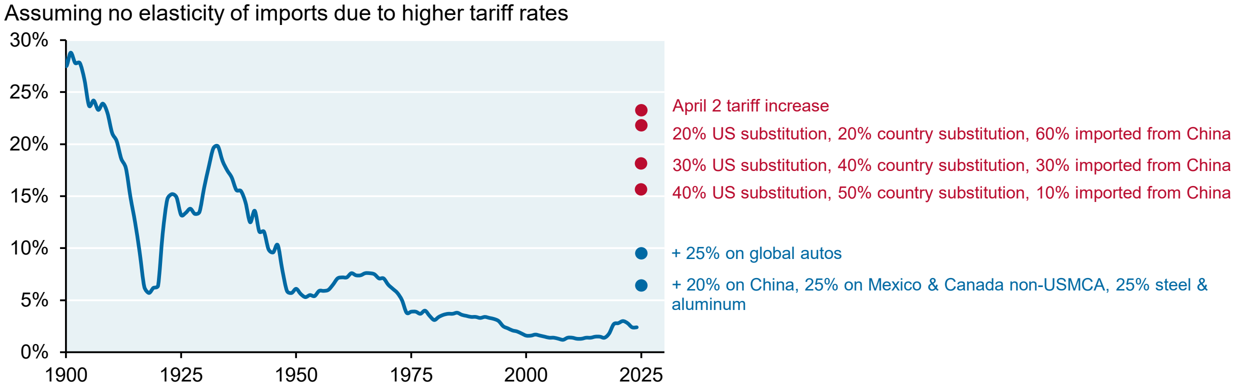
Börsenstandpunktänderungspräsident[1]: a revised tariff chart, critical minerals and note to Andreessen

We continue to follow the bouncing ball on tariffs. The elephant in the room: how much of China's $460 bn in exports to the US would still occur at a 145% tariff rate, how much would be substituted by domestic US production and how much would shift to other countries at a 10% reciprocal tariff rate, either as re-rerouted Chinese goods or exports from that country. Certain China imports such as lithium ion batteries and electronic components might not be easy to substitute, at least in the short term. We show scenarios below, assuming that the "pause" in reciprocal tariffs over 10% on countries other than China are permanently cancelled.

Bottom line: better than the April 2 announcement but still the largest tariff hit in roughly 100 years; tariffs are still pending on pharmaceuticals, lumber and copper; still trying to figure out tariffs on countries buying Venezuelan oil; and still plenty of uncertainty around the aggregate impact on growth and inflation. If this is three-dimensional chess, I will stick with the regular version.

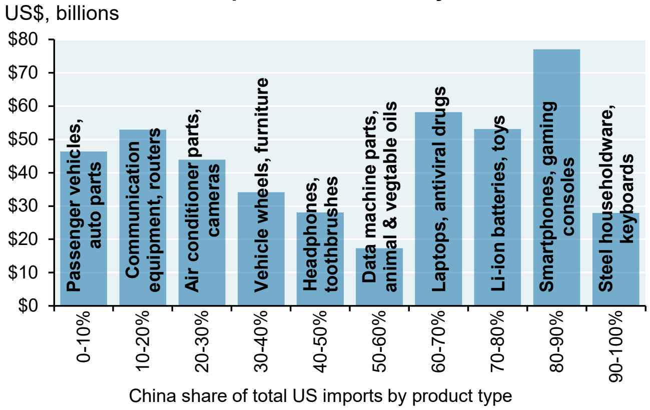
Average tariff rate on all US imports
Assuming no elasticity of imports due to higher tariff rates



Source: Tax Foundation, JPM Global Economics, GS Global Investment Research, JPMAM, April 10, 2025

The next chart is adapted from a post by Jason Miller, a supply chain professor at Michigan State that I follow on LinkedIn. The chart shows the dollar amount of US imports from China bucketed by the share they represent of total US imports in that category. It's bimodal: some Chinese imports are in categories where China represents less than 30% of all US imports, but around half of US imports from China are in categories where China represents more than 60%, in which case substitution/displacement might be more difficult.

Distribution of US imports from China by China share
US$, billions



Source: US Census Bureau, JPMAM, 2024

Understanding the chart
US imports of smartphones from China account for 81% of total smartphone imports, while air conditioning parts imported from China represent 23% of all US air conditioning imports. Hence the $41 billion of US smartphone imports from China show up in the 80%-90% bucket, while the $1 billion of air conditioning parts imports from China show up in the 20%-30% bucket

[1] **Glossary**
Börsenstandpunktänderungspräsident: a president changing his mind based on swings in markets
Wirtschaftsformelunkenner: cabinet members that have difficulty understanding and interpreting economic formulas
Kompetenzmangelbedingter-Unterstützungsverlust: Losing support of your allies in the government because they lose confidence in what you're doing
Fehlwirtschaftspolitik: using the wrong policy tool to try and solve an economic problem
Einflügellibellenentscheidung: erratic decision-making evocative of the flight path of a one-winged dragonfly

In his LinkedIn post, Miller wondered out loud if certain US companies might get preferential exemptions from tariffs on China. I wonder about the same thing.

China has been gradually implementing export controls over the critical minerals listed below. Export licenses are granted on a case by case basis, so while the policy doesn't explicitly target the US, in practice it obviously could. The table shows US import reliance for each critical mineral and how much is imported from China. US corporate and military users probably have some stockpiles of these minerals, and in some cases there are substitutes. But in 2014 when China restricted the export of rare earths, tungsten and molybdenum, there were price spikes and supply chain disruptions.

Rare earth metals subject to Chinese export controls

Mineral	Uses	US net import reliance	Share of US imports from China
Samarium	Nuclear reactor control rods and small motors	~80%	~70%
Gadolinium	Neutron absorbers in nuclear reactors, MRI imaging	~80%	~70%
Terbium	Night-vision goggles, sonar systems, shape-changing magnets, medical x-rays	~100%	~100%
Dysprosium	Industrial magnets for F-35 fighter jets, EVs, wind turbines	~80%	~70%
Lutetium	Cancer treatment, LED lighting, petroleum refining	~80%	~70%
Scandium	Aerospace, industrial metals	100%	<50%
Yttrium	Jet engine coatings, radar systems, precision lasers, industrial metals, LED screens, superconductors	100%	93%
Tungsten	Ammunition, machine tools used on oil rigs and jet engines, etc	>50%	27%
Tellurium	Metal alloys	<25%	<5%
Bismuth	Pharma	89%	67%
Indium	Fiber optics, laser diodes, LCD screens	100%	8%
Molybdenum	Metal alloys	0%	<6%

Source: CleanTechnica, USGS, MBMG, JPMAM, April 2025. Rare earth US net import reliance & import share from China is used as a proxy for samarium, gadolinium, dysprosium and lutetium

A note to Marc Andreessen. On December 30 2024, Marc Andreessen tweeted that "the Second Industrial Revolution, perhaps the most fertile era for technology development and deployment in human history, was 1870-1914", and showed an accompanying chart on how tariffs were ~50% of government revenue at the time. But correlation does not imply causation: according to a recent analysis of the period in question, Andreessen's conclusion is likely a spurious one:

"**We conclude that tariffs may have reduced labor productivity in manufacturing by weakening import competition and by inducing entry of smaller, less productive domestic firms. Our research also reveals that lobbying by powerful and productive industries may have been at play. The era's high tariffs are unlikely to have helped the US become a globally competitive manufacturer.**"

"*Did Tariffs Make American Manufacturing Great? New Evidence from the Gilded Age*", Alexander Klein and Christopher Meissner, NBER, February 2025