Taiwan industries could move to. But that has not really worked. A lot of it does have to do with the culture and the ability to talk both in Mandarin and the similarities and cultural backgrounds. For a lot of the corporations in Taiwan, which are small and medium enterprises, it's just much easier for them to invest in a factory in China as opposed to learning a new language and investing in Southeast Asia.

While the Taiwanese government has heavily promoted the investment to other parts of the world, by and large, it has not proven to be that successful.

Chad Bown: We looked up the data from Taiwan's Ministry of Economic Affairs – its Investment Commission.

Despite Taiwan's regulations limiting outbound investment, today, over 50 percent of Taiwanese companies' total stock of foreign direct investment sitting out there in the world is located in mainland China. In the 2000s and early 2010s – each year, 60 or 70 or 80 percent of Taiwan's new outbound foreign direct investment would flow into China.

While the flows have been decreasing recently – as Taiwan tries to diversify and invest more in places like Southeast Asia – these are still big numbers. The Taiwanese government does not want its firms too dependent on China.

Cindy Whang: The diversification of investment country comes from the need or comes from the desire of all of Taiwan's investments to not all go to China. That also relates to interdependence, economic interdependence.

The hope is that corporations don't put all of their eggs in one basket, and that basket is China.

WHY MIGHT GOVERNMENTS CARE ABOUT FOREIGN INVESTMENT

Chad Bown: Taiwan's government has now been regulating its companies foreign investments for a long time.

I have a two-part question. In theory, what are some of the reasons why governments might screen their companies' foreign investments? Of those potential reasons, which do you think best explains Taiwan?

Cindy Whang: There are a few purposes for screening. First is for jobs to make sure that the jobs will stay in a country. And that is one important reason for screening, especially for the industries that are moving to China. If specific technology industries, especially since they have the good high paying jobs and these good high paying jobs stay in Taiwan, this will actually provide benefits with a lot of the employment opportunities, and this will provide a lot of college graduates with very good jobs when they graduate.

The second reason to do screening is the traditional national security narrative. When we think about national security, this is about military-use technology, and whether or not to export a specific technology because you don't want the other side to get this technology and use it as a weapon against you. For the investment screening in Taiwan, that is not completely off the table, but it is probably less of an issue that is discussed.

The more important reason for the investment screening is a national security concern, but more from the economic standpoint. The economic wellbeing of Taiwan is very, very important to Taiwan because of our precarious international status.

Having a good economy for Taiwan is something that the government strives for. If these high-tech industries move away from Taiwan, it would harm the economy of Taiwan. For the Taiwanese government, the consideration is that we need to make sure that Taiwan has a good, vibrant economy.

Chad Bown: Taiwan's precarious international status involves the Chinese Communist Party wanting the island to reunite with the mainland. But what that would mean for the people of Taiwan, its democracy, and its economy all remains unclear.

Stepping back from all this, what are some of the main lessons learned from Taiwan's experience in investment screening?

Cindy Whang: The first lesson I think is that the industry will always fight you. They have their business model, they have their markets that they want to conquer. The businesses have a very different perspective on what they want to do compared with what a government needs to do for the betterment of the general public.

But I do think that there needs to be a balance between these two. And the balance is extremely hard. It is extremely hard because you are screening your domestic corporations, but there are other firms in other countries that your corporations are in global competition with.

I think a good question to ask is doing this investment screening going to be good for the domestic economy? What is the purpose of the screening itself? What is it trying to accomplish? What are the trade offs? What are the specific industries that you want to get involved with in the screening?

In Taiwan, the screening is actually quite restricted. There's a really concentrated focus on specific corporations and specific industries.

Chad Bown: As my last question for you, I want to ask about the CHIPS Act – this US legislation passed in 2022.

The US government is now subsidizing semiconductor manufacturing. It desperately wants TSMC to build a plant in the United States, so the government is subsidizing it – "fostering" it, was the word you used when describing how Taiwan's government did something similar. Also, it's not just the United States. The Japanese government is subsidizing TSMC building a plant in Japan too.

Normally, as an economist, I might be worried that these sorts of subsidies could introduce problems.

But TSMC seems a special case. The company does contract work for the high-end chip designers. It is so good, that TSMC manufacturers roughly 90 percent of the world's highest end chips.

But the problem is that TSMC does that almost exclusively in Taiwan. We now know partly why it is not doing that in China – Taiwan's government says it can't.

But in a world with climate shocks, storms, floods, droughts, earthquakes, pandemics – all these things that disrupt manufacturing – geographically concentrated production is just a really bad idea for the global economy.

There are benefits to the world of TSMC having plants located outside of Taiwan, perhaps in countries like Japan and the United States.

But what does the Taiwanese government think about that argument and these other governments' subsidies? Is Taiwan just as worried about TSMC building a plant in the United States or in Japan as it is with TSMC building a plant in China?

Cindy Whang: The new investments to the United States or to Japan have not been viewed as having the same effect as these corporations investing in China.

I think the argument does still come back to the tension, that political tension that exists between Taiwan and China. There is more of a feeling that the United States and Japan are democratic countries and so there's a feeling of a closeness. When companies say that they want to invest in the United States or invest in Japan, it's not China.

Chad Bown: Cindy, thank you very much.

Cindy Whang: Thank you very much, Chad. It was a pleasure to be here.

THE UNITED STATES AND OUTBOUND FOREIGN INVESTMENT SCREENING

Chad Bown: To wrap up this episode, I wanted to go back to where we started.

The US government is now reportedly thinking hard about an outbound foreign investment screening policy. Something in the flavor of what Taiwan has been doing for decades.

Now, for the United States, this would be completely new.

The US government does have a policy to screen investments in the other direction – when foreign firms want to buy or merge with an American company, where the transaction might involve sensitive products or have national security implications. That policy goes through a US government process called CFIUS, the Committee on Foreign Investment in the United States.

But screening outbound investment is different. From listening to Cindy explain the Taiwanese government's objectives, the US government has a lot to think about.

For example, does all American outbound investment to China need to be reviewed? If not, where does the government draw the line? Is it only certain high-tech industries? Or, within those industries, it is only certain high-tech products?

Then, what kind of foreign investment? Is it foreign direct investment – so building a plant or buying into an existing company in China? Or would it also include more passive investments – venture capital, financial capital?

Also, does the US government do this alone? Or does it convince other countries to do it too?

For US policy, outbound foreign investment screening is so new, even these questions are really just the tip of the iceberg.

As to what policy the US government ultimately comes up with, we will continue to watch this space.

GOODBYE FOR NOW

Chad Bown: And that is all for *Trade Talks*. A huge thanks to Cindy Whang at Fu Jen Catholic University in Taiwan. Thanks to Melina Kolb, our supervising producer. Thanks to Sarah Tew, on digital, and thanks to Yilin Wang on data. 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>.