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## USD/CNY – US/China Begin a Technology Arms Race

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## Key Points:

- The Trump Administration prepares new investment restrictions against Chinese entities acquiring US technology (as well as more export controls)
- The silver lining is we expect far more differentiation in investment than for goods
- But in the hands of bureaucrats, Trump's new policy may lead to a blanket ban on Chinese investment into anything technological
- The Chinese share some of the blame – eg, in the Micron-UMC-Fujian Jinhua case
- Not that investment restrictions would have helped there, nor in third countries
- Theft seems common in chip design; expect *more* of it after the new policy as well as tougher treatment of US companies in China
- We wonder if there could be a legal challenge to the measures under IEEPA?
- When it comes to technology, innovation and diffusion, you don't just follow the money

## What Happened

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Trump prepares defenses against Chinese investment into the USA

[Reuters](#) reported today: *The U.S. Treasury Department is crafting rules that would block firms with at least 25 percent Chinese ownership from buying U.S. companies in “industrially significant” technologies, the Wall Street Journal reported on Sunday ... It said the administration would look only at new deals and would not try to unwind existing ones, adding that the planned investment bar would not distinguish between Chinese state-owned and private companies.*

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As well as more export controls

*Citing people familiar with the matter, the newspaper said the U.S. National Security Council and Commerce Department were also devising plans for “enhanced” export controls to keep such technologies from being shipped to China.*

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Using 1977 IEEPA legislation, under which (maybe) anything goes

*Citing people familiar with the internal Trump administration debate, the newspaper said the United States plans to use the International Emergency Economic Powers Act of 1977 (IEEPA) to impose the investment restrictions. [IEEPA was Item #6 in our list in Asia Cross Current: CNY - Don't Bring Higher Interest Rates to a Trade Fight, [insert URL] 12 January 2018.]*

This was the original *Wall Street Journal* article which scooped the rest of the press:

<https://www.wsj.com/articles/trump-plans-new-curbs-on-chinese-investment-tech-exports-to-china-1529883988>

Our thoughts and comments follow.

## Bannon has Trump's ear

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Bannon gets his war

This is exactly the sort of US war which Steve Bannon had wanted on China, judging

that if America does not somehow hobble China now there is no way to Make America Great Again. We, on the other hand, are flabbergasted - we cannot think of any other period in American history when its industrial policy consisted of actively trying to get in the way of another country's development. This strikes us as more a **sign of weakness (maybe even desperation) than of greatness.**

#### **Expect many shades of grey (could be 50)**

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There's likely to be far more differentiation here than for goods

The initial policy as laid out is broad – and crude (undifferentiated): Any venture with a 25% (sometimes less) Chinese stake will be denied investment into "industrially significant" technologies. As such, after industrial comments are gathered - *Josh Kallmer, senior vice president at the Information Technology Industry Council, a trade association of high-technology companies, said he expected plenty of companies to offer comments on the proposal (WSJ) - we think it's possible there will be far more differentiation on investment rules than, say, has been the case for trade in products so far.*

#### **Makes exit for PE and VC more difficult**

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Restrictions make VC/PE exit harder

Another thought is that **these proposals may change the economics of venture capital and private equity.** VC and PE firms, above all, care about the "exit," the opportunities to cash out of illiquid investments (since normally boards would not vote them a USD1.5bn bonus). What happens when one large pool of exit capital - the Chinese - are ruled out of bounds by definition?

#### **How good is the government at tracking technology? (Not very good)**

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In the hands of bureaucrats, this may lead to a blanket ban on Chinese investments

Another immediate thought is how good is the US government going to be on identifying a moving target, "industrially significant" technologies? Eg, let's consider the case of AI (Artificial Intelligence, reportedly a key component of next-generation information technology on the Made in China 2025 list that Trump is actively targeting). We were recently told by a young friend (studying computer sciences) of current advances beyond Deep Learning into areas such as knowledge graphs. Which implementation of knowledge graphs is "industrially significant?" In the sorts of bureaucratic mazes that grow like weeds all over the world (not just in government), wouldn't the natural reaction of bureaucrats be to ban EVERYTHING that even has the words "knowledge" and "graph" somewhere on the company website? **The end result of Team Trump's attempts ("We've got trillions of dollars seeking our crown jewels of technology," said White House trade adviser Peter Navarro last week. "There has to be a defense against that." – The Wall Street Journal) - may well be to ban ALL Chinese investments into the US in anything that could be labeled "industrially significant technology" by a bureaucrat, just like protectionism has been applied to any good that can be construed as a "national security" good.**

Frankly, judging by the implementation of Trump's recently aborted child-separation policy at the Mexican border, we're not so confident the implementation of Lighthizer and Navarro's ideas is going to be that smooth.

#### **The China share of responsibility**

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Not that the Chinese are free of blame

The Chinese side, of course, may have its own share of the responsibility.

*A White House briefing by intelligence agencies to cabinet and White House officials in the spring of 2017 on Chinese efforts to obtain U.S. technology through acquisitions, licensing and theft was especially influential in spurring the new restrictions, said the individuals familiar with the proposals. The intelligence officials explained how every level of the Chinese state was involved in the effort, said a person familiar with the meeting. **The discussion made such an impression that***

***the intelligence officials quickly gave Mr. Trump his own briefing on the issue.***

We suspect elements of this briefing eventually went into the Section 301 report which the US Trade Representative released in March, justifying both Section 301 tariffs and today's investment restrictions.

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Eg, in Micron's suit against UMC and Fujian Jinhua, and China's prosecution of Micron

*The New York Times'* technology writer also published a detailed case last Friday, involving Micron, UMC and Fujian Jinhua Integrated Circuit in China, where Micron alleges that UMC and Fujian Jinhua stole its technology.

<https://www.nytimes.com/2018/06/22/technology/china-micron-chips-theft.html>

[Because of the Great Firewall, this article is not freely readable in China.]

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But investment restrictions wouldn't have done a thing here

What's notable today that wasn't on Friday is that in this case, it doesn't seem to us what the Trump Administration is proposing in restricting Chinese investments would have done **anything** to hinder the theft which Micron is complaining about.

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Of course Trump's policy does nothing for other countries (because it's America First)

Besides Micron, there is one other concrete example in this story, this case involving South Korea and China:

*One state-backed factory in the city of Wuhan, owned by Yangtze Memory Technology Company, or YMTC, will be turning out chips that look similar to those made by Samsung, the South Korean chip maker, said Mark Newman, an analyst at Sanford Bernstein. "The YMTC one is virtually identical to Samsung's, which makes it pretty clear they've been copying," Mr. Newman said.*

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Theft seems common in chip design

After reading this article, we also rummaged around and checked with a chip designer we know in the Silicon Valley, who confirmed as we suspected that **these sorts of thefts are common and especially identified Chinese companies, including one which has recently been in the news.**

**Expect more, not less, cyberspying and theft**

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Trump's new policy may lead to more, not less, spying and theft

This is, of course, going to spur the Chinese to try to become even more self-reliant on technology, with unclear implications for the years ahead. Whatever the case, we suspect new Trump restrictions on Chinese investments will probably make it more likely if Chinese enterprises are not able to secure technologies commercially (through investments), that makes it much more likely that use of other means (spying, theft) may go up.

**Less friendly operations in China for American firms**

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And perhaps make it more complicated for American companies to operate in China

It's also our judgment that after this salvo, Team Trump may begin to find much more active interference in the workings of American companies in China. Our understanding had already been that China has been speaking with US companies, urging them to head off measures like the ones revealed today. The Micron case may become a precursor of sorts.

**It's China-bashing season in the US**

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Don't expect anybody in Congress or the White House to come to China's defense

Perhaps some in China still hope the logic of free trade and investment flows proposed by naïve analysts like us might still slow down the Trump Trade Train from its determined course towards protectionism. **But we wouldn't bet on that.** The desire to be tough on China seems quite strong across the board in the US right now. Eg, members of Trump's Team and party seem increasingly cheerleader to whatever the President and his trade hawk advisers want to do.

*"The President has made clear his desire to protect American technology," said Commerce Secretary Wilbur Ross, in a statement to The Wall Street Journal on Sunday. "All possibilities that would better protect American technology, including*

*potential changes to export controls, are under review.*" [No one in this Cabinet seems capable of holding any independent thought without being Trump-referential and Trump-reverent.]

#### Due process

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Though we wonder if there might not be a legal challenge?

We wonder if there could be legal challenges to this latest Trump Administration effort to build Fortress America? According to some readings, the IEEPA's powers may be unlimited (probably why Lighthizer & Co. chose it). That means for it to be circumscribed, it would require either the courts or the US Congress, which under Republican control has so far mounted a tissue-thin resistance to Trump.

But the restrictions are a bit astounding when considered more deeply. Team Trump is not only proscribing future Chinese investments, it's saying that of investments China has *already* made into the US, even if they are legal US companies, these entities by dint of Chinese ownership CANNOT buy further "industrially significant" technologies. This is like saying the Toyota operation in Indiana cannot buy, say, an auto-design consultancy in Detroit as part of continued growth and expansion. That there are no such restrictions against Japanese (or UK, or French, etc.) entities may be grounds for wondering if IEEPA allows a President to discriminate and interfere with the running of business enterprises **according to nationality?**

#### Innovation and diffusion – don't just follow the money

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With enough subsidies, China wins right?

*"Most of Made in China 2025 is likely to succeed. Not all technologies are rocket science," said Dan Wang, a technology analyst in Beijing with Gavekal Dragonomics, a research firm. "With enough subsidies, Chinese firms have a good shot at catching up to the technological frontier." (The New York Times)*

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We're not so sure

Perhaps many in and out of China think this, **but we're not so sure**. Some of the items in Made in China 2025 - eg, maritime equipment – well, maybe all you need here are subsidies (and love). But others like electric vehicles? Too tough right now to call a winner.

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It was 1983, and the subject was supercomputers

We'll wrap up with one of our favorite anecdotes when it comes to managing innovation and technology. Long ago in our cub days, we wrote a magazine story for a now defunct Hong Kong magazine. The topic was **supercomputers**.

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Japan was the bogeyman then

At the time the US seemed mighty worried Japan would overcome it in the field of supercomputing, because of industrial subsidies, large technology groups and the like (sound familiar?).

So we were in Washington, DC at the time and dutifully traipsed around to talk to all the usual suspects, including DARPA the advance research arm of the US Pentagon (we remember parking at the Pentagon and then waiting outside its massive doors for a DARPA rep to bring us in for the interview).

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But supercomputing followed a different path = when it comes to innovation and diffusion, **you can't just follow the money**

But **supercomputing never followed the direction feared back then**. That was a lesson to us that **when it comes to technology, innovation and diffusion, YOU CAN'T JUST FOLLOW THE MONEY**. Others these days have already called it, that the US (especially now) and China are formally in a technology arms race. How this arms race turns out is probably impossible – and uninteresting – to predict at the moment.

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