Tariffs, a Necessary but Insufficient First Step

by William E. Jackman, PhD, January 2026

This essay is posted at

https://jackmanstatistics.com/commentary.html

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in the Economics section.

Part II has the following sub-parts (sections):

Economic data through 2024

This essay is based on economic data through 2024, including data on the U.S. deficit in international trade. Complete economic data for 2025 from the U.S. government was not yet fully available as of mid-January 2026. A 43-day federal government shutdown ending in November 2025 created significant delays, cancellations, and data gaps for September through November 2025.

While some data for late 2025 was released or updated as of January 17, 2026, many, including the crucial fourth-quarter GDP and full-year 2025 figures, were still forthcoming.

2025 data: When 2025 data was available such as data from trade associations (e.g., Apparel Industry Statistics), it was used as appropriate.

Part I. How Are We Doing on Economic Competitiveness?

World War II was not fought on American soil, and America was #1.

At the end of World War II, continental Europe, Russia, and Japan were devastated. However, the United States escaped the destruction of World War II. Except for the December 7, 1941 bombing raid at Pearl Harbor, World War II was not fought on American soil, and American manufacturing was intact. In the decades following World War II, the U.S. was the richest country in the world and "was number 1 in virtually everything." (Prestowitz, 2010, p.73) In that era, we ran trade surpluses, i.e., we sold more than we bought in international trade. In everyday language, "we were making money" in international trade.

The Good Times end in 1971.

After decades of "making money" in international trade, the U.S. lost money in **1971** when our international trade balance went into deficit. The U.S. trade deficit in 1971 was approximately **$2.3 billion** in merchandise trade. This marked the first time since 1888 that the U.S. experienced a trade deficit, signaling a significant shift from its prior history of consistent trade surpluses.

A consecutive trade deficit in 1972.

The US Balance of Trade in 1972 was a deficit of approximately **$6.4 billion**, marking the second such deficit in the century.

The U.S. bounced back in 1973.

The United States had a merchandise trade **surplus** of $911 million in **1973**, with strong performance in exports relative to imports. This was a notable recovery from the deficits in the preceding two years.

A setback in 1974.

The U.S. balance of trade in 1974 was a deficit of approximately **$815 million**, marking a significant shift from the previous year and part of a trend of overall U.S. trade deficits that began in 1971.

The U.S. rallies in 1975 for one last time.

In 1975, the United States had a positive trade balance, also known as a trade surplus, of over $11 billion, though some sources cite it as around $12.4 billion. **This was the last year**

the U.S. experienced an overall trade surplus in the 20th and 21st centuries.

The U.S. incurs a trade deficit in 1976, starting an unremitting trend.

The United States incurred a merchandise trade deficit in 1976 of approximately **$3.2 billion**, a marked deterioration from the surplus of the previous year. We went from being a creditor nation in international trade to a debtor nation. This deficit began an **unremitting string** of annual trade deficits that continues today in 2026 with no signs of abating.

Growth of U.S. trade deficit since 1976

Trade deficits 1976, 1986, 1996, 2006, 2016, 2021-2024

The United States has run a string of annual trade deficits every year since 1976, marking the end of a period of trade surpluses.
A significant shift from historical trade surpluses to deficits began in 1970.

Year	Deficit billions $	# of times of 1976 deficit
1976	3.2	
1986	169.8	53
1996	114.23	36
2006	763.6	239
2016	502.3	157
2021	861.4	269
2022	945.3	295
2023	773.4	242
2024	918.4	287

1986 data: The US trade deficit in 1986 reached a record high, with the final figures varying slightly between sources.

The Commerce Department reported the merchandise trade deficit was $169.8 billion, while other reports stated it was closer to $140 to $174 billion depending on the specific accounting method used.

1996 data as provided to two decimal points. The other years to one decimal point.

The U.S. trade deficit of $918.4 billion in 2024 was **287 times** our trade deficit of $3.2 billion in 1976. This overstates somewhat the extent of the growth of the U.S. trade deficit because the 2024 figure was in 2024 dollars which incorporated inflation and the 1976 figure is in 1976 dollars. Nevertheless, the “287 times” figure correctly shows the trend of a loss of U.S. economic competitiveness in international trade, particularly in manufacturing. We went from being a creditor nation in international trade to a debtor nation. This trend will be further analyzed below.

What happened to the United States, the former #1?

Coming from behind to be #1 in the Industrial Revolution

Britain got an early start in industrialization and was number one in industry at the beginning of the Industrial Revolution. However, "between 1870 and 1900, America surged ahead of Britain in virtually every sector of the economy." (Prestowitz, 2010, p. 59). By 1914, "U.S. per capita income was $5,307 as compared to $5,032 for Britain and $3,833 for Germany." (Prestowitz, 2010, pp. 60-61)

The "Arsenal of Democracy" in World War II

America's industrial might was a major, if not the determining factor, in the Allies' victory over the Axis powers in WWII. The United States lived up to its designation as the "Arsenal of Democracy" in World War II. For example,

- **Military Aircraft:** The US produced nearly 300,000 military aircraft.
- **Naval Vessels:** The US produced nearly 9,000 warships, more than three times the combined output of all other powers.
- **Tanks:** the United States produced approximately 300,000 tanks.
- **Rifles and Carbines:** the United States produced approximately 12 million rifles and carbines.
- **Rounds of Ammunition:** the United States produced approximately 41.4 billion rounds of ammunition for rifles and pistols.

The United States is no longer a manufacturing powerhouse. The United States ceased to be a manufacturing powerhouse between the 1970s and 2000s (to be explained below).

Imports from Japan and Western Europe in the 1970s

In the 1970s, Japan was becoming a global manufacturing power, and to a lesser extent, Germany, the United Kingdom, and other Western European nations. These nations significantly increased their export of **consumer goods** to the United States which replaced consumer goods that had previously been manufactured in the United States.

Imports from Asia in the 1970s

In the 1970s, the "Four Asian Tigers"—Hong Kong, Taiwan, South Korea, and Singapore—significantly ramped up their export of **consumer goods** to the United States, establishing

strong trade relationships and buying networks with American retailers. Asian economies focused on labor-intensive manufacturing and developed a competitive advantage in producing goods for the U.S. market.

Japan also continued its established role as a major exporter to the U.S. during this time, shifting its focus to manufacturing and technology to supporting developing economies in the region.

The growing export of **consumer goods** from these Asian nations to the United States replaced **consumer goods** that had previously been manufactured in the United States.

Imports from China by the end of the 1970s

China's economic reforms and the lifting of the U.S. trade embargo in 1971 allowed U.S. companies to source cheaper labor and manufacturing from China. By the end of the 1970s, China was exporting significant quantities of consumer goods, such as clothing, to the United States. China's increasing clothing exports to the U.S. worried American textile workers.

China, the world's sole manufacturing superpower

China, which industrialized about 200 years after the United States, **surpassed the U.S. in 2010 to become the No. 1 industrial powerhouse**. China now holds the status of the world's sole manufacturing superpower, **producing more manufactured goods than the next nine largest manufacturing countries combined**. This claim is in line with a *New York Times* report by China-specialist Keith Bradsher. "China now has a manufacturing sector that is larger than those of the United States, Germany. Japan, South Korea and Britain put together. It produces some of the world's most advanced technology."

(Reprinted in the *East Bay Times*, December 5, 2024, p. C9)

China's meteoric rise to become the world's sole manufacturing superpower

It took the United States, a nation with vast natural resources, about 110 years from the start of its industrialization (from approx. 1790 to 1900) to become the dominant global industrial and economic power by turn of the 20th century.

It took China, which started its 20th century industrialization in 1988 **less than 40 years** to become the No. 1 industrial powerhouse, the "world's factory," and the world's sole manufacturing superpower.

From “Spheres of Influence” to China’s Cultural Revolution

To appreciate how remarkable China’s meteoric ascent to the world's sole manufacturing superpower has been, consider

- The Scramble for China and "Spheres of Influence"

  In the late 19th and early 20th centuries, colonial powers Britain, France, Germany, Russia, and Japan divided China into "Spheres of Influence." The United States initially missed out on establishing territorial spheres but gained exclusive trading rights like other powers. The Austro-Hungarian Empire and Italy also had exclusive trading rights within their designated spheres. The European spheres of influence in China ended with the signing of the Boxer Protocol in 1901 in the aftermath of the Boxer Rebellion.

- Japan’s occupation of China

  Japan's occupation of China, primarily during the Second Sino-Japanese War (1937-1945), was marked by brutal military aggression, widespread atrocities, and significant impacts on Chinese society and history.

- Civil war in China:

  The Chinese Civil War was fought between the Kuomintang-led government of the Republic of China and the forces of the Chinese Communist Party (CCP). Armed conflict continued intermittently from 1 August 1927 until Communist victory resulted in their total control over mainland China on 10 December 1949.

- China’s Cultural Revolution

  China was in the throes of the Cultural Revolution from 1966 until 1976 which ended with the death of Mao Zedong on September 9, 1976.

- China’s 20th century industrial revolution

  China’s 20th century industrial revolution occurred during 1988-1998. After 1988, China's manufacturing took off, **surpassing the U.S. in 2010 to become the No. 1 industrial powerhouse and to become today (2025) the world's sole manufacturing superpower.**

China’s imports support its ongoing manufacturing expansion.

Nearly 80% of China’s imports are for **intermediate use** and are used in domestic production to create finished goods. This includes significant imports of mechanical and electrical products, energy products, and metal ores to fulfill production demands.

Consumers are the driving force in the U.S. economy.

U.S. trade deficit for goods and services in 2024 driven by goods deficit.

Consumers are the driving force in the U.S. economy. They account for approximately 70% of the U.S. economy and play a crucial role in driving GDP growth. Accordingly, exports to the United States in 2024 from Asian countries and México were mainly **final products for consumers**, not intermediate goods to be used in manufacturing to create finished goods.

In 2024, the **overall** U.S. trade deficit was **$918.4 billion**, but the **goods** deficit was **$1.2117 trillion**, $293.3 billion more than the overall U.S. trade deficit. A services surplus of $293.3 billion brought the overall the U.S. trade deficit down to **$918.4 billion**.

Calculation

$1.2117 trillion goods **deficit** minus $293.3 billion services **surplus**
= $918.4 billion **overall** U.S. trade **deficit**

About **70% of the goods deficit** of $1.2117 trillion was for **consumer goods** (see details below).

The countries with which the U.S had the largest trade deficits in 2024 were China, Mexico, and Vietnam, with Mexico accounting for a substantial portion of the goods deficit. Detail to follow.

Breakdown of the 2024 Deficit

- **Goods Deficit:** A record $1.2117 trillion.
- **Services Surplus:** $293.3 billion.
- **Total Deficit:** The total goods and services deficit was **$918.4 billion**.

Key Factors in the **2024** Deficit

- **Increased Imports:** U.S. goods imports grew substantially in 2024, driven by increased consumer demand for products like auto parts, weight-loss drugs, and computers.
- **Record Goods Deficit:** The goods deficit hit an all-time high.
- **Growing Services Surplus:** While the goods deficit widened, the services surplus also grew, helping to offset a portion of the total deficit.

Comparison to 2023

- The total goods and services deficit in 2024 **increased by $133.5 billion** compared to 2023.
- This was a **17 percent increase** from the $784.9 billion deficit recorded in 2023.

Further breakdown U.S. trade deficit for goods in 2024

(Note: Figures vary slightly from the figures above,
but they validly show general trends.)

Consumer goods made up about **45% of the U.S. goods trade deficit** in 2024, a figure based on data from the U.S. Census Bureau and the Bureau of Economic Analysis (BEA). In 2024, the total U.S. goods trade deficit was $1.213 trillion, with consumer goods accounting for $547.8 billion of the deficit's total.

Breakdown of the U.S. Goods Trade Deficit in 2024

- **Total Goods Trade Deficit:** $1.213 trillion $1.213 trillion
- **Consumer Goods:** $547.8 billion (45% of the total)
- **Capital Goods:** $323 billion (27% of the total)
- **Automotive Vehicles and Parts:** $302 billion (25% of the total)

Automotive Vehicles and Parts are considered a category within **Consumer Goods**. Consumer goods are products purchased by individuals for personal use and satisfaction, and automobiles and their parts fall into this definition

So, **Consumer Goods** share of the total U.S. goods deficit in 2024 was **70%**.

- **Consumer Goods:** $547.8 billion (45% of the total) plus
- **Automotive Vehicles and Parts:** $302 billion (25% of the total) equals

Consumer Goods Total **70%**

Spending more than we earn in international trade.

Living on debt

For 49 consecutive years, 1976-2024, the United States has been spending more than we earn in international trade. In 1976, we spent $3.2 billion more than we earned. In 2024, we spent $918.4 billion more than we earned which was 287 times our trade deficit in 1976.

Year	Deficit billions $	# of times of 1976 deficit
1976	3.2	
1986	169.8	53
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2024	918.4	287

How long can we continue spending
more than we earn in international trade?
Living on debt.

Excerpted from my December 2019 essay:

How can we still can get credit to spend more than we make?

"America's giant overdraft against the rest of the world"

To maintain its standard of living, a nation must earn roughly as much as it spends in international trade over the short- to medium-term – **or buy on credit if its trading partners are willing to extend credit to it**. If a household ran large deficits for almost 50 years as the U.S. has done, it would likely no longer be able to get credit. How long can the U.S. expect to live on over-extended credit? Fletcher writes, "At some point, America's giant overdraft against the rest of the world must come to an end." (Fletcher, 2011, p. 252)

Getting credit to keep spending

Why do our creditors continue to let the U.S. buy on after credit after running large deficits in international trade for almost 50 years? There are two main reasons:

1. **First, the U.S. has great accumulated wealth (assets) that serve as collateral for loans.**

This wealth was developed during America's years as a manufacturing powerhouse. Our physical assets (buildings, factories, etc.) were not destroyed in World War I nor World War I which were not fought on American soil. (Note: The United States ceased to be a manufacturing powerhouse between the 1970s and 2000s.)

2. **Second, our competitors want access to the American market.** Major exporting nations such China, Mexico, Taiwan, South Korea, Japan, and Germany want to sell their goods in the large, lucrative American market and will let us buy on credit if that's what it takes to make their sales. Many of these countries have built up excess manufacturing capacity, and their home markets can absorb only a small part of their potential output. So, these major exporting nations will sell to the U.S. on credit and with discounts if necessary to move their output.

To restate: How long can the U.S. expect to live on over-extended credit?

"At some point, America's giant overdraft against the rest of the world must come to an end." (Fletcher, 2011, p. 252)

Again, this situation is **analogous to that of a household**: As long as a household keeps making payments against its debt, its creditors will continue to extend credit. However, when the household no longer can make regular payments and creditors begin to fear they will not get their investment back, over-extended credit to the household will end. And this applies to nations too.

I have included the two paragraphs below from the URL shown because they explain well the dangers for the U.S. of **prolonged, untenable** debt. https://www.thebalance.com/u-s-trade-deficit-causes-effects-trade-partners-3306276

Two Ways the Trade Deficit Hurts the U.S. Economy

It is precarious to live on and depend on debt.

“An ongoing trade deficit is detrimental to the nation’s economy because it is financed with debt. The United States can buy more than it makes because it borrows from its trading partners. It's like a party where the pizza place is willing to keep sending you pizzas and putting it on your tab. This can only continue as long as the pizzeria trusts you to repay the loan. One day, the lending countries could decide to ask America to repay the debt. On that day, the party is over.”

The loss of manufacturing expertise and facilities

"A second concern about the trade deficit is the statement it makes about the competitiveness of the U.S. economy itself. By purchasing goods overseas for a long enough period, U.S. companies lose the expertise and even the factories to make those products. Just try finding a pair of shoes made in America. As the United States loses competitiveness, it outsources more jobs and its standard of living declines."

49 consecutive years of trade deficits impairs government functions.

The wealth available to governments to carry out their functions comes from the wealth of nations which stems from their economic competitiveness. For example, wealthy nations have the means to provide more and better social services such as health care to their citizens than do poorer nations. Governments cannot create wealth just by printing money; it must be generated by wealth-creating activities of their real economies.

The U.S. has been running consecutive trade deficits for almost 50 years, and this is causing deficits in government at the local, state, and national levels and is impairing their functions.

Our nation: The annual U.S. budget deficit has ballooned to a near-record **$1.3 trillion** (April 2025). An annual budget deficit occurs because government spending exceeds the amount of money being raised.

National Debt

Each annual budget deficit adds to the national debt which is near $37 trillion.
(National Debt: The sum of all the money borrowed over time, plus the accumulated interest owed to investors on those securities, constitutes the national debt.)

Federal government shutdowns

When the U.S. government can't find the money to carry out its functions, government shutdowns can occur. The recent U.S. government shutdown that occurred from October 1, 2025, to November 12, 2025, was the longest in U.S. history, lasting 43 days. It surpassed the previous record of 35 days set during the 2018-2019 shutdown.

The U.S. government has faced potential shutdowns for nearly 50 years, with 21 federal shutdowns recorded since 1976. Remarkably, the first federal shutdown occurred in 1976 when the U.S. began an unbroken string of international trade deficits.

California: California faces a $20 billion budget deficit that that impedes its government functions. Astonishingly, Governor Gavin Newsom boasted two years earlier that the state had a $97.5 billion budget surplus, not a deficit.

In November, 2024, nearly 70 percent of Californians voted for Proposition 36 to control crime. But controlling crime takes money (police salaries, drug treatment programs, maintaining prisons, etc.) which California does not have.

Oakland, California: Oakland is facing years of structural budget deficits.

In its annual "Five-Year Financial Forecast," Oakland's Finance Department predicts yearly budget deficits ranging from about $115 million to nearly $130 million until the end of fiscal year 2029-2030.

Crime:

- *U.S. News & World Report,* based on FBI data, ranked Oakland as the second most dangerous city in the U.S. in August 2025.
- Property Crime: Oakland has the highest rate of property crime among California's 10 largest cities, according to the *San Francisco Chronicle*.
- Resident Concerns: Many residents report a feeling of lawlessness, with issues like car break-ins becoming routine and police responses being slow.

But it takes money which Oakland lacks to deal with crime. It is recommended that a city the size of Oakland have at least 877 sworn officers to meet the needs of the community. The police department currently has 678 officers, an understaffing of 199 officers. However, Oakland is considering additional budget cuts to manage its financial deficit, which could further impact police services.

Mundane issues: Potholes and Sidewalks. My wife and I live in the Oakland flatlands, and for several years potholes have been an unremitting problem. Many of the potholes are so big and deep that your car would be damaged if you hit them hard. So, I try to drive during the day when I can see the potholes. I rarely drive at night when I can't see the potholes. But Oakland has not had the money to fix our four-year-old-plus potholes.

The sidewalks in our neighborhood are broken and uneven. I have had to train myself to lift my feet high as I walk so that I don’t trip on the next section of sidewalk which is three to four inches higher than the preceding one.

Part II. How do the United States and China stack up in industry?

Is the United States still in the running?

Part II has the following sub-parts (sections):

1. China: The world's manufacturing superpower

China is the world's sole manufacturing superpower, producing more manufactured goods than the next nine largest manufacturing countries combined. This claim is consistent with a *New York Times* report by China-specialist Keith Bradsher. "China now has a manufacturing sector that is larger than those of the United States, Germany. Japan, South Korea, and Britain put together. It produces some of the world's most advanced technology."

"For decades, China has fairly consistently sold about $4 worth of goods to the United States for $1 worth of goods that it buys."

(Reprinted in the *East Bay Times*, December 5, 2024, p. C9)

In 2022, China's share of global manufacturing output was around 31 percent, a figure that has been consistently high, with some sources placing it as high as 35% of global production.

"This year, China's trade surplus with the world is nearly $500 billion – a more than 40% increase from the same period last year."
(From a *New York Times* report by Alexandra Stevenson, reprinted in the *East Bay Times*, June 11, 2025, p. C9)

2. China provides high-tech, low-tech, and everything in between

(From my 2021 essay on economic competitiveness, pp. 7-8)

"Our family has been among those who have been spending disproportionately more on consumer goods to fix-up/enhance our home and home offices as we have been sheltering-in-place. We buy a lot of these goods from Amazon, but also from Home Depot and Ace Hardware. I chronically search the packages our purchases came in to see where they were made. (My wife tells me not to bother; she knows where they were made.) Regardless, I continue to be dismayed by the extent to which China has become the world's factory and the dominant or only source for high-tech consumer goods, low-tech consumer goods, and everything in-between (see range of low-tech consumer goods in cartoon by Dave Granlund below).

<u>"The theory of the "New Economy" turned out to be spurious.</u>
The theory of the "New Economy" that was popular in the 1980s and 1990s was that advanced manufacturing nations such as the United States (the American Industrial Revolution started in 1790) would concentrate on high-tech manufacturing like computers, cell phones and advanced telecommunications equipment while newly industrialized nations such as China (its first industrial revolution occurred during 1988-1998, about 200 years after that of the U.S.) would make low-tech products such as shoes and toys. This is how things started. But China quickly progressed to making high-tech goods such as computers and cell phones, supplanting the United States.

<u>"China continues to provide us with low-tech consumer goods.</u>

The remarkable thing about China is that even though it has become dominant in much high-tech manufacturing, it has not given up low-tech manufacturing. So, when we order high-tech goods such as computer or telecommunications equipment from Amazon, they are made in China. And when we order low-tech goods such as a foot stool, a TV stand, a garden hose and nozzle, shoe horns, or therapeutic putty from Amazon (among our recent purchases), these consumer goods are also made in China. Or when I go to Home Depot or Ace Hardware to buy hardware products such as nuts, bolts, screws, hinges, latches, etc., these myriad low-tech products are also made in China. So, China not only provides us with low-tech consumer goods but also with high-tech consumer goods and everything in-between."

Labor·Day,·2019·message·from·President·Xi·of·China¶

Report from the *New York Times* supports the view that

China provides high-tech, low-tech, and everything in between.

(From the same *New York Times* report by Alexandra Stevenson, reprinted in the *East Bay Times*, June 11, 2025, p. C10)

"Even while making more advanced products, Chinese manufacturers doubled down on making tchotchkes, the kinds of cheaper things that China excelled at making two decades ago. China rewrote the playbook, confounding economists.

"China is not developing the way economic theory suggests, and now we are faced with a new model," said Priyanka Kishore, an economist in Singapore, referring to the traditional trajectory of economies that move away from low-end manufacturing as they become more mature and developed.
"This is a challenge because it exacerbates pressures on the rest of the world," Kishore said.

3. Viewing China as the safest harbor

"Amid tariff war, many companies viewing China as the safest harbor"

(Excerpted from a *New York Times* report by Daisuke Wakabayashi, reprinted in the *East Bay Times*, April 13, 2025, p. E4)

"Staying in China and making China work is everyone's strategy right now," said Travis Luther, founder of MOSO Pillow, a Denver-based maker of bedding made from bamboo fiber.

Luther, who attended a conference for American entrepreneurs this week, said he, like other business owner attendees, was not devoting time to searching for new partners or ways to move from China. Instead, he was working with his Chinese business partner to find ways to save costs or develop new products. Cost advantages are only one part of what makes China the go-to destination for making goods.

"That's not even why most people are in China anymore. It's because they have very sophisticated manufacturing and engineering processes," Luther said.

Trump has said that the tariffs will help bring manufacturing back to the United States, but that remains a difficult proposition. Currently, most American factories cannot match China's manufacturing capability, capacity, and speed even if the tariffs eat into its cost advantages.

As trade tensions escalated in the first Trump presidency, many American and multinational companies opted to move some production away from China to less adversarial countries. For most, the United States was not a viable option.

Sarah Massie, who runs a consulting practice advising U.S. companies on foreign trade, said that when tariffs are harsh everywhere, people tend to stick with the status quo. In the manufacturing world, China is the status quo.

Marker January 23, 2026

4. What will it take to revitalize U.S. computer manufacturing?

The United States pioneered the manufacturing of personal computers.

The United States pioneered the early development and commercialization of personal computers, with early models like theKenbak-1 and MITS Altair 8800 being designed and sold there in the 1970s. This era also saw the founding of key companies like Microsoft and Apple in the US and the introduction of the first mass-marketed personal computers by the end of the decade, establishing the US as the center of the burgeoning personal computer industry.

Silicon Valley moves to the forefront.

By the 1970s, Silicon Valley was becoming the center of U.S. computer manufacturing, a role solidified by the region's dominance in semiconductor innovation and manufacturing, and its subsequent fueling of the personal computer revolution.

Offshoring U.S. manufacturing of computer in the 1980s and 1990s

Silicon Valley computer manufacturers such as Hewlett-Packard increasingly moved production offshore in the 1980s and 1990s to lower-cost regions like Southeast Asia and Mexico. This enabled them to lower their manufacturing costs and ultimately increase profitability.

Other U.S. computer manufacturers also offshored production.
in the 1980s and 1990s

Once computer manufacturers such as Hewlett-Packard moved production offshore to gain a competitive advantage and increase profits, other U.S. computer manufacturers had to follow suit to stay competitive. Consider this excerpt from my February 2009 essay on

economic competitiveness (pp. 2-3):

"Consider an example: Company A, an American manufacturer of PCs (perhaps in Silicon Valley), moves its manufacturing to cheaper regions offshore.

- "This gives Company A a price advantage over companies B, C, and D for selling its PCs back into the U.S. market, the most lucrative consumer market in the world.
- "The CEO of Company A looks better than the CEOs of companies B, C, and D in quarterly earnings reports.

"Then Companies B, C, and D are compelled to follow suit, and they move their U.S. manufacturing offshore to stay price competitive in the U.S. market with Company A (and to look good on their quarterly earnings reports). While offshoring manufacturing makes CEOs look good in the short-term, it further erodes the manufacturing capability of the U.S. to produce PCs."

Silicon Valley: From computer manufacturing to software and design.

Silicon Valley's shift from computer hardware manufacturing to software and design occurred significantly in the 1980s and accelerated in the 1990s.

This excerpt from my December 2019 essay on economic competitiveness (pp. 15-16):

Difficulties With Services and Software as Export Products

(Note: This topic is covered thoroughly by Fingleton, pp. 37-67).

"In the decades after World War II when the U.S. was a manufacturing powerhouse, our nation ran trade surpluses, i.e., we were making money. Since the mid-1970s, we have run large and chronic trade deficits (i.e., we buy more internationally than we sell). During this time, the U.S. has transitioned from a manufacturing-based to a service-based nation.

"This transition is clearly visible in Silicon Valley which used to produce mainly high-tech intermediate and final goods such as transistors and computers, but now produces predominantly software. Two salient software/services companies in Silicon Valley today are Facebook and Google/Alphabet.
(Note: The name "Silicon Valley" described the Santa Clara Valley's former concentration of semiconductor companies which produced **silicon** chips.)

- FACEBOOK, which has about 40,000 employees in the Silicon Valley area, had 2.45 billion monthly active users as of the third quarter of 2019. During the last reported quarter, the company stated that 2.8 billion people were using at least one of the company's core products (Facebook, WhatsApp, Instagram, or Messenger) each month.

- Google/Alphabet, which has about 47,000 employees in the Silicon Valley area, has around 5.5 billion searches done per day or over 63,000 search queries done per second. As of February 2019, Chrome had a 62.41% browser market share globally. In February 2019, YouTube had over 2 billion monthly users.

Successes in software are not helping to reduce our trade deficit.

Are the spectacular successes of Facebook and Google/Alphabet helping us to reduce our trade deficit? Apparently not. As the table above shows, our trade deficit in goods and services rose every year during 2013-2018, from $461.1 billion in 2013 to $627.7 billion in 2018.

China supplants the United States as the center of computer manufacturing.

American computers are largely made in China due to a combination of low labor costs, extensive Chinese manufacturing infrastructure, and favorable government policies that support export-led development. Lower production costs and a large, flexible workforce in China provide significant cost efficiencies for companies, while China's advanced logistics and supportive ecosystem for manufacturing electronics make it the optimal location for production, even with increasing labor costs.

Cost Factors

- **Low Labor Costs:** Historically, China has offered millions of workers for relatively-low wages, a cost advantage that has driven outsourcing for many American companies.

- **Reduced Production Costs:** China's established manufacturing ecosystem, including competitive currency practices and lower taxes, reduces overall production costs compared to other nations.

Infrastructure and Ecosystem

- **Logistics Hub:** China boasts a comprehensive network of ports, airports, and railways, enabling the efficient and cheap shipment of vast quantities of goods across oceans and to global markets.
- **Developed Supply Chains:** Decades of electronics manufacturing have created a robust ecosystem with skilled technicians and a deep supply chain, making it easier and faster to produce complex components and assemble final products.

Government Policy and Business Decisions

- **Favorable Policies:** China's government has historically embraced export-led development and provided incentives, such as subsidies and tax breaks, to attract foreign manufacturing investment.
- **Political Stability:** The relative political stability in China allowed for large-scale foreign investment and manufacturing expansion for many years.
- **American Policy:** Decisions by American leaders to lower tariffs on Chinese goods and permit companies to move operations overseas contributed to the growth of Chinese manufacturing dominance.

Effect of Automation and Skill

- **Skilled Workforce:** While labor costs were once the primary driver, China also developed a large and skilled workforce capable of performing complex assembly and manufacturing tasks with speed and efficiency.
- **High-Capacity Production:** China's factories often operate with high capacity and a large pool of available workers, allowing for rapid and large-scale production to meet demand.

5. What will it take to make the United States self-sufficient and even a leader in chip (semiconductor) production again?

U.S. industries shut down due to chip shortages

During the COVID-19 pandemic, multiple U.S. industries faced severe semiconductor (chip) shortages (starting in early 2020) that curtailed production. An analysis by Goldman Sachs found that at least 169 industries were impacted. Impacted industries included:

- **Automotive Industry:** This sector was arguably the hardest hit, with U.S. automakers alone losing production of millions of vehicles due to chip shortages in and after 2020.
- **Consumer Electronics:** As remote work and schooling became widespread, demand for devices like laptops, webcams, gaming consoles (PlayStation 5, Xbox Series X, Nintendo Switch), and other smart home appliances skyrocketed, straining chip supplies. Companies such as Apple experienced production delays for iPhones and other products due to shortages of even low-cost, peripheral components.
- **Industrial and Manufacturing Sectors:** The shortage slowed the rollout of factory automation systems and other industrial equipment that rely on chips.
- **Healthcare and Medical Devices:** Essential medical equipment, including ventilators, diagnostic tools, and portable monitors needed during the pandemic, also faced production delays due to the scarcity of specialized chips.
- **Other Sectors:** The ripple effect extended to manufacturers of household appliances (washing machines, refrigerators, microwave ovens), computers and graphics cards, and even the production of credit cards with EMV chips.

Supply chain vulnerabilities were the major factor in the chip shortages that curtailed American industry during the COVID-19 pandemic. Most of the chips used by American industry are manufactured in Asia. Due to COVID-19, chip production facilities in Asia were shut down, leading to the depletion of inventories upon which American companies depend.

How did chip shortages happen to the nation that pioneered chip (semiconductor) production and was once the dominant supplier of chips?

The United States pioneered semiconductor and microchip production, inventing the transistor at Bell Labs and the integrated circuit (IC). U.S. companies like Fairchild Semiconductor and Texas Instruments led early mass production. The United States was the undisputed dominant force in semiconductor manufacturing, especially in the 1970s and 1980s, holding nearly 80% of the global market at its peak.

The decline of the United States in chip (semiconductor) manufacturing

By 1990, the U.S.'s share of global chip manufacturing had dropped to 37%. **Today the U.S.'s share has plummeted to about 10% - 12%.**

Today's leaders in global chip manufacturing are

- **Taiwan:** The undisputed leader, producing over 60% of the world's chips and over 90% of the most advanced ones, largely thanks to TSMC (foundry model)

- **South Korea**: A major player in the semiconductor industry, contributing approximately 17-20% of global chip output. Dominates memory chips (DRAM, NAND) through Samsung and SK Hynix, also competing as a foundry.

- **Japan**: Home to over 100 semiconductor fabrication plants, contributing significantly to the global semiconductor landscape. Key for semiconductor manufacturing equipment and materials and test equipment which are crucial for the supply chain, with strong players like Tokyo Electron and Shin-Etsu.

- **China:** Rapidly growing in manufacturing capacity, especially in mid-tier chips (SMIC, Hua Hong), and has the largest consumer market.

- **United States:** A leader in chip design and Research & Development (R&D), and critical equipment, but not in manufacturing. For example, NVIDIA is a leading American technology company whose chips are crucial to the current AI boom. Nvidia designs the chips but outsources the complex manufacturing to foundries like TSMC (Taiwan).

Note: There is disagreement about the viability of having the design process (e.g., chips) and the manufacturing process located far from each other. See Fletcher, p. 66, "Anyone who knows anything about real-world manufacturing knows that the factory floor and the lab form a continuous feedback loop." This point-of-view argues that the design process should be physically close to the manufacturing process.

What is United States doing to revive domestic chip (semiconductor) manufacturing?

As noted above, the United States accounted for nearly 80% of semiconductor (chip) manufacturing in the 1970s and 1980s. Today, it's share of global chip manufacturing is about 10% - 12%.

The **CHIPS Act** (Creating Helpful Incentives to Produce Semiconductors and Science Act of 2022) is a U.S. law with bipartisan support providing over $52 billion in incentives and funding to boost domestic semiconductor manufacturing, strengthen supply chains, and support science and technology innovation, aiming to reduce reliance on foreign chip production and enhance national security. It offers funds for R&D, manufacturing, and workforce development, alongside broader science investments via the National Science Foundation (NSF).

In 2025, the U.S. manufactured a small fraction of the world's chips, around 10-12% of global capacity, but this was increasing due to the CHIPS Act, with projections showing the U.S. share rising to 14% by 2032, though most advanced chips were still made in Asia, with U.S. companies relying heavily on imports, especially from Taiwan. In summary, while U.S. companies lead in chip design and R&D, the physical manufacturing of most semiconductors remained concentrated in Asia in 2025. The CHIPS Act aims to revive domestic production. The CHIPS Act is government intervention in the economy: The US government is actively using industrial policy to reclaim leadership in this strategic sector.

Why did the United States decline so drastically in chip (semiconductor) production?

Repeated from above: The United States accounted for nearly 80% of semiconductor (chip) manufacturing in the 1970s and 1980s. Today, it's share of global chip manufacturing is about 10% - 12%. Why did this happen?

Beginning in the late 1960s–1970s with the offshoring of chip assembly and testing and intensifying in the 1980s with the offshoring of fabrication (chip manufacturing), American semiconductor (chip) companies (for example, in Silicon Valley) seized the opportunity to cut costs, gain cost-competitiveness against competitors, and ultimately to increase profits.

- **A short-term perspective:** Companies prioritized immediate cost savings and increased profits from cheaper overseas labor over long-term U.S. industrial strength, a decision now seen as detrimental.

- **Erosion of Manufacturing Base:** This offshoring led to a significant decline in U.S. semiconductor fabrication capacity, making the nation vulnerable to supply chain shocks.
- **National Security Risk:** Reliance on foreign manufacturing for critical components poses national security risks, as highlighted by recent global events.

No National Economic Strategy

In the late 1960s–1970s and 1980s, the United States government did not have a National Economic Strategy in which the retention of domestic chip manufacturing was held to be vital for the national interest (the common good). The dominant belief in that era was in the "magic of the market." If private companies concentrated on maximizing profit, the overall result for society would be better than if the government tried to impose a national economic strategy on them. The dominant belief was that the government should stay out of the way and let private companies do their "magic." Meanwhile, academic economists were grossly misusing the mathematics of physics (for example, calculus with differential equations which is unsuitable for describing the economy) to support the laissez faire stance of private businesses.

A Domino Effect

Once the first American chip manufacturer moved operations offshore to gain a competitive advantage and increase profits, other U.S. chip manufacturers were forced to follow suit to stay competitive, like dominoes falling. Consider this excerpt from my February 2009 essay on economic competitiveness (pp. 2-3). I have changed "PCs" to "semiconductors (chips)."

"Consider an example: Company A, an American manufacturer of semiconductors (chips), (perhaps in Silicon Valley), that moves its manufacturing to cheaper regions offshore.

- "This gives Company A a price advantage over companies B, C, and D for selling its semiconductors (chips) back into the U.S. market, the most lucrative consumer market in the world.
- "The CEO of Company A looks better than the CEOs of companies B, C, and D in quarterly earnings reports.

"Then Companies B, C, and D are compelled to follow suit, and they move their U.S. manufacturing offshore to stay price competitive in the U.S. market with Company A (and to look good on their quarterly earnings reports). While offshoring manufacturing makes

CEOs look good in the short-term, it further erodes the manufacturing capability of the U.S. to produce semiconductors (chips).”

The cost and effort to reshore what U.S. chip manufacturers offshored 50 years ago.

U.S. chip makers initially offshored manufacturing for lower costs and higher profits, but now seek to "onshore due to critical national security risks and supply chain vulnerabilities exposed by global events (like the pandemic and geopolitical tensions). What is entailed to reshore U.S. chip manufacturing?

Reshoring U.S. chip manufacturing is a multi-decade effort, with significant capacity expected by the early 2030s (tripling by 2032), but achieving true self-sufficiency to 1970s levels could take 10 to 20 years or more, facing major hurdles like construction costs, labor shortages, and high operating expenses compared to Asia. While government incentives like the CHIPS Act are spurring billions in investment and new factories, overcoming the 50-year shift and cost disadvantages is a massive, ongoing challenge.

The “invisible hand” and the “magic of the marketplace” let us down.

American chip manufacturers were seeking to maximize profit which some believe brings about the most efficient (“best”) result for society and did what they did without any constraints of a national economic strategy. But clearly, the “invisible hand” let them and us down. Today, barely fifty years after American chip manufacturers offshored their chip manufacturing to increase profits, the American public (the government) is paying for their mistake to reshore what was offshored.

“The United States made a mistake by offshoring chip manufacturing in the 1980s, which it now wants to bring back home. This decision has led to a significant decline in the U.S. semiconductor industry's global presence and competitiveness. The offshoring trend has been driven by lower production costs and the ability to access advanced manufacturing capabilities. However, the U.S. has since recognized the need to revitalize its chip manufacturing capabilities to ensure national security and economic competitiveness. The CHIPS and Science Act aims to address this by investing in U.S. microchip manufacturing and supporting companies like TSMC, Apple, and a joint venture focused on AI infrastructure. The U.S. has also seen a rise in public support for reshoring, driven by national security considerations and economic self-interest.” American Affairs Journal

What is the cost to the American people of the CHIPS Act to bring back chip manufacturing?

The CHIPS and Science Act of 2022 authorized around **$280 billion in total spending**, including roughly **$52.7 billion in direct funding and tax credits for semiconductor manufacturing**, plus significant investments in science and R&D, aiming to boost U.S. tech competitiveness by funding domestic chip production and innovation over several years. While the total authorization is large, the core semiconductor incentives include substantial grants, loans, and a 25% investment tax credit.

Key Cost Breakdown:

- **Total Authorization:** Approximately $280 billion authorized through FY2027 for semiconductor manufacturing, scientific research, and workforce development.
- **Semiconductor Funding:** Around $52.7 billion for manufacturing incentives (subsidies, grants, loans) and $24 billion in tax credits for U.S. chip production.
- **Science & Tech:** The Act also authorizes significant funds (around $174 billion over 5 years) for various federal science agencies like the NSF for R&D and STEM initiatives.

Purpose:

- To reduce reliance on foreign chip supply chains, particularly from China, by incentivizing companies like Intel, TSMC, and Samsung to build and expand fabrication plants (fabs) in the U.S.
- To foster American innovation in advanced technologies and create high-tech jobs.

Main goals of the CHIPS Act

It is noteworthy that the main goals of the CHIPS Act do **not** include reviving our chip manufacturing industry so we can export more chips to help reduce our massive trade deficit.

The main goals of the CHIPS Act are to become self-sufficient in chip production and to substantially lessen our dependence on other chip-producing countries, thus strengthening national security. CHIPS Act goals include boosting domestic semiconductor manufacturing, strengthening supply chains, and supporting science and technology innovation.

Other leaders in in global chip manufacturing have national economic strategies.

The robotics section of this essay has a discussion of national economic strategies in the robotics industry.

"In 2015, Beijing made it a top priority for China to become globally competitive in robotics as part of its Made in China 2025 campaign to import fewer advanced manufactured goods.

"Industries received almost unlimited access to loans from state-controlled banks at low interest rates as well as help in buying foreign competitors, direct infusions of government money and other assistance. And in 2021, the government issued a detailed national strategy for expanded deployment of robots.

"You can see how well that strategy worked out; without a strategy, a country is always at a disadvantage," said Susanne Bieller, the general secretary of the robotics federation.

Other leaders in in global chip manufacturing (Taiwan, South Korea, Japan, and China, but not the United States) have national economic strategies. One of the goals of their national economic strategies is to have a strong domestic chip manufacturing industry. These countries also have a vibrant private sector that stives to make a profit. But these private companies are constrained by national economic strategies. None of these nations would have permitted their private chip companies to offshore chip manufacturing to increase profits and then fifty later expect the government to pay to reshore it. Of the five leaders in in global chip manufacturing given previously (Taiwan, South Korea, Japan, China, and the United States), only the United States has a predominantly laissez-faire economy in which the government tends not to interfere in what private companies do to increase profits such as offshoring chip manufacturing but then is expected to pay to reshore it.

6. Mobile phones are not made in the United States.
What will it take to enable the United States to manufacture mobile phones?

Mobile phones are not made in the United States because there is no existing US-based high-tech supply chain for components like displays and silicon, and establishing one would cost

trillions of dollars and take over a decade. Additionally, labor costs are significantly higher in the US, and the country lacks the specialized workforce to operate the necessary factories. Instead, companies rely on Asian countries for manufacturing, where the ecosystem and skilled labor for components and final assembly are readily available at lower costs.

Here's a breakdown of the primary reasons:

- **Lack of Infrastructure**: The specialized factories and infrastructure required for components like silicon, displays, and camera sensors simply do not exist in the U.S. Building this entire ecosystem would be an enormous undertaking, costing billions or even trillions of dollars and taking years to complete.
- **Higher Labor Costs**: Manufacturing in the US is considerably more expensive due to higher labor costs compared to countries in Asia.
- **Missing Skilled Workforce**: The United States lacks the specialized, highly skilled workforce needed to operate the complex factories required for modern smartphone production.
- **Integrated Supply Chains Overseas**: A comprehensive, global supply chain for smartphone components has developed in East Asia over decades. Companies like Foxconn handle the large-scale assembly in these regions, creating a highly efficient, though cost-effective, manufacturing environment.
- **Component Dependency**: Even if final assembly were done in the US, the critical components (like processors and screens) would still need to be imported from overseas suppliers, negating the goal of a fully domestic product.

Apple, a case study of why mobile phones are not made in the United States.

Apple has **never** manufactured iPhones in the United States; the company shifted its final assembly of products to China in the mid-2000s due to economic reasons, such as lower labor costs and the scale of manufacturing available there, which made it impossible to produce them in the U.S. at a competitive price point.

Why iPhone Production is in China

- **Economics:**

The primary reason for moving production was to lower manufacturing costs and achieve the massive scale needed for a globally best-selling product like the iPhone.

- **Supply Chain Ecosystem:**

China built a massive ecosystem of suppliers and specialized machinery needed for iPhone components and assembly over many years.

- **Labor and Skills:**

China offers a unique combination of skilled "craftsman" labor, sophisticated robotics, and a large pool of computer science talent.

- **Specialized Suppliers:**

Many components required for an iPhone, such as raw materials, highly specialized parts, and precision machines, are only available from certain suppliers, many of which are in China.

Some recent news updates about where Apple will manufacture its iPhones.

"Trump's new tariffs test Apple's global supply chain"

"Company moved work from China, but it is not enough"

SAN FRANCISCO >> "When President Donald Trump first pushed tariffs on China in 2018, Apple began moving more production of iPads and AirPods to Vietnam and iPhones to India."

"But with Trump's return to the White House, that strategy may have backfired for the world's most valuable publicly traded company.

"On Wednesday, Trump said that the United States would put tariffs of 46% on Vietnam and 26% on India. The White House has said the tariffs are effective immediately, but some trade experts consider them to be preliminary and designed to be a starting point for negotiations to reduce overseas tariffs.

"The proposed tariffs threaten to compound the pressure on Apple's business. The company is already dealing with 20% tariffs on products imported from China, where Apple makes about 90% of the iPhones it sells around the world. Trump said that the rate would go to 34% under his new tariff plan."

"During the previous Trump administration, Cook's work to build a relationship with Trump helped Apple avoid tariffs on most of its products. U.S. trade officials in the previous Trump administration didn't put tariffs on iPhones, and they removed tariffs from the Apple Watch.

"In 2019, Trump toured an Apple plant in Texas that made desktop computers. Cook stood beside Trump as the president took credit for the plant, which had been making computers since 2013.

"In the years since then, Apple hasn't moved production of a single major product to the U.S. Instead, it embarked on an effort to diversify beyond China.

"In 2017, as Trump started in office, Apple began setting up assembly lines for iPhones in India. It took five years for it to train workers and build the infrastructure to make its newest iPhones in the country. It is in the process of increasing production there, with hopes the country's factories manufacture about 25% of the 200 million iPhones that it sells annually.

"The company also began shifting production of Air Pods, iPads, and MacBooks to Vietnam. The country became a destination for Apple and others after COVID-19 shut down factories in China in 2020, and Vietnam's factories accounted for more than 10% of the top 200 suppliers that the company had in 2023.
(Excerpted from a *New York Times* report by Tripp Mickle, reprinted in the *East Bay Times*, April 4, 2025, pp. C7-C8)

Making iPhones in U.S would be costly

Apple switch would triple the cost of iconic product

"It would take Apple billions of dollars to switch production to the U.S."

"The concept of making iPhones in the U.S. is a non-starter," asserted Wedbush Securities analyst Dan Ives, reflecting a widely held view in the investment community that tracks Apple's every move. He estimated that the current $1,000 price tag for an iPhone made in China, or India, would soar to more than $3,000 if production shifted to the U.S."

"U.S. Commerce Secretary Howard Lutnick predicted tariffs would force a manufacturing shift during an April 6 appearance on a CBS news program. "The army of millions and millions of

human beings screwing in little screws to make iPhones, that kind of thing is going to come to America," Lutnick said.

"But during a 2017 appearance at a conference in China, Cook expressed doubt about whether the U.S. labor pool had enough workers with the vocational skills required to do the painstaking and tedious work that Lutnick was discussing.

"In the U.S. you could have a meeting of tooling engineers and I'm not sure we could fill the room," Cook said. "In China, you could fill multiple football fields."

"Trump also tried to pressure Apple, to no avail, into shifting iPhone production to the U.S. during his first term as president. But the administration ultimately exempted the iPhone from the tariffs he imposed on China back then — a period when Apple had announced a commitment to invest $350 billion in the U.S. Trump's first term tariffs on China also prompted Apple to begin a process that led to some of its current iPhones being made in India and some of its other products being manufactured in Vietnam."

(Excerpted from an *Associated Press* report by Michael Liedtke, reprinted in the *East Bay Times*, April 16, 2025, pp. C7-C8)

Apple to shift product sources

Tech giant's quarterly gains beat analyst expectations

"Apple CEO Tim Cook said Thursday that the majority of iPhones sold in the U.S. in the current fiscal quarter will be sourced from India, while iPads and other devices will come from Vietnam as the company works to avoid the impact of President Trump's tariffs on its business."

(Excerpted from an *Associated Press* report by Michael Liedtke and Barbara Ortutay, reprinted in the *East Bay Times*, May 2, 2025, pp. C7-C8)

'Made in America' iPhone an illusion?

Trump could place 25% tariffs on Apple for items outside U.S

SAN FRANCISCO — "President Donald Trump went on the offensive against Apple on Friday, demanding that the company begin making iPhones in the United States or pay tariffs of at least 25% on iPhones made abroad.

"The ultimatum is the latest in a decade-long push to get the technology giant to move its supply chain. When he first ran for president in 2016, Trump promised voters that he would "get Apple to start building their damn computers and things in this country instead of other countries."

"But instead of bringing its manufacturing home, Apple has shifted production from China to other countries across Asia, including India, Vietnam and Thailand. Almost nothing is made in America, and an estimated 80% of iPhones are still made in China."

"COULD APPLE MAKE IPHONES IN THE UNITED STATES? Yes. Apple could make iPhones in the United States. But doing so would be expensive, difficult and force the prices to $2,000 or more, said Wayne Lam, an analyst with TechInsights, a market research firm."

This report suggests that small hands gives China an advantage in making iPhones.

"WHAT DOES CHINA OFFER THAT THE UNITED STATES DOESN'T? Small hands, a massive, seasonal workforce and millions of engineers.

"Young Chinese women have small fingers and that has made them a valuable contributor to iPhone production because they are more nimble at installing screws and other miniature parts in the small device, supply chain experts said. In a recent analysis the company did to explore the feasibility of moving production to the United States, the company determined that it couldn't find people with those skills in the United States, said two people familiar with the analysis who spoke on the condition of anonymity.

"China has millions of people who migrate around the country to work in factories as Apple revs up production around a new iPhone. They often work from the summer until Chinese New Year, when production slows down, so Apple's suppliers don't have to pay them for a full year of work. They live in dormitories connected to factories with assembly lines longer than a football field, clustered nearby component suppliers.

"China has a deep bench of engineering talent. In 2017, Cook said the country has enough tooling engineers to fill multiple football fields, while the United States barely has enough to fill a room. "

(Excerpted from a *New York Times* report by Tripp Mickle, reprinted in the *East Bay Times*, May 24-25, 2025, pp. C7-C8)

“Apple is leaving China and is building iPhones in India”

“DEVANAHALLI, India — A new iPhone factory in an out-of-the-way corner of India looks like a space ship from another planet. Foxconn, the Taiwanese company that assembles most of the world’s iPhones for Apple, has landed amid the boulders and millet fields of Devanahalli.

“The sleek buildings rising on the 300-acre site, operational but still growing, are emerging evidence of an estimated $2.5 billion investment.

“This is what President Donald Trump wants Apple to do in the United States. What is happening in this part of India shows both why that sounds attractive and why it will probably not happen without sustained government financial support to revive U.S. manufacturing and training to expand the pool of qualified factory workers.”

“Analysts at Counterpoint Research calculated that India had succeeded in satisfying 18% of the global demand for iPhones by early this year, two years after Foxconn started making iPhones in India. By the end of 2025, with the Devana halli plant fully online, Foxconn is expected to be assembling between 25% and 30% of iPhones in India.”
(Excerpted from a *New York Times* report by Alex Travelli and Hari Kumar, reprinted in the *East Bay Times*, July 14, 2025, pp. C7-C8)

<u>The U.S. incurs a trade deficit in 1976, starting an unremitting trend.</u>

The United States incurred a merchandise trade deficit in 1976 of approximately **$3.2 billion**, a marked deterioration from the surplus of the previous year. We went from being a creditor nation in international trade to a debtor nation. This deficit began an **unremitting string** of annual trade deficits that continues today in 2026 with no signs of abating.

Spending more than we earn in international trade. Living on debt

For 49 consecutive years, 1976-2024, the United States has been spending more than we earn in international trade. In 1976, we spent $3.2 billion more than we earned. In 2024, we spent $918.4 billion more than we earned which was 287 times our trade deficit in 1976. Because of the historic wealth and high credit rating of the United States, we have been able to continue spending more than we earn by borrowing and living in debt. Our national

debt which is now near $37 trillion. **However, living on debt is not tenable over the long run.**

Exhorting Tim Cook, CEO of Apple, to make some iPhones in the U.S.

President Trump is one of the few public figures that has consistently over decades addressed the untenability of our living on debt in international trade, i.e., chronic, massive, untenable trade deficits. He has exhorted Tim Cook, CEO of Apple, to manufacture in the United States some the iPhones Americans buy. Cook's response has been to move the manufacturing of iPhones from China to India and Vietnam.

Changing our creditor from China to India

It is ridiculous that Tim Cook, an American, thinks that buying iPhones from India rather than China is going to make Americans better off. Buying iPhones from India instead of from China does nothing to reduce our chronic, massive, and untenable deficits in international trade, especially in consumer goods such as iPhones. When we buy iPhones from India, the value added by workers in manufacturing flows to where the workers are located, that is, in India, not to the United States.

Excepted from my December 2019 essay on economic competitiveness (pp. 12-13)

The Suitability of Manufactured Goods for Export Products

A strong manufacturing base fostered a thriving blue-collar middle-class in the decades after World War II, e.g., in America's former Industrial Heartland in the Midwest. Let's consider the manufacture of a consumer durable such as a television set, a microwave oven, or a sewing machine. The manufacturing process entails

- Capital (facilities, machinery, et al. including financing)
- Labor
- Materials
- Management

The process starts with raw materials and passes through various steps. At each step, value is added. The value-added of the finished product is essentially what it costs to make the product and, in this example, includes a return to capital.

The value-added by labor flows to where the workers are located.

The value-added to the final product by labor goes to wages/salaries for the factory/plant workers. This value-added by labor fostered a thriving blue-collar middle-class in the decades after World War II. It is critical to note that this value-added **flows to where the workers are located**. For example, when the Midwest had a flourishing automotive industry, the wealth from value-added by labor flowed to workers in the Midwest.

Not just designed in Detroit but also manufactured in Detroit

If automotive engineers had just designed the cars in Detroit, but then sent the blueprint/instructions offshore to have them manufactured, e.g., to China, the value-added by labor would have flowed to workers in China, not to workers in the Midwest. If Detroit had done this, the Midwest's formerly thriving blue-collar middle-class would not have existed.

Apple designs in the U.S. but manufactures in China.

What Detroit did **not** do in that era, Apple **does** today. Apple "designs" its iPhones in the U.S and sends the blueprint/instructions to China to have them manufactured. The value-added by labor flows to where the workers are located: China.

"Designed by Apple in California": This branding strategy is to convey the idea that while design and management are in the US, the actual, labor-intensive final assembly of the iPhones takes place elsewhere, primarily in China and other global locations. It is an Apple marketing strategy to convince consumers that, despite the assembly taking place in China, **the core design and innovation originate from the U.S.** This helps mitigate any negative connotations associated with the "made in China" label, emphasizing that the design and engineering are rooted in Apple's California headquarters.

Assembling an iPhone

From above, "The actual, labor-intensive final assembly of the iPhones takes place elsewhere, primarily in China."

A college education is not required to physically assemble an iPhone; assembly is a task performed by factory workers who are trained on the job.

Contradictory, inconsistent statements from Apple

According to Apple public relations, the brainwork (design and engineering) are performed in California, but the "grunt work" (labor-intensive final assembly of the iPhones) takes place elsewhere, primarily in China. So why does Tim Cook inconsistently and contradictorily say that the U.S. lacks the engineering depth to assemble an iPhone given that Apple engineers in California designed and engineered the iPhone and that only labor-intensive final assembly of the iPhones takes place in China?

Cook said "China has a deep bench of engineering talent. In 2017, Cook said the country has enough tooling engineers to fill multiple football fields, while the United States barely has enough to fill a room. "

Apple public relations claims that the engineering and design are done in California and only the tedious, labor-intensive final assembly of the iPhones is done in China. So why are so many engineers needed in China to assemble an iPhone if the design and engineering are done in California?

7. China dominates rare earths (minerals).

What recourse does the United States have?

Information in this section was drawn largely from *New York Times* reports by Keith Bradsher (and reprinted in the *East Bay Times*: December 4, 2024, June 4, 2025, and October 28, 2025). *New York Times* correspondents Ana Swanson and David Pierson also provided information for this section.

Keith Bradsher is the Beijing bureau chief for *The New York Times*, part of a team of Times reporters covering a wide range of news in China. He has lived and reported in mainland China since 2016, including through the pandemic. In China, he has covered the growth of manufacturing and associated trade tensions as well as many other issues. He has visited rare minerals mining sites in China.

What are the rare earths (minerals) used in high-tech manufacturing?

Rare earths (minerals) used in high-tech manufacturing include Neodymium (used for magnets, lasers), Europium (used for displays), and Dysprosium (used for magnets, EVs) and other critical metals like Lithium, Cobalt, Gallium, Germanium, and Tantalum, vital for batteries (Li, Co),

semiconductors (Ga, Ge, Ta), and advanced electronics. These minerals enable strong magnets, vibrant displays, efficient batteries, and complex AI chips, driving innovation in electronics, defense, and green energy. These minerals are vital for advanced technologies, from smartphones and defense systems to wind turbines and electric vehicles (EVs).

Which rare earths (minerals) does China dominate?

China dominates the supply chains for rare earth elements, controlling most mining (around 70%) and nearly all processing (around 90%). It is a top producer of minerals like gallium, magnesium, graphite, tungsten, and cobalt, essential for high-tech, defense, and clean energy sectors like EVs and wind turbines. China produces nearly all the world's supply of critical minerals needed to make advanced technologies such as semiconductors (chips).

"Perhaps most importantly, China makes 90% of the world's rare earth magnets, used in electronics and electric motors. It is the only producer of some kinds of small magnets used in cars."

Why does China control so much?

"China mines 70% of the world's rare earths. Myanmar, Australia and the United States mine most of the rest. But China does the chemical processing for 90% of the world's rare earths because it refines all of its own ore and practically all of Myanmar's and nearly half of U.S. production.

"China's dominance is greatest for seven rare earths that it has mostly stopped exporting since early April: dysprosium, gadolinium, lutetium, samarium, scandium, terbium and yttrium. These are mined almost exclusively in China and Myanmar and are among the hardest to separate chemically. For metals like dysprosium and terbium, so-called heavy rare earths that are used for heat-resistant magnets, China's refineries produce up to 99.9% of the world's supply.

"China has some of the world's best deposits of heavy rare earths. These are found in a band of ore that is particularly rich in a valley near Longnan in south-central China, extending west into northernmost Myanmar."

China implements export controls over rare earths.

Starting April 4, 2025, in response to U.S. tariffs, China implemented strict export controls and licensing requirements for seven rare earths (Samarium, Gadolinium, Terbium, Dysprosium,

Lutetium, Scandium, and Yttrium), making exports difficult and requiring detailed end-user information. China followed (November 8, 2025) with temporary pauses and expansions to other elements (Holmium, Erbium, Thulium, etc.).

China’s export control over rare earths created severe shortages and complex procurement for industries like defense, electronics, and green energy globally.

Should the United States government have acted before now to lessen its dependence on China for rare earth materials?

Mineral experts, industry officials, and government reports have warned the United States government for years and even decades about the national security and economic risks associated with China's dominance of the rare earth material supply chain.

- **1990s-Early 2000s:** China implemented various policies, including export tax rebates and blocking foreign ownership of mines, to consolidate its control over the rare earth market. During this time, U.S. mines, such as the Mountain Pass mine in California, shut down or sent materials to China for processing, and U.S. production migrated overseas.
- **2010:** China temporarily suspended rare earth exports to Japan during a diplomatic dispute, an event that served as a "wake-up call" for Western nations regarding the vulnerability of the supply. A U.S. Congressional report that same year warned that the U.S. would need at least 15 years to break its dependence on Chinese exports due to the lack of domestic supply chains and expertise.
- **Ongoing Concerns:** Experts from institutions like the Center for Strategic and International Studies (CSIS) have consistently highlighted the U.S. defense industry's severe reliance on Chinese rare earths, which are critical for F-35 jets, missiles, and other advanced military systems.
- **Recent Years:** The warnings became more urgent in recent years as China expanded its use of export controls as a geopolitical tool amid trade tensions. U.S. officials in both the Trump and Biden administrations have since declared the import dependence a "national emergency" and have pursued initiatives to boost domestic production and diversify supply chains, though experts caution that breaking China's stranglehold will take a decade or more. As noted above, A U.S. Congressional report in 2010 warned that

the U.S. would need at least 15 years to break its dependence on Chinese exports due to the lack of domestic supply chains and expertise.

The consistent message from experts is that this dependence leaves the U.S. vulnerable to economic coercion and supply shocks, prompting ongoing, though often slow-moving, government efforts to secure a reliable supply chain less dependent on China.

What is the United States government doing now to make the United States less dependent on China's control of rare earths?

U.S. officials in both the Trump and Biden administrations have since declared the import dependence a "national emergency" and have pursued initiatives to boost domestic production and diversify supply chains, though experts caution that breaking China's stranglehold will take a decade or more.

Currently, The U.S. government is actively working to reduce dependence on China for rare earths through

- direct investments in domestic mining and processing to build a domestic rare earth supply chain
- forging international partnerships through agreements with allies like Australia to reduce long-term reliance on China

The goal is to establish a secure "mine-to-magnet" supply chain independent of China's control by 2027.

China has agreed to give the United States one year of "breathing room."

As part of a trade truce agreed upon by Presidents Trump and Xi in October 2025, China agreed to suspend its latest, expansive export controls on rare earth minerals to the United States for one year, until November 2026.

Details of the Agreement

- **Temporary Suspension:** China paused the broad export controls it had announced in October 2025, which would have required government approval for the export of rare earths, gallium, germanium, antimony, and graphite. These minerals are vital for a range of modern technologies, including electronics, electric vehicles, and defense systems.

- **General Licenses:** The agreement involves issuing "general licenses" to allow the flow of these materials to U.S. end-users, effectively lifting the immediate restrictions that had caused supply chain disruptions.
- **Context:** This move was part of a broader trade deal where the U.S. made concessions, including lowering a specific tariff on Chinese goods from 20% to 10% and suspending heightened reciprocal tariffs. China also agreed to resume massive purchases of U.S. agricultural products like soybeans.

8. What will it take to revitalize the U.S. ship building industry?

The U.S. Ship Building Industry used to be vibrant and dominant.

U.S. shipbuilding began with abundant colonial timber resources, evolving through the Revolution into clipper ships and a navy for the new nation. The first half of the 19th century saw a peak in shipping, which transformed to iron and steel construction in the early 20th century.

The "Arsenal of Democracy" in World War II

During World War II, the U.S. produced nearly 9,000 warships, more than three times the combined output of all other powers, and more than 5,500 merchant vessels.

The Decline of U.S. Ship Building

"America's dangerous maritime decline threatens our security as international competition for trade, commerce and military power in the Pacific grows. In 2024, the United States built only five merchant vessels. China built 1,400 and three times as many naval warships. China now has the world's largest merchant and naval fleets. America no longer rules the oceans. To maintain our economic and military strength, America must rebuild its maritime industry."

(Excerpted from a letter to the *East Bay Times*, on May 16, 2025 (p. A6) by Rep. John Garamendi who represents Solano and Contra Costa counties and serves as the senior member of the U.S House Armed Services and Transportation and Infrastructure committees)

"In the past 10 years, Chinese shipbuilders delivered 6,765 commercial ships, nearly half of global deliveries, according to data from BRS Shipbrokers. Japan delivered 3,130, South Korea 2,405 and the United States just 37. The few American-made vessels that shipping lines do buy usually transport cargo solely between U.S. ports. Under the Jones Act, a more than-100-year-old law, such voyages can be served only by U.S.-built vessels."
(Excerpted from a *New York Times* report by Peter Evis, reprinted in the *East Bay Times*, May 28, 2025, pp. C7-C8)

"Nearly 80% of Ameri can foreign trade by weight is transported by ship, yet less than 2% is carried on American-flagged vessels, according to Gavekal Research."

"Almost one-fifth of container vessels arriving at American ports are made in China, and a far higher share on trading lanes spanning the Pacific, according to ING, the Dutch banking giant."
(Excerpted from a *New York Times* report by Peter S. Goodman, reprinted in the *East Bay Times*, February 27, 2025, pp. C9-C10)

"This month, the Trump administration issued rules that require at least 1% of the natural gas shipped overseas to be carried on U.S.-built tankers in 2029. The United States is the top global exporter of liquefied natural gas, or LNG — gas that has been chilled until it becomes a liquid so that it can be transported in large quantities. But it does not build any of the specialized ships used to send that fuel abroad."
(Excerpted from a *New York Times* report by Rebecca F. Elliott and Peter Evis, reprinted in the *East Bay Times*, April 30, 2025, pp. C7-C8)

"U.S. ships championed by Trump cost 5 times as much"
Asian-made vessels take less time; Congress seeks to subsidize the industry"

"President Donald Trump and members of Congress want to revive U.S. shipbuilding with subsidies and penalties against Chinese-built ships, but there are obstacles, experts say."

PHILADELPHIA — "President Donald Trump and some members of Congress want to revive

a depleted American shipbuilding industry to compete with China, the world's biggest maker of ships by far.

"It is such a daunting goal that some shipping experts say it is destined to fail. More hopeful analysts and industry executives say the Trump administration and Congress could succeed but only if they are willing to spend billions of dollars over many years. One of the places where Washington's maritime dreams might take shape or fall apart is a shipyard on the southern edge of Philadelphia that was bought last year by one of the world's largest ship building companies, a South Korean conglomerate known as Hanwha.

"The shipbuilding industry in America is ready to step up," David Kim, the CEO of Hanwha Philly Shipyard, said in an interview. But to do that, he said, the yard must have a steady stream of orders for new vessels. And the federal government will need policies that subsidize American-built ships and penalize the use of foreign vessels by shipping companies that call on U.S. ports."

"It takes far longer to build ships in the United States than in Asia, and costs nearly five times as much. The Philadelphia yard makes roughly a ship and a half a year, compared with around a ship a week at Hanwha's larger facilities in its home country, Kim said."

"Under the Jones Act, a more than-100-year-old law, such voyages can be served only by U.S.-built vessels. An order for three Jones Act-compliant container ships, struck by the previous owner of the Philadelphia yard, cost about $330 million a vessel.

"A similar size ship built in Asia would cost about $70 million, said James Light bourn, founder of Cavalier Shipping, a ship financing advisory firm."

"In their shipbuilding bill, Democratic and Republican lawmakers seek to address the cost difference by subsidizing shipping companies to put 250 American-made vessels operated with U.S. crews into a "strategic commercial fleet." The secretary of defense could call on the vessels for supply missions."

"Lawmakers hope that assembling such a fleet and Other incentives will not only provide a steady stream of orders for U.S. shipbuilders, but also help them grow and become more efficient."

"Critics of the bill contend that it would provide endless subsidies to high-cost ship builders. A better approach to countering China's dominance, they say, would be to make

up the strategic fleet with vessels made in Japan and South Korea, both U.S. allies and proven shipbuilders.

"But Kim, said many products, not just ships, cost more to make in the United States, and he added that outsourcIng shipbuilding to other countries had contributed to the withering of American production.

"It's not just about business," he said. "It's about the country, it's about labor, and it's about priorities and strategic decisions."

"Washington's grand designs for shipping include the tankers that carry liquefied natural gas, which are much more complex to manufacture than ships that carry containers. The Trump administration's new ship ping rules require that an increasing portion of these ships be built in the United States within several years".

"Hanwha has produced 200 such vessels in South Korea, and Kim said the dry docks at the Philadelphia yard were big enough to accommodate certain LNG carriers. "

"But even if Hanwha successfully transfers its manufacturing expertise to the United States, it may struggle to find skilled workers. It is planning to double the size of its workforce from 1,500 employees in less than 10 years, said Kelly Whitaker, a spokesperson for Hanwha Philly. "

"Next year it wants to double the size of its apprentice class to 240 trainees."

"Even when shipbuilders do manage to recruit workers, they have often struggled to keep them."

(Excerpted from the *New York Times* report cited above by Peter Evis, May 28, 2025)

9. Shortage of Factory Workers-Education Mismatch

Hanwha Philly is not alone in having problems
recruiting and retaining skilled blue-collar workers.

Two recent New York Times reports shows that factories throughout the United States are having problems recruiting and retaining skilled blue-collar workers.

"Factories are struggling to fill nearly 400,000 open jobs."

"The pool of workers who are willing and able to perform manufacturing tasks in the

United States is shrinking."

"President Donald Trump's pledge to revive American manufacturing is running into the stubborn obstacle of demographic reality.

"The pool of blue-collar workers who are able and willing to perform tasks on a factory floor in the United States is shrinking. As baby boomers retire, few young people are lining up to take their place. About 400,000 manufacturing jobs are currently unfilled, according to the Bureau of Labor Statistics — a shortfall that will surely grow if companies are forced to rely less on manufacturing overseas and build more factories in the United States, experts say.

"Difficulty attracting and retaining a quality workforce has been consistently cited as a "top primary challenge" by U.S. manufacturers since 2017, said Victoria Bloom, the chief economist at the National Association of Manufacturers, which produces a quarterly survey. Only recently has the issue slipped down on the list of challenges, superseded by trade-related uncertainty due to the Trump administration's tariffs and by increased raw material costs, Bloom said.

"But the scarcity of skilled blue-collar workers remains a long-term problem, according to Ron Hetrick, an economist with Lightcast, a company that provides labor data to universities and industry. "We spent three generations telling everybody that if they didn't go to college, they are a loser," he said. "Now we are paying for it. We still need people to use their hands."
(Excerpted from a *New York Times* report by Farah Stockman, reprinted in the *East Bay Times*, June 24, 2025, pp. C7-C8)

"Manufacturing's numbers include 400,000 openings"

"Employers in U.S. struggling to find qualified applicants."

"Employers are having trouble attracting qualified applicants to blue-collar jobs, a dynamic that is complicating President Donald Trump's promises to revive American manufacturing. The Bureau of Labor Statistics estimates that 400,000 factory jobs are currently vacant in the U.S.

"As baby boomers retire, some younger workers are unwilling to give up the flexibility, pay and relative comfort of service jobs to work in factories. Trump's immigration

crackdown may further diminish the pool of available blue-collar workers, some company executives say.

"For every 20 job postings that we have, there is one qualified applicant right now," David Gitlin, chair and CEO of Carrier Global, a heating and air conditioning company, told The New York Times. That gap may widen even more if trade policies push more companies to manufacture goods in the United States.

"There is currently a mismatch between available workers and their skills: Many of the college graduates struggling to find work do not have the training to work on factory floors.

"And though Trump has signed an executive order directing Cabinet officials to make a plan to create 1 million registered apprenticeships, his administration has also moved to shut down dozens of dozens of Job Corps centers, which give at-risk young people a path to working in trades.

"Business leaders have focused on efforts to train veterans and introduce high school students to the idea of working in manufacturing."

"We spent three generations telling everybody that if they didn't go to college, they are a loser," Ron Hetrick, an economist with Lightcast, which provides labor data to universities and industry, told the Times. "Now we are paying for it. We still need people to use their hands."

(Excerpted from a *New York Times* report by Lois Kelley, reprinted in the *East Bay Times*, July 1, 2025, p. C7)

10. What will it take to catch up with China in robotics?

China is # 1 and the U.S. a distant third

The information in this section is drawn largely from a *New York Times* report by Meaghan Tobin and Keith Bradsher (which was reprinted in the *East Bay Times* on September 26, 2025, pp. C7-C8).

Meaghan Tobin is a correspondent for *The New York Times*, covering business and technology in Asia. Based in Taipei, Taiwan, she speaks Mandarin and has spent the better part of the last decade living in Taipei, Beijing, and Hong Kong.

Keith Bradsher is the Beijing bureau chief for *The New York Times*, part of a team of Times reporters covering a wide range of news in China. He has lived and reported in mainland China since 2016, including through the pandemic. In China, he has covered the growth of manufacturing and associated trade tensions as well as many other issues

“China has most robots working in the world

More than 2M are being put to use in factories”

“China is making and installing factory robots at a far greater pace than any other country, with the United States a distant third, further strengthening China’s already dominant global role in manufacturing.

“There were more than 2 million robots working in Chinese factories last year, according to a report released Thursday by the International Federation of Robotics, a nonprofit trade group for makers of industrial robots. Factories in China installed nearly 300,000 new robots last year, more than the rest of the world combined, the report found. American factories installed 34,000.”

“Over the past decade, China has embarked on a broad campaign to use more robots in its factories, become a major maker of robots and combine the industry with advances in artificial intelligence.

“Chinese companies have benefited from a national push that mirrors how the country’s electric vehicle and AI industries have grown, said Lian Jye Su, a chief analyst at Omdia, a tech research firm.

“This is not a coincidence,” Su said. “It has taken many years of investment by Chinese companies.”

“China’s drive for factory automation has been a key part of achieving its position as the world’s manufacturing powerhouse. Factories in China have installed more than 150,000 robots each year since 2017. At the same time, manufacturing output ballooned. By the start of this year, factories in China were making nearly a third of all manufactured goods worldwide, more than the United States, Germany, Japan, South Korea, and Britain combined.

“Robot installations fell last year, compared with the year before, in all four of the next largest factory robot-using countries: Japan, the United States, South Korea and Germany. Japan installed 44,000.

“In 2015, Beijing made it a top priority for China to become globally competitive in robotics as part of its Made in China 2025 campaign to import fewer advanced manufactured goods.

“Industries received almost unlimited access to loans from state-controlled banks at low interest rates as well as help in buying foreign competitors, direct infusions of government money and other assistance. And in 2021, the government issued a detailed national strategy for expanded deployment of robots.

“You can see how well that strategy worked out; without a strategy, a country is always at a disadvantage,” said Susanne Bieller, the general secretary of the robotics federation.

“China’s share of the world’s robot manufacturing rose last year to a third of the global supply, up from a quarter in 2023, according to the federation. Japan, the previous leader, dropped to 29% of the world market from 38% the year before.

“Until last year, China installed more imported robots in its factories than domestically made ones. But last year, nearly three-fifths of the robots installed in China were also made in the country.

“Overall, China has five times as many robots working in its factories as the United States.”

“**Amazon’s automation being fueled by robots”**

Although China is far ahead of the United States in the implementation of robotics, some American companies are embracing robotics as described in a *New York Times* report by Karen Weiss (reprinted in the East Bay Times on October 23, 2025, pp. C9-C10).

“The company is building robots that can perform a variety of jobs normally done by human employees.”

“Internal documents from Amazon officials show that the company has a plan to automate 75% of its operations.”

“Amazon is building robots that do everything from moving individual shirts and bottles of soap to neatly stacking packages for the shipping dock. Amazon executives hope these robots will help the company avoid hiring hundreds of thousands of employees in the coming years.”

11. Can the U.S. have a battery boom without working with Chinese companies?

"Trump's trade, tax policies stalling U.S. battery boom"

(Excerpted from a *New York Times* report by Rebecca F. Elliott, reprinted in the *East Bay Times*, June 23, 2025, pp. C7-C8)

Battery manufacturing began to take off in the United States in recent years after Congress and the Biden administration offered the industry generous incentives. But that boom now appears to be stalling as the Trump administration and Republican lawmakers try to restrict China's access to the American market.

The Trump policy bill highlights a difficult dilemma. The United States wants to create a homegrown battery industry and greatly reduce its dependence on China — and many Republican lawmakers want to end it altogether. But China is already so dominant in this industry that it will be incredibly hard for the United States to become a meaningful player without working with Chinese companies.

Others say the United States should welcome foreign investment, including from China, and learn from it. "Restricting our market is just a first-order bad idea," said Ann E. Harrison, an economist and former dean of the business school at the University of California, Berkeley. Competition drives innovation and efficiency, without which companies often struggle to survive in the long term, she said. "The Chinese are already so far ahead," Harrison said. "At this point, I don't see us making the leap without fewer constraints."

12. U.S. struggles to build 5-minute EV chargers

(Excerpted from a *New York Times* report by Claire Brown, reprinted in the *East Bay Times*, August 21, 2025, pp. C9-C10)

China is dominating the electric vehicle market globally, accounting for more than 70% of global manufacturing in 2024, according to the International Energy Agency. Its EV makers have pulled ahead of U.S. car companies on price

and technology.

Case in point: the five-minute charger.

This past spring, two major Chinese companies announced breakthroughs in battery technology that will enable electric vehicles to drive hundreds of miles on a five-minute charge. After traveling to China to test-drive new fast-charging cars sold by BYD, Patrick George, the editor-in-chief of InsideEVs, said Chinese models were “pretty much a generation or two ahead of the rest of the world."

“This was a big leap, almost a tripling of others in the industry,” said Ryan Fisher, head of charging infrastructure at Bloomberg NEF, a research firm.

Chinese companies have leaped ahead of the rest of the world in high-quality patents for many clean energy technologies, including batteries.

Building these high-powered stations may be a smoother process in China. There, the government treats EV charging stations as crucial infrastructure, similar to how the U.S. treats highway maintenance, said Bill Russo, founder and CEO of Automobility Ltd., a Shanghai-based consulting firm.

In the long run, he said, a major factor in China’s success today has been its upfront investment in its charging network.

“The thing that I don’t think we give them enough credit for,” Russo said, “is they put all this investment in infrastructure before there was even a market for this stuff. Because they knew without the investment in infrastructure, there would never be a market.”

13. What will it take to revitalize U.S. home appliance manufacturing?

Home appliances are important to Americans, serving as essential tools for daily living and contributing to the overall quality of life. They automate and simplify tasks, reduce physical exertion, and enhance comfort. The reliance on appliances in American households is shown in the prevalence of refrigerators, stoves, ovens, and other major appliances, as well as the increasing popularity of small appliances like coffee makers and food processors. The home

appliance industry is projected to grow significantly, driven by technological advancements and consumer preferences, indicating a strong demand for these essential devices.

The United States was in the lead in developing home appliances.

Home appliance manufacturing in the U.S. shifted from early, rudimentary devices to sophisticated electric and gas-powered appliances in the early 20th century, driven by the decline of domestic servants and a desire for convenience. The post-World War II era fueled this growth through rising consumerism and increased prosperity, making appliances symbols of modern, convenient living.

China takes the lead in home appliance manufacturing.

The percentage of home appliances purchased by Americans that are made in China varies by product type, with some items, like toasters and microwave ovens, having import rates from China as high as 90-99%. While China's share can be as low as 50-60% for larger appliances like gas stoves and refrigerators, the reliance on Chinese imports is significant across the board for many household goods and electronics.

Examples of High-China Import Rates:

- **Toasters:** >99% of imports are from China.
- **Microwave ovens:** Over 90% (90%-95%) of imports are from China.
- **Hair dryers:** ~71% of imports are from China.
- **Baby strollers:** >97% of imports are from China.

Examples of Moderate to High-China Import Rates:

- **Refrigerators:** ~52% of imports are from China.
- **Gas stoves:** ~51% of imports are from China.
- **Blenders:** ~83% of imports are from China.
- **Dishes, pots, and pans:** ~82% of imports are from China.

This heavy reliance on Chinese production for home appliances is because it is the world's largest manufacturing base for home appliances.

14. What will it take for the U.S. to catch up with China in apparel manufacturing?

President Trump says "Why worry?".

For decades President Trump has drawn attention to the United States' massive trade deficit and has pushed for returning manufacturing to the United States that was offshored by private companies seeking to reduce costs and increase profits. But apparently, Trump is not concerned about bringing apparel and textile manufacturing back to the United States. There is no CHIPS Act for apparel and textile manufacturing.

Speaking to reporters in July 2025, Trump said his focus was on domestic production of computers, tanks, and microchips. "The textiles, you know is to make T-shirts, to be honest. I'm not looking to make socks," Trump said. "We can do that very well in other locations."

The apparel industry tends to agree. Stephen Lamar, president of the American Apparel and Footwear Association, argues that many of Trump's blanket tariffs on imports should be scaled back because it is unrealistic to expect American manufacturers to make shirts and shoes at a competitive price domestically.

"We're not going to be able to bring the apparel and footwear industries back to the United States at scale," Lamar said. "A lot of people talk about how they want more 'Made in U.S.A.' apparel, but they're not willing to pay the prices for apparel that is made in U.S.A."
(From a *New York Times* report by Alan Rappeport, reprinted in the *East Bay Times*, July 7, 2025, pp. C7-C8)

American manufacturers **used to** make shirts and shoes at a competitive price domestically.
In the 1950s and 1960s, about 95% of the apparel sold in America was made in America.
In the 1970s, about 90% of the apparel sold in America was made in America.
In the 1980s, about 70% of the apparel sold in America was made in America.
In the 1990s, about 50% of the apparel sold in America was made in America.
In 2025, about 3% of apparel sold in America was made in America.

Note: **Apparel** is just another word for what you wear. Apparel means clothes, shoes, and garments and accessories thereto. However, the American Apparel & Footwear Association explicitly shows apparel and footwear.

Value added by labor in apparel manufacturing flows to where labor is located.
In the 1950s through the 1980s, 70% or more of the apparel sold in America was made in

America, and the value added by labor in the production of apparel flowed to where labor was located: **in** the United States. In 2025, 97% of the apparel sold in America was imported, predominantly from Asia, so the value added by labor in production flowed to where labor was located: **outside** the United States.

Money spent on apparel is not "chump change."

Although President Trump is "not looking" for the United States to make common apparel items, the money Americans spend on apparel is not "chump change."

- The average American household spends an average of $162 per month on apparel ($1,945 per year). (May 23, 2025)
- The global apparel market is valued at $1.84 trillion in 2025, accounting for 1.63% of the world's GDP. The United States apparel market is the largest in the world, with a size of $365.70 billion. (Apparel Industry Statistics Highlights, May 23, 2025)
- The average American purchases 68 new items of clothing every year

97% of the money Americans spend on apparel contributes to our massive trade deficit.

In the 1950s and 1960s, when about 95% of the apparel sold in America was made in America, Americans' purchases of apparel did not contribute to our massive trade deficit (which underlies our national debt).

In 2025, however, only about 3% of apparel sold in America was made in America. The other 97% was made offshore, mainly in Asia. So, 97% of Americans' purchases of apparel contributed to our trade deficit (which underlies our national debt). Our trade deficit for **goods** in 2024 was $1.2117 trillion. About 70% of this deficit was for **consumer** goods of which apparel imports were a significant part.

China is dealing with nearly 50% U.S. tariff rates.

Facing nearly 50% U.S. tariff rates—much higher than those applied to other sourcing countries—China's apparel imports to the U.S. decreased by 38.4% in value and 27.3% in quantity in July 2025 from a year ago. Regardless, China dominates apparel imports to the United States. In July 2025, about 72.9% **(73%)** of U.S. apparel imports came from China, far exceeding the Western Hemisphere (14.8%) and the rest of the world (12.4%).

During the same period (in July 2025 from a year ago), U.S. apparel imports from several emerging Asian suppliers and those in the Middle East and Africa had fast growth, including

Vietnam (up 12.5%), Cambodia (up 25.2%), Pakistan (up 14.7%), Jordan (up 21.6%), and Egypt (up 30.3%). U.S. apparel imports from India in July 2025 also increased by over 15%, although the newly imposed higher tariffs on India could alter the trend in the next few months.
Source: FASH455 Global Apparel & Textile Trade and Sourcing
Dr. Sheng Lu, Professor, Department of Fashion & Apparel Studies, University of Delaware
https://shenglufashion.com/2025/09/09/patterns-of-u-s-apparel-imports-updated-september-2025/

American companies move operations from China to Vietnam and to other mainly Asian countries in response to U.S. tariffs on Chinese goods.

In response to U.S. tariffs on Chinese goods imposed during the first Trump Administration (Jan 2017-Jan 2021), American companies significantly shifted operations from China to Vietnam and other mainly Asian countries. These companies found it hard to fully separate (decouple) from China, which remained a key supplier of raw materials and components. So, Vietnam, because of its proximity to China, emerged as a key alternative manufacturing hub for electronics, apparel, and furniture. Vietnam was also attractive because of its growing infrastructure and skilled workforce.

Key companies which moved production from China to Vietnam:

- Electronics: Apple, Google, and Samsung moved production to Vietnam.
- Apparel & Footwear: Nike, Hasbro, and American Eagle shifted manufacturing to Vietnam.
- Furniture: Man Wah USA invested heavily in a large factory in Vietnam.

Major American apparel companies in Vietnam

Many major American apparel companies have substantial production operations in Vietnam, including Nike, Gap Inc. (Gap, Old Navy, Banana Republic), VF Corporation (The North Face, Timberland, Vans), Columbia Sportswear, and Levi Strauss & C.. Vietnam has become a key apparel manufacturing hub due to its skilled labor, competitive costs, stable political environment, and extensive trade agreement. For example,
“Nike now produces half of its shoes in Vietnam and supports nearly half a million workers across 162 supplier factories.”
(From a *New York Times* report by Grady Mcgregor, reprinted in the *East Bay Times*, May 4, 2025, p. E4)

Vietnam has been too successful as an alternative to China, upsetting the Trump Administration.

"Trump has vowed to punish countries that have large trade surpluses with the United States, and Vietnam now ranks third on that list, behind only China and Mexico"
(From a *New York Times* report by Damian Cave, reprinted in the *East Bay Times*, December 29, 2024, p. E4 or E5)

Previously, "American firms have enjoyed the benefits of cheaper Vietnamese manufacturing and calmer geopolitics.

"That changed in April when Trump declared a 46% tariff on goods coming from Vietnam, some of the harshest duties imposed on any country. Trump administration hard-liners like Peter Navarro, his top trade adviser, and U.S. Trade Representative Jamieson Greer have made Vietnam into a punching bag. They have complained about the United States' $124 billion trade deficit with Vietnam and accused the country of being little more than a waypoint for Chinese-made goods as a way to avoid the steep tariffs."
(From a *New York Times* report by Grady Mcgregor, reprinted in the *East Bay Times*, May 4, 2025, p. E4)

Most U.S apparel makers companies operating in China not planning to leave. Staying with the nation with the "best cut and sew in the world"

A recent survey conducted by the American Chamber of Commerce in China (AmCham China) indicates that despite increasing challenges posed by tariffs, most U.S. companies operating in China are not planning to exit the market.

For American apparel makers facing high tariffs everywhere (including Vietnam, India, and Bangladesh), China appears to be their "status quo" option, at least in the short term, given China's established manufacturing base with sophisticated infrastructure and skilled labor. These companies choose to absorb the tariff costs as they wait for policy clarity rather than undergoing another costly and disruptive supply chain overhaul.

The "best cut and sew in the world"

Chris Gentile is the "owner of the Brooklyn-based Pilgrim Surf + Supply, which produces items like padded work coats and fleece zip-ups in China." Given the heavy U.S. tariffs imposed on goods imported from China by the second Trump administration, Gentile is worried about how

he is going to find an alternative China to produce the padded work coats and fleece zip-ups he sells. He says “I don’t know how we could function.”

“To suddenly have to foster new partnerships with factories in India or Vietnam would not only be a costly nuisance, but also lead to garments of a lesser quality than Gentile’s customers have come to expect.

“The best cut and sew in the world comes from China,” Gentile said. “China is so advanced in that space that there’s really no place to go and pick up that slack from.”

“Designers speculated that the broader public doesn’t realize how far ahead China’s manufacturing capabilities are — not just from the United States, but from much of the rest of the world. This knowledge gap, they said, has caused people to misunderstand how tariffs might affect their house hold budgets.”

Searching for apparel manufacturing alternatives: they do not include the United States.
Uncertainty about future U.S. tariffs on apparel from China and about U.S.-China relationships have caused U.S. apparel companies with operations in China to search for alternative apparel manufacturing locations.

“The uncertainty, coupled with an already turbulent relationship between the United States and China, made some designers hesitant to speak on the record about their plans. But the one country that everyone in the apparel world seemed to agree would not emerge as a destination for producing flannel shirts and sneakers? The United States.”

“U.S. apparel manufacturing is such a dinosaur,” said Olberding, who knows firsthand how endangered outlets like Gitman’s Pennsylvania shirt factory are in America.”

“Particularly since the North American Free Trade Agreement went into effect in 1994, production of shirts, suits and knits has been all but entirely exported overseas. Colossal brick buildings that once housed shirt factories and fabric mills have been converted into pricey condos.

“To designers, the myth that a substantial Amer can apparel manufacturing industry could be kick-started overnight (let alone that there would be enough capable workers to fill those factories) was just that: a myth. “Those mills are never coming back,” Snyder of Corridor said. So for now, he’s looking toward Nepal.”
Dan Snyder is the founder of Corridor, a New York men’s fashion label that has produced

apparel in China.

Chris Olberding is president of Gitman Brothers, a shirt maker based on the East Coast.

(From a *New York Times* report by Jacob Gallagher, reprinted in the *East Bay Times*, November 14, 2024, pp. C9-C10)

Why is China so advanced in apparel manufacturing?

From the previous section: “The best cut and sew in the world comes from China,” Gentile said. Here is an explanation from the Internet (Google Chrome) of why this is so:

Much of the clothing Americans buy is made in China due to lower labor costs, massive production capacity, established supply chains, and economies of scale that allow for lower retail prices. China's large, skilled workforce and ability to produce high volumes of goods efficiently make it the world's factory for many industries, including apparel, enabling brands to keep costs down and meet consumer demand.

Key Reasons for Chinese Manufacturing

- **Lower Labor Costs:** Factories in China offer significantly lower wages than in the U.S., reducing production costs and allowing brands to offer more affordable prices to consumers.
- **Economies of Scale:** China's vast manufacturing infrastructure allows for high-volume production, where costs per unit decrease as production increases, further reducing overall expenses.
- **Established Supply Chain & Infrastructure:** China has developed extensive supply chain networks and skilled clusters of factories specifically designed for high-volume apparel production, making it efficient for companies to source and manufacture goods there.
- **Skilled Workforce:** The country possesses a large and skilled workforce in the textile industry, with a long history of producing high-quality garments.
- **Cost Efficiency:** The combination of low wages and high output results in significant cost savings for brands, which is a major driver for outsourcing production to China.
- **Variety and Flexibility:** Chinese manufacturers can offer a wide range of styles, fabrics, and production capabilities, meeting diverse consumer and brand needs.

No CHIPS Act

There is no CHIPS Act to revive American apparel manufacturing. Meanwhile, 97% of purchases of apparel by Americans causes money to flow out of the United States to the manufacturing countries providing us with apparel and drives up our massive trade deficit (which underlies our massive national debt).

15. What will it take for the U.S. to catch up with China in textile manufacturing? Do we need to? Treasury Secretary Bessent says "yes" conditionally.

The previous section dealt with **apparel** manufacturing. **Apparel** and **textiles** are often lumped together but are separate entities.

- **Most American consumers purchase apparel but do not directly purchase textiles.** Exceptions include people who purchase textiles to make their own clothes (from, for example, Jo-Ann Stores, LLC, an American specialty retail chain that specialized in fabrics and arts and crafts supplies and operated over 800 stores across 49 U.S. states until it closed in 2025.).

- **Textiles are inputs to apparel manufacturing.** Most apparel makers do not make textiles but source them from specialized mills, wholesale suppliers, or textile markets. Textiles (fabrics) are available in bolts of cloth. The apparel industry cuts fabrics and other materials and sews them together to create apparel or accessories, including footwear, outerwear, pants, and tops.

Textiles are versatile materials used in a wide range of products

Textiles are used in a wide range of products, including clothing, home furnishings, industrial purposes, and more. Here are some of the products made from textiles:

- Clothing: Denim, cotton, silk, and other fabrics are used to make shirts, pants, suits, dresses, underwear, socks, towels, and bed sheets.
- Home Furnishings: Textiles are used to make curtains, rugs, and other home decor items.
- Industrial Applications: Textiles are used in various industrial products, including medical textiles, geotextiles, and industrial textiles.

- Furnishings: Textiles are used to make pillows, blankets, and other bedding items.
- Other Products: Textiles are used in various other products, including upholstery, upholstery, and other textile products.

Textiles are versatile materials that can be used in a wide range of products, making them essential in many industries.

Money spent on textiles is not “chump change.”

According to Towards Chemical and Materials Consulting, the global textile market size is calculated at USD 1.39 trillion in 2025 and is expected to surpass around USD 2.01 trillion by 2034, growing at a CAGR of 4.24% from 2025 to 2034. (Nov 7, 2025)
(CAGR stands for Compound Annual Growth Rate.)

The U.S. textile market size was estimated at USD 251.79 billion in 2022 and is expected to grow at a compound annual growth rate (CAGR) of 3.1% from 2023 to 2030

American manufacturers **used to** be major providers of textiles.

In the **1950s** and **1960s**, virtually all (**90-95%**) of the textiles used to make apparel bought by Americans were made in the United States, indicative of a booming domestic industry. However, this share drastically declined to under 3% by the 21st century due to globalization and cheaper overseas labor.

In **2000**, approximately **43%** of textiles used to make apparel bought by Americans were domestically produced, with nearly 57% being imported, a significant shift from earlier decades as manufacturing moved overseas for lower labor costs, setting the stage for even higher import rates in later years.

In **2025**, only a very small fraction, **less than 3%**, of the textiles used to make apparel sold in the U.S. were made domestically. The vast majority (over 97%) of textiles used to make apparel bought by Americans and finished garments sold in America are imported from overseas, primarily Asia: mainly China but with significant shifts towards countries like Vietnam, Cambodia, and Bangladesh, despite ongoing trends in sourcing diversification.

Value added by labor in textile manufacturing flows to where labor is located.

In the 1950s and 1960s, **90-95%** of the textiles used to make apparel bought by Americans were made in the United States, and the value added by labor in the production of textiles flowed to where labor was located: **in** the United States. In 2025, 97% of the textiles used to make apparel

bought by Americans was **imported**, predominantly from Asia, so the value added by labor in production of textiles flowed to where labor was located: **outside** the United States.

97% of the money America spends on textiles contributes to our massive trade deficit.

In the 1950s and 1960s, when about 95% of the textiles used to make apparel bought by Americans were made in America, purchases of textiles by American companies did not contribute to our massive trade deficit (which underlies our national debt). In 2025, however, only about 3% of textiles used to make apparel bought by Americans was made in America. The other 97% was made offshore, mainly in Asia. So, 97% of purchases of textiles by American companies contributed to our trade deficit (which underlies our national debt). Our trade deficit in 2024 was $918.4 billion in 2024, 287 times our trade deficit of $3.2 billion in 1976.

Where does America get most of its textiles?

Top Trade Partners for US Textile Imports in 2024: US Textile Import by Country

- China: $36.1 billion (29.6%) ...
- Vietnam: $15.5 billion (12.7%) ...
- India: $9.71 billion (7.96%) ...
- Bangladesh: $7.49 billion (6.14%) ...
- Mexico: $5.53 billion (4.53%) ...
- Indonesia: $4.0 billion (3.28%) ...
- Cambodia: $3.8 billion (3.11%) ...
- Pakistan: $3.0 billion (2.46%)

Which country has the best textile industry?

China is literally at the top of the textile supply chain. It is the number one exporter of textiles in the world. A huge percentage of apparel and accessories are exported from China to numerous countries across the globe. China's export value was well over $250 billion in 2020 and it is still going strong. The reasons why China is one of the most preferred countries to import textiles from is because of the lower cost of production, availability of good quality raw materials, modern industrial infrastructures, and high-tech machinery.

China's textile industry offers a range of textile categories coveted by fashion brands. These categories are the production of cotton fabric, silk fabric, wool fabric, knitted fabrics, chemical

fabrics, printing and more. The total export volume of China's textile industry makes up over half of the global market.

https://fashinza.com/brands-and-retail/news/reasons-why-these-countries-rank-in-the-top-5-global-textile-leaders-list/

"We don't need to necessarily have a booming textile industry"

"We don't need to necessarily have a booming textile industry like where I grew up again, but we do want to have precision manufacturing and bring that back," Treasury Secretary Scott Bessent said in late April. [Bessent grew up in South Carolina.]

"Those comments drew sharp backlash from the American textile industry, which has withered in the face of rapid globalization and has sought greater trade protection from cheap Chinese fabric imports.

"It is concerning to hear that our industry, that pivoted to making lifesaving personal protective equipment during COVID, are not considered a strategic priority," said Kim Glas, president of the National Council of Textile Organizations.

FRAYING FROM GLOBALIZATION

"America's textile industry has experienced a drastic decline in the past 30 years in the face of the offshoring of garment production to Asia, Mexico and South America, and the rapid pace of automation. The sector, which employed about 1.5 million workers in the 1990s, now employs about 470,000.

"The industry points to China's state-sponsored subsidies and intellectual property theft as a key reason the U.S. textile industry fell behind.

"Textile manufacturers also blame trade liberalization policies such as the admission of China to the World Trade Organization and the normalization of trade relations with Vietnam in 2001 as factors that hampered the domestic industry.

"The United States is the world's second-largest exporter of textiles. But China — the world's largest textiles exporter — sells six times the amount of fibers, yarns and fabrics to customers globally. Over the past two years, 28 American textile plants have shuttered across the country, with several of them in the Carolinas. The United States trade representative attributes this to

China’s nonmarket practices that allow Chinese textile manufacturers to charge artificially low prices.

“Most of the textiles made in the United States are shipped to countries such as Mexico, Honduras and the Dominican Republic, where the fabric is cut and sewn into apparel and then sent back to the United States to retailers.

“Textile manufacturers have been generally supportive of the Trump administration’s trade agenda. But they have asked the administration to exempt textiles from the 10% universal tariff that has been applied to products coming from Central America. They also want even higher tariffs on Chinese fabric imports.

BOOMING BACKLASH

“Much of the U.S. textile industry is concentrated in the South, and the most vocal response to Bessent’s comments came from the treasury secretary’s home state, South Carolina.

“In May, a group of more than 30 textile manufacturers from the state sent Bessent a letter expressing dismay that he appeared to view the industry as “outdated and diminished.” They invited him to tour their high-tech facilities that used advanced robotics and artificial intelligence to mill cotton and perform quality control.

“At a congressional hearing last month, Bessent was pressed on his comments by Rep. William R. Timmons IV, R-S.C.

“The treasury secretary then clarified his comments, saying: “Through good tariff policy, we can make sure these existing businesses can grow and thrive, especially in the high end. And again, anyone who has survived has done it through innovation, hard work.”

“The Treasury Department declined to make Bessent available for an interview. The treasury secretary has yet to respond to the letters or invitations to visit the textile plants in South Carolina. A spokesperson for Bessent said he intended to travel to the state at some point. He is expected to meet with representatives from the textile industry in Washington next month.

A MODERNIZED SOUTH CAROLINA SECTOR

“Parkdale’s factory in Gaffney produces 1.7 million miles of yarn every day. Parts of the operation are run by fully automated robotic carts that are adorned with blue lights and zip across the factory floor moving bundles of cotton. The bundles are delivered to machines that

spin them into the materials that eventually go into products such as Hanes underwear and cotton swabs. “

“This is where I think he got misaligned a little bit,” Warlick said of Bessent, who grew up near Myrtle Beach and recently sold his home in Charleston for $18.25 million. “This is not the textile industry of your father or your grandfather.”

“The company, which has its headquarters in North Carolina, is one of the world’s largest producers of spun yarn and the largest consumer of cotton in the United States. It is working hard to develop innovations, including a way to make polyester fiber biodegradable, but has had to close several U.S. plants in recent years because of rising energy costs and competition from foreign companies.”

Andy “Warlick,“ quoted above, is the CEO of Parkdale Mills, a textile manufacturer with a large factory in South Carolina.

(From a *New York Times* report by Alan Rappeport, reprinted in the *East Bay Times*, July 7, 2025, pp. C7-C8)

<u>“We do want to have precision manufacturing and bring that back.”</u>

What did Treasury Secretary Bessent mean when he said,

“We don’t need to necessarily have a booming textile industry like where I grew up again, but we do want to have precision manufacturing and bring that back”?

Key aspects of "precision manufacturing" in this context include:

- **Advanced Technology:** Utilizing advanced machinery with digital controls, automation, sensors, and AI-driven systems to achieve high accuracy and efficiency in the production process.
- **High-Value Products:** Focusing on specialized, technical textiles and high-performance components used in sectors such as military and first-responder uniforms, medical devices (surgical gowns, wound dressings), automotive interiors, and industrial filtration.
- **Quality and Consistency:** Producing items with extremely tight tolerances and high consistency, where performance and reliability are critical and minor variations are unacceptable.
- **Innovation:** Emphasizing research and development (R&D) to create cutting-edge products and manufacturing processes.

- **Economic Security:** Viewing these specific manufacturing capabilities as strategically important for national security and resilience of critical supply chains, a lesson learned during the COVID-19 pandemic when the U.S. faced shortages of personal protective equipment (PPE).

Apparently, Bessent has not kept with the implementation of advanced technology, innovation, and quality control in American textile production. As Andy Warlick says, "This is where I think he got misaligned a little bit," Warlick said of Bessent, who grew up near Myrtle Beach and recently sold his home in Charleston for $18.25 million. "This is not the textile industry of your father or your grandfather." Also, American-made textiles been long been used for automotive interiors and industrial filtration.

But why should American textile and apparel makers concentrate on making military and first-responder uniforms and medical devices (surgical gowns, wound dressings) and miss out on the huge market for consumer apparel because it is not "high end," as Bessent put it?

Repeated from the section on apparel:
<u>Money spent on apparel is not "chump change."</u>

- The average American household spends an average of $162 per month on apparel ($1,945 per year). (May 23, 2025)
- The global apparel market is valued at $1.84 trillion in 2025, accounting for 1.63% of the world's GDP. The United States apparel market is the largest in the world, with a size of $365.70 billion. (Apparel Industry Statistics Highlights, May 23, 2025)
- The average American purchases 68 new items of clothing every year

<u>No CHIPS Act</u>
There is no CHIPS Act to revive American textile manufacturing. Meanwhile, 97% of purchases of textiles by American companies causes money to flow out of the United States to the manufacturing countries providing us with textiles and drives up our massive trade deficit (which underlies our massive national debt).

16. What will it take the U.S. to catch up with China in toy manufacturing? Should we try?

Americans spend a lot on toys, and 80% of their purchases are imported from China.

In 2024, U.S. retail sales of toys reached approximately **$28.3 billion to $42 billion**, depending on the scope of the market tracking. Despite a slight dip in 2023, the market remains over 25% higher than in 2019.

Key statistics regarding American toy spending:

- **Global Share:** Despite having only about 4.25% of the world's population, U.S. consumers purchase over 34% of the world's toys.
- **Average Spend Per Child:** In some demographics, such as urban families, the average annual spending on toys for children is roughly **$320**.
- **Adult Consumers ("Kidults"):** Adults are a rapidly growing market, spending over **$7 billion annually** on toys for themselves, such as collectibles, Legos, and dolls.

China's dominance of toys imported to the United States

About 80 percent of all toys sold in the US are manufactured in China.

American manufacturers **used to** make toys at a competitive price domestically.

In **1950**, what percentage of toys bought by Americans were made in the U.S.?

While an exact percentage for **1950** isn't readily available, the post-WWII era saw a **huge boom in U.S. toy production**, with American companies like Ideal (dolls) and A.C. Gilbert (science toys) dominating, suggesting a **very high percentage** of toys sold were domestically made, unlike today's market dominated by overseas manufacturing.

In **1960**, what percentage of toys bought by Americans were made in the U.S.?

In **1960**, the vast majority of toys bought by Americans were made in the United States. While an exact percentage for **1960** is not readily available, the era is characterized as a "golden age of toy manufacturing" where iconic US brands dominated the market.

Key points:

- **Domestic Dominance:** The post-WWII US toy industry was heavily concentrated, with major domestic manufacturers like **Louis Marx, the Lionel Corporation, and A.C. Gilbert** producing the bulk of toys.
- **Emerging Imports:** While the 1960s saw the beginning of a shift toward foreign manufacturing, imports were still limited. Reports from 1959–1960 show that while imported toy, doll, and game volume was rising, it was still a relatively new phenomenon, noted at roughly $40 million, whereas American brands were dominating the market.
- **Shift Later in the Decade:** The shift to foreign manufacturing, particularly in Asia, accelerated throughout the 1960s and accelerated rapidly in later decades.

In contrast to today, where roughly 80% of toys sold in the U.S. are made in China, in 1960, the reverse was true, with the overwhelming majority of toys being of domestic origin.

In **2025**, what percentage of toys bought by Americans were made in the U.S.?

In **2025**, only a tiny fraction, **less than 1%**, of toys sold in the U.S. were made domestically, with the rest imported, primarily from China (around 75-80%) and from countries such as Vietnam, India, and Indonesia. This occurred despite discussions about tariffs and increased U.S. manufacturing efforts. While the overall U.S. toy market grew in 2025, this growth was largely driven by licensed products and trading cards, with little change in domestic production, according to industry reports.

Key Figures & Trends in 2025:

- **Domestic Production:** Under 1% of toys sold in the U.S.
- **Chinese Imports:** Approximately 75-80% of toys originate from China.

- **Other Sources:** Vietnam, India, and Indonesia are also significant sources of imported toys.
- **Market Growth:** The U.S. toy market saw dollar sales increase in 2025, but this was not due to a surge in U.S.-made products.

Why the Low U.S. Percentage?

- **Cost Pressures:** Tariffs and global supply chain costs influence pricing, making offshore manufacturing often more economical.
- **Industry Reliance:** The toy industry has long relied heavily on Asian manufacturing for cost-effective production. Cost-effective production helps to grow profits and advance the careers of C-suite executives.

<u>Value added by labor in toy manufacturing flows to where labor is located.</u>

In the 1950s and 1960s, a **very high percentage** of toys sold were domestically made, and the value added by labor in the production of toys flowed to where labor was located: **in** the United States. In 2025, more than 99% of the toys sold in America were imported, predominantly from Asia, so the value added by labor in production flowed to where labor was located: **outside** the United States.

<u>99% of the money Americans spend on toys contributes to our massive trade deficit.</u>

In the 1950s and 1960s, a **very high percentage** of toys sold were domestically made, so Americans' purchases of toys did not contribute significantly to our massive trade deficit (which underlies our national debt).

In 2025, however, less than 1% of toys sold in America were made in America. The other 99% was made offshore, mainly in Asia. So, 99% of Americans' purchases of toys contributed to our trade deficit. In 2024, U.S. retail sales of toys reached approximately **$28.3 billion to $42 billion**. So, our 2024 trade deficit grew by approximately **$28.0 billion to $41.6 billion**. Our trade deficit for **goods** in 2024 was $1.2117 trillion. About 70% of this deficit was for **consumer** goods of which toys imports were a significant part.

Why is China the leading source of U.S. toy imports?

American toys are largely made in China due to China's established manufacturing infrastructure, skilled labor force, robust supply chain, and competitive production costs, which

combined make it difficult and expensive for U.S. companies to mass-produce toys domestically. While government regulations in the U.S. also add complexity and cost to domestic manufacturing, the fundamental economic advantages of China's manufacturing ecosystem have driven the shift overseas for decades.

Economic Factors:

- **Low Labor Costs:** China offers significantly lower labor costs compared to the United States, making it more affordable for companies to manufacture toys there.
- **Cost-Effectiveness:** The combination of low labor costs and an extensive manufacturing infrastructure makes Chinese-made toys more affordable for consumers.
- **Supply Chain Advantages:** China has a well-developed and integrated supply chain, which includes access to necessary raw materials and components, streamlining the production process.

Manufacturing Infrastructure and Expertise:

- **Established Ecosystem:** China has built a comprehensive and efficient manufacturing ecosystem for toys over many years, which is hard to replicate quickly in the U.S.
- **Skilled Workforce:** The country has accumulated extensive expertise and a highly skilled workforce specifically for toy production, a level of craftsmanship that is difficult to build from scratch.

<u>No CHIPS Act</u>

There is no CHIPS Act to revive domestic toy manufacturing. Meanwhile, over 99% of purchases of toys by Americans causes money to flow out of the United States to the manufacturing countries providing us with toys and drives up our massive trade deficit (which underlies our national debt).

The following report from the *New York Times* provides real-world examples of how American toy retailers, big and small, are dealing with tariffs of up to 145% as the Christmas season approaches that President Trump has threatened to impose on China's exports of toys to the United States.

"Retailers fear tariffs will affect Christmas toy sales
"Manufacturers, stores already pausing orders"

By Daisuke Wakabayashi THE NEW YORK TIMES

SEOUL, South Korea — “President Donald Trump’s China tariffs are threatening Christmas.

“Toy makers, children’s shops and specialty retailers are pausing orders for the winter holidays as the import taxes cascade through supply chains. Factories in China produce nearly 80% of all toys and 90% of Christmas goods sold in the United States.

“The production of toys, Christmas trees and decorations is usually in full swing by now. It takes four to five months to manufacture, package and ship products to the United States.

“Trump’s 145% tariffs have caused a drastic markup in costs for American companies. Most of the entrepreneurs who have shared their plans with The New York Times have not yet canceled their orders. They hope the president will back away from the tariff brinkmanship.

“But the alarm in the industry is palpable, with the companies predicting product short ages and higher prices. Some business owners, citing how crucial holiday sales are to their bottom lines, are consulting bankruptcy lawyers.

“We have a frozen supply chain that is putting Christ mas atrisk,” said Greg Ahearn, CEO of the Toy Association, a U.S. industry group representing 850 toy manufacturers. “If we don’t start production soon, there’s a high probability of a toy shortage this holiday season.”

“For America’s Christmas industry, Chinese manufacturing is unmatched in its production speed and capability. Toy makers overhaul large portions of their product lines every year to adapt to the changing preferences of children. From materials to machinery, China’s factories are one-stop shops for importers.

“Kara Dyer, founder of Storytime Toys, a maker of children’s books with playset puzzles, usually places a big holiday order with her Chinese factory in the first two weeks of April to have enough inventory by mid-July. The Christ mas holidays account for about two-thirds of her annual revenue.

“Dyer placed a small order of $30,000 worth of products before the latest tariffs, never expecting they would surge to such high levels. That shipment is en route to the United States. When it arrives, she said, she expects to owe $45,000 in tariffs. The shipment will provide the company with enough inventory for a few months, and she said she would probably raise prices at least 20% to cover the tariff costs. But she is waiting to make a big holiday purchase.

“I’m going to hold out hope for another two weeks that the tariffs will be removed and I’ll be able to place the order,” she said. “But if not, I will have to put my business on pause. I will definitely not place an order if the tariffs are in effect. It wouldn’t make any sense.”

“In a Toy Association survey of 410 toy manufacturers with annual sales of less than $100 million, more than 60% said they had canceled orders, and about 50% said they would go out of business within weeks or months if the tariffs remained.

“At West Side Kids in New York City, the shop’s owner, Jennifer Bergman, 58, is concerned that she may not have any toys to sell at Christ mas. And the toys she can get her hands on could cost twice what they did last year, which would crimp her sales during the most important time of the year.

“Toy companies are marking up prices 10% to 20%, said Bergman, whose mother opened the store 43 years ago. She said that she would try to buy as much as she could now, but that the shortages were starting. She had placed a large order of scooters to arrive for the summer. But the importer rerouted the shipment to Canada because it did not want to pay the tariff. She was told that she would get only a portion of her order.

“If the tariffs remain, Christmas will be like “something we’ve never experienced before,” Bergman said. People will be standing in line to buy things that cost twice or three times as much as before, she said. Her business was already under pressure from competition by Amazon, but she fears that the tariffs will deliver a final blow.

“I don’t think I will be in business for Christmas,” said Bergman, who added that she was consulting a bankruptcy lawyer.

“Nick Mowbray and his brother, Mat, founded Zuru Group in China, making an assortment of plastic dart “blasters,” water balloon accessories and bubble guns that are sold at Walmart and Target. He said retailers were not placing holiday orders. Zuru has cut its marketing budget for the holiday season in half, to $60 million, because it expects to be selling fewer products.

“Mowbray, a native of New Zealand, said everything was in “a holding pattern.” If tariffs remain at 145%, he expects prices for consumers to increase from 50% to 100%.

“That will be unaffordable for a lot of families,” he said.

“Trump has in recent days struck a conciliatory tone toward China and the tariffs, fueling some

hope among business owners that he may exempt industries that do not pose a national security threat.

"Ahearn said he was in Washington last week to lobby for a 24-month reprieve, which could give companies time to find ways to make their products in the United States.

"But even if Trump grants importers temporary relief, significant disruptions will occur as companies rush to fulfill orders. Shipping costs are expected to surge, simi lar to the frenzy during the COVID pandemic, when a shortage of shipping containers led in some cases to a tenfold increase in freight prices.

"Christmas is the busiest time of year for Aldik Home, a home goods store in Los Angeles. It generates more than two-thirds of its annual sales in the final three months of the year, selling artificial Christmas trees, wreaths, ornaments, lights and other decorations.

"Larry Gold, the store's owner, said he had worked with a Chinese factory for many years to design Christmas trees. He places the order in January for shipment in June or July. This year, he planned to send seven 40-foot containers from China loaded with $600,000 worth of trees. The current tariff would require him to pay nearly $1 million at once.

"Right now, we've asked them to hold up and wait," Gold, 72, said.
(From a New York Times report by Daisuke Wakabayashi, reprinted in the East Bay Times, May 1, 2025, pp. C9-C10)

17. What will it take the U.S. to catch up with China in fireworks manufacturing? Should we try? The Trump Administration says "no," although President Trump is a fan of big fireworks displays.

Fireworks are a $2.2 billion industry in the United States, and about 99% of the fireworks are imported from China.

In 2025, consumer fireworks sales in the United States continued at a high level, with reports indicating they maintained the **$2.2 billion** in revenue recorded in 2024. Approximately **99% of fireworks** bought by Americans were manufactured in China

American manufacturers **used to** make fireworks at a competitive price domestically.

In **1950**, what percentage of fireworks bought by Americans were made in the U.S.?

The exact percentage for **1950** is not readily available, but the vast majority of fireworks used in the United States in **1950** were made by domestic companies, many based in the Midwest, such as Ohio and Pennsylvania. The shift to importing nearly all fireworks from China did not begin until the 1960s and 1970s. Today approximately 99% of consumer fireworks are imported from China.

In **1960**, what percentage of fireworks bought by Americans were made in the U.S.?

The **1960s** marked the beginning of a significant shift in manufacturing away from the United States. The exact percentage for **1960** is not readily available, but prior to the **1960s**, a substantial percentage of fireworks were produced in the Midwest by U.S. companies. However, a shift had begun, and the importation of fireworks from China began growing and growing "from the 1960s on," says John Rogers of the American Fireworks Standards Laboratory. In stark contrast to today, where **98-99%** of consumer fireworks are imported from China, in **1960**, a much higher—but rapidly shrinking—percentage was still produced within the United States.

In **2000**, what percentage of fireworks bought by Americans were made in the U.S.?

In **2000**, roughly **90 percent** of the fireworks used in the United States were imported from China, meaning only about **10 percent** or less were made in the U.S.

- **Import Dependency:** Data from around 2000 indicated that China was already the dominant source of fireworks for the U.S. market, with imports of "C class" (consumer) fireworks reaching over $100 million in that year.
- **Domestic Production vs. Consumption:** In 2000, total fireworks consumption was approximately 152.2 million pounds, with the vast majority being imported consumer fireworks. Domestic production was very low in comparison.
- **Context:** By 2018, that reliance grew even further, with China accounting for 90% of imports. By the 2020s, it is estimated that 99% of consumer fireworks are made in China.

In **2025**, what percentage of fireworks bought by Americans were made in the U.S.?

In 2025, approximately **99% of consumer fireworks** bought by Americans were manufactured in China, meaning less than 1% of consumer fireworks were made in the United States.

Key details regarding the 2025 US fireworks market:

- **Import Reliance:** According to the American Pyrotechnics Association (APA), China remains the primary source for backyard fireworks (99%) and a significant majority of professional display fireworks (90%).
- **Manufacturing Capability:** The U.S. has almost no domestic manufacturing capabilities for consumer fireworks due to high labor costs and strict regulations.
- **Tariff Impacts:** In 2025, 1.4G consumer fireworks faced high tariffs on Chinese imports, but they remained the sole source for the vast majority of the market.
- **Market Data:** Despite trade tensions, nearly 95% to 96% of total U.S. fireworks imports by value originated from China during the 2024-2025 period.

Value added by labor in fireworks manufacturing flows to where labor is located.

In the 1950s and into the 1960s, a very high percentage of fireworks sold in the United States were domestically made, and the value added by labor in the production of fireworks flowed to where labor was located: **in the United States**. In 2025, more than 99% of the fireworks sold in America were imported from China, so the value added by labor in production flowed to where labor was located: **China.**

99% of the money Americans spend on fireworks contributes to our massive trade deficit.

In the 1950s and into the 1960, a **very high percentage** of fireworks sold were domestically made, so Americans' purchases of fireworks did not contribute significantly to our massive trade deficit (which underlies our national debt).

In 2025, however, less than 1% of fireworks sold in America were made in America. The other 99% was made in China. So, 99% of Americans' purchases of fireworks contributed to our trade deficit. So, our 2024 and 2025 trade deficit grew by **2.2 billion**. Our trade deficit for **goods** in

2024 was $1.2117 trillion. About 70% of this deficit was for **consumer** goods of which fireworks imports were a small, but significant part.

No CHIPS Act

There is no CHIPS Act to revive domestic fireworks manufacturing. Meanwhile, over 99% of purchases of fireworks by Americans causes money to flow out of the United States to the manufacturing countries providing us with fireworks and drives up our massive trade deficit (which underlies our national debt).

Why is China the leading source of U.S. fireworks imports?

China dominates U.S. fireworks imports due to its historical expertise, established infrastructure, lower labor costs, and massive production capacity, making it difficult for other nations or the U.S. to compete, with nearly all consumer and much of professional fireworks originating from Chinese facilities in cities like Liuyang.

Key Reasons for China's Dominance:

- **Historical Roots:** Fireworks originated in China over 2,000 years ago, giving them a deep-seated advantage in knowledge and techniques.
- **Manufacturing Hub:** China, particularly the city of Liuyang, has developed specialized facilities, machinery, and a vast workforce dedicated to pyrotechnics, creating an unmatched supply chain.
- **Lower Costs:** Cheaper labor and established production lines significantly lower manufacturing costs compared to potential domestic production or other countries.
- **Scale & Volume:** China's ability to produce fireworks in enormous volumes is unmatched globally, with estimates suggesting 90% of the world's fireworks come from China.
- **Logistical Control:** A few key logistics companies, like those controlled by Ding Yan Zhong, manage much of the shipping from China to the U.S., further consolidating the supply chain and creating near-monopolies on transportation, according to FreightWaves and Los Angeles Times.

The following report from the *New York Times* provides real-world examples of how American fireworks purchasers are dealing with tariffs of 30% that President Trump imposed on China’s

exports of fireworks to the United States in May 2025 after threatening to impose tariffs of 145%.

How Trump's China tariffs are hurting fireworks shows

99% of supplies are imported; '26 is bigger concern

By Alan Rappeport

THE NEW YORK TIMES

"WASHINGTON – President Donald Trump may soon have to decide between his love of tariffs and his affection for fireworks.

"The Trump administration's trade policies have set off a frenzy of lobbying for exemptions, with industries across the economy raising alarm about how tariffs would crush their companies, raise prices for consumers and lead to shortages of products.

"But as the July Fourth holiday approaches, the pyrotechnics sector, which is heavily reliant on imports from China, has been increasingly loud about its concerns. The higher prices are already straining the mom-and-pop fireworks shops that dot roadsides across rural America, and the budgets of cities and towns that put on splashy displays could soon be further stretched.

"But the bigger fear is 2026, as industry representatives warn that many of the festivities that are in the works to celebrate the nation's 250th birthday could be diminished or even go dark.

"It's really the next year that's worrying us with the manufacturing and what tariffs will do," said Stacy Schneitter-Blake, the president of the National Fire works Association and co-owner of Schneitter Fireworks & Importing in Missouri.

"Fireworks are a $2 billion industry in the United States, and about 99% of the fireworks that light up the skies across America come from China. The Trump administration raised tariffs on Chinese imports as high as 145% this year, before lowering them to 30% in May when the two countries reached a temporary truce.

"The uncertainty surrounding the levies has led some importers to try to stock up on fireworks before potentially higher tariffs and others to scale back their purchases Because they can no longer afford the markup. It has also led to backlogs in China and supply chain gridlock, with some cargo carrying fireworks to the United States being routed back to Chinese warehouses because orders were canceled.

“Fireworks have bipartisan appeal, so those in the industry had been hopeful that their products would receive special treatment.

“When the United States and China were in a trade war in 2019, during the first Trump administration, Trump exempted fireworks from the tariffs. As the Trump administration looks to negotiate trade deals with China and other countries this year, it has been reluctant to give up negotiating leverage by watering down tariffs with exemptions.

“Fears over the fate of the fireworks industry have spurred an aggressive lobbying campaign. The National Fireworks Association and the American Pyrotechnics Association have been pressuring the Trump administration and Republicans in Congress to give them relief from tariffs by making the case that fireworks are a symbol of American patriotism that should not be taxed.

“John Adams envisioned that America’s independence should be commemorated with ‘pomp and parade, with shows, games, sports, guns, bells, bonfires and illuminations,’” the lobbying groups wrote to Trump in April. “An exemption for fireworks will allow businesses to continue with their plans to have enough affordable inventory for Americans to participate in and enjoy this historic occasion.”

“Rudimentary fireworks are relatively simple to make, but those used in big public shows can be complicated and dangerous. Strict regulations over the handling of chemicals and explosives have made the production of fireworks in the United States difficult.

“According to the National Fireworks Association, 16,000 containers of fireworks were imported to the United States in 2022 and 2023, and fewer than 100 were sourced from outside of China.

“Insurance for fireworks manufacturing in the United States is generally not avail able because of how dangerous they are to make.

“In June, nine people died and more than 20 were injured from an explosion at a fireworks factory in China.

“Although fireworks are popular, they are not big moneymakers. Fireworks shows can cost anywhere from $3,000 to $250,000.

“The industry’s profit margins are small, making it difficult for importers and retailers to absorb 30% tariff rates.

“Fireworks are a luxury when the cost of fireworks becomes so great, the end user can no longer afford to purchase them the way they have in they past,” said AJ Burns, a sales manager at North Central Industries, an Indiana company that distributes Great Grizzly Fireworks. “If they get more expensive, fireworks will go by the wayside.”

“Burns said that he had been looking into importing fireworks from Cambodia and Brazil, but so far, they do not have the manufacturing infrastructure in place to meet U.S. demand and safety requirements. He said that fireworks are about celebrating freedom and independence and argued that they should not be subject to tariffs.

“Like many Americans, Trump has also long been a fan of big fireworks displays.

“At the 2020 Republican National Convention, which was held in Washington, D.C., his name was written in fireworks in the sky. (It caused more than $40,000 in damage to the national mall.)

“Last month, Trump admired a fireworks display at a military parade that also fell on his 79th birthday.

“Despite Trump’s appreciation for fireworks, the White House has little sympathy for the predicament facing the industry.

“Real prosperity and patriotism isn’t celebrating the independence of our country with cheap foreign made firecrackers and trinkets — it’s having a country with booming Main Streets, a thriving working class and robust manufacturing,” said Kush Desai, a White House spokesperson.
(From a *New York Times* report by Alan Rappeport, reprinted in the *East Bay Times*, July 4, 2025, pp. C7-C8).

18. Social & Business Characteristics-United States and China

DIVERSITY:

The United States is more racially diverse than China.

Key Racial/Ethnic Groups (Approximate Percentages for United States in 2024/2025):

- White (non-Hispanic): ~58% - 63%

- Hispanic/Latino (of any race): ~19% - 20% (Largest ethnic minority)
- Black/African American: ~12% - 13%
- Asian: ~6%
- Two or More Races/Multiracial: ~10.7% (Fastest growing group)
- American Indian/Alaska Native: ~1.1%
- Native Hawaiian/Other Pacific Islander: ~0.2%

The Han Chinese dominate China's demographics.

The Han Chinese are the largest ethnic group in China, comprising approximately 91.1% to 92% of the China's total population. This means that out of the 1.4 billion people living in China, over 1.2 billion are Han Chinese. The sheer size of the Han Chinese population makes them a dominant force in Chinese society, politics, and culture. Han Chinese predominate in China's industrial centers and urban areas. They have historically been the main inhabitants of the fertile lowland areas and cities of southern China.

55 official ethnic minorities in China

Based on the 2020 Chinese census data, 8.89% of China's population belongs to one of China's 55 official ethnic minority groups, many of whom possess distinct linguistic and cultural characteristics. However, only a small subset of these 55 ethnic groups look physically different from the Han Chinese. The vast majority of Chinese ethnic minorities are ethnically similar to the Han, sharing genetic and physical characteristics. Historical interactions and cultural exchanges have led to significant intermingling over centuries. In general, most of China's ethnic minorities are of Mongoloid stock, so while cultural differences can be significant, their physical appearance often does not differ drastically enough from the Han Chinese to be easily distinguishable in modern clothing without specific ethnic attire or context.

Analogous to the Amish in the United States

Most of China's 55 minority ethnic groups are analogous to the Amish in the United States, ethnically distinct in American culture but physically like the average white American.

The Amish are an American ethnoreligious group, primarily of Swiss-German ethnicity with a specific religious faith (Anabaptist Christianity). They have a unique cultural identity marked by shared history, language (Pennsylvania Dutch, (Pennsilfaanisch Deitsch)), traditions, and

community separation. They maintain their identity through cultural boundaries, plain dress, limited technology, and specific lifestyle practices that distinguish them from mainstream society.

English as a Second Language: Most Amish are bilingual, speaking English for business, schooling, and interaction with non-Amish people (whom they call "the English").

Despite centuries of geographic and genetic isolation, the Amish look like the average American white person of European descent, particularly those with Central European ancestry.

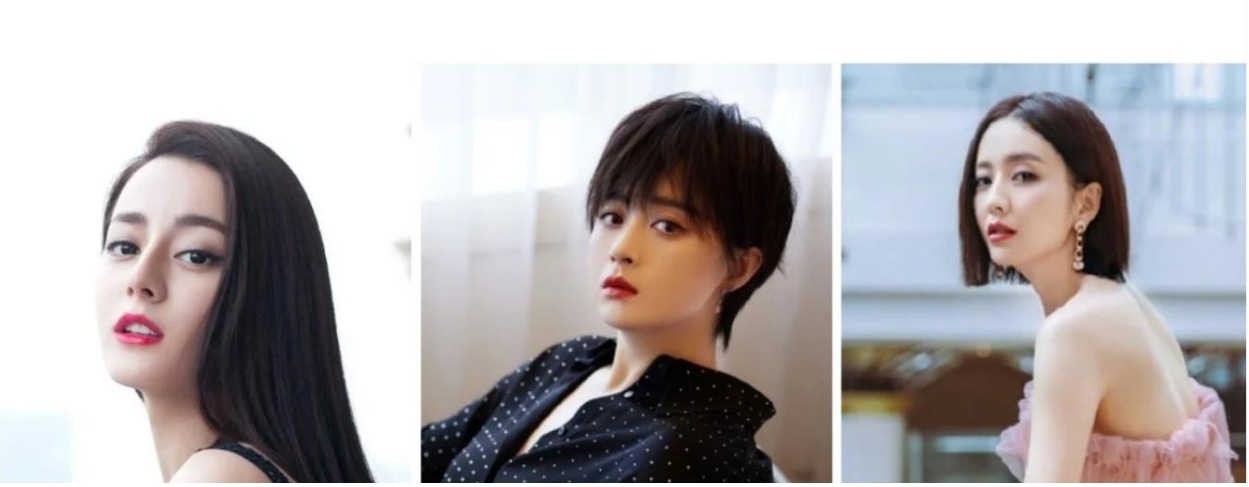
Ethnic minorities in China who look distinctly physically distinct from the Han Chinese.

The ethnic minorities in China who look distinctly physically different from the Han Chinese majority are primarily those of **Indo-European (Caucasian) or Central Asian Turkic origin**, or certain groups with distinct Southeast Asian or high-altitude adaptations.

Key groups include:

- **Uyghurs** and **Kazakhs** (Turkic peoples) have Central Asian features, which typically include a mix of East Asian and European traits, such as lighter eyes and different facial structures, making them notably distinct from the general East Asian appearance of the Han Chinese.
- **Tajiks** (Pamiri people) are an Iranian-speaking ethnic group living in the far west of China (Pamir Mountains). They are considered the only native Caucasian ethnic group in China and have physical traits that are distinctly non-East Asian.
- **Russians** and **Tatars** are also officially recognized minorities with distinctly European physical features.
- **Tibetans** may have different features and skin tones compared to many Han due to adaptation to high altitudes and greater sun exposure, though the difference might be less pronounced than the groups mentioned above and can vary. (China officially acquired Tibet in October 1951 following the Chinese invasion in 1950.)

Uyghur actresses who have found mainstream success in China



There is a perception among some Chinese, but not all, that Uyghurs, an ethnic minority group predominantly residing in the Xinjiang region, possess unique and attractive physical features. The perception of Uyghurs as beautiful can be attributed to their distinct physical characteristics, which often combine traits from both Asian and European ancestry. Uyghurs may have features such as striking eyebrows, big and expressive eyes, and a mix of Asian and European facial features.

Most Uyghurs live in the Xinjiang Uygur Autonomous Region is in northwest China, which borders eight countries (Mongolia, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Afghanistan, Pakistan, and India) and serves as a major junction of Central and East Asia. It was historically part of the Silk Road, known for its diverse Muslim populations, vast deserts, mountains, and significant natural resources like oil and cotton.

China's rapid industrialization has led its ethnic minorities to move to industrial centers.

China's ethnic minorities have historically been concentrated in traditional rural and frontier areas. But China's rapid and successful industrialization has led many ethnic minorities to leave agricultural or pastoral livelihoods for urban jobs in various industries, including in Shandong province and the Pearl River Delta. Han Chinese predominate in China's industrial areas, and China's ethnic minorities who have migrated to these areas have needed to adopt the dominant Han culture, including the Mandarin language. The result has been that these ethnic minorities who look like Han Chinese become culturally Han Chinese.

The percentage of Han Chinese in China is effectively higher than 91.1% to 92%.

As noted above, except for a few of China's ethnic minorities (such as the Uyghurs), most look

physically like Han Chinese. As they migrate from their ancestral lands to China's urban centers for employment, they tend to adopt the dominant Han culture. So, they become Han, physical and culturally. So, the percentage of Chinese who are Han Chinese rises from **92% to 96% or possibly 98%**.

Does China's relative racial homogeneity put it at a competitive disadvantage against the racially diverse United States?

Creativity: Some people contend that racially diverse countries like the United States foster more creativity than relatively racially homogeneous countries like China.

Research does **not** support the claim that the Chinese are inherently "less creative" than Americans due to a lack of racial diversity.

Intelligence: Some people believe that racially diverse countries like the United States enhance human intelligence because they combine the intelligence attributes of diverse racial groups (synergy).

Scientific evidence does **not** support the claim that the Chinese are less intelligent than Americans because they are less diverse. In fact, studies on cognitive ability and academic performance often show the opposite.

- **Average IQ Rankings:** Numerous studies and datasets indicate that populations in East Asia (including China, Japan, and South Korea) generally have higher average IQ scores (often reported in the 104–108 range) compared to the United States (often reported around 98–100).
- **Academic Performance:** In international comparisons like the PISA (Programme for International Student Assessment) tests, 15-year-old students from China (specifically cities like Shanghai) have consistently ranked at or near the top in mathematics, science, and reading, outperforming their American peers.

EDUCATION:

What percentage of American high school graduates go on to college?

Around **45% to 50%** of American high school graduates immediately enroll in four-year colleges, though overall college enrollment (including two-year schools) for recent grads is higher, around **60-62%**.

What percentage of Chinese high school graduates go on to college?

China has seen a significant increase in the number of high school graduates since the 1980s, with over 60% of them now attending a university.

What percentage of American college students graduate?

About two-thirds (around 60-70%) of U.S. students starting at four-year colleges graduate within six years. (The official six-year graduation rate is used as a standard metric because American students often take longer than four years to get a bachelor's degree.)

What percentage of Chinese college students graduate?

A 2013 study indicated an average college graduation rate of 97.3% in China, with some universities even achieving 100%

What are the top majors for recent college graduates in the United States?

The most popular college majors for recent graduates in the U.S. are Business, Health Professions, and Social Sciences*, with these fields accounting for a significant portion of all bachelor's degrees conferred. Other highly popular majors include Biological/Biomedical Sciences, Psychology, and Engineering.

* Social Sciences encompass majors studying human behavior and societies, including core fields like Psychology, Sociology, Anthropology, Economics, Political Science, and Geography, alongside related disciplines such as History, Linguistics, Criminology, International Relations, Communication Studies, and Public Policy, all exploring human interaction, cultures, and social structures.

What are the top majors for recent college graduates in China?

Top majors for recent college graduates in China often align with national industrial and tech development, leading to high demand for engineering (especially computer, electrical, and

mechanical), computer science, finance, financial engineering, and programs related to artificial intelligence.

LITIGATION:

The United States is more litigious than China.

(Litigious describes someone or something prone to lawsuits, overly eager to take legal action, or relating to legal disputes; it implies being argumentative or contentious, often excessively so, as in a "litigious society" or a "litigious person" who readily sues others.

The United States has a higher, more active, and more costly litigation culture compared to China, particularly in terms of business disputes and high damages.

Here is a detailed breakdown comparing the two:

Litigation in the United States

- **High Costs and Damages:** The U.S. has the highest liability costs as a percentage of GDP compared to other surveyed countries, with costs 2.6 times higher than the Eurozone average.
- **Lawsuit Volume:** Approximately 40 million lawsuits are filed annually in the U.S.
- **Per Capita Rate:** The U.S. ranks around 5th globally for lawsuits per capita, with about 74.5 lawsuits per 1,000 people.
- **Key Drivers:** The U.S. legal system is characterized by "nuclear verdicts" (verdicts surpassing $10 million) and a very high number of lawyers per capita.
- **Culture:** Litigation is considered a routine part of business, with minimal barriers to filing a suit.

Litigation in China

- **Different Legal Culture:** In China, litigation is less common in business, often seen as a last resort due to potential reputational damage in a smaller business circle.
- **Lower Damages:** While Chinese courts handle cases, monetary damages awarded are generally much lower than in the U.S.

- **Faster Process:** Chinese courts operate under strict, shorter statutory time limits, with first-instance cases often completed within six months.
- **Government Control:** Chinese courts are subject to party policy, which influences how cases are handled and, in some cases, can create higher uncertainty, making parties less likely to seek legal action.

Comparison of Key Differences

- **Culture:** US business culture views litigation as routine, while Chinese culture tends to prioritize settlement to avoid damaging business relationships.
- **Judgments:** Enforcing U.S. judgments in China is often difficult due to the lack of an enforcement treaty, requiring new lawsuits to be filed in China.
- **Efficiency:** Despite common myths, the Chinese legal system is not necessarily a "time-consuming nightmare," and in some cases, the World Bank ranks China higher than the U.S. in contract enforcement.

Conclusion:

While China has a high number of cases in absolute terms due to its population size, the **United States is considered more litigious** in terms of the cost, frequency, and intensity of lawsuits, particularly in business and civil matters.

The United States has 7.5 (750%) times the number of lawyers per capita as China (2024 data).

United States	
Lawyers in US in 2024:	1,322,649
Population of the U.S. in 2024:	340,110,000
Lawyers: U.S. per 100,000 people	38.9
China	
Lawyers in China in 2024:	731,637
Population of the China in 2024:	1,419,321,278
Lawyers: China per 100,000 people	5.2

The United States has 7.5 times (750%) the number of lawyers per capita as China (2024 data).

Lawyers per 100,000 people, 2024: U.S./China ratio 38.9 / 5.2 = 7.5 (750%)

Dealing with the volume of business lawsuits in the United States is costly and diverts businesses from their core functions.

However, it is not only business that are impacted. The public sector is also impacted.
From a report by Chase Hunter in the *East Bay Times*, November 24, 2025, pp. A1, A6:

ALAMEDA COUNTY. Residents pay for aggressive legal posture.

Strategy has resulted in millions of dollars in attorney, settlement fees.

"A hawkish litigation strategy in Alameda County has led to costly courtroom battles, wracked up millions of dollars in attorneys' fees and incurred multimillion-dollar settlements for which taxpayers have footed the bill, according to numerous lawyers who've sued the county."

Lawsuits regarding racism and discrimination in the workplace are common in the United States, but not in China.

China: Lawsuits regarding racism and discrimination in the workplace are not common in China. Few Chinese companies incur the cost of these lawsuits, and more of their time and energy can be directed to their core business functions.

United States: Lawsuits regarding racism and discrimination in the workplace are common in the United States. The Equal Employment Opportunity Commission (EEOC) has filed numerous cases, and recent trends indicate a significant increase in workplace discrimination cases. In 2023, the EEOC filed 143 merit lawsuits against employers, a 50% rise from fiscal year 2022. Of these, 98 cases were resolved, resulting in $22,609,162 in monetary relief for affected individuals. The rise in discrimination cases reflects a growing concern and a more active enforcement of laws against workplace discrimination.

American companies – on a per-capita basis – incur more costs from racism and discrimination lawsuits in the workplace than Chinese companies, and dealing with them diverts more of their

time and energy from their core business functions compared to Chinese companies. This is a competitive advantage for China.

Some recent examples from Northern California:

- "**Google to pay $50M to settle case**." "Google will pay $50 million to settle a class-action suit accusing it of paying black workers less."
  (From an *East Bay Times* report by Chase Hunter, May 15, 2025, p. B1)

- "**Google will pay $28 million to settle worker suit**." "More than 6,000 current and former Latino, Indigenous and Pacific islander employees of Google will receive about $3,000 each from the company after it settled a class-action lawsuit claiming it paid White and Asian workers more."
  (From an *East Bay Times* report by Ethan Baron, March 20, 2025, pp. C9-C10)

- "**4 current and former Black SMUD workers win $6.2M jury verdict in racial discrimination case**." "Sacramento Superior Court jurors ruled last week that SMUD management blocked the career advancement of four Black plaintiffs and awarded the workers roughly $6.2 million in their racial discrimination lawsuit."
  (From a *Sacramento Bee* report by Cathie Anderson reprinted in the *East Bay Times*, November 16, 2024, p. B3)

- **"Tesla settles in race bias lawsuit."** "Tesla has settled a lawsuit by a worker in its Fremont electric car factory who claimed she has harassed and discriminated against because she is Black." (From an *East Bay Times* report by Ethan Baron, April 22, 2025, pp. B1-B2)

- **"Tesla facing new racism lawsuit."** "Electric car maker Tesla, facing lawsuits over what two judges found to be pervasive, anti-Black racism at its Fremont factory, ousted human resources managers who validated complaints of discrimination and retaliation, a lawsuit claims." (From an *East Bay Times* report by Ethan Baron, August 12, 2025, pp. B1, B3)

American companies – on a per-capita basis – incur more costs from racism and discrimination lawsuits in the workplace than Chinese companies, and dealing with them diverts more of their time and energy from their core business functions compared to Chinese companies. This is a competitive advantage for China.

IMMIGRATION:

- The United States. has a long history of mass immigration, with about 15% of its population being foreign-born, while China's foreign-born population is less than 1%, making it one of the least immigrant-heavy major countries globally.
- China's migration is largely temporary (students, skilled workers, business visitors), whereas the U.S. has large, established immigrant communities and systems for permanent residency.
- **Policies:** China's policies focus more on controlling and managing foreign presence for development rather than open settlement,

SOCIAL STABILITY:

Why is social stability important to the United States? **The United States needs to borrow a lot of money** from foreign nations and investors to finance our chronic and massive trade deficit. The United States has spent more than we earn in international trade (i.e., run trade deficits) for 50 consecutive years. For example,

2024: **The United States**' total trade **deficit** for goods and services in 2024 was a record **$918.4 billion**, a significant increase from the previous year, driven primarily by a larger deficit in goods, which alone reached $1.21 trillion.

2024: **China**'s trade **surplus** for the full year 2024 was approximately **$992 billion to $993 billion**, a record at the time, with projections and preliminary reports for 2025 showing it then surpassed $1 trillion, reaching around $1.19 trillion to $1.2 trillion.

Since we as a nation spend more than we earn, we have **two basic options** to try to maintain our standard of living:

1. Option 1: Try to find lenders who will continue loaning us money to so we can maintain our standard of living.

2. Option 2: Try to reduce the amount by which we overspend, i.e., spend more than we earn.

   The U.S. has been able to continue spending much more than we earn in international trade **by using mainly Option 1**: We borrow from foreign nations and investors by selling them **U.S Treasuries** and then use what they pay us for our Treasuries to finance our trade deficit. (The total value of U.S. Treasuries outstanding was around **$38.45 trillion**, as of mid-January 2026.)

   U.S. Treasuries are debt securities issued by the U.S. Department of the Treasury to finance government spending, essentially functioning as loans from investors to the government, promising repayment with interest. They have been considered among the safest investments globally due to being backed by the "full faith and credit" of the U.S. government. They provide regular interest payments (except for T-bills, which are zero-coupon) and are highly liquid, making them a staple for investors seeking stability and income.

   <u>How much interest does the U.S. government pay</u>
   <u>on U.S. Treasuries it has sold to borrow money?</u>

   The U.S. government pays varying interest rates on Treasuries, with rates fluctuating based on maturity (short-term bills vs. long-term bonds) and market conditions, but recent figures show yields around 3.5% to over 4%, with the total interest paid on the national debt reaching over $880 billion annually in 2024 and on track to exceed $1 trillion soon, influencing federal budget priorities.

The average American may be shocked to learn that the United States has managed to maintain our standard of living, despite more than 30 years of spending more than we earn, only by

- borrowing heavily (i.e., selling U.S. Treasuries. The total value of U.S. Treasuries outstanding was around **$38.45 trillion**, as of mid-January 2026.)
- making heavy interest payments ($880 billion annually in 2024)

"Kicking the can down the road"

"Kicking the can down the road" is what our elected government representatives have been doing as they put off dealing with our national debt problem and our related diminished economic competitiveness problem, hoping they will resolve themselves or someone else will deal with them later, rather than confronting them now. Instead, they focus on flashy, headline-grabbing events like the Jeffrey Epstein probe or impeachment trials. (The stars of impeachment hearings may see their political careers advance, e.g., U.S. Senator Adam Schiff of California.)

In my home state, Governor Gavin Newsom of California has been accused of **"kicking the can down the road."** In 2024 and early 2026, California Governor Gavin Newsom faced accusations from lawmakers, watchdogs, and industry groups of "kicking the can down the road" regarding the state's significant fiscal, environmental, and infrastructure challenges. Critics argue that rather than implementing permanent, long-term solutions, his administration has used accounting gimmicks, budget reserves, and spending delays to manage recurring deficits and crises.

Using Option 1 (from above): Try to keep borrowing to maintain our standard of living.

The total value of U.S. Treasuries outstanding was around **$38.45 trillion**, as of mid-January 2026. China is the third largest holder of US Treasuries outside the United States. However, its holdings have declined by more than 10 percent since the beginning of 2025 (source: Reuters). China's holdings of U.S. Treasuries fell to US$688.7 billion in October 2025, down from US$700.5 billion in September 2025.

Debt-trap diplomacy

Some foreign investors continue to extend credit to the United States, a debtor nation, despite its chronic trade deficits, primarily due to debt-trap diplomacy and the U.S. dollar's status as the world's primary reserve currency. Debt-trap diplomacy refers to creditor nations extending excessive credit to debtor nations, e.g., the United States, often to leverage political leverage or extract concessions when the debtor becomes unable to repay.

Countries and investors who loan us money
want their loans to be safe in a politically stable country.

Foreign countries and investors have been willing to loan us money to finance our massive trade deficit (i.e., they buy Treasuries) because U.S. Treasuries have been "considered among the safest investments." A major factor contributing to the perceived safety of U.S. Treasuries has been the political stability of the United States. Foreign countries and investors are not going to loan money to a nation prone to uprisings, insurrections, or revolutions which would result in their losing most or all their loans to the United States.

Using Option 2 (from above): Try to reduce the amount by which we overspend.

If the U.S. is able reduce the gap between what we spend in international trade and what we make selling in international trade, we won't have to borrow so much from foreign nations and investors (i.e., by selling them U.S. Treasuries) to finance our trade deficit. One way to do this is to manufacture some of the good we now import (e.g., common consumer goods).

President Trump wants countries with large trade surpluses with the U.S. **to manufacture more in the U.S.**, thus

- reducing the U.S. trade deficit
- bringing back manufacturing jobs
- strengthening national security by securing supply chains
- rebalancing unfair trade practices
- boosting the American economy.

Trump views large deficits as harmful and a sign of unequal trade where other nations benefit more, and he views tariffs as a leverage to force these changes and encourage "reshoring" of production.

Both Options 1 and 2 depend on the political stability of the United States.

Just as foreign countries and investors are not going to **loan money** (i.e., buy U.S. Treasuries) to a nation prone to uprisings, insurrections, or revolutions which would result in their losing most or all their loans to the United States, foreign countries and investors are not going to **invest in manufacturing plants** in the United States if they are going to lose them to uprisings, insurrections, or revolutions.

How is the U.S. doing with regards to social stability and attractiveness to foreign investment?

1. Immigration-related protests, demonstrations, and active resistance

During his 2024 campaign, President Donald Trump pledged to launch a domestic deportation

operation, focusing on removing millions of undocumented immigrants. He also targeted criminal aliens and members of specific gangs, such as Tren de Aragua.

To accomplish these stated goals, ICE agents been deployed to several U.S. cities where they have faced aggressive opposition from local anti-ICE groups. (ICE = U.S. Immigration and Customs Enforcement). These cities include

- Los Angeles, California: Recently involved in protests and demonstrations against ICE activities, including graffiti, vandalism, and looting of businesses like Nike and T-Mobile. There were clashes with police, freeway blockades, and National Guard deployment. Los Angeles incurred damage to City buildings, infrastructure, and equipment, including graffiti, totaling approximately $1.4 million. The City has incurred an estimated **$19.7 million in costs** associated with the June 2025 Protests to date (Jun 16, 2025).
- Washington, D.C.
- Minneapolis, Minnesota: Targeted during Operation Metro Surge, which began in December 2025. ICE protestors in Minneapolis have been training recruits.
- Memphis
- Chicago, Illinois: Noted for significant immigration enforcement operations.
- New Orleans
- New York City, New York

<u>Many see ICE enforcement activities as racism against Brown people.</u>

The focus of President Trumps deportation activities are directed at illegal immigrants, regardless of race. However, many immigrants are from Central American and often have brown skin. So, many Americans, including diverse coalitions of voters, civil rights groups, and community members, oppose aggressive ICE sweeps targeting "brown" immigrants. While a Supreme Court ruling temporarily allows race as a factor in stops, widespread public opposition and solidarity from Black leaders and organizations challenge these enforcement tactics, viewing them as profiling and inhumane.

Black & Brown Unity: Black leaders (like BLM's Melina Abdullah) and organizations (NAACP, National Action Network) actively stand in solidarity with Latino immigrants against ICE, continuing a history of Black and Brown collaboration for racial justice, according to USC Dornsife.

ICE clashes not showing an image of social stability

Well-published clashes between ICE agents and aggressive local anti-ICE protest groups in U.S. cities and the resultant damage to public and private property do not present an international image of the United States as a politically stable country to which foreign countries would be inclined to lend money (i.e., buy U.S. Treasuries) or in which to build manufacturing plants.

2. Deployment of National Guard and regular U.S. Army troops to U.S. cities to maintain civil order.

Currently, National Guard or regular U.S. Army troops are operating in the following U.S. cities:

- Washington D.C.
- Los Angeles
- Memphis
- Portland

President Trump has justified the deployment of National Guard or regular U.S. Army troops to U.S. cities for reasons including crime prevention, protection of federal property, and the need to enforce federal laws.

The Deployment of National Guard and regular U.S. Army troops to U.S. cities to maintain social order does not show an image of social stability.

Well-published clashes between National Guard and regular U.S. Army troops and aggressive local protest groups in U.S. cities and the resultant damage to public and private property do not present an international image of the United States as a politically stable country to which foreign countries would be inclined to lend money (i.e., buy U.S. Treasuries) or in which to build manufacturing plants.

3. Race-based protests and riots resulting in extensive property damage and losses.

- **George Floyd**'s death (May 25, 2020). Record Losses: The riots following George Floyd's death caused more than $2 billion in insured losses, a U.S. record for civil disturbances.
- The police beating of **Rodney King** (March 3, 1991): The L.A. riots, which occurred in the wake of Rodney King's arrest and beating by Los Angeles police officers, were contained to one city. That event cost the insurance industry $775 million ($1.4 billion in today's dollars).

Extensive property damage and losses and social disruption

do not present an image of social stability.

Well-published reports of extensive property damage and losses and social disruption from race-based protests and ensuing riots do not present an international image of the United States as a politically stable country to which foreign countries would be inclined to lend money (i.e., buy U.S. Treasuries) or in which to build manufacturing plants.

Is the political stability of the United States declining?

Google Chrome and Microsoft Edge agree on this one.

For doing research, Google Chrome and Microsoft Edge often are in only weak agreement or disagree completely. However, on the question of whether the political stability of the United States is declining and how this will affect the attractiveness of the United States to foreign investors, Google Chrome and Microsoft Edge agree.

Google Chrome:

There is evidence that the United States is increasingly perceived by some as a less stable country for foreign investors due to growing political polarization, which encompasses issues like race and immigration protests, policy uncertainty, and trade tensions. Recent data indicates a decline in foreign direct investment (FDI) inflows, with some analysts and investors citing domestic political and social uncertainty as contributing factors.

Microsoft Edge:

The United States has been experiencing a decline in political stability, which could affect foreign investors. The country has seen a rise in political polarization, legislative gridlock, and frequent impasses in Congress, which can impact economic policies and market stability. Additionally, the increasing frequency of race and ICE protests may contribute to a perception of instability among foreign investors. Also, the Fragile States Index shows that the U.S. has become less stable over the past decade, with a significant drop in cohesion, an indicator of internal divisions. This decline in cohesion, along with other factors like economic disparity and social unrest, may influence foreign investors' perceptions of the U.S. as a less stable country. (World Population).

New York Times

New York Times Columnist David Brooks made observations along similar lines several years ago

(which I included in my Memorial Day 2021 essay, pp. 38-39 and which appeared in the *East Bay Times* on May 8, 2021. Brooks has been with the *New York Times* since 2003):

“Could today’s version of America have been able to win World War II? It hardly seems possible.

“That victory required national cohesion, voluntary sacrifice for the common good and trust in institutions and each other.” It appears “that we no longer have sufficient quantities of any of those things.”

Brooks observes that “A lot of Americans have seceded from the cultural, political and social institutions of national life.”

China, a socially stable country attractive to foreign investors

China is considered a socially stable country and is highly attractive for foreign investors due to several factors:

- Political Stability: China enjoys long-standing political stability and is widely recognized as one of the safest countries in the world.
- Economic Growth: The country's economy is the second largest globally, with a robust GDP growth rate, making it a vital market for investment.
- Investment Environment: China has a favorable investment environment, with a commitment to high-quality development and a focus on green, digital, and smart transformation.
- Foreign Investment Trends: The number of foreign-funded enterprises in China continues to rise, indicating a positive trend in attracting foreign investment.
- Global Economic Power: As a global economic powerhouse, China's position as a market with significant growth potential makes it an appealing destination for international businesses.

Overall, these factors contribute to China's appeal as a destination for foreign investors.

China today does not experience large-scale destructive demonstrations and ensuing riots.

China today does **not** experience large-scale destructive demonstrations and ensuing riots such as the

- George Floyd demonstrations and ensuing riots (which began May 25, 2020) that caused more than $2 billion in insured losses, a U.S. record for civil disturbance.
- The Los Angeles, California anti-ICE protests, demonstrations, and ensuing riots which caused damage to damage to City buildings, infrastructure, and equipment which cost the city of Los Angeles about $20 million.

Foreign countries and investors are wary of investing in a country prone to social disruptions and insurrections which could cause major damage to their investment or cause them to lose it. They feel safe investing in China.

China today does experience protests, but they do not cause major property damage.

China today experiences a wide variety of local protests, most commonly in the areas of unpaid wages, compensation for land development, local environmental activism, or NIMBY activism. Generally, they are driven by local disputes rather than national issues. These local disputes rarely result in significant property damage.

Foreign countries and investors view China as a socially-stable county where their investment is relatively safe from social disruptions and insurrections which could cause major damage to their investment or cause them to lose it

<u>Part III.</u> Tariffs, a Necessary but Insufficient First Step.

Tariffs must be part of a National Economic Strategy.

President Donald Trump has imposed tariffs on goods imported from countries that have large trade surpluses with the United States (i.e., they sell us a whole lot more than we sell them.). For example,

- During his <u>first</u> administration (Jan 20, 2017 until Jan 20, 2021), Trump proposed tariffs ranging from **10% to 25%** on goods imported from China.

- During his <u>second</u> administration (beginning January 20, 2025), Trump threatened to impose tariffs of **up to 145%** on China and other countries that have large trade surpluses with the United States, including tariffs of 46% on Vietnam and 26% on India.

Top Countries with U.S. Goods Trade Deficits (2024)

- **China:** −$295.4 billion (top deficit partner, despite ongoing tariffs).
- **Mexico:** −$171.8 billion (key partner for manufactured goods).
- **Vietnam:** −$123.5 billion (major source of electronics and furniture).
- **Ireland:** −$86.7 billion (primarily driven by pharmaceutical and chemical imports).
- **Germany:** −$84.8 billion.
- **Taiwan:** −$73.9 billion.
- **Japan:** −$68.5 billion.
- **South Korea:** −$66.0 billion.
- **Canada:** −$63.3 billion.
- **India:** −$45.7 billion.

<u>President Trump's long-standing concerns about U.S. trade deficits</u>

President Trump's concerns about U.S. trade deficits are long-standing, but he publicly voiced them most notably during his 2016 presidential campaign. He frequently criticized trade deals like NAFTA and argued that the U.S. was losing out on manufacturing jobs due to unfair trade

practices, particularly with countries like China. He specifically mentioned wanting to impose tariffs on companies moving operations to Mexico.

What are tariffs? Tariffs are taxes imposed by a government mainly on imported **goods**. The **two main goals of tariffs** are

1. **Protecting Domestic Industries:** Tariffs shield local businesses and jobs from unfair foreign competition, particularly against dumping (selling goods below production cost). They are often used, particularly in lesser-developed countries, to nurture "infant industries" until they are strong enough to compete globally.

   In the case of an advanced economy like the United States that has seen its manufacturing sector wither, tariffs can be used to try to revive industries that used to be strong like computer manufacturing and appliance manufacturing but have withered.

2. **Generating Revenue:** Governments collect these taxes which can be used to partially offset the United States' federal budget deficit.

Tariffs can also be used to

- **Influence Foreign Policy (Diplomatic Tool):** Tariffs can be deployed as economic sanctions to pressure other nations over issues like treaty violations, trade disputes, or national security concerns.
- **Correct Trade Imbalances:** By making imports more expensive, they aim to reduce imports and encourage consumption of locally produced alternatives.

Examples and Context:

- **Example (Protection):** A 20% tariff on imported electronics makes foreign devices more expensive, encouraging consumers to buy locally produced alternatives.
- **Example (Geopolitical):** The U.S. has used tariffs to pressure countries like China, Mexico, and Canada on issues ranging from trade deficits to immigration enforcement.
- **Example (Sector Specific):** Protecting steel or semiconductor industries in the name of national security.

<u>Generating revenue</u>

Although the first goal – **reviving American manufacturing** – is the primary motivation for U.S.

tariffs, the second goal of generating revenue is important also, particularly since it can be used to partially offset the United States' federal budget deficit.

How much revenue has the U.S. government received from tariffs during the two Trump administrations?

The **first** Trump administration (Jan 20, 2017 and Jan 20, 2021)

Approximately **$287 billion**. Between January 20, 2017, and January 20, 2021, the U.S. government collected approximately **$287 billion** in customs duties, taxes, and fees, which is a significant increase compared to previous years.
(Peterson Institute for International Economics)

The **second** Trump administration (which began January 20, 2025)

Approximately **$179 billion**. Since January 20, 2025, the U.S. government has received approximately **$179 billion** in revenue from tariffs which can be used to partially offset the federal budget deficit.
(Peterson Institute for International Economics)

Reviving American manufacturing. Why is it hard for nascent American manufacturers to compete with China?

Nascent American manufacturers face significant challenges when competing with China due to China's combination of deeply entrenched supply chain advantages, massive scale disparities, and lower, state-supported operating costs in China. While US labor costs are higher, the core difficulty lies in the speed, efficiency, and comprehensive infrastructure of Chinese manufacturing ecosystems, which make it difficult for new, smaller US firms to compete on price or volume.

Here are the primary reasons it is hard for nascent US manufacturers **and** for existing, but diminished, American manufacturers to compete with China:

1. Unrivaled Supply Chain Ecosystems and Speed

- **Vertical Integration:** Chinese manufacturers often operate in dense clusters where all components and raw materials for a product are available locally, reducing logistics costs and time.

- **Unmatched Scale:** China can ramp up production to a scale that is difficult to replicate, providing "economies of scale" that lead to higher efficiency.
- **Speed to Market:** The ability to move from prototype to mass production is often faster in China due to highly specialized, experienced, and networked suppliers.

2. Massive Cost Disparities

- **Lower Production Costs:** Production, materials, and labor in China are frequently far cheaper than in the US, with some estimates suggesting goods can be produced for 1/3 to 1/5 of the cost.
- **High Minimum Order Quantities (MOQs):** US manufacturers often require large upfront minimum orders to be profitable, which acts as a barrier to entry for startup or small-scale US businesses.
- **Infrastructure Costs:** The cost of building and operating factories in the US has risen due to inflationary pressures and higher land/labor costs.

3. Government Support and Industrial Policy

- **Subsidies and Incentives:** China's "Made in China 2025" and similar initiatives provide direct state funding, low-interest loans, tax breaks, and free land to domestic manufacturers.
- **Subsidized Capital:** Local Chinese firms often enjoy preferential treatment and easier access to capital, reducing their financial risks.

4. Labor and Skill Gaps

- **Technical Workforce:** China has invested heavily in technical and vocational training, creating a large, skilled workforce tailored for manufacturing.
- **Labor Shortage in the US:** The US faces a shortage of skilled machinists, tool-and-die-makers, and engineers, with many young Americans steering away from factory work.

5. Dependency on Raw Materials

- **Rare Earth Dominance:** China controls a dominant percentage of the processing of critical materials like rare-earth minerals, graphite, and magnesium, which are essential for high-tech manufacturing.

Tariffs are like a temporary sports handicap

Tariffs are like a **temporary** sports handicap for diminished American manufacturers.

What is the purpose of a handicap in sports and games?

To create a level playing field by offsetting different abilities of competitors. A disadvantage is imposed on the superior competitor to make the competition closer.

- **Examples:**
    - **Horse Racing:** The faster horse is required to carry extra weight.
    - **Golf:** Less skilled players receive extra "strokes" that are added to their score, while highly skilled players are assigned fewer strokes, or sometimes even negative strokes (a "scratch" player).
    - **Sailboat Racing:** A time penalty is added to a faster boat's actual finishing time.

A Temporary opportunity to revive and strengthen American manufacturing

The main goal of Trump's tariffs on imported goods is to give nascent American manufacturers **and** existing American manufacturers who once were strong but have withered a temporary opportunity ("breathing room") to revive and strengthen American manufacturing to be able to compete against China on cost and quality. Without the temporary protection of tariffs, most American manufacturers are at a strong disadvantage competing against China given its established economies of scale and the its other advantages listed above. A goal is that American consumer manufacturers will get stronger and eventually be able to compete with China and other foreign manufacturing companies **without** the help of tariffs.

The United States used tariffs in the 19th century.

Tariffs were crucial to the United States in the 19th century for economic protection, revenue generation, and political power dynamics, shaping the nation's industrial growth and trade policies. During the 19th century, tariffs served primarily to protect emerging American industries from foreign competition. As the U.S. transitioned from an agrarian economy to an industrial one, tariffs were implemented to encourage domestic manufacturing by making imported goods more expensive. This protectionist approach was championed by figures like Alexander Hamilton and Henry Clay, who believed that tariffs were essential for nurturing "infant industries" and reducing dependence on European imports.

Revenue Generation

In the early years of the Republic, tariffs were a significant source of federal revenue. The government relied on tariffs to fund its operations, especially before the establishment of an income tax. The Tariff of 1789 was one of the first laws passed by the new federal government, aimed at raising funds while also protecting domestic industries. Over time, the average tariff rates fluctuated, but they remained a critical component of the federal budget.
(Thomson Reuters)

Lesser-developed countries use tariffs.

Less-developed countries use tariffs to raise government revenue, protect nascent domestic industries (infant industries), and promote economic growth by making domestic products more competitive than imports. Tariffs are also a significant source of income for governments that may struggle to collect other forms of taxes, and they can encourage local manufacturing by making it harder for foreign businesses to compete on price.

Most American Businesses and Consumers Are Opposed to President Trumps' Tariffs

The opposition of American businesses and consumers to President Trumps' tariffs during his second administration is like their opposition during his first administration. So, I will paraphrase excerpts from my Labor Day 2019 essay on this topic (pp. 18-20):

What Do Our CEOs Think About Our Trade Deficit with China?

To restate, President Trump is right in trying to reduce our untenable trade deficit. This means restoring our capability to manufacture many of the goods which American consumers now buy from China.

Trump has proposed tariffs ranging from 10% to 25% on goods imported from China.
There are two main objectives of U.S. tariffs:

1. "Breathing Room "

They give U.S manufacturing companies some "breathing room" help while they work to get stronger so they can compete with foreign competition like China. When foreign

manufacturers offer significantly lower prices on, for example, consumer goods than American manufacturers can offer, American consumers will buy these goods. A likely outcome of this process is that what is left of American consumer manufacturing will go out of business.

Tariffs raise prices on foreign goods to give U.S. manufacturing companies some "breathing room" so they can get stronger and eventually be able to compete with foreign manufacturing companies without the help of tariffs.

2. Revenue Source

The tariffs on imported goods, e.g., from China, are a revenue flow from China to the U.S. which can help to offset our massive and untenable trade deficit with China, $419.2 billion in 2018 (Wall Street Journal, (https://www.wsj.com/articles/u-s-collects-63-billion-in-chinese-tariffs-through-june-11565168400)

CEO's short-term focus on quarterly earnings

The CEOs of American companies should support President Trump's efforts to rebuild American goods manufacturing capability. However, they oppose his efforts because tariffs on imported goods, especially consumer goods, will raise prices on goods, so consumers and businesses will buy less. This will result in lower sales, less revenue, and lower profits for the CEOs' companies, and the CEOs won't look as good in quarterly reports (which are rated by Wall Street).

It appears that quarterly reports which are a determinant of CEO salaries and their career prospects are more important to CEOs than restoring American goods manufacturing capability which President Trump is trying to do. And, of course, CEOS say that tariffs will reduce our trade and economic growth. But this is spurious trade and economic growth underlain by prolonged, untenable debt.

What Do U.S. Consumers Think About Our Trade Deficit with China?

President Trump is right in trying to reduce our prolonged and untenable trade deficit. This means restoring our capability to manufacture many of the goods which American consumers now buy from China.

American consumers also have short-term priorities.

American consumers should support these efforts. Strong consumer and capital goods manufacturing bases are what once fostered a thriving, blue-collar middle class, e.g., in America's former Industrial Heartland in the Midwest. However, it appears that **American consumers have the same short-run priorities as the CEOs** discussed above. Tariffs on imported consumer goods will raise their prices. This means American consumers won't be able to buy as many of these goods, and this will "lower their standard of living." But as written above in reference to CEOs, this is a spurious standard of living underlain by prolonged and untenable debt.

Even most Americans who oppose President Trump tariffs agree that the United States needs to something about our country's present economic predicament.

- **Trade deficits:** The United States has bought more than we sold (i.e., run a trade deficit) for 49 consecutive years (as of 2024). The United States' total goods and services trade deficit in 2024 was **$918.4 billion**, increasing by $133.5 billion from $784.9 billion in 2023. The 2024 goods deficit alone was $1.21 trillion, and the services surplus was $293.3 billion.

- **Diminished industrial capacity:** The United States no longer has the industrial capacity* to make a wide of consumer goods, so Americans buy imported consumer goods.

- **Borrowing to maintain our standard of living:** Because we spend more than we make, America borrows to maintain our standard of living. We do this mainly by borrowing from foreign nations and investors by selling them **U.S Treasuries** which are essentially loans from investors to the government, promising repayment with interest. The total value of U.S. Treasuries outstanding was around **$38.45 trillion**, as of mid-January 2026.

- **National debt:** Our massive trade deficit drives our national debt. When a nation has **positive** net income from international trade (i.e., it earns more than it spends in international trade), government can tax this net national income (net earnings) to provide essential services such as maintaining roads, providing local and national

security services, and providing social services. However, when a nation has **negative** net income from international trade, government must borrow to provide essential services.

The annual U.S. budget deficit ballooned to a near-record **$1.3 trillion** (as of April 2025). An annual budget deficit occurs because government spending exceeds the amount of money being raised.

National Debt: Each annual budget deficit adds to the national debt which is near $37 trillion. (National Debt: The sum of all the money borrowed over time, plus the accumulated interest owed to investors on those securities, constitutes the national debt.)

- **Jeopardized Credit Rating:** There is growing evidence that our "credit rating" which enables us to keep borrowing to maintain our standard living is in jeopardy.
  From Part II, Social and Business Characteristics, Social Stability, p. 93.
  "There is evidence that the United States is increasingly perceived by some as a less stable country for foreign investors due to growing political polarization, which encompasses issues like race and immigration protests, policy uncertainty, and trade tensions."

* Diminished industrial capacity (from above). **"There's no capacity."**

From my 2019 Labor Day essay, p. 12.

The loss of manufacturing expertise and facilities "

A second concern about the trade deficit is the statement it makes about the competitiveness of the U.S. economy itself. By purchasing goods overseas for a long enough period, U.S. companies lose the expertise and even the factories to make those products. Just try finding a pair of shoes made in America. As the United States loses competitiveness, it outsources more jobs and its standard of living declines."

"**There's no capacity**," says Lena Phoenix.

The above comment about "finding a pair of shoes made in America" recalled to me a *New York Times* report entitled "Footwear maker seeks manufacturing options", September 9, 2019. Lena Phoenix and her husband have a thriving footwear business they founded in their home in Colorado. They have had the manufacturing of their footwear done in China. However, President Trump's tariffs on imported goods from China have prompted them and other footwear companies to leave China. But they have not considered moving their manufacturing to the United States. "There's no capacity," Phoenix said. So, instead they are considering moving it to Vietnam, Bangladesh, Indonesia, or Kenya.

Most Americans who oppose President Trump tariffs do not have an alternative plan to pull the United States out of the economic predicament we are in.

So, let's assume the United States continues to employ President Trump's tariffs as a

- **Temporary handicap status** to give our nascent manufacturing industries and our withered manufacturing industries an opportunity to revive themselves as they become more competitive against a stronger opponent: China.
- **Reduce our massive trade deficit** as we manufacture at home some of the goods we now import and for which our money flows out of our county to where the goods are manufactured. If these goods are made in the United States, the money to buy them will **not** flow out of the United States.
- **Generate revenue** from the tariffs which can partially offset our massive trade deficit and our massive U.S. government budget deficit.

President Trumps's tariffs: a **necessary first step** to pull America out of the economic predicament we are in, but **not a sufficient step**.

TARIFFS MUST BE PART OF A NATIONAL ECONOMIC STRATEGY.

From the Part II section on Robotics:

"What will it take to catch up with China in robotics? China is # 1

“You can see how well that strategy worked out; without a strategy, a country is always at a disadvantage,” said Susanne Bieller, the general secretary of the robotics federation.

Most of our economic competitors, but not the United States, have national economic strategies like Ms. Bieller refers to.

China and most of our economic competitors (such as México, Vietnam, Ireland, Germany, Taiwan, Japan, and South Korea) with which we have large trade deficits have chosen mercantilist-based economic systems in which the government and the private sector develop **explicit** national economic strategies (sometimes called industrial policies) to achieve a desired overall structure and direction for the economy in order to foster the economic advancement of their nation.

Our top economic competitors don’t allow the “invisible hand” to run things as in the United States.

Our top economic competitors do not leave the development of national economic strategy to private interests as in the United States seeking to make a profit (e.g., the private equity players) and do not assume that the "magic of the market" and the "invisible hand" will ensure a desirable outcome. Their national economic strategies harness the energy and creativity of the private sector but guide it and prevent the private sector from taking actions, which although they increase its profitability and enhance the careers of its top executives, negatively impact our national interest (our common good).

President Reagan and the “invisible hand”

The United States has been averse to national economic strategies, especially since the Reagan Administration.

From my Labor Day, 2019 essay, p. 28:

This shift to a laissez-faire role for the U.S. government in economics accelerated and became more prominent when Ronald Reagan was president (1981-1989). The Great Communicator* popularized the economic school of thought that “picking winners and losers" doesn't work and that the "magic of the market" and the "invisible hand" will always do a better job than government economic planners (bureaucrats) meddling in the economy. Reagan’s economic philosophy continues to dominate American economic policy which views national economic strategies like those which China, Germany and Japan successfully follow as meddling in the

economy. (*Reagan's effectiveness as a public speaker earned him the moniker, "Great Communicator.")

Our top economic competitors which have National Economic Strategies would **not** have allowed the offshoring of critical industries.

Seeking lower costs, higher profits, increased shareholder value, favorable Wall Street ratings, and enhanced careers, our laissez-faire CEOs have offshored

- computer manufacturing
- chip (semiconductor) manufacturing
- telephone manufacturing

just to mention three critical manufacturing industries (of 14 manufacturing discussed in Part II). Our top economic competitors have National Economic Strategies which foster a strong private sector and allow it to make a profit and even get rich. But our top economic competitors constrain the activities of the private sector to be in the national interest (for the common good). They would **not** have allowed the private sector to offshore chip (semiconductor) manufacturing to lower costs and increase profits, especially after the government paid for basic research to make semiconductor manufacturing possible, and they would not accept paying the bill to reshore chip (semiconductor) manufacturing (e.g., the CHIPS and Science Act of 2022).

You can lead a horse to water, but you can't make him drink.

The United States, a fundamentally laissez-faire economy, has paid for basic research to nurture industries like computer manufacturing, chip (semiconductor) manufacturing, and telephone manufacturing. In the short term, the United States' investment in these industries appeared to be successful because the United States was the early and dominant leader in

- computer manufacturing
- chip (semiconductor) manufacturing
- telephone manufacturing.

The private sector not constrained to serve the national interest (the common good).

But the United States has **not** had a national economic strategy which constrains private companies to serve the national interest (the common good). So, just a few decades after the United States had become the dominant leader in computer manufacturing, chip

(semiconductor) manufacturing, and telephone manufacturing, the CEOs of these companies saw a way to lower costs, increase profits, increase shareholder value, get high ratings from Wall Street, and enhance their careers: They offshored

- computer manufacturing
- chip (semiconductor) manufacturing
- telephone manufacturing

You can lead a horse to water, but you can't make him drink.

The United States provided the incentives (basic research, etc.) for the United States to be a leader in like computer manufacturing, chip (semiconductor) manufacturing, and telephone manufacturing. The private sector took advantage of these incentives and built up these industries, but then moved them offshore, contrary to our national interest and contrary to what the U.S. government had in mind when it paid to stimulate these nascent industries. You can lead a horse to water, but you can't make him drink. In a fundamentally laissez-faire economy, the government can offer costly incentives to the private sector to try to grow select industries, but it cannot guide or constrain what the private sector does with these incentives, e.g., move chip manufacturing offshore.

Government incentives for computer, chip, and telephone manufacturing

Here is a summary of what the United States paid to stimulate three industries which their CEOs then offshored.

1. **Computer** Manufacturing

Early United States government research and development (R&D) in the 1940s and 1950s, driven primarily by military needs during World War II and the Cold War, provided the foundational funding, technical specifications, and initial market demand that created the American computer manufacturing industry. By funding high-risk, expensive projects, the government enabled the transition from experimental devices to industrial production.

Key areas of early government R&D included:

- **ENIAC and Ballistic Research (1940s):** The U.S. Army Ordnance Corps financed the Electronic Numerical Integrator and Computer (ENIAC) at the University of Pennsylvania to calculate artillery firing tables. Completed in 1945, this project demonstrated the viability of electronic, general-purpose, digital computing.

- **The EDVAC and Stored-Program Concept:** Following ENIAC, the Army funded the Electronic Discrete Variable Automatic Computer (EDVAC), which introduced the "stored-program" concept. The distribution of reports on this design by government officials (such as Herman Goldstine) spurred the development of similar systems.
- **The "Moore School Lectures" (1946):** The Pentagon organized a series of lectures in Philadelphia to share knowledge on computer design with industry and academic representatives, a crucial step in jump-starting the computer industry.
- **National Bureau of Standards (NBS) Computers:** The NBS developed and funded computers like SEAC (Standards Eastern Automatic Computer) and SWAC (Standards Western Automatic Computer) to build expertise and test components in the early 1950s.
- **Solid-State and Transistor Development:** The Department of Defense (DoD) supported research into solid-state physics and, recognizing the fragility of vacuum tubes, subsidized the development of more robust, reliable computing hardware (transistors).
- **Software and Programming Techniques:** The Navy sponsored work by Grace Hopper and others in the 1950s to develop automatic programming techniques, leading to the creation of the first compilers and later, the COBOL language.
- **AIR DEFENSE and Large-Scale Systems (1950s):** The U.S. Air Force funded the development of the SAGE (Semi-Automatic Ground Environment) system, which spurred advancements in real-time computing and data networking.
- **Early "Market" Support:** Government procurement served as the primary, and often only, market for the first, expensive commercial computers (e.g., UNIVAC), allowing firms like Remington Rand and IBM to refine their manufacturing processes.

Through the 1950s, the federal government funded approximately 60 percent of all computer R&D, a critical contribution to the nation's early technological lead.

<u>You can lead a horse to water, but you can’t make him drink.</u>

In a fundamentally laissez-faire economy like that of the United States, the U.S. can provide major incentives to stimulate a computer manufacturing industry, but it cannot stop private companies from then moving manufacturing offshore in pursuit of lower costs, higher profits,

increased shareholder valuation, higher Wall Street ratings, and career advancement. **Our top economic competitors who have National Economic Strategies would not have permitted this.**

Our CEOS offshored our computer manufacturing industry.

1975: Based on the emergence of the personal computer industry in 1975, which was dominated by US-based companies like MITS (Altair 8800), it is estimated that **nearly 100%** of computers bought in the US that year were manufactured in the United States

2000: Based on available industry data, it is not possible to determine the exact percentage of computers sold in the U.S. in 2000 that were also manufactured domestically. While U.S.-based companies like Dell, HP, and Compaq dominated the market, by 2000, **manufacturing had already shifted significantly toward overseas production**.

2025: In 2025, a vast majority of computers purchased in the U.S. were imported, as indicated by a 25.5% increase in computer imports to $25.5 billion in October 2025 alone. With imports surging by nearly 65% in the first half of 2025, specifically from major suppliers like Mexico, the percentage of computers manufactured within the United States is very low, likely in the single digits, while the vast majority are imported.

- **Trade Deficit:** As of October 2025, the U.S. recorded a $20.6 billion negative trade balance in computers, importing $25.5 billion while exporting only $4.88 billion.

2. Chip (semiconductor) Manufacturing

Research & Development (R&D) by the United States government has significantly contributed to the development of semiconductor manufacturing. The U.S. government has played a crucial role in funding a robust research and development ecosystem in microelectronics, which has been essential for the growth of the semiconductor industry. Historically, the government's support for defense-related technologies has attracted major companies like Fairchild Semiconductor and Texas Instruments, which were instrumental in the development of integrated circuits. Additionally, the U.S. government's investments in R&D have fostered innovation and commercialization, positioning the country as a leader in semiconductor technology and fabrication.

Key early initiatives included:

- **Wartime Radar Research:** During WWII, the government funded research into semiconducting materials like germanium, crucial for radar technology, which directly informed postwar transistor development.
- **Defense & Space Procurement:** In the 1950s, the U.S. Department of Defense (DoD) and space programs bought 80–90% of all semiconductors produced, providing crucial early revenue to companies and allowing them to improve manufacturing yields without severe price pressure.
- **Funding Advanced Research:** Bell Labs received government support to develop the first transistors and subsequent, more complex semiconductor technologies.
- **Development of Computing:** Early government funding for computers required smaller, faster, and more reliable components, driving the need for solid-state electronics (transistors and later, integrated circuits).

Later efforts included co-funding SEMATECH in the 1980s, a research consortium established to help U.S. firms overcome technical challenges and improve competitiveness against foreign manufacturers.

You can lead a horse to water, but you can't make him drink.

In a fundamentally laissez-faire economy like that of the United States, the U.S. can provide major incentives to stimulate a chip (semiconductor) manufacturing industry, but it cannot stop private companies from then moving manufacturing offshore in pursuit of lower costs, higher profits, increased shareholder valuation, higher Wall Street ratings, and career advancement.

Our top economic competitors who have National Economic Strategies would not have permitted this.

Our CEOS offshored our chip (semiconductor)manufacturing industry.

The United States pioneered semiconductor and microchip production and was the undisputed dominant force in semiconductor manufacturing, especially in the 1970s and 1980s, holding nearly 80% of the global market at its peak. Then the CEOS decided to offshore manufacturing to cut costs and increase profits. By 1990, the U.S.'s share of global chip manufacturing had dropped to 37%. Today the U.S.'s share has plummeted to about 10% - 12%.

Supply-chain vulnerabilities during COVID-19

Most of the chips used by American industry are manufactured in Asia. During the COVID-19 pandemic, multiple U.S. industries faced severe semiconductor (chip) shortages because chip production facilities in Asia were shut down. Also, reliance on foreign manufacturing for critical chips poses national security risks.

Now the U.S. government is going to pay to offer incentives to the private sector (chip companies) to reshore what they offshored 30 years ago to lower costs and increase profits.

The goals of the **CHIPS and Science Act of 2022**

- To reduce reliance on foreign chip supply chains, particularly from China, by incentivizing companies like Intel, TSMC, and Samsung to build and expand fabrication plants (fabs) in the U.S.
- To foster American innovation in advanced technologies and create high-tech jobs.

It is noteworthy that goals 1 and 2 above were fully realized in the 1980s when the United States pioneered chip making (based on major R&D done by the U.S. government) and was the leader in its innovation and manufacturing. Then the CEOs saw a way to reduce costs, increase profits, get higher ratings from Wall Street, and advance their careers: they offshored U.S. chip manufacturing.

The CHIPS and Science Act of 2022 authorized around **$280 billion in total spending**, including roughly **$52.7 billion in direct funding and tax credits for semiconductor manufacturing**, plus significant investments in science and R&D, aiming to boost U.S. tech competitiveness by funding domestic chip production and innovation over several years.

3. Telephone Manufacturing

Research and development (R&D) funded by the United States government played a foundational role in enabling the technologies that make up modern smartphones and, by extension, established the groundwork for their manufacturing. Key components of mobile phones, such as GPS, the internet (ARPANET), touchscreens, and lithium-ion batteries, were developed or advanced through R&D funding from U.S. government agencies like the Department of Defense (DOD), NASA, and the National Science Foundation (NSF).

Role of Government R&D in Mobile Phone Development

- **Fundamental Technologies:** The core technologies in smartphones were heavily supported by federal R&D. This includes microprocessors (DOD/NASA), lithium-ion batteries (DOE), and multi-touch screens (NSF).
- **The Internet and GPS:** The internet originated from the ARPANET project (DARPA), and GPS began as a military navigation tool developed by the DOD in the 1970s and 1980s.
- **Voice Recognition:** Technologies such as Siri were partially developed through a $22 million DARPA project (CALO) aimed at creating a cognitive assistant.
- **Industry "Crowding In":** Federal funding has historically "crowded in" private sector investment, with studies showing that for every dollar the federal government invests in semiconductor R&D, it has increased overall U.S. GDP by $16.50.

You can lead a horse to water, but you can't make him drink.

In a fundamentally laissez-faire economy like that of the United States, the U.S. can provide major incentives to stimulate a telephone manufacturing industry, but it cannot stop private companies from then moving manufacturing offshore in pursuit of lower costs, higher profits, increased shareholder valuation, higher Wall Street ratings, and career advancement. **Our top economic competitors who have National Economic Strategies would not have permitted this.**

Our CEOS offshored our telephone manufacturing industry.

1975: In 1975, nearly **100%** of the telephones used and bought by Americans were made in America.

2000: In 2000, nearly **100%** of the telephones used and bought by Americans were made in America.

2025: Less than 1 percent of mobile phones sold in the US in 2025 were manufactured domestically.

The three nations with which the United States had the largest trade deficit in 2024

Their National Economic Strategies

- **China:** −$295.4 billion (top deficit partner, despite ongoing tariffs).
- **Mexico:** −$171.8 billion (key partner for manufactured goods).
- **Vietnam:** −$123.5 billion (major source of electronics and furniture).

Other Top Countries with U.S. Goods Trade Deficits (2024)

- **Ireland:** −$86.7 billion (primarily driven by pharmaceutical and chemical imports).
- **Germany:** −$84.8 billion.
- **Taiwan:** −$73.9 billion.
- **Japan:** −$68.5 billion.
- **South Korea:** −$66.0 billion.
- **Canada:** −$63.3 billion.
- **India:** −$45.7 billion.

Marker January 27, 2026,

China’s National Economic Strategy

China utilizes a centralized, state-led national economic strategy primarily driven by five-year plans to guide development, manage the "socialist market economy," and achieve long-term modernization goals. The upcoming 15th Five-Year Plan (2026–2030) focuses on high-quality growth, technological self-reliance, boosting domestic consumption, and navigating geopolitical risks.

Key Elements of China’s Economic Strategy

- **Five-Year Plans (FYP):** These serve as the central roadmap, with the 14th Plan (2021–2025) focusing on "dual circulation" (boosting domestic demand while maintaining open trade) and technological self-sufficiency.

- **15th Five-Year Plan (2026–2030):** Emphasizes high-quality, innovation-driven growth in sectors like AI, robotics, and biotechnology. It aims to shift from low-cost competition to superior value and address structural challenges like local government debt and property market issues.
- **State-Led Investment:** Significant state-owned enterprise (SOE) involvement is used to steer the economy toward strategic sectors.
- **Long-Term Goals:** The strategy is guided by the "Two Centenaries" goal, aiming to make China a modern, socialist country by 2049.
- **Shift in Focus:** The 15th plan is adjusting to a more unpredictable global environment, placing higher emphasis on security, resilience, and consumption-driven, rather than investment-driven, growth.

The strategy is developed by the Chinese Communist Party (CCP) through a consultative process, often incorporating input from experts and local governments before adoption by the National People's Congress.

From my Labor Day 2019 essay, pp. 25-26,

Five-year economic visions and plans based on intensive analysis

Prestowitz gives an example of national economic strategy in China: "A small but fundamental point to note in this connection is that in contrast to most American government leaders who are lawyers or economists, most Chinese leaders have been educated as engineers. They preside over the development of a continuing series of five-year economic visions and plans by government ministries that do intensive analysis of the history and plans of other successful developing countries like Korea, Singapore, Ireland, and Japan. They think strategically about which industries will achieve rapid economies of scale, about the linkages that enable one industry to foster another, about the most desirable sector-by-sector structure of the entire economy. Based on this analysis, they allocate tax, investment, training, and other resources and incentives to guide and induce development along the desired lines."
(Prestowitz, 2010, p. 259)
Note: Xi Jinping, President of the People's Republic of China, is a qualified chemical engineer who was educated at Tsinghua University from 1975–79.

China does thorough and extensive analysis.

Its economic future is not determined by the “invisible hand.”

So, when China decides which industries to target and which not to target ("picking winners and losers"), it is done after thorough and extensive analysis. The philosophy of Ronald Reagan, which continues to dominate American economic policy, is that “picking winners and losers" doesn't work and that the "magic of the market" and the "invisible hand" will always do a better job than government economic planners (bureaucrats) “meddling in the economy.”

China has a strong private sector, 60/70/80/90

National economic strategies utilize collaboration between the government sector and the private sector, and this is true for China also. Contrary to popular belief, China has a strong private sector. From Forbes, (https://www.forbes.com/sites/rainerzitelmann/2019/09/30/state-capitalism-no-the-private-sector- was-and-is-the-main-driver-of-chinas-economic-growth/#357172ed27cb)

“A working paper from the World Economic Forum stated that “China’s private sector - which has been revving up since the global financial crisis - is now serving as the main driver of China’s economic growth. The combination of numbers 60/70/80/90 are frequently used to describe the private sector’s contribution to the Chinese economy: they contribute 60% of China’s GDP, and are responsible for 70% of innovation, 80% of urban employment and provide 90% of new jobs. Private wealth is also responsible for 70% of investment and 90% of exports.” “Today, China’s private sector contributes nearly two-thirds of the country’s growth and nine-tenths of new jobs, according to the All-China Federation of Industry and Commerce, an official business group.”

México’s National Economic Strategy

México has consistently followed national economic strategies throughout its modern history, though the specific approach has evolved over time in response to internal conditions and global economic trends.

México’s national economic strategy, formalized as **"Plan México"** for the 2024–2030 period, was introduced by President Claudia Sheinbaum. This strategy focuses on increasing industrialization, boosting regional development, attracting foreign investment through nearshoring, and strengthening social welfare.

Key elements of México's current economic strategy include:

- **Plan México (2024–2030):** A comprehensive framework aimed at moving Mexico from the 12th to the 10th largest economy in the world.
- **Nearshoring and Investment:** The strategy prioritizes attracting foreign investment by leveraging its proximity to the U.S., with a goal to increase investment levels to over 25%–28% of GDP by 2030.
- **Industrialization and "Made in Mexico":** The plan aims to increase national content in global value chains by 15% and ensures 50% of supply and national consumption in strategic sectors (automotive, aerospace, electronics, semiconductors, pharmaceuticals) originate from Mexico.
- **Economic Development Poles:** The government is establishing 15 regional hubs (Polos de Desarrollo para el Bienestar) with tax incentives—including a 100% deduction on new fixed assets—to encourage investment in underserved areas.
- **Regulatory Simplification:** A key goal is to reduce the time for investment projects from 2.6 years to 1 year by cutting bureaucratic procedures by 50%.
- **Energy and Infrastructure:** Over US$23 billion is allocated for strategic projects in energy generation and infrastructure, with a focus on renewable energy and strengthening state-owned companies like PEMEX and CFE.

Key Objectives of the Strategy:

- Create 1.5 million jobs in specialized manufacturing.
- Increase domestic content in manufacturing and substitute imports.
- Provide access to finance for 30% of small and medium-sized enterprises (SMEs).
- Reduce poverty and inequality.

Vietnam's National Economic Strategy

<u>Vietnam was in a state of severe ruin.</u>

When the Vietnam War ended on April 30, 1975, **Vietnam was in a state of severe ruin**,

experiencing profound destruction of its infrastructure, environment, and economy after decades of conflict. The Vietnam War lasted 30 years, from November 1, 1955, to April 30, 1975.

A French colony for nearly a century. Exploited for its natural resources.

Vietnam was a French colony for nearly a century, beginning with the attack on Da Nang in 1858 and ending with the French defeat at Dien Bien Phu in 1954. French colonists severely exploited Vietnam's natural resources and population between 1858 and 1954 to fuel industrialization and generate profit for France. The colonial regime prioritized extracting raw materials—specifically rubber, coal, zinc, and tin—and transformed vast agricultural lands into plantations for rice and coffee.

After the French lost their colony, the United States jumped in.

Ho Chi Minh was the leader of the Viet Minh, a national movement which arose after the defeat of the Japanese in World II who had occupied French Indochina (including Vietnam) during the war. When the French tried to retake their colonies in Indochina after the war (with the approval of the United Kingdom, the United States, and the Soviet Union), the Viet Minh fought and defeated the French. Ensuing events led to American entry into what became the Vietnam War. America's reasons for entering the war were

• Moral - The communists were godless, and they enslaved their own people, denying them freedom.

• Geopolitical - The Domino theory: Stop the spread of communism.

Vietnam on the rise. 5-year socio-economic development plan drives its economic success.

Vietnam utilizes a highly structured, state-led, 5-year socio-economic development plan as its national economic strategy, aimed at transforming the nation into a high-income, industrialized economy by 2045. The strategy focuses on shifting from low-cost manufacturing to high-tech, digital, and green growth, with 2026-2030 targets aiming for rapid, often double-digit growth.

A large and rapidly growing private sector

Vietnam has a large and rapidly growing private sector, which is a key driver of its "socialist-oriented market economy." Following the *Đổi Mới* reforms in 1986, the private sector now accounts for over 50% of GDP, employs over 80% of the workforce, and includes over 940,000 formal enterprises.

Vietnam's National Economic Strategy has been successful.

- In 1975, Vietnam was in a state of severe ruin following almost 120 years of colonial exploitation and wars against foreigners.
- In 2000, Vietnam was not among the list of countries with which the U.S. had the largest trade deficit.
- In 2024, Vietnam was **third on the list** of countries with which the United States had the largest trade deficits. In 2024, United States had a trade deficit with Vietnam of $123.5 billion, with Vietnam being a major source of electronics and furniture. President Trump was so displeased with the United States' very large trade deficit with Vietnam that he imposed tariffs of 46% on imports from Vietnam which he later reduced to 20%.

Conclusions

Temporary tariffs are a necessary but insufficient first step in America's industrial revitalization. To be effective, they must be part of a National Economic Strategy.

Given our country's economic predicament (shown above and briefly below), temporary tariffs are a necessary but insufficient first step in America's industrial revitalization. To be effective, they must be part of a National Economic Strategy. Without such a strategy, the U.S. government can provide basic R&D and can offer substantial incentives to the private sector to grow domestic manufacturing (for example, computer manufacturing, chip (semiconductor) manufacturing, and telephone manufacturing).

But it cannot stop private companies from taking advantage of these incentives and establishing domestic manufacturing operations, but then moving them offshore to cut costs, boost profits, increase shareholder value, get high ratings from Wall Street, and enhance the career prospects of the industries' C-suite officers. The careers of C-suite officers ride on Wall Street's quarterly ratings. If Wall Street analysts perceive that a chip manufacturing company could substantially increase profits and shareholder value by offshoring manufacturing, but the C-suite officers don't do it, their careers will be in jeopardy and their career advancement stalled.

Key points of the United States' economic predicament:

- Trade deficits
- Diminished industrial capacity

- Borrowing to maintain our standard of living
- National debt
- Jeopardized credit rating

A digression to the environment and sustainable existence on our planet

This essay is on economic competitiveness, not the environment and sustainable existence. However, the topic of **immigration** has been discussed in this essay, for example,

- comparing immigration in the United States and China
- the effects that immigration-motivated anti-ICE protests and riots are having on our credit rating which enables us to keep borrowing to maintain our standard of living despite 50 years of spending more than we make in international trade.

Immigration is the main driver of population growth in in the United States, and many believe the current U.S. population is already way above its sustainable level.

From the *Wall Street Journal*: Immigrants dominate U.S. population growth.

Immigrants are having a huge impact on the nation's population growth, new federal estimates show. Newcomers accounted for **84%** of U.S. growth in the year ended June 30, the Census Bureau said Thursday, continuing a trend since the Covid-19 pandemic. Dec 19, 2024
https://www.wsj.com/us-news/census-data-immigration-state-population-changes-9f8f4508

What population levels are compatible with Sustainable Existence on Our Finite Planet?

Sustainability refers to the population size which our finite planet can sustain indefinitely (for example, in 1,000 years in the year 3026) at the minimum standard of living we can accept. For example, what is the maximum population size Earth can sustain during the next 1,000 years so that our descendants in 3026 in the United States can have the same standard of living that we have in the United States today?

U.S. population: As of late January 2026, the United States population is approximately **342.3 million to 343.6 million**

World population: As of late January 2026, the world population is estimated to be over **8.29 billion people**.

NPG Estimates of Sustainable Population Levels:

Should not exceed two billion for the world.

NPG (npg.org) has studied sustainability for several decades and has developed expertise on this subject. Their goal for the United States and for the world is population levels that are sustainable for the long haul, e.g., for the next 1,000 years. NPG has recommended an optimal population for the United States of around 150-200 million people (our nation's size in 1970, a golden era of sustainability). More recently NPG has refined their sustainable population recommendations: "We judge that a sustainable population for the United States should not exceed 150 million, and **should probably not exceed two billion for the world."**

https://npg.org/library/forum-series/proposed-national-population-policy.html

Australian Academy of Science: carrying capacity of around 2 billion

"So, if everyone on Earth lived like a middle class American, then the planet might have **a carrying capacity of around 2 billion**."

https://www.science.org.au/curious/earth-environment/how-many-people-can-earth-actually-support#:~:text=So%20if%20everyone%20on%20Earth,support%20a%20much%20higher%20figure

Business groups are not restrained by considerations of sustainable population levels.

Regardless of a growing U.S population of approximately 342.3 million to 343.6 million and a growing world population of over 8.29 billion people and regardless of accumulating evidence that we are exceeding the physical limits of planet Earth, business groups continue to issue warnings about a "people shortage." Business always want larger populations regardless of their environmental impacts. More people means more customers who buy stuff and drive companies' profits and more workers who compete against each other for lower wages. Business tacitly assumes that the environment is a limitless add-on to the economy and will dutifully provide to the economy what is requested of it.

Leaving a livable future to those who follow us.

To leave a livable future to those who follow us, we must keep in mind that the economy is a wholly owned subsidiary of Nature.

Contrary to what some business executives appear to think, the economy depends on the

environment (or more generally the Earth's carrying capacity), not the other way around. The environment would do just fine without the economy, but not the other way around. Or as the Prince of Wales (now King Charles III) put it, "**the economy is a wholly owned subsidiary of Nature and not the other way around**." (Newsweek, 12/14/2009).

Being wrong on the environment trumps being right on the economy.

President Trump says he is always right about the economy, his dominant concern. He virtually always put economic goals (e.g., faster growth of GDP) ahead of environmental considerations. However, President Trump should consider (from above) that the economy depends on the environment (or more generally the Earth's carrying capacity), not the other way around. The environment would do just fine without the economy, but not the other way around. Or as the Prince of Wales (now King Charles III) put it, "**the economy is a wholly owned subsidiary of Nature and not the other way around**." (Newsweek, 12/14/2009). **Being wrong on the environment trumps being right on the economy.**

Acknowledgements

Thanks to the *East Bay Times* for providing quality local, regional, and state reporting and for providing national and international reports from the *New York Times* and the Associate*d Press*. I often clip these reports and put them in my "for México" file. Then when my wife and I are in her pueblito in Jalisco, México (about 4,000 residents) where I have done most my writing for over a decade (including this current essay), I download these clipped reports from the *East Bay Times* website to obviate retyping excerpts from them.

Thanks to **Clyde Prestowitz** for his trailblazing thinking on economic competitiveness, on our county's untenable deficit in international trade, and on our diminished industrial capacity. I have read many of his books cover-to-cover. President Trump should consult him and tell his staff to read Clyde's books.

The topic of China pervades this essay. Part II is entitled "How Do the United States and China Stack Up in Industry?" I will end this essay with an **excerpt from my 2021 Memorial Day essay** which quotes Clyde Prestowitz and deals with how we stack up against China The quote is from

his 2021 book, *The World Turned Upside Down: China, America and the Struggle for Global Leadership* (Yale University Press).

The Challenge We Face

"I recently finished reading *The World Turned Upside Down: America, China, and the Struggle for Global Leadership*, 2021 by Clyde V. Prestowitz. An economist, he has written about ten books on Asia and globalization, and I have read many of them – cover to cover. Prestowitz is the founder and President of the Economic Strategy Institute. He served as counselor to the Secretary of Commerce in the Reagan Administration.

"Regarding the China challenge, Prestowitz emphasizes "that we are talking about the most difficult and dangerous external challenge the United States…" has "ever faced." (Prestowitz, 2021, p. 258)

"He says the United States "has steadily lost economic, industrial, technological, and governance competitiveness over the past fifty years." (Prestowitz, 2021, p. 276)

Prestowitz exhorts us:
"In sum, it is time for Americans and especially their leaders to realize they have been drawing down their inheritance from World War II and the Cold War for too long. Now, they are once again back to the real nitty-gritty world of tough competition and constantly shifting power balances, a world in which there is little if any margin for error. The advantages of being the world's largest economy, of being the printer of the world's main currency reserve, and of maintaining the world's most advanced and widely spread military establishment will not be enough to save us from decline and to assure the independence and freedom of our sons and daughters. We must up our game." (Prestowitz, 2021, p. 290

References

Prestowitz, Clyde V., The World Turned Upside Down, 2021.
Prestowitz, Clyde V., The Betrayal of American Prosperity, 2010.
Prestowitz, Clyde V., Three Billion New Capitalists, 2005.
Fletcher, Ian, Free Trade Doesn't Work, 2011.

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I am a second-generation Irish-American who grew up with immigrant Irish grandparents and aunts in Oakland. I am a graduate of Oakland High School and of the College of Engineering at UC Berkeley. I am fluent in Spanish.