2025 INTERNATIONAL TRADE FORECASTS

An Overview of World, U.S., California, Orange County and Southern California Exports

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International Trade Forecasts

An Overview of World, U.S., California, Orange County and Southern California Exports

By

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April 2025

California State University Fullerton

About Dr. Mira Farka and Dr. Adrian R. Fleissig

Dr. Mira Farka Ph.D., Mira Farka, Ph.D., is a Professor of Economics and Co-Director for the Woods Center for Economic Analysis and Forecasting at CSUF. She has published in leading academic journals in the fields of monetary policy and financial economics and is a nationally recognized economist in business and economic forecasting. Dr. Farka is the recipient of multiple awards for her academic research, teaching and the accuracy of her forecasts. She is also the recipient of the prestigious Outstanding Faculty for the College of Business and Economics, CSUF Faculty Recognition Award for Scholarly and Creative Activity, and the CSUF Service Award. Dr. Farka is a sough-after keynote speaker and is frequently invited to discuss economic and financial issues by various business, government, and educational organizations. Prior to joining Cal State Fullerton, she worked in Wall Street, as a senior economist for Deutsche Bank, New York. She was listed as one of OC's 500 most influential people in 2022 and 2023.

Dr. Adrian R. Fleissig has a joint Ph.D. in Economics and Statistics and specializes in regional, macroeconomics and econometric analysis. He is a Professor of Economics at California State University Fullerton and is ranked in the top 1.4% (757 out of 55,000) of economists world-wide based on his academic research. He is well known for developing economic theory and econometric methodology to better understand monetary policy decisions of the Federal Reserve Bank, consumer choices and regional economics. At CSUF, he received the Outstanding University Researcher Award (2001, 2004, 2007 and 2010). Dr. Fleissig has worked on many projects, including the *County of Riverside Forecasts and Economic Outlook, OC Strategic Financial Plan, and Transportation Revenue Forecasts for Orange County* and developed the *Southern California Leading Economic Indicator*. As a former member of the Advisory Board for Monetary Services Index, Federal Reserve Bank of St. Louis, he provided input for the construction of one of the monetary aggregates produced by the Federal Reserve Bank.

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EXECUTIVE SUMMARY

Fresh off a sweeping electoral victory, the second Trump administration is attempting nothing short of a radical remake—of both the post-war global order and the U.S. economy—an agenda that is at once ambitious and extraordinarily risky. The speed is dizzying, relentless, and more chaotic than usual even for an administration that courts and thrives in chaos.

Nowhere has the shift been more dramatic than in trade policy. On April 2, the administration unveiled a sweeping raft of tariffs that sent a clear signal: the post-war global order—and the era of globalization as we've known it—is over. The raft of tariffs was so sweeping, that as we anticipated upon their announcement, they could only be interpreted as an opening salvo in a broader negotiation strategy. Indeed, just one week after their introduction and a mere 12 hours after they took full effect, President Trump paused all punitive reciprocal tariffs for 90 days, replacing them with a universal 10% baseline. At the same time, he doubled down on China, raising its tariff burden to a staggering 125%.

- While the average trade-weighted tariff rate remains high—driven largely by the vertiginous China tariffs—at 21.2%, that figure assumes no drop in import volumes (they will fall) and no import substitution (they will shift away from China), neither of which is realistic.
- Once these adjustments are factored in, the average effective tariff rate—the measure that truly matters—has settled at 16.2%. That's still well above the 2.5% rate at the start of the year, but meaningfully below the eye-popping 25.5% announced on April 2.
- Unlike the first trade war (2018–2019), which applied to $384 billion in imports (primarily from China), the current round is near-universal, covering $2.8 trillion, or 87% of total U.S. imports.

The administration's grievances with aspects of the post-war trading architecture are not without merit. That global order, which cemented U.S. dominance, rested on a grand bargain: America would absorb the world's excess production and run persistent current account deficits, while the dollar served as the engine of global trade. In return, capital inflows financed U.S. fiscal deficits and supported financial markets.

- Last year's U.S. trade deficit in goods reached $1.2 trillion—the largest in history.
- Over the past 25 years, the U.S. has accumulated more than $19 trillion in trade deficits, offset by equal surpluses in the capital account—meaning foreign investors own $19 trillion in U.S. assets. Much of this has funded America's soaring $36 trillion debt, with future returns flowing abroad rather than to U.S. households. While China specializes in manufacturing, America has become an expert at specializing in debt.
- Persistent trade deficits haven't held back U.S. growth—in fact, rising deficits have fueled debt-financed growth, especially over the past 15 years. But this model isn't sustainable forever. A fiscal reckoning, while not imminent, is likely inevitable.

The issue isn't so much with the broader strategy of addressing trade imbalances and correcting trade distortions, but rather with the way it's being executed. The measures are too sweeping, too

abrupt, and offer little time for businesses or consumers to adjust—causing more disruption than necessary. Uncertainty is mounting. Soft-landing dreams have evaporated. There's continued chatter of a "growth scare." Stagflation worries haunt every forecast. Wall Street remains on recession watch. American exceptionalism—so ubiquitous just five minutes ago—appears to be on its deathbed.

- Our view is that the outlook is simultaneously both less frightening and more complex than each of these scenarios in isolation implies, split into two distinct phases: a bumpier, more uncertain short term, followed by a more resilient and robust long-term trajectory.
- While odds of a downturn have risen appreciably, we still expect the U.S. economy to skirt a recession, even as growth slows and inflation ticks higher. Thus, our outlook for the remainder of the year calls for a period of heightened volatility marked by moderate stagflationary dynamics
- We expect inflation to edge up to the high 3s, unemployment to rise to the high 4s, and growth to slow to the low 1s. This is more painful than it sounds, especially since we do not expect the Fed to ease the pain, not by much, anyway.
- Longer-term, the outlook is brighter as tax cuts and an ambitious deregulatory agenda are expected to boost growth and buoy investments.
- We see the current tariff landscape falling broadly into five categories: (a) USMCA countries; (b) reciprocal tariff countries—typically those with which the U.S. runs large trade deficits; (c) sector-specific tariffs; (d) China; and (e) the universal 10% group. With the exception of the last category, where tariff reductions appear least likely, we expect trade negotiations to yield tariff cuts—and potentially dismantle some trade barriers—in the remaining four, though to varying degrees.
- The greatest potential for tariff reduction lies in the first three categories, where we expect the current U.S. tariff wall to come down meaningfully—with more limited, though still significant, reductions likely in the case of China.
- Should broader trade deals fail to materialize—or if trade wars escalate across multiple fronts—a U.S. recession, potentially accompanied by financial disruptions, would become inevitable. A global depression could follow. While this is not our baseline scenario, the risk of a serious misstep remains uncomfortably high.

SOUTHERN CALIFORNIA MERCHANDISE EXPORTS

The Los Angeles MSA—which includes both Los Angeles and Orange County—ranked as the fourth-largest metro in terms of merchandise exports in 2024, trailing only the Houston MSA (1st), New York MSA (2nd), and the oil and gas hub of Corpus Christi (3rd). Exports account for just over 5% of Gross County Product in both Los Angeles and Orange County. But 2024 was a weak year: merchandise exports declined by -1.0% for the Los Angeles MSA and by -1.8% for Orange County.

Exports have been weighed down by a soft global outlook, as tightening by central banks around the world has curbed demand. Even so, the region's performance lags behind the national

trend—U.S. merchandise exports rose nearly 2% over the same period. More concerning is the longer-term stagnation of the region's export base. At $58.9 billion, Los Angeles MSA exports remain $2 billion below pre-pandemic levels and a full $17.3 billion below their 2013 peak of $76.3 billion. Orange County tells a similar story: exports are still roughly $720 million below pre-pandemic levels and $10 billion short of their all-time high of $25 billion in 2013. In contrast, the Inland Empire's merchandise exports have shown far more resilience. While they declined modestly over the past two years, they remain $1.3 billion above pre-pandemic levels. Unlike LA and Orange County, there is no evidence of a secular decline in the region's export base over the past decade.

The export outlook for 2025 has darkened considerably, clouded by a structural reordering of global trade, sharply higher tariffs, and an escalating U.S.–China trade war. While we anticipate that tariff levels will eventually ease, any resolution—especially with China—is likely to be protracted, requiring lengthy negotiations to unwind deeply entrenched trade barriers.

Against this backdrop, merchandise exports from the Los Angeles MSA are projected to fall by 9.6% in 2025, dropping to $53.3 billion—the lowest level since the pandemic. A modest rebound is expected, with growth of 5.2% in 2026 and 4.0% in 2027, as tariff pressures begin to abate. Still, by the end of the forecast horizon in 2027, exports from the region will remain $0.6 billion below current levels and a full $18.0 billion short of the 2013 peak of $76.3 billion. Orange County faces a similar trajectory. Exports are forecast to contract by 8.6% in 2025, with declines expected across nearly all major trading partners. A recovery is projected for the following years, with growth of 6.0% in 2026 and 4.8% in 2027. Yet even with the rebound, total exports from the county are expected to reach just $16 billion by 2027—essentially flat compared to 2023.

By contrast, the Inland Empire is expected to fare better. While exports are forecast to decline by a more modest 6.9% in 2025, they are set to recover with growth of 6.6% in 2026 and 3.8% in 2027. By the end of the forecast period, exports from the Inland Empire are projected to reach a record high of $11.3 billion—underscoring the region's relatively stronger export momentum over the past decade.

Table 1
Merchandise Exports
Orange County, Los Angeles-Long Beach-Anaheim MSA and the Inland Empire
(millions of dollars)

Year	OC Export Volume	OC Exports Growth Rate	LA-LB-SA Export Volume	LA-LB-SA Exports Growth Rate	Inland Empire Exports Volume	Inland Empire Exports Growth
2024	15,836	-1.8%	58,953	-1.0%	11,022	-1.8%
			Forecast			
2025	14,468	-8.6%	53,321	-9.6%	10,260	-6.9%
2026	15,336	6.0%	56,115	5.2%	10,937	6.6%
2027	16,074	4.8%	58,346	4.0%	11,352	3.8%

Source: *Woods Center, California State University Fullerton & International Trade Administration*

A. FAST AND FURIOUS: GLOBAL TRADE UNDER A NEW REGIME

"History doesn't repeat itself, but it often rhymes." Mark Twain's quip has rarely felt more prescient. Fresh off a sweeping electoral victory, the second Trump administration is attempting nothing short of a radical remake—of both the post-war global order and the U.S. economy—an agenda that is at once ambitious and extraordinarily risky. The speed is dizzying, relentless, and more chaotic than usual even for an administration that courts and thrives in chaos.

The most sweeping change has come from tariffs. In his April 2 unveiling—grandly dubbed "Liberation Day" by the president—the world received a clear message: the post-war global order, and the era of globalization as we've known it, is over. The raft of tariffs was so sweeping, it went beyond even the worst-case scenarios the market had braced for. No country was spared. A universal 10% tariff was imposed on all imports to curb tariff avoidance, while reciprocal tariffs targeted countries with which the U.S. runs large trade deficits. Countries in Asia were hit hardest: India will now face tariffs of 26%, South Korea 25%, Japan 24%, Taiwan 32%, and Thailand 36%. Tariffs on Chinese goods will rise by an additional 34%, on top of the existing 20% imposed earlier this year (10% in February and another 10% in March). Levies on EU imports will increase to 20%, while the UK and Australia—with which the U.S. runs trade surpluses—will be subject only to the baseline 10%. And there was little time to adjust: the universal tariff takes effect on April 5th, with the reciprocal tariffs following just days later, on April 9th.

There were a few acts of mercy. Mexico and Canada were exempted from the universal 10% tariffs, but only because they are already subject to a 25% tariff on non-USMCA-compliant goods—covering roughly 50% of imports from Mexico and 62% from Canada. USMCA-compliant goods are still exempt from tariffs, offering some relief to our closest trading partners. Specific sectors already subject to some tariffs—such as steel, aluminum, and autos, all currently at 25%—were also spared from the reciprocal measures. Some sectors breathed a sigh of relief as well: the executive order exempted pharmaceuticals, semiconductors, copper, lumber, energy, bullion, and a handful of critical minerals from the new tariffs. Still, President Trump has signaled that additional duties on these products are coming at a later date.

The scope of the new tariffs was staggering, covering nearly all U.S. imports—$2.8 trillion in 2024, or roughly 87% of the total. By contrast, Trump's first term saw tariffs on $385 billion worth of goods, mostly from China (Table A1). So, yes, history may rhyme, but this time, the Trump administration isn't just humming an old tune but rather marching to a much more militant battle hymn given the speed, scope and depth of tariffs and trade-related measures it has proposed and adopted.

Table A1
Tariffs are Far More Reaching Now than in 2018-2019

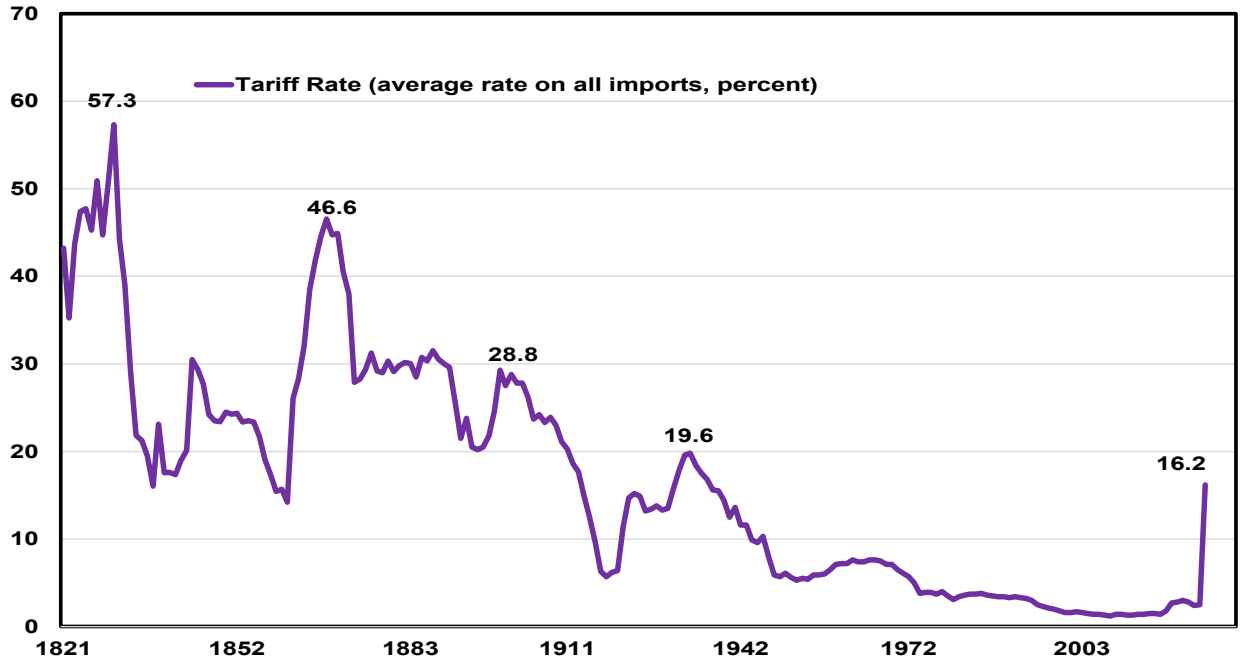
	First Trump Administration	Second Trump Administration
Value of Imports Tariffed	$380 billion	$2.6 trillion
Percent of Total US Imports Tariffed	15%	82%
Average Effective Tariff Rate	2.7%	13.5%

It's also far from clear how the administration arrived at the final tariff rates. Some of the figures were so shocking—verging on the nonsensical—you had to blink twice to make sure they weren't a mistake. While it pledged "reciprocal tariffs—no more, no less," and suggested a more sophisticated formula that would account for VATs, currency manipulation, and other trade distortions, the reality appears far more simplistic. It seems the administration merely took the U.S. bilateral trade deficit as a share of imports from each country and cut that figure roughly in half—an approach Mr. Trump described as an act of "great kindness." This is a remarkably crude way to go about it and one that does not quite reflect "reciprocity"—not even close.

In fact, these "reciprocal tariffs" were so eye-wateringly high that as we anticipated upon their announcement, they could only be interpreted as an opening salvo in a broader negotiation strategy. And so it was. In what may come to be known as "Liberation from Liberation Day," just one week after imposing the tariffs and a mere 12 hours after they took full effect, President Trump paused all punitive reciprocal tariffs for 90 days, replacing them with a universal 10% baseline. At the same time, he doubled down on China, raising its tariff burden to a staggering 125%. The pause is intended to give the 75 countries that have come knocking time to carve out negotiated solutions.

This is certainly good news. While the average trade-weighted tariff rate remains high—driven largely by the vertiginous China tariffs—at 21.2%, that figure assumes no drop in import volumes (they will fall) and no import substitution (they will shift away from China), neither of which is realistic. Once these adjustments are factored in, the average effective tariff rate—the measure that truly matters—has settled at 16.2%. That's still well above the 2.5% rate at the start of the year, but meaningfully below the eye-popping 25.5% announced on April 2 (Figure A1). Had that rate held, it would have marked the highest tariff burden in over a century. The promised Golden Age would have arrived—draped in tariffs straight out of the Gilded Age.

Figure A1
If Fully Implemented, Proposed Tariffs Would Be the Highest in a Century
(tariff rate, average rate on all imports, percent)



The focus on tariffs comes from the fact that Mr. Trump sees them as a singularly effective tool for achieving multiple objectives. Some of these goals echo those of his first term, such as addressing unfair trade practices, correcting significant trade imbalances, shoring up national supply chains, reducing strategic vulnerabilities, rebuilding U.S. manufacturing, and gaining negotiating leverage. But two new goals have taken on greater significance. First, tariffs are now being used to address non-economic foreign policy issues—from immigration and fentanyl trafficking (Mexico, Canada, China) to broader geopolitical concerns (Greenland). Second—and less discussed—is their role as a revenue-generating tool to help fund proposed tax cuts. It is perhaps this last objective, often overlooked, that may prove the most consequential, because it means that even in a best-case scenario, some version of these tariffs will remain in the long haul.

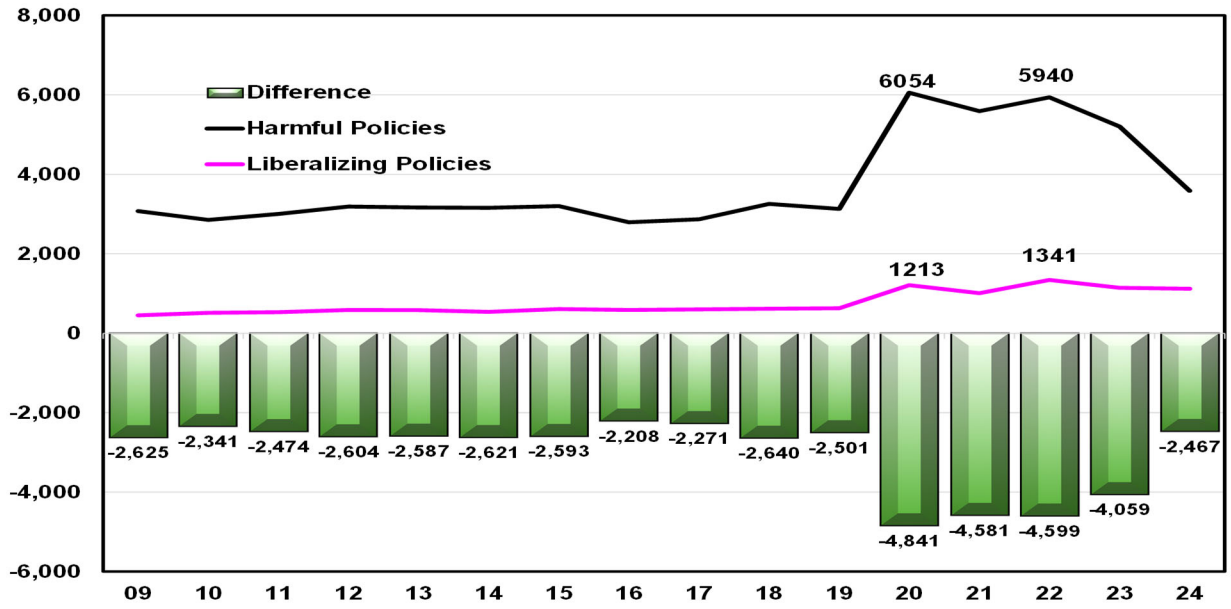
The problem is that with so many objectives at once, the administration often loses track of which goal it is prioritizing at any given moment. Some goals even contradict each other—such as trying to raise revenue and support domestic manufacturing (which assumes tariffs are here to stay) while using those same tariffs as bargaining chips in trade talks (which assumes they'll be lifted). That's why interpretations of its trade agenda vary so widely: it's never quite clear what the real aim is.

But that might be just as well, if you ask the administration. In fact, in our view, it is very likely that Mr. Trump is less committed to a particular fixed policy than he is to the broader conviction that

tariffs, however deployed, yield a win-win outcome. If they stick, revenues rise and (ideally) some manufacturing returns home. If they're lowered in exchange for other countries reducing their own barriers, that's a win too—U.S. exports gain market access, and the administration gets to declare victory. Either way, "We have cards," as Mr. Trump would put it. And on that point, he's not wrong.

It should be noted that for all the shock-and-awe style of the current administration, America's protectionist turn is neither new nor unfolding in isolation. The Biden White House largely preserved Trump-era tariffs and trade restrictions, taking them even further. It slapped punishing new levies on Chinese imports, including a 100% tariff on electric vehicles and 50% duties on semiconductors and solar cells. Yet the forces driving deglobalization and trade fragmentation predate both administrations. They first emerged during the 2008-09 financial crisis, gathering speed with the failure of the Doha trade talks, Brexit, Trump's first term, COVID-19, and the Russia-Ukraine war. The number of harmful trade restrictions put in place during this period far surpassed the number of trade liberalization measures, particularly from 2018 to 2022, as the U.S.-China trade war and pandemic-driven supply chain disruptions accelerated the global retreat from free trade. (Figure A2). There is no doubt that the world economy has become more closed than open, more fractured than integrated, more isolated than liberalized.

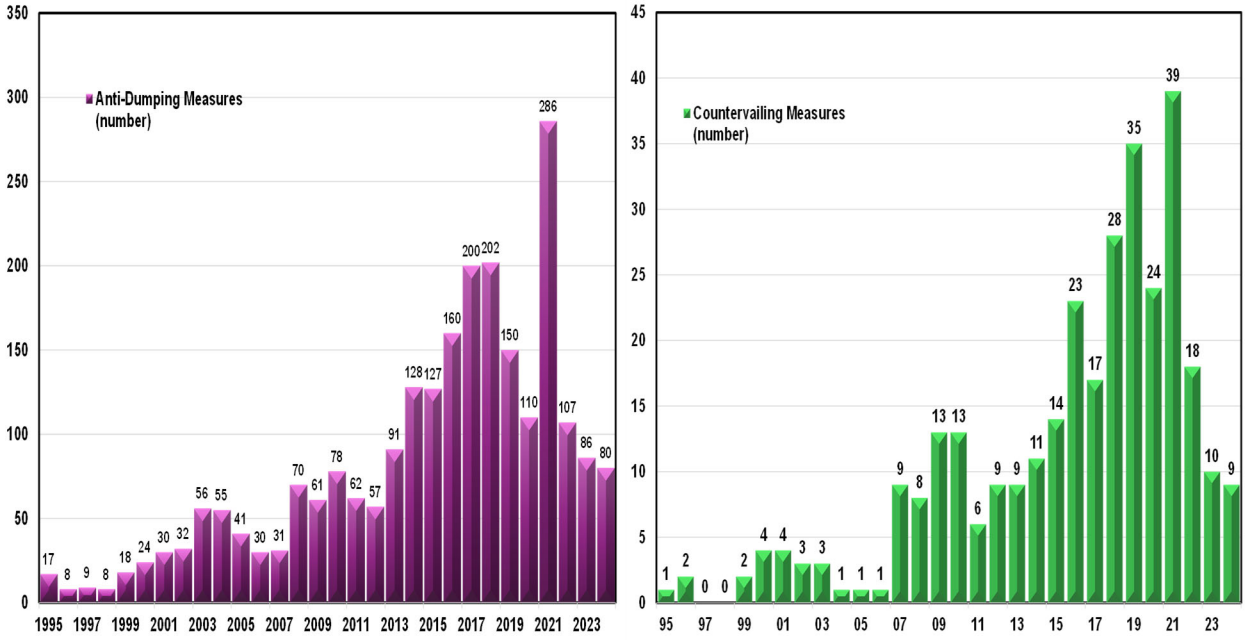
Figure A2
De-Globalized: Harmful Trade Policies Have Vastly Outnumbered Liberalizing Policies
(number of trade policies, per year)



It is not hard to see why the era of hyper-globalization—stretching from the mid-1990s to the 2008 financial crisis—has suffered repeated setbacks ever since. Long-standing issues related to globalization such as inequality, labor market disruptions, and unfair trade practices were never properly addressed. Take inequality first: While across-country inequality fell during the period of

hyper-globalization, it appears to be increasingly the case that this may have occurred at the expense of a rise of within-country inequality. A billion people were lifted out of poverty over the past three decades in large part because of globalization, but these gains were decidedly lopsided: the richest 1% gained 38% of the wealth generated globally, yet the poorest 50% gained only 2% of this wealth. Labor market displacements widened: Six million U.S. manufacturing jobs were lost between 2001 (when China joined the WTO) and 2010, two million of which were directly attributed to China's rising importance as the world's manufacturing hub. The rapid rise of China in global trade and its sometimes-underhanded trade practices (protectionism, subsidies, overcapacity, failure to protect intellectual property rights) raised concerns about unfair trade practices, further fueling the global shift towards protectionism. The number of anti-dumping and countervailing measures, aimed primarily at China, exploded during this period (Figure A3).

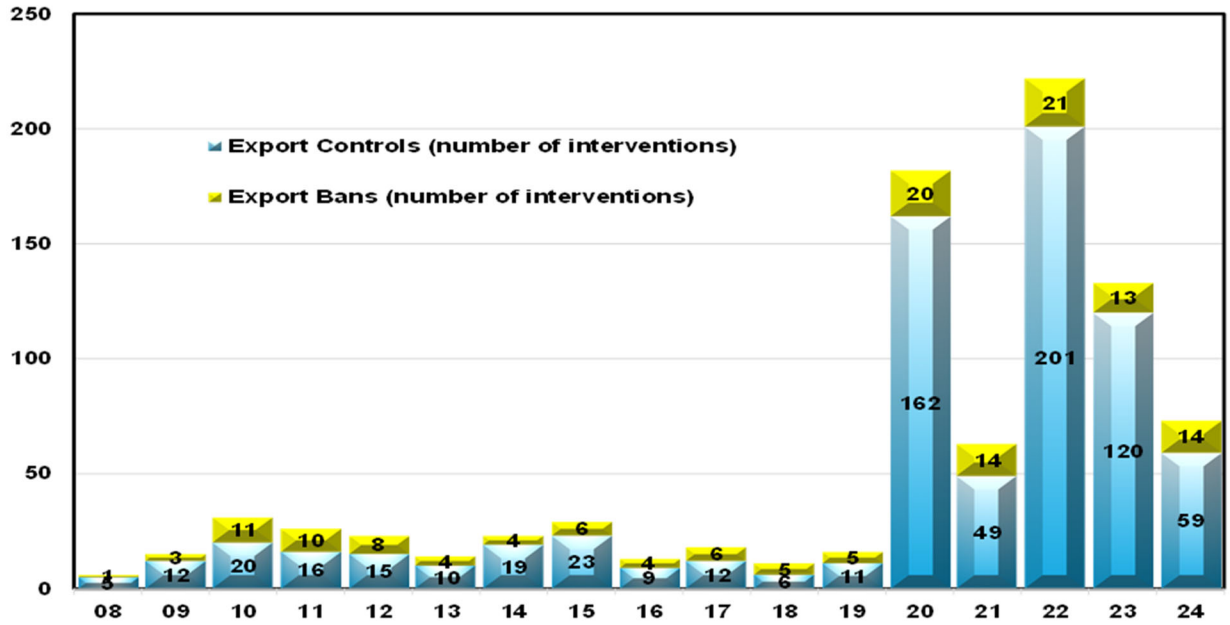
Figure A3
Trade Restrictions Have Been on the Rise Since the Financial Crisis
(anti-dumping and countervailing measures, number)



The pandemic further reinforced these trends, exposing glaring vulnerabilities in supply chains, forcing firms to rethink their dependence on efficiency and pivot toward diversification, resilience, and sustainability. The Russia-Ukraine war fragmented the global world order even further, highlighting geopolitical risks and national security concerns. Countries rushed to shore up sectors deemed important to national and economic security, ramping up export controls and export bans on products of strategic importance (Figure A4). Geopolitical risk and national security concerns now dictate economic alliances, drawing countries with shared interests into tighter blocs. The result is a "new cold war" where the traditional vision of global interconnectedness is being replaced by a world of **cliques and walls**, as we wrote in the last report. Trade and business relations are strengthened between countries in the same clique via the harmonization of regulatory systems,

further integration, and trade ties. Walls are erected to do exactly the opposite, creating trade barriers and fewer trade relations amongst countries belonging to other clubs.

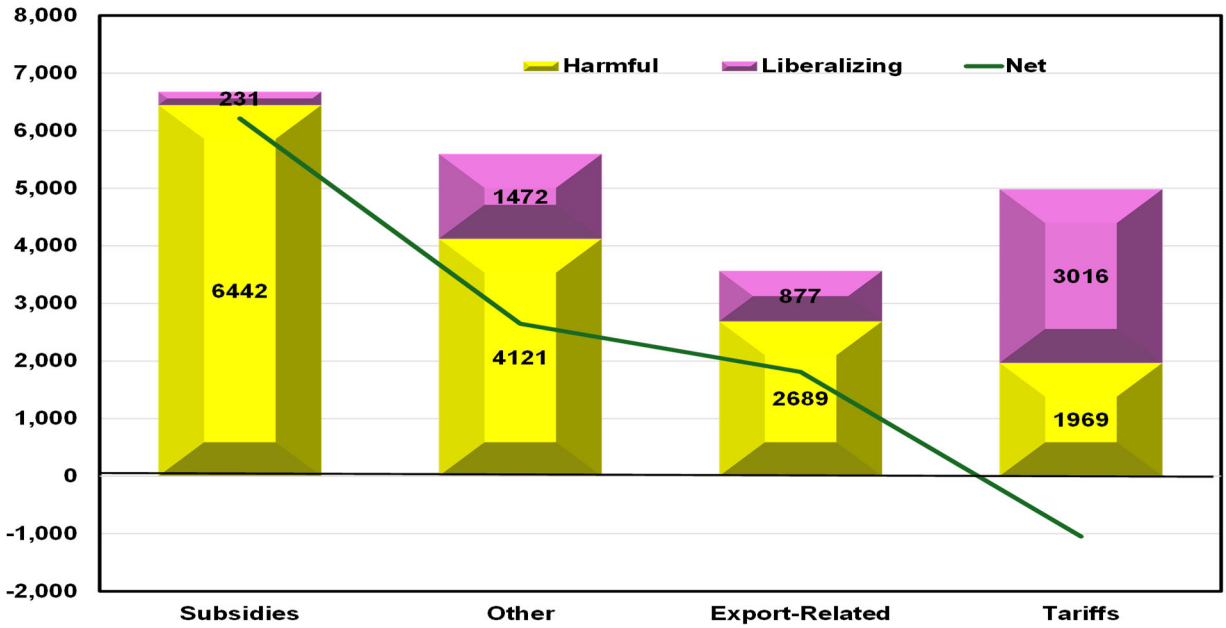
Figure A4
Export Controls Have Surged Since COVID-19 and Russia-Ukraine War
(number of interventions)



Perhaps the most surprising aspect of the past 15 years of rising protectionism isn't its scale—it's the instruments used to carry it out. One might assume tariffs would be at the forefront. But reality tells a different tale: tariffs have actually played a more supportive role in global trade integration since the financial crisis. Since 2008, governments worldwide have introduced around 2,000 tariff-related measures that restrict trade—but they've enacted over 3,000 tariff adjustments aimed at liberalization and trade cooperation (Figure A5). On net, global tariff policy has eased, not tightened, since the Great Recession. Instead, the protectionist surge has taken a different form, relying primarily on subsidies, export controls, and other restrictive measures. Over the past 15 years, governments have deployed nearly 6,500 subsidies and 2,700 export controls designed to restrict global trade—compared to just 230 liberalizing subsidies and 877 export-related measures aimed at fostering trade.

The current administration's aggressive pivot to tariffs marks a sharp break from this trend. This shift suggests that tariffs are not just being deployed as a tool to reshape global trade, but as a crucial mechanism for other objectives, chief among which is a desire to revive the manufacturing sector and to raise revenue. But rewiring the American and global economies is not only an extraordinarily ambitious undertaking—it's also a highly risky gamble.

Figure A5
Tariffs Were Not Wielded as Protectionist Measures Over Past 15 Years
(number of interventions)



Perhaps just as concerning is the chaotic, disorienting, arbitrary, and at times mercurial manner in which these policies are being rolled out—even by the standards of an administration that seems to thrive on disorder. "Liberation Day" tariffs were first touted, then imposed with a heavy hand, then paused. Tariffs on Mexican and Canadian goods were announced, postponed, reimposed, and then partially rolled back in piecemeal fashion. Auto tariffs followed a similar script—imposed, then delayed by a month. The *de minimis* waiver, which exempts imports under $800 from duties, was revoked in February, hastily reinstated after customs systems were overwhelmed by a flood of parcels, and will be revoked again in early May. So, while the tariff wall has now come down from its prohibitively high levels, the saga is far from over—as countries haggle with the administration for carve-outs and concessions.

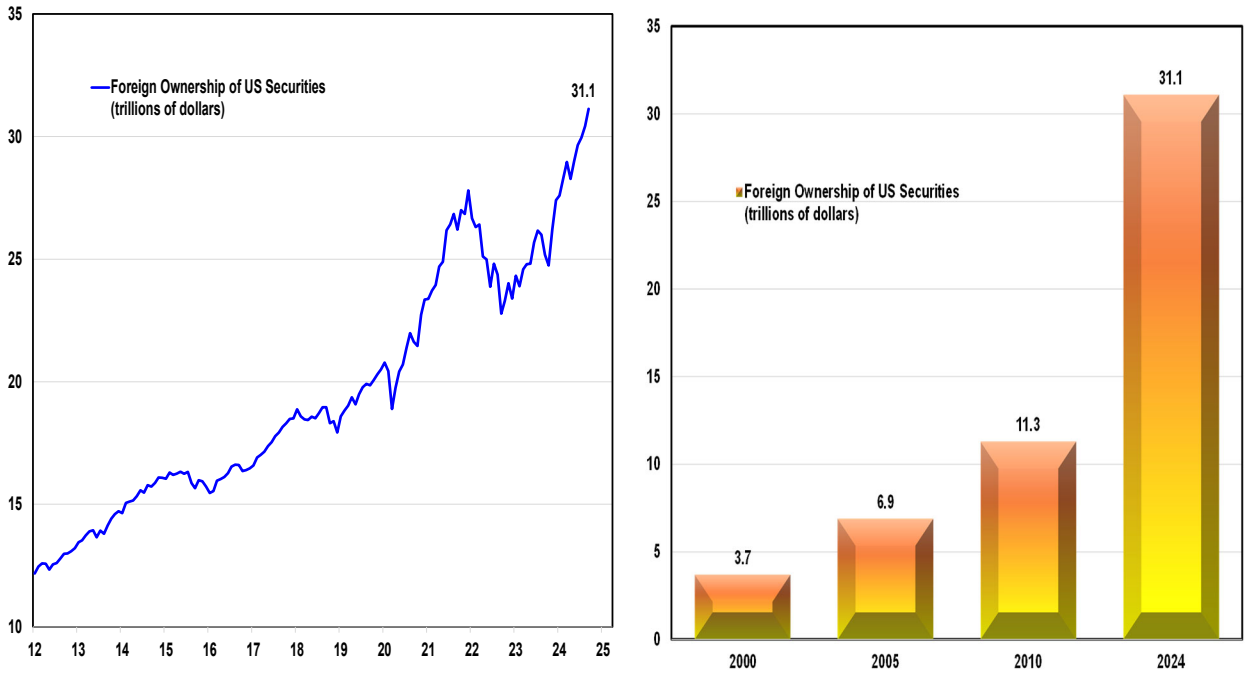
To this end, while we believe tariffs are here to stay, at least for the duration of the current administration, the current 15.5% average likely marks a ceiling, leaving ample room for negotiation. We expect a number of broader trade deals to emerge, in which tariffs—and potentially other trade barriers—could be rolled back on both sides. Several countries—Israel, Vietnam, Taiwan, and Zimbabwe—have already offered to cut their tariffs on U.S. goods to zero, while the EU has proposed eliminating tariffs on industrial goods. We wouldn't be surprised if more follow suit. According to the White House, as of this writing, 130 countries have already reached out in hopes of striking a deal.

As we outline below, we see the current tariff landscape falling broadly into five categories: (a) USMCA countries; (b) reciprocal tariff countries—typically those with which the U.S. runs large trade deficits; (c) sector-specific tariffs; (d) China; and (e) the universal 10% group. With the exception of the last category, where tariff reductions appear least likely, we expect trade negotiations to yield tariff cuts—and potentially dismantle some trade barriers—in the remaining four, though to varying degrees. The greatest potential for tariff reduction lies in the first three categories, where we expect the current U.S. tariff wall to come down meaningfully—with more limited, though still significant, reductions likely in the case of China.

All this will take time—especially if negotiations expand to include haggling over non-tariff trade barriers. The administration has even signaled it would consider commitments on future U.S. investments as part of broader deals. We wouldn't be surprised if the 90-day pause is extended—perhaps repeatedly—before any meaningful frameworks with dozens of trading partners take shape. This means the current tariff structure is likely to remain in place for the foreseeable future.

This comes with plenty of risks. America's retreat from the world may also carry a hefty price, particularly as it may jeopardize large foreign capital inflows needed to fund its perennial deficits. For decades, large U.S. trade deficits have been offset by massive foreign capital inflows, with foreign ownership of U.S. securities surging to $31.2 trillion in Q3 2024, up from just $3.7 trillion in 2000 (Figure A6). Thus, any calibration away from this carefully choreographed balance would require a long period of adjustment and careful calibration.

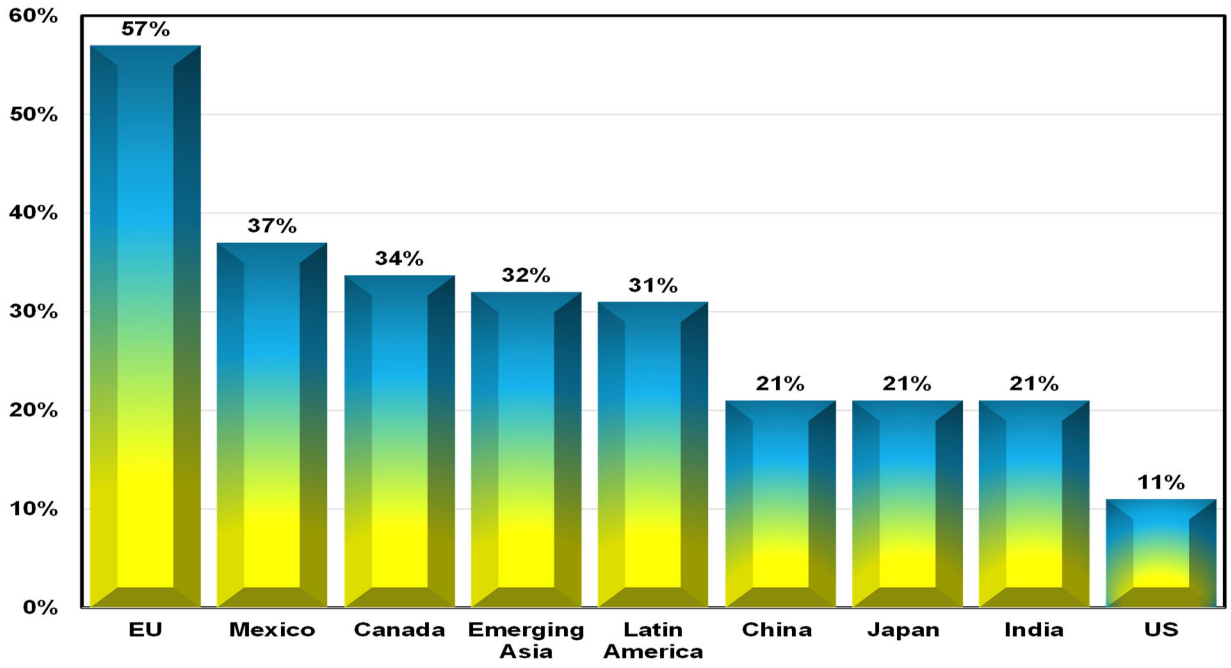
Figure A6
U.S. Is Very Reliant on Foreign Capital
(trillions of dollars)



But if protectionism is here to stay—as it appears to be—no country is better positioned to withstand it than the United States. America is geographically blessed, with vast natural resources, fertile lands, forests, and abundant freshwater. The Mississippi River system serves as an unrivaled internal transportation network, the Great Plains form the largest contiguous mass of arable land, and the Great Lakes are the largest freshwater system in the world. America produces more crude oil than any nation on the planet, which explains why energy costs are a third of the costs in Europe. It boasts a highly skilled workforce, the world's most innovative technology sector, deep and sophisticated capital markets, and the most powerful military.

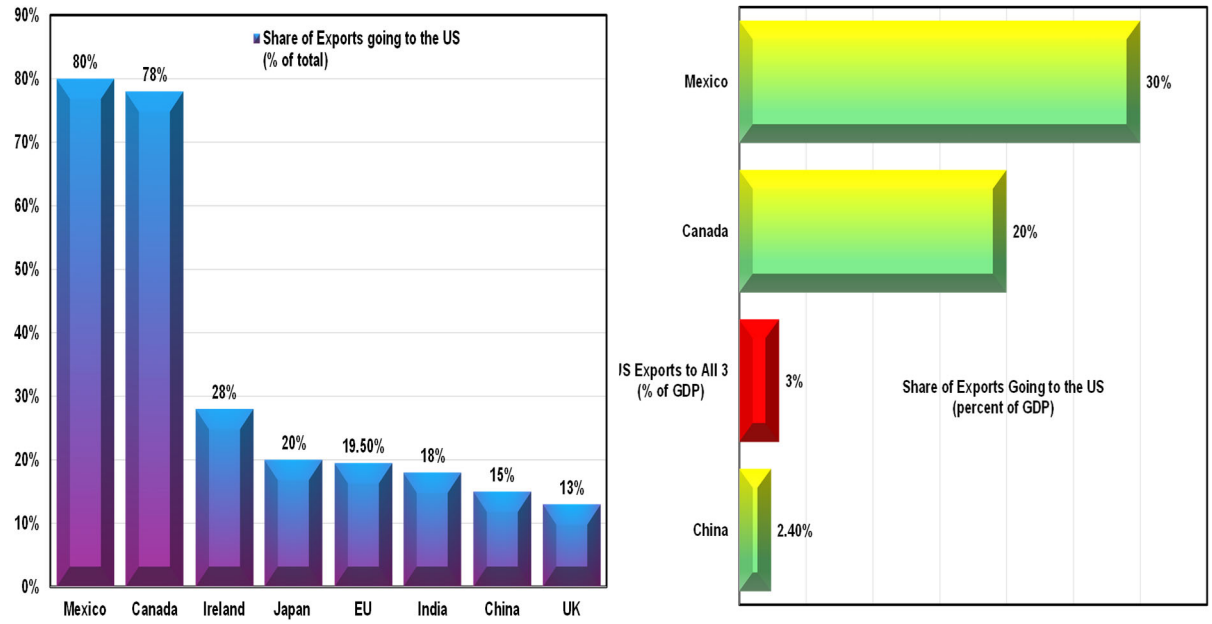
In truth, America's self-sustained, continent-sized economy has always been more closed than open with trade being more of a residual activity than its driving force. Last year, exports of goods and services made up just 11% of U.S. real GDP, a fraction of the EU's 57%, Mexico's 37%, Canada's 33.7%, and even China, Japan, and India's 21% (Figure A7).

Figure A7
America's Trading Partners are Much More Reliant on Trade
(trade, percent of GDP)



Mexico and Canada, in particular, remain heavily dependent on U.S. trade, with over 75% of their exports bound for the U.S., making up 30% and 20% of their GDP, respectively, leaving them vulnerable in a tit-for-tat trade war (Figure A8). By contrast, U.S. exports to its top three trading partners—Mexico, Canada, and China—account for just 3% of its GDP, underscoring America's comparative insulation from trade disruptions.

Figure A8
Other Economies Have Large Exposure to the U.S.



With these observations in mind, we first examine Mr. Trump's first trade war (2018-2019) and its economic impact to gain insight into what might unfold this time. Then, we turn to the current landscape to assess the next phase of U.S. trade policy and its impact on economic growth, trade, and exports.

B. The Art of the Tariff: Trump's First Trade War

In January 2018, the Trump administration launched its first wave of tariffs, imposing a 30% tariff on solar panels and a 20%-50% levy on imported washing machines (Table B1). These levies were initially set for three years, later extended for two more years, before expiring in 2023. However, their impact was quite minuscule, covering just $8.5 billion in solar panel imports and $1.8 billion in washing machines. Then in March 2018, the US levied a 25% tariff on imported steel and a 10% tariff on aluminum, affecting $29.4 billion in steel imports and $17.6 billion in aluminum imports. These tariffs, though sweeping, were riddled with carveouts with over 100,000 company- and product-specific exemptions as well as numerous country exemptions. Australia received a permanent exemption early on; Brazil and South Korea agreed to steel import quotas; Argentina accepted quotas for both steel and aluminum. For Canada and Mexico, the tariffs were temporarily lifted, reimposed in June 2018, then removed again in May 2019. The on-again/off-again ordeal continued when aluminum tariffs on Canada were briefly reinstated in August 2020, targeting $2.5 billion in non-alloyed wrought aluminum, only to be scrapped a month later.

Table B1
A Brief Account of Trump's First Trade War

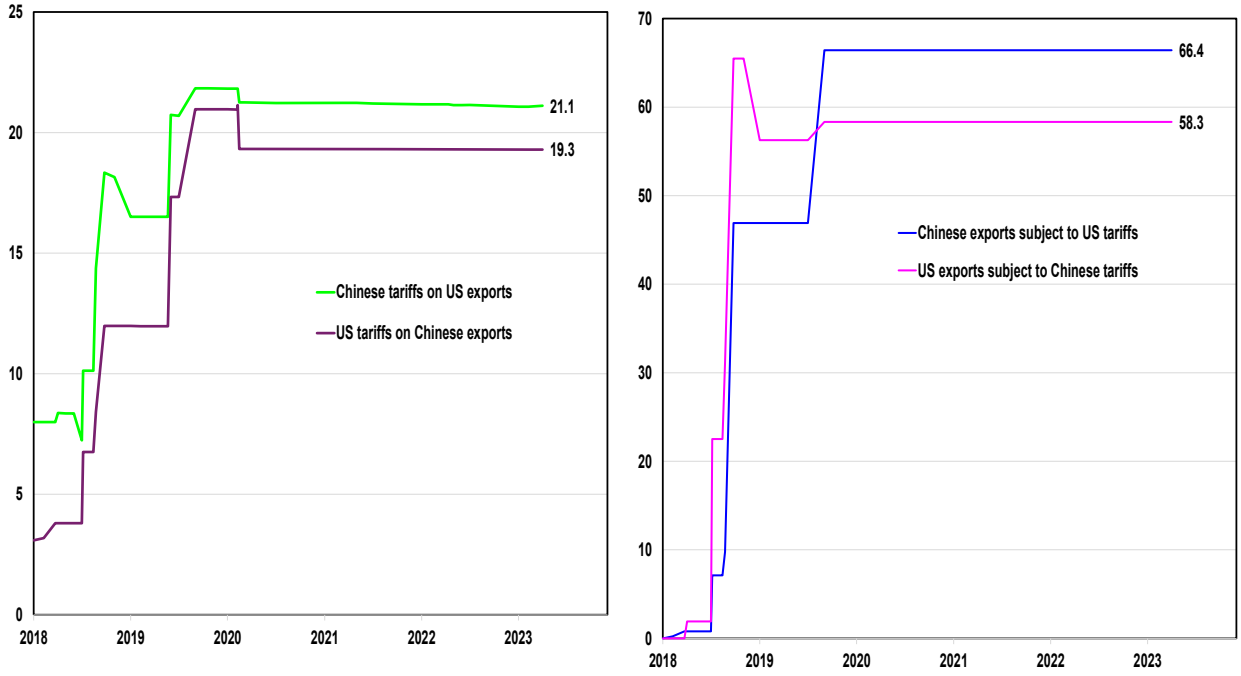
Type of Tariffs	Value of Imports Affected	Tariff Rate
Solar Panels	$8.5 billion	30%
Washing Machines	$1.8 billion	20%-50%
Section 232 Steel (March 2018)	$29.4 billion	25%
Section 232 Aluminum (March 2018)	$17.6 billion	10%
Section 301, China, List 1 (July 2018)	$34.0 billion	25%
Section 301, China, List 2 (August 2018)	$16.0 billion	25%
Section 301, China, List 3 (September 2018, increased May 2019)	$200.0 billion	10% then 25%
Section 301, China, List 4A (September 2019, lowered January 2020)	$112.2 billion	15% then 7.5%

The true clash came in mid-2018, when the U.S. and China escalated a tit-for-tat tariff war, each imposing an increasing raft of duties on the other's exports. Early U.S. rounds targeted industrial components and tech goods, while later rounds hit consumer products. The only items spared from the first trade war were popular consumer electronics—cell phones, laptops, computer monitors, video game consoles, and certain toys—a luxury not afforded this time around.

In July 2018, the U.S. imposed 25% tariffs on $34 billion of Chinese goods (List 1), prompting China to retaliate with an identical tariff on $34 billion of American exports. A month later, the U.S. levied another 25% tariff on $16 billion of Chinese imports (List 2), to which China responded in kind. The trade war escalated further in September 2018, when the U.S. hit an additional $200 billion of Chinese imports with a 10% tariff (List 3), and China retaliated against $60 billion of U.S. exports. In May 2019, the U.S. increased the 10% tariffs to 25%, intensifying the trade dispute. By September 2019, the Trump administration imposed 15% tariffs on $112 billion of Chinese imports (List 4A), with an additional 15% tariff on $160 billion of Chinese imports (List 4B) set to follow in December. However, these final tariffs never went into effect as the two countries reached a "Phase One" trade deal, in which the U.S. indefinitely postponed the List 4B tariffs and reduced the List 4A tariffs from 15% to 7.5% in January 2020.

By the end of Trump's first term, the U.S. average tariff rate on China had soared from 3.1% in 2018 to 19.3%, while Chinese tariffs on U.S. exports rose from 8.3% to 21.1%. All told, about two-thirds of Chinese imports to America and 58% of U.S. exports to China were subject to higher tariffs, marking one of the most significant trade conflicts in modern history (Figure B1).

Figure B1
The U.S.-China Trade War



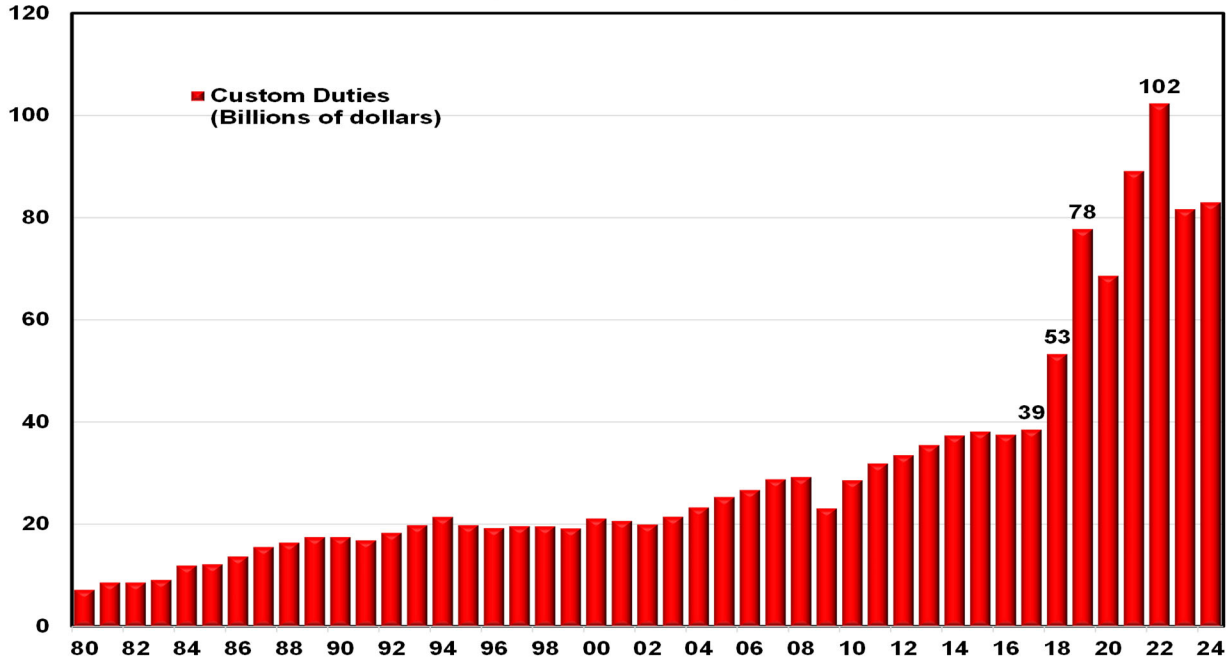
The prevailing consensus at the time was that America's shift toward protectionism would fade with the end of Trump's first term. It did not. Aside from minor adjustments at the margins, the Biden administration proved nearly as resistant to globalization as its predecessor. It reauthorized solar panel tariffs for another four years, though it later granted two-year exemptions for imports from four Southeast Asian nations. The administration also replaced certain steel and aluminum tariffs on the EU, Japan, and the UK with a tariff-rate quota system, allowing a limited volume of imports to enter tariff-free while imposing duties on shipments exceeding the quota. Most importantly, the Biden administration not only preserved all of Trump's tariffs on Chinese imports but significantly escalated them. In May 2024, tariffs on Chinese semiconductors and solar cells jumped from 25% to 50%, syringes and needles saw an increase from 0% to 50%, and lithium-ion batteries climbed from 7.5% to 25% (Table B2). The most dramatic hike came for Chinese EVs, which saw their tariff rate quadruple from 25% to 100%—a move aimed at curbing Beijing's dominance in the sector.

Table B2
Tariffs Against China Ramped Up Under Biden Administration

Product	Trump Tariffs	Biden Tariffs
Electric Vehicles	25%	100%
Semiconductors	25%	50%
Solar Cells	25%	50%
Syringes	0%	50%
Steel & Aluminum	7.50%	25%
Lithium-Ion Batteries	7.50%	25%
Battery Parts	7.50%	25%
PPE	7.50%	25%
Medical Gloves	7.50%	25%
Graphite	0%	25%
Other Critical Minerals	0%	25%

The effects of the first trade war were decidedly mixed. Despite copious amounts of ink in the financial press, dire predictions and endless handwringing, the net impact on America's average tariff rate was a modest 1.5 percentage point increase. Tariff revenues more than doubled from around $40 billion in 2017 to over $100 billion in 2022 (Figure B2). All told, by the end of 2024, the trade war had generated a total of $264 billion in additional customs duties for the U.S. government. Of that total, around $89 billion (34%) was collected during the Trump administration, while the remaining $175 billion (66%), came during Biden's tenure.

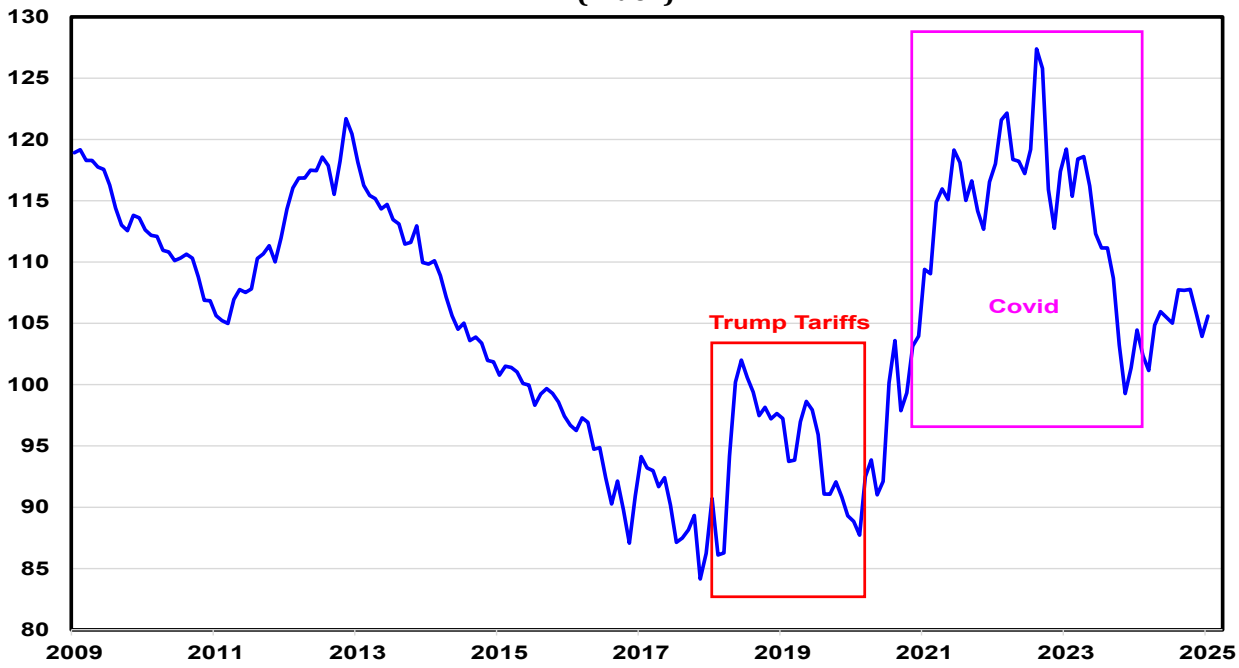
Figure B2
Tariff Revenues Have Increased Under Both Administrations
(billions of dollars)



The economic impact of tariffs is far more nuanced than headlines suggest. Of these, tariffs on washing machines tell perhaps the most favorable tale. Initially, tariffs pushed prices up by about 12%, adding an average of $92 per unit, with prices peaking in July 2018. However, by September 2019, prices had returned to pre-tariff levels, largely due to a successful expansion of domestic production (Figure B3). Whirlpool and GE ramped up U.S.-based manufacturing, while two major foreign producers established operations within the U.S. LG Electronics invested $360 million in a new Tennessee factory, employing around 1,000 workers. Samsung followed suit, spending $350 million to build an appliance manufacturing facility in South Carolina, now employing 1,200 workers.

Tariffs on steel and aluminum imports tell a similar somewhat successful story. To fully appreciate their effects, it's crucial to recognize that both industries have struggled for decades. The global steel market has long suffered from chronic overcapacity in major exporting countries including China, India, Brazil, Korea, Turkey, and the EU, where state-owned and subsidized enterprises flood global markets with cheap steel. The U.S. aluminum industry has been hit even harder. Between 2010 and 2017, 18 of the 23 aluminum smelters shut down, eliminating 13,000 jobs in the sector. By 2016, only three aluminum refineries remained operational in the entire country, and by 2017, that number shrank to just one. Aluminum production today is one-third of what it was 25 years ago, leaving the U.S. heavily reliant on imports. Currently, net aluminum imports account for a jaw-dropping 80% of total U.S. consumption. Steel imports make up 25% of U.S. consumption, but since American steelmakers also export some of their output, net steel imports account for around 15% of domestic demand.

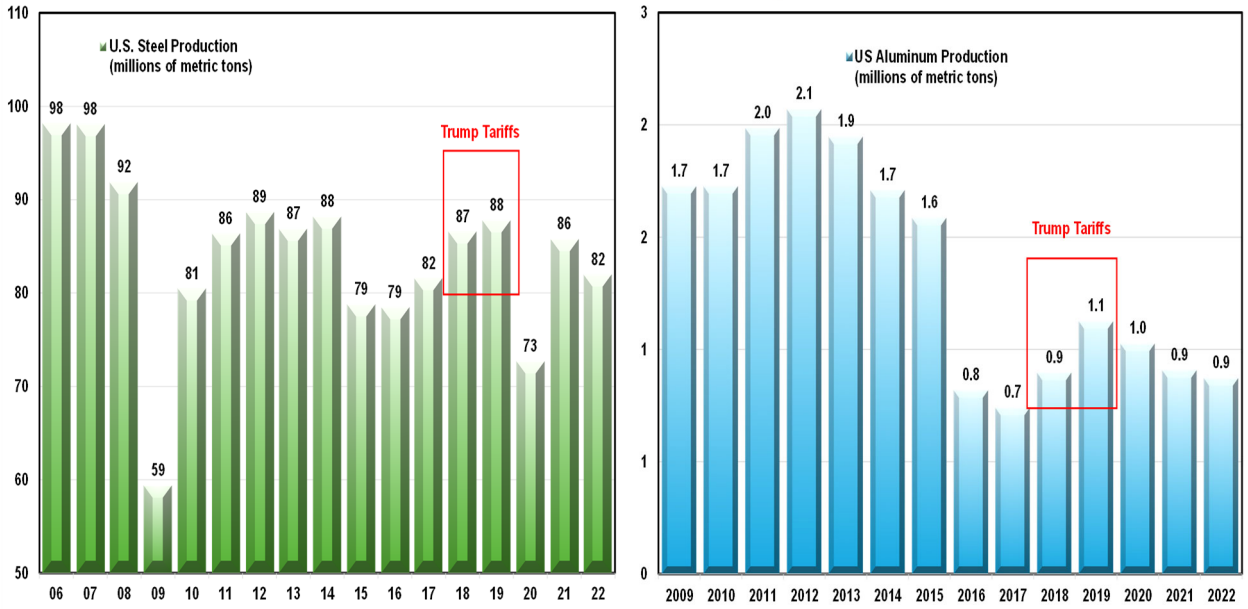
Figure B3
Prices of Washing Machines
(index)



The imposition of tariffs temporarily reversed some of these trends, providing a much-needed boost to domestic steel and aluminum production—at least until the pandemic introduced new disruptions and challenges. However, widespread exemptions (over 100,000 for steel and 12,000 for aluminum) diluted their overall impact. Despite this, steel producers invested more than $15.7 billion in new or upgraded facilities, creating 3,200 direct new jobs. Another $6 billion was poured into plant acquisitions, as part of a broader industry restructuring to increase efficiency and preserve jobs. In the aluminum sector, primary producers invested $350 million to upgrade and expand existing facilities, increasing production by 530,000 metric tons and adding 1,000 new jobs. Downstream aluminum manufacturers also saw a resurgence, with $6 billion invested in restarts or expansions at 55 facilities, creating 4,500 additional jobs. U.S. steel production increased by 8% between 2018 and 2019, while aluminum production surged by more than 50% during the same period (Figure B4).

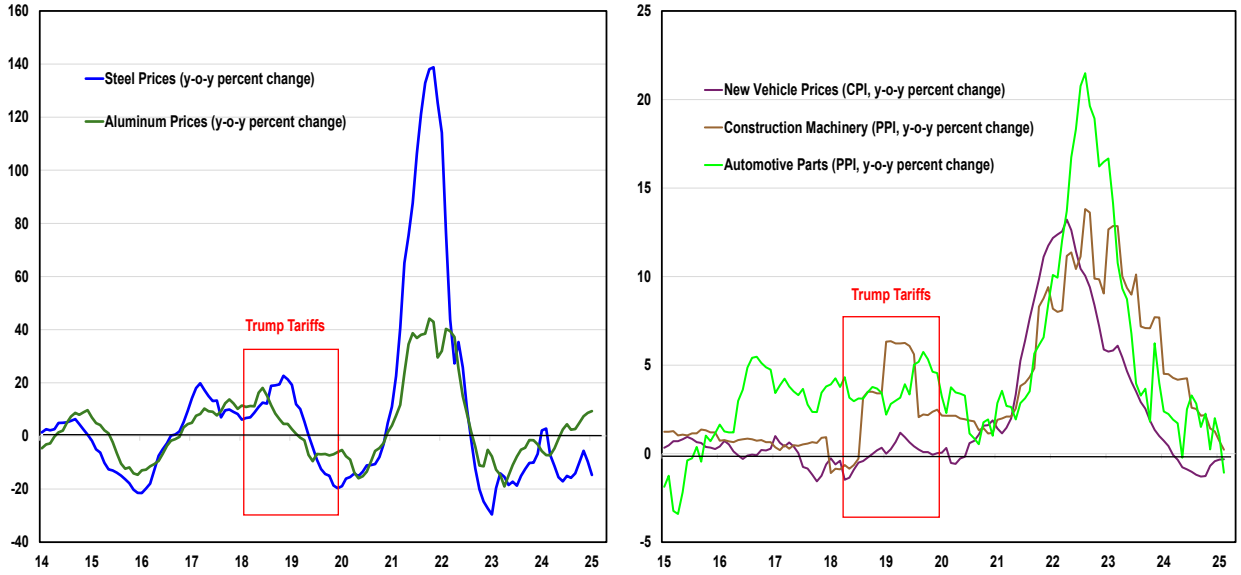
Not surprisingly, tariffs significantly impacted both import levels and the profitability of US producers. Steel imports surged following the Great Recession, reaching 40.2 million metric tons by 2014. A wave of anti-dumping measures aimed mainly against China temporarily curbed imports between 2015 and 2016, reducing them to 30 million metric tons. However, many foreign producers evaded these restrictions by shifting production to third countries, allowing imports to rebound to 35 million metric tons by 2017. The introduction of Section 232 tariffs reversed this trend, driving imports down to the mid-20 million metric ton range, where they have remained ever since. Profitability also rebounded, with net income growing from an average of $73 million from 2009-2016 to $7.9 billion in 2019.

Figure B4
Domestic Production of Steel and Aluminum Rose During the First Trade War
(millions of metric tons)



The impact on prices was relatively muted—and, most importantly, temporary. As with washing machines, prices for steel and aluminum products rose modestly between mid-2018 and early 2019, but declined by late 2019 (Figure B5). Downstream industries such as automotive parts and construction machinery also saw temporary price increases, which similarly reversed by year-end. Notably, new motor vehicle prices remained largely unaffected, suggesting that broader inflationary fears tied to the Section 232 tariffs did not materialize as many had anticipated.

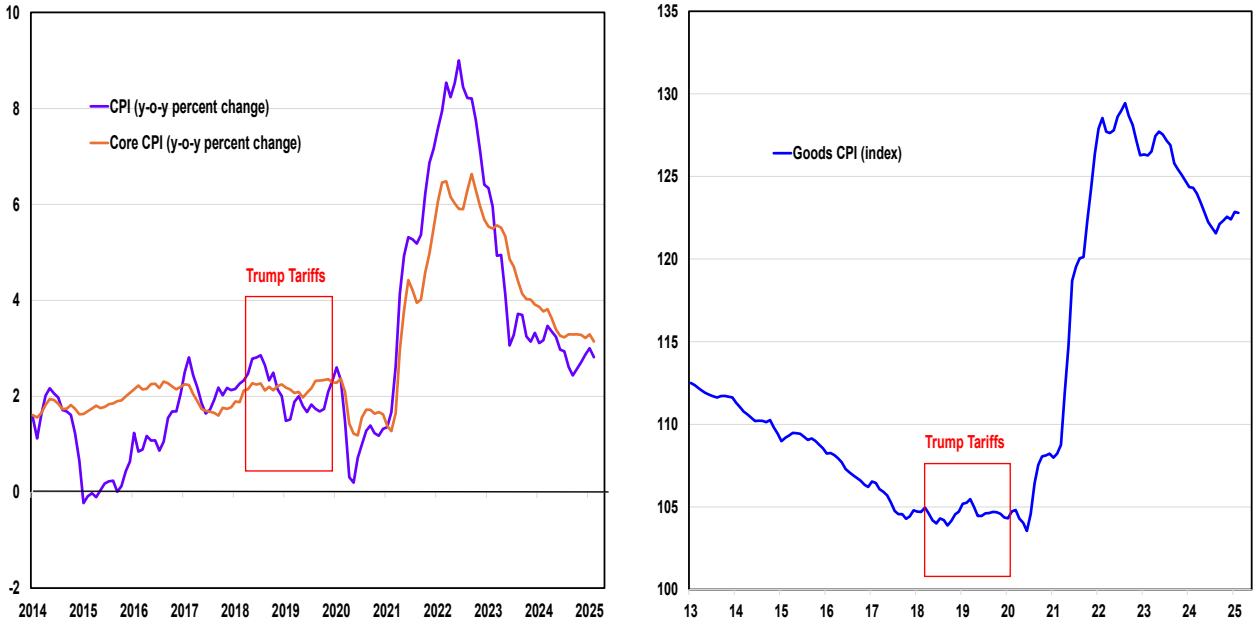
Figure B5
Prices of Steel and Aluminum and Downstream Sectors Experienced a Temporary Increase
(y-o-y percent change)



Tariffs on Chinese goods were so sweeping—covering a total of $364 billion—that the impact is best analyzed at the aggregate level rather than by sector. While tariffs likely contributed to a modest increase in consumer and business investment prices, their overall effect on headline and core inflation remained relatively muted (Figure B6). Notably, durable goods prices remained stable despite the tariffs, only surging in the aftermath of the pandemic, when excessive fiscal stimulus and severe supply chain disruptions triggered a sharp price spike. Overall, most recent studies estimate that tariffs raised aggregate consumer prices by only 0.2 to 0.4 percentage points—a modest impact that fell far short of the dire predictions reported at the time.

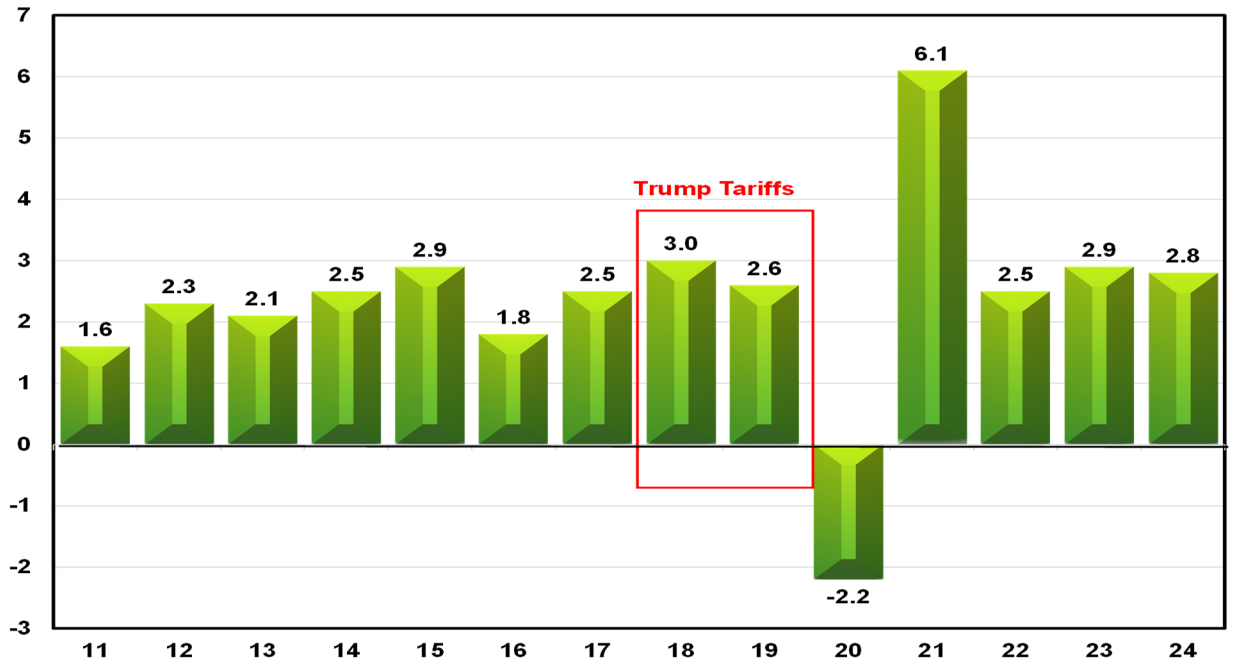
This relatively mild impact on aggregate figures stands in sharp contrast with numerous studies showing a near-complete pass-through effect, suggesting that tariffs were almost entirely reflected in domestic prices of imported goods. On closer examination, this is not that surprising: While tariffs covered $364 billion in Chinese imports, this pales in comparison to the overall size of the U.S. economy, at over $27 trillion. It is also the case that even as tariffs raised the costs of certain imports, other sectors experienced stable or declining prices, helping to offset inflationary pressures. For example, technology and apparel prices remained stable due to global competition and productivity gains. Another mitigating factor was the appreciation of the U.S. dollar, which strengthened nearly 7% from January 2018 until December 2019. Most importantly, as we argue below, one of the most profound consequences of the U.S.-China trade war was the reorientation of supply chains away from China to other low-cost producers, which helped blunt the inflationary impact of tariffs.

Figure B6
Inflation Remained Subdued During the First Trade War
(y-o-y percent change, and index level)



Given the near-complete pass-through to domestic prices, tariffs also affected consumer income and real purchasing power. Some estimates show the burden on consumers in the range of $420-$1200 annually. An analysis by the Tax Foundation estimated that tariffs lowered U.S. after-tax incomes by 1.7%, effectively reducing the purchasing power of American households. But even these findings appear to have had a temporary effect: A study from UCLA estimated that higher import prices were costing the U.S. economy $51 billion annually. But with a general equilibrium model that accounts for the overall dynamic response of the economy, the cost fell to around $7.9 billion and became statistically insignificant. As such, the impact on overall economic growth from the first trade war was rather modest: most studies put it in the 0.2 to 0.5 percentage point range. In fact, real GDP remained quite robust during this period, growing by a healthy 3% in 2018 and 2.6% in 2019 (Figure B7).

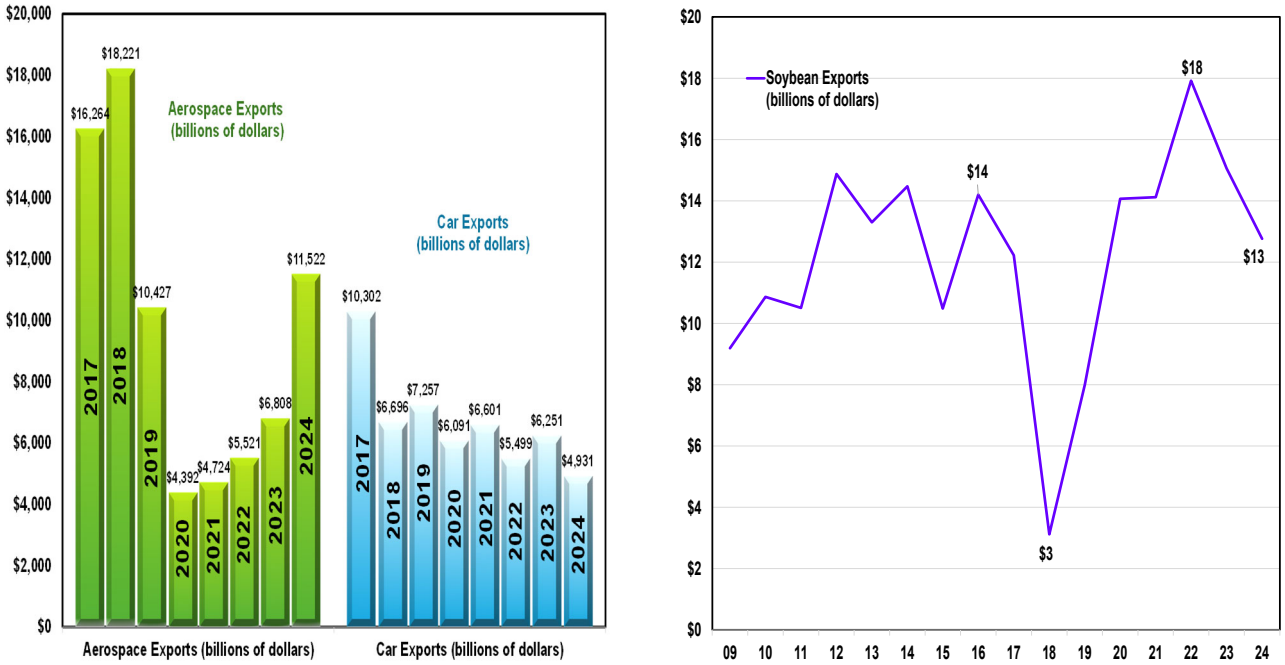
Figure B7
Real GDP Growth Was Robust During First Trade War
(annualized percent change)



Though the Sino-American war had limited impact on topline economic figures, beneath the hood, several sectors suffered devastating blows, largely due to China's retaliatory measures. U.S. aircraft exports dropped 32% by the end of 2019, while auto exports fell by 29% (Figure B8). Both have remained depressed ever since. But by far the hardest-hit sector was agriculture. China's 25% retaliatory tariff on U.S. farm exports led to a dramatic collapse in exports—from $15.8 billion in 2017 to just $3.1 billion in 2018. Soybeans, the largest U.S. export to China, were hit especially hard, with exports plunging by 75% (Figure B8) as tariffs crippled Chinese demand. The fallout was so severe that the U.S. government was forced to step in with a $61 billion bailout, nearly matching the auto industry bailout during the financial crisis. In fact, more than three-quarters of all tariff revenues

collected during this period were redirected to support struggling farmers, underscoring the disproportionate burden of the trade war on American agriculture. While U.S. agricultural exports rebounded post-trade war, peaking at $30 billion in 2022, ongoing economic and geopolitical decoupling has led to a sharp decline back to $18 billion in 2024—roughly where they stood before the trade war began.

Figure B8
Sectors Harmed Most by US-China Trade War: Agriculture, Aerospace and Cars (billions of dollars)



Using tariffs as the primary tool to achieve the administration's key objectives—boosting manufacturing and reducing the trade deficit—yielded, at best, mixed results. Take manufacturing first: Manufacturing employment rose by 233,000 jobs between January 2018 and December 2019 (Figure B9), growing at an annualized rate of 1.5%—faster than the 1% annual growth rate of the previous six years. Nonetheless, it is unclear how much of this gain was directly attributable to tariffs rather than broader economic trends, tax cuts, or other policy measures. Crucially, while manufacturing job growth initially outpaced overall employment gains in the early phases of the tariff rollout, this momentum fizzled by the end of 2019. The pace of manufacturing job growth slowed sharply, ultimately falling below the broader rate of job creation across the economy (Figure B9).

On trade deficits, the only unambiguous trend is that they have gotten wider. The U.S. trade deficit narrowed slightly in 2019 (from $878 billion in 2018 to $857 billion), but it has grown each year since then, reaching an all-time high of $1.2 trillion in 2024 (Figure B10). The figures appear to be a bit less dramatic as a share of GDP—the deficit currently stands at around 4.2% of U.S. GDP, a level it has largely maintained since the Great Recession. This remains well below the all-time high of 6% of GDP, recorded in 2006 and 2007, just before the financial crisis, indicating that perhaps the

biggest reset on trade deficits for the U.S. economy was not tariffs but the deep recession that preceded them a decade prior.

Figure B9
A Mixed Picture of Manufacturing Jobs
(millions and percent change)

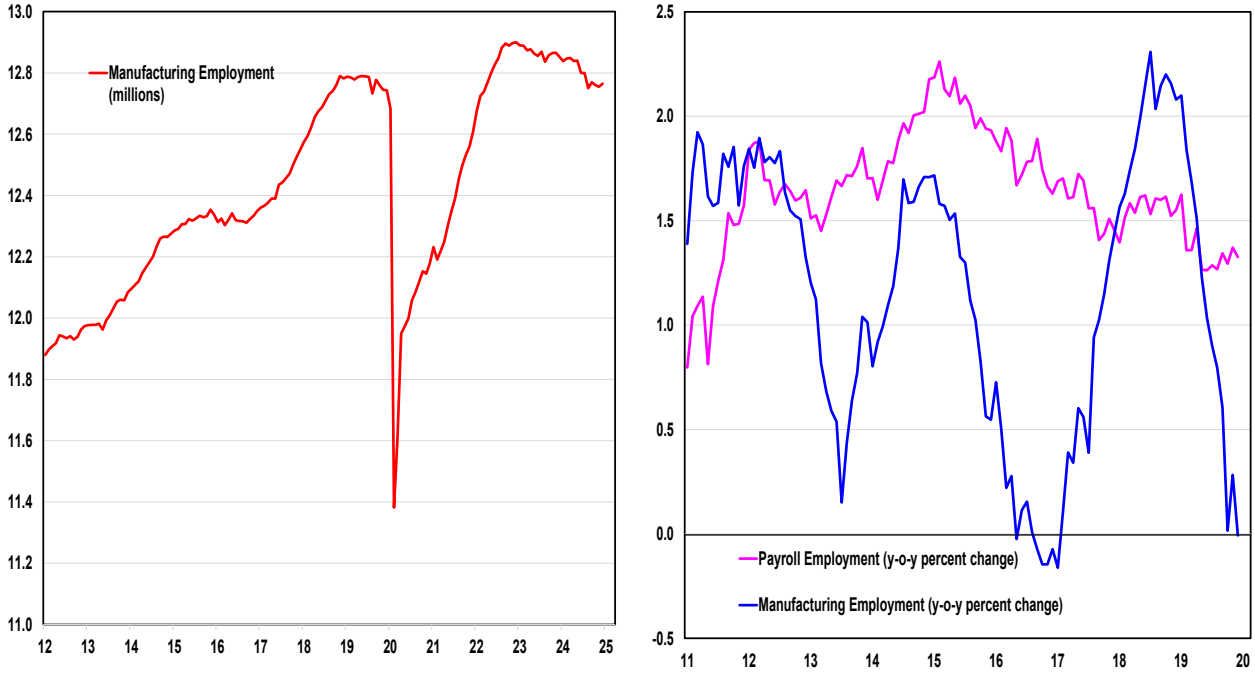
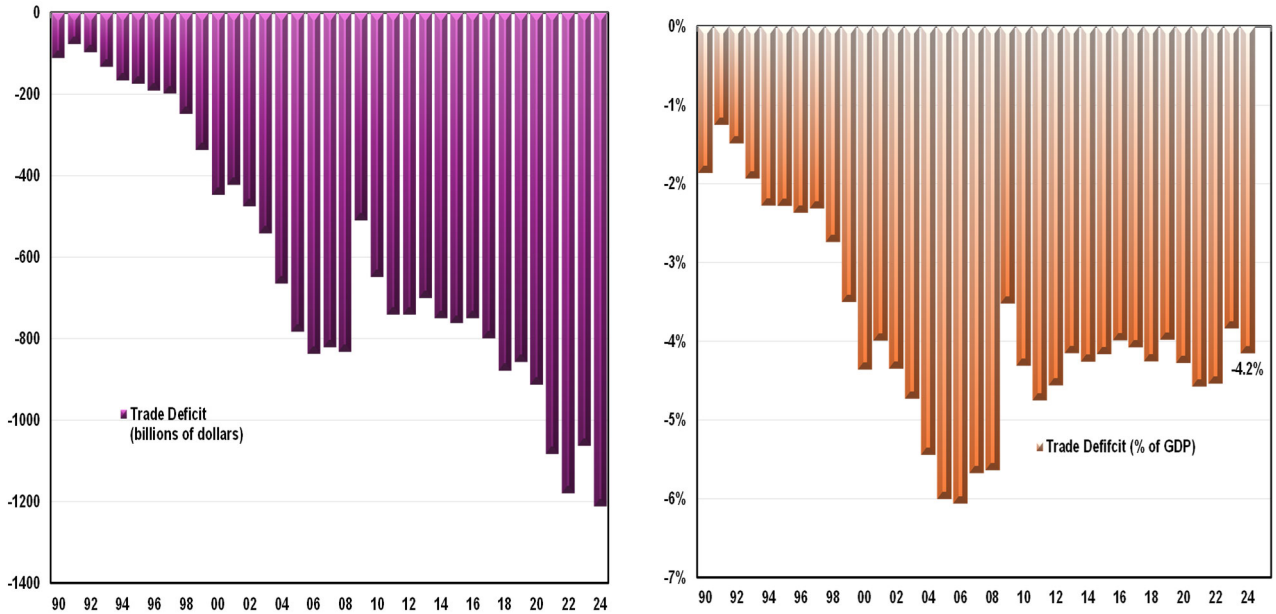
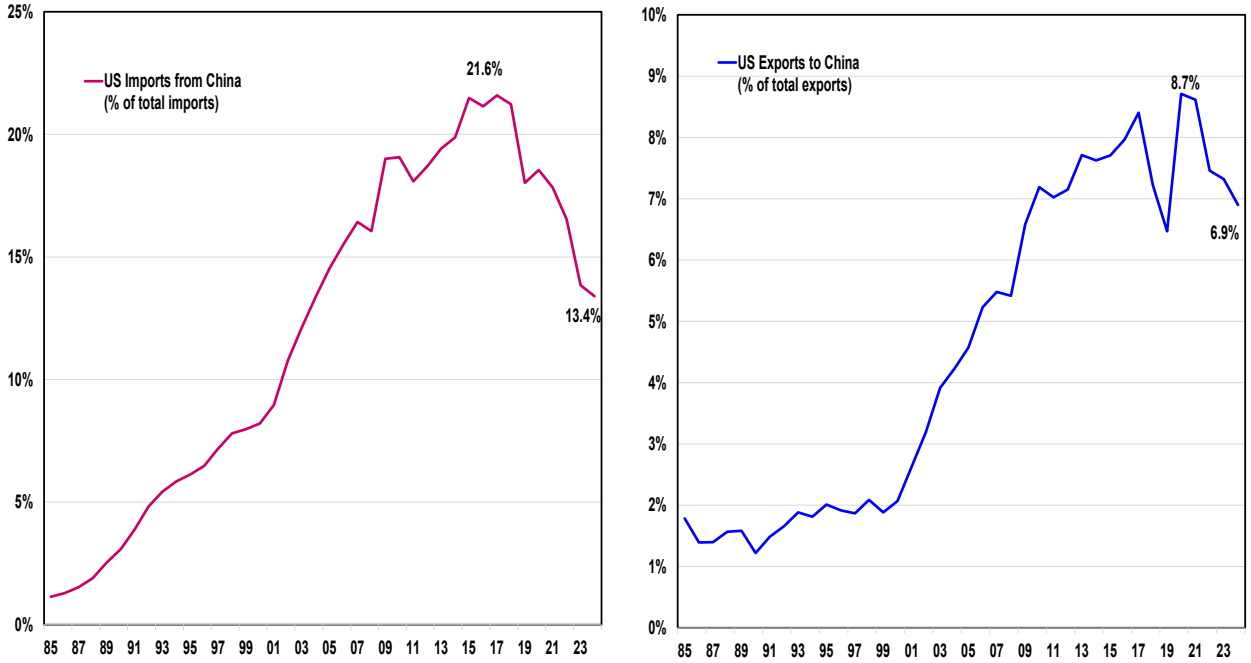


Figure B10
A Yawning Gap: Trade Deficits Keep Rising
(billions and percent of GDP)



What tariffs did accomplish was an unmistakable rupture between the U.S. and China. For the first time in over two decades, Mexico has dethroned China as America's top source of imports. China's share of U.S. imports has plunged from its 2017 peak of 21.5% to just 13.4% today (Figure B11). Similarly, U.S. exports to China, which peaked at 8.7% of total exports in 2020, have now declined to 6.9%, underscoring a fundamental shift in trade relationships between the two economic giants.

Figure B11
On a Downtrend: Topline Data Show a Decoupling between U.S. and China
(imports and exports, percent of total)

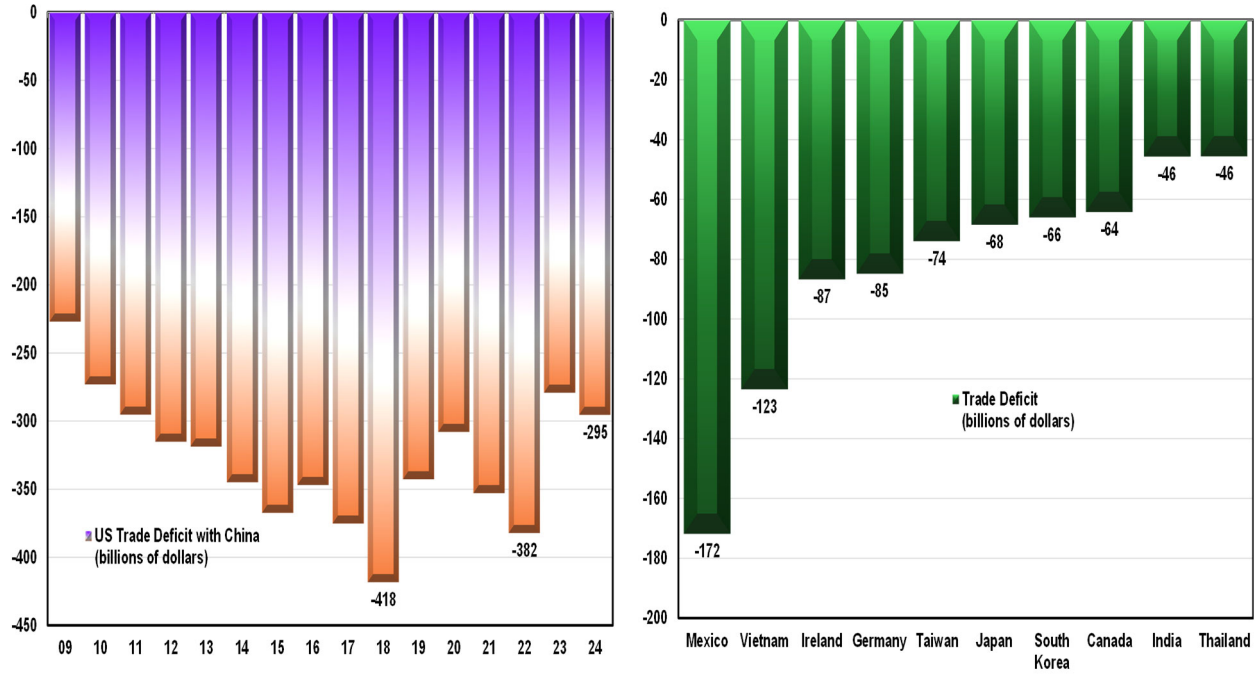


Not surprisingly, the U.S. trade deficit with China has fallen below $300 billion over the past two years—its lowest since 2010—and a full $200 billion below its 2018 peak before the trade war (Figure B12). While both exports and imports declined, the drop in imports far outpaced that of exports, leading to a narrowing of the trade deficit. U.S. exports to China fell from a record-high $154 billion in 2022 to $143 billion in 2024. However, the decline in imports was far more dramatic, plunging nearly $100 billion, from $538 billion to $438 billion.

Other countries have reaped the benefits of the U.S.-China trade breakup, as supply chains diversified away from China. U.S. imports from Vietnam soared by 178%, jumping from $49.1 billion in 2018 to $136 billion in 2024. Taiwan saw a staggering 154% increase, with imports rising from $45 billion to $116 billion over the same period. Thailand nearly doubled its exports to the U.S., growing from $31.8 billion to $63.4 billion, while India's exports surged to $87 billion in 2024, up from $54.2 billion in 2018. Mexico, now America's top trading partner, saw its exports to the U.S. hit half a trillion dollars in 2024, up from $343 billion in 2018. It's no surprise, then, that while the U.S. trade deficit with China has narrowed, the overall deficit has not. Instead, the U.S. now runs large

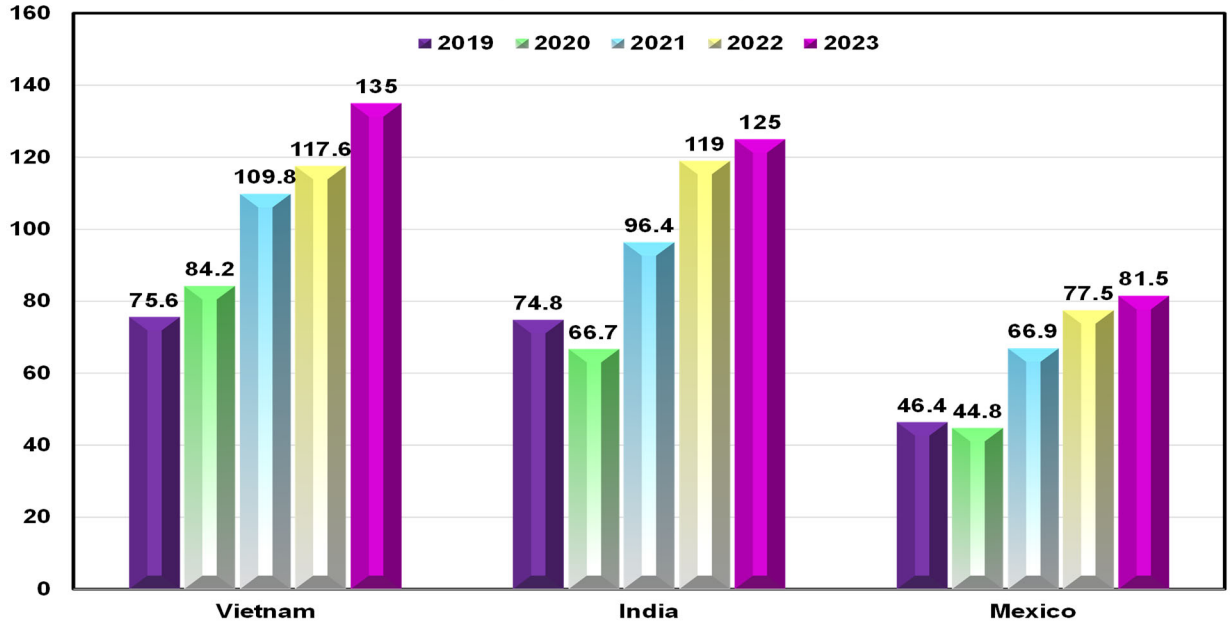
trade deficits with Mexico ($171 billion), Vietnam ($123 billion), Ireland ($86 billion), Germany ($84 billion), and Taiwan ($73 billion) (Figure B12).

Figure B12
Trade Deficits Are Shifting: From China to Other Countries
(billions of dollars)



Though the first trade war appeared to have reduced two-way trade between America and China, beneath the hood the story is a bit more complex. Rather than severing ties, the links between the two countries were reoriented and reorganized in more complicated and tangled forms. To dodge American tariffs, Chinese firms relocated production to countries with which the U.S. has trade agreements, such as Mexico and South Korea. As a result, while direct trade between the U.S. and China declined, trade between U.S. allies and China surged, indicating that some of these nations effectively became assembly hubs for Chinese goods ultimately bound for America. Chinese exports to Mexico have risen from $46.4 billion in 2019 to $81.5 billion in 2023 (a full 75%); exports to India have risen by 67% over this period, and exports to Vietnam by 78% (Figure B13). It is precisely this rerouting of trade flows that the current administration aims to curb, prompting the White House to pressure Mexico and Canada to erect their own wall of tariffs against China.

Figure B13
Chinese Exports to U.S.-Friendly Countries Have Skyrocketed
(billions of dollars)



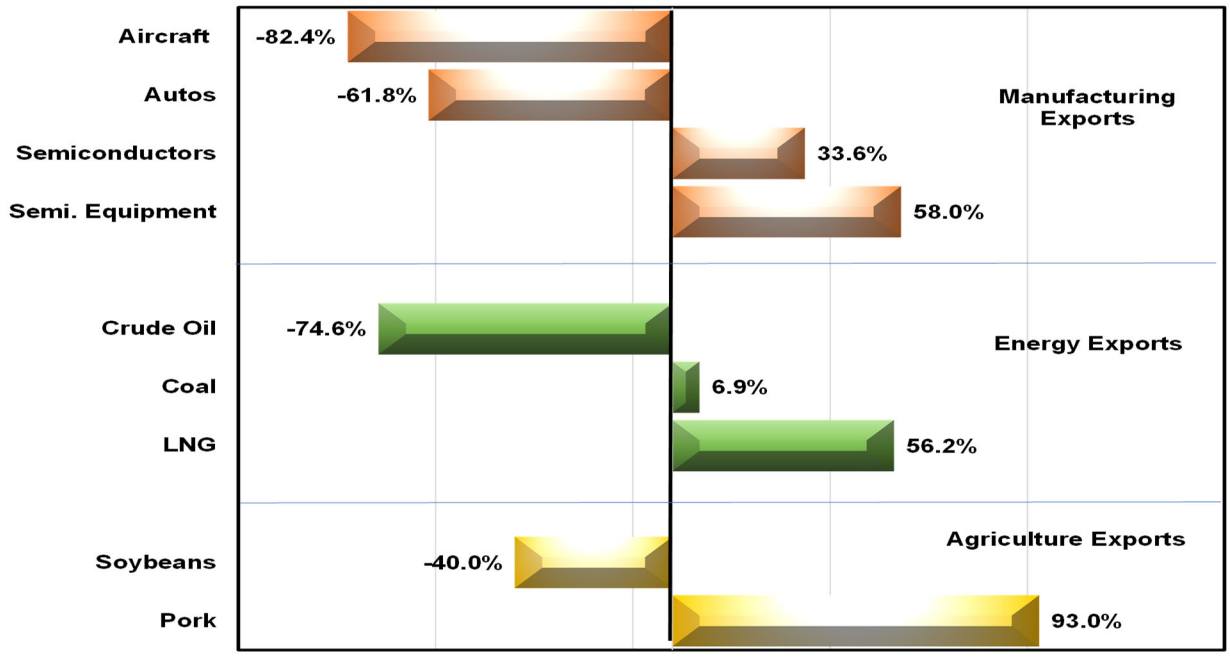
Not surprisingly, the first U.S.-China trade war reoriented supply chains and ruptured trade relations most sharply for products that faced high tariff rates, while leaving tariff-free trade flows largely intact. Before the latest round of escalation, about two-thirds of U.S. imports from China—over $300 billion—were subject to tariffs. Products on Lists 1, 2, and 3 were hit with a steep 25% rate, while List 4A items faced a milder 7.5% levy. The remaining third of imports remained tariff-free. The decoupling played out precisely as one would expect: Imports of goods on Lists 1, 2, and 3 fell by 24% relative to 2018, the year before tariffs took effect. In contrast, imports of List 4A goods declined by just 1.1%. Meanwhile, the U.S. increasingly sourced these products from elsewhere: imports of high-tariff items from the rest of the world surged by 40%, and List 4A goods by 52%. Strikingly, U.S. imports of tariff-free Chinese goods rose by 42% since 2018—outpacing even the 38% increase in similar goods from other countries.

Of course, this pattern is now shifting dramatically. The imposition of a sweeping 54% tariff on all Chinese goods—rising to roughly 74% when factoring in earlier levies—eliminates the space for partial reorganization. The conditions that once allowed for trade rerouting without full decoupling are quickly vanishing, especially since other trading partners are hit with exorbitantly high tariffs (Vietnam, Cambodia, Thailand, Taiwan). Expect far deeper ruptures in trade between the world's two largest economies in the months and years ahead.

One final note on the epitaph of the first trade war is in order. The conflict culminated in the Phase One agreement, in which China pledged to purchase $200 billion worth of US goods over the next two years. However, that commitment fell significantly short, missing the target by nearly 24% in 2021 and 22% in 2022.

U.S. manufacturing exports to China fared the worst, falling roughly 40% below target in both 2021 and 2022. Transportation equipment was particularly weak: aircraft exports missed the mark by 82%, and auto and truck exports fell short by 62% (Figure B14). Not all sectors underperformed, however. Semiconductor exports exceeded targets by 33%, while semiconductor equipment exports surged 58% above commitments. The energy sector also showed mixed results: crude oil exports lagged by 75% in 2021, but natural gas exports outperformed by 56%, and coal exports beat the target by 7%. Agricultural exports also fell short, but the gap was narrower—18% below target in 2020 and 16% in 2021. Soybeans, the largest single agricultural export, reached only 65% of the pledged volume. In contrast, corn exports reached $5.1 billion, far above the $0.3 billion target, and pork exports doubled their commitment ($0.9 billion vs. $0.5 billion).

Figure B14
U.S. Exports to China: Difference from 2021 Commitments under Phase One Agreement (percent change from 2021 commitment)



C. The Second Coming: Tariffs and Trade Under Trump 2.0

Renaming geographical landmarks turned out to be a rather curious priority for President Trump. One of his earliest executive orders restored America's highest peak—Mount Denali—back to Mount McKinley, a move that echoed his broader push to reassert traditional American symbols (he also rechristened the Gulf of Mexico as the Gulf of America). But this is more than just nostalgia for historical names: Much like Mr. Trump, William McKinley was a "tariff man" — a staunch advocate

of protectionism. McKinley's presidency marked a decisive shift toward mercantilism, raising tariffs from 38% to nearly 50% in the late 19th century.

President Trump's enthusiasm for tariffs appears to rival that of his predecessor over 130 years ago. "Tariff is the most beautiful word in the dictionary," he is fond of saying. On April 2, he unleashed a barrage of tariffs so severe that—while not quite reaching McKinley-ian heights—have pushed the U.S. average effective tariff rate to peaks last seen in the 1930s. In a flash, the Rose Garden—typically a peaceful and bucolic setting—became the scene of a massacre, as Mr. Trump unveiled his sweeping tariff plan. A week later, some of the most punishing rates for most countries (with the exception of China) were rolled back to a universal 10% for a 90-day negotiation window.

Had "Liberation Day" tariffs remained in place for long, a U.S. recession—and likely a global depression—would have been impossible to avoid. But a downturn may not be the worst of it. Perhaps more concerning is the dawning realization that the current post-WWII global trade and financial architecture may have outlived its usefulness—and could now be headed for a radical reconfiguration. That order, which cemented America's position as the world's preeminent power, was built on a grand bargain: the U.S. would act as the consumer of last resort, absorbing global (cheap) overproduction—particularly from export-heavy economies—while the dollar functioned as the lubricant of global trade. In return, America would tolerate ever-widening current account deficits, financed by ever-larger capital inflows—flows that propped up fiscal deficits and buoyed financial markets.

Large current account and fiscal deficits have underwritten extraordinary American growth over the past five decades—especially in the years since the financial crisis. But this arrangement works smoothly only as long as the U.S. economy command a dominant share of global GDP. That, however, is changing fast. At the end of World War II, the U.S. accounted for 60% of global output. By 1960, that figure had dropped to 40%. Today, it hovers around 24%. As emerging markets expand, America's global footprint will likely shrink further, gradually aligning with its share of the world's population. This shift creates a profound tension at the heart of the global order—and America's role within it. As the issuer of the world's reserve currency, the U.S. must supply an ever-expanding global economy with the dollar liquidity it needs to function, even as its relative weight within the global economy shrinks. Doing so requires running persistent trade and fiscal deficits—just as its capacity to sustain them is eroding. In short, what Charles de Gaulle once dubbed as the "exorbitant privilege" of dollar hegemony is beginning to look more and more like an extraordinary burden.

But even without this broader realignment, the administration's grievances with aspects of the post-war trading architecture are not without merit. Last year's U.S. trade deficit in goods reached

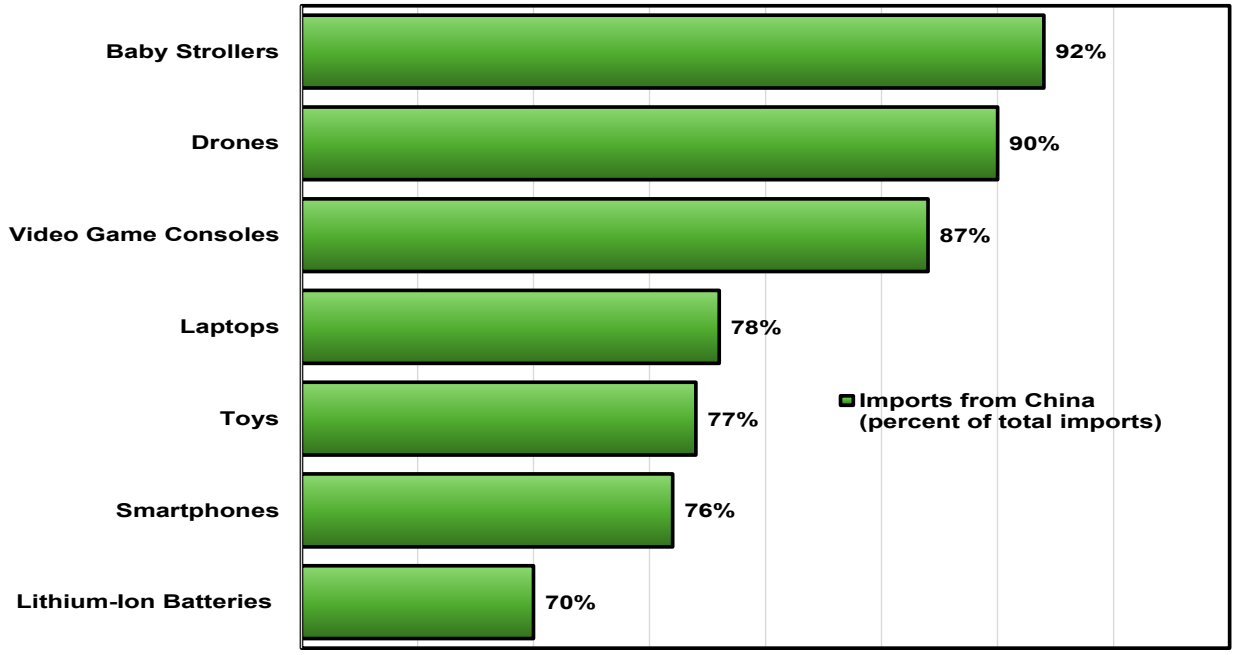
a jaw-dropping $1.2 trillion—the largest in history. Over the past 25 years, the U.S. has accumulated more than $19 trillion in trade deficits, offset by equal surpluses in the capital account. This means foreign entities now own an additional $19 trillion in U.S. assets, much of which has gone toward subsidizing America's ballooning debt—now at $36 trillion. Future returns on those assets will flow abroad, not to U.S. households. While China specializes in manufacturing, America has become an expert at specializing in debt. To be sure, persistent trade deficits haven't prevented the U.S. from outgrowing many surplus countries. In fact, rising deficits have fueled debt-financed growth, particularly over the past 15 years—and even more so since the pandemic. The problem is that this status quo is unlikely to hold indefinitely. A fiscal reckoning—though perhaps still years away—is inevitable.

China is a particularly sore point—not just for the current administration, but for its predecessor as well. That's because the U.S. increasingly views China not merely as a strategic competitor, but as a mounting threat to both American manufacturing and national security. After decades of generous state subsidies and the mobilization of a vast, highly productive labor force, China now leads in a host of advanced technologies—from electric vehicles and wind turbines to batteries, robotics, drones, quantum computing, nuclear fusion, and even artificial intelligence.

China is now the world's largest automobile producer. Its "Made in China 2025" strategy—unveiled in 2015—envisioned selling 3 million electric vehicles (EVs) globally by 2025. That goal was easily eclipsed: Last year alone, China sold over 10 million EVs, accounting for a third of global output. This rapid rise is a key reason the Biden Administration imposed a 100% tariff on Chinese EV imports. Other countries have followed suit. Canada levied a 100% EV tariff and added 25% duties on Chinese steel and aluminum. The EU has layered on additional 7.8% to 35.3% duties, atop its existing 10% car import tariff, while India imposes 70% to 100% tariffs on Chinese vehicles.

But the issue extends well beyond autos. China is now the world's largest commercial shipbuilder, responsible for half of global production, while the U.S. share has collapsed to just 0.1%—a rounding error by comparison. Its dominance stretches deep into supply chains critical to public health and national security: China supplies 30% of the active pharmaceutical ingredients (APIs) in U.S. drugs, 78% of U.S. vitamin imports, and commands 90% of the American drone market (Figure C1). In clean tech, the numbers are even more staggering. China produced 65% of the world's solar panels in 2015; today that figure is closer to 90%. Its share of global battery production has risen from 47% to nearly 70% over the past decade. In rail, it has the world's fastest high-speed rail; in space, it has landed a Rover on Mars, and in the skies, China's COMAC is directly competing with America's Boeing and Europe's Airbus.

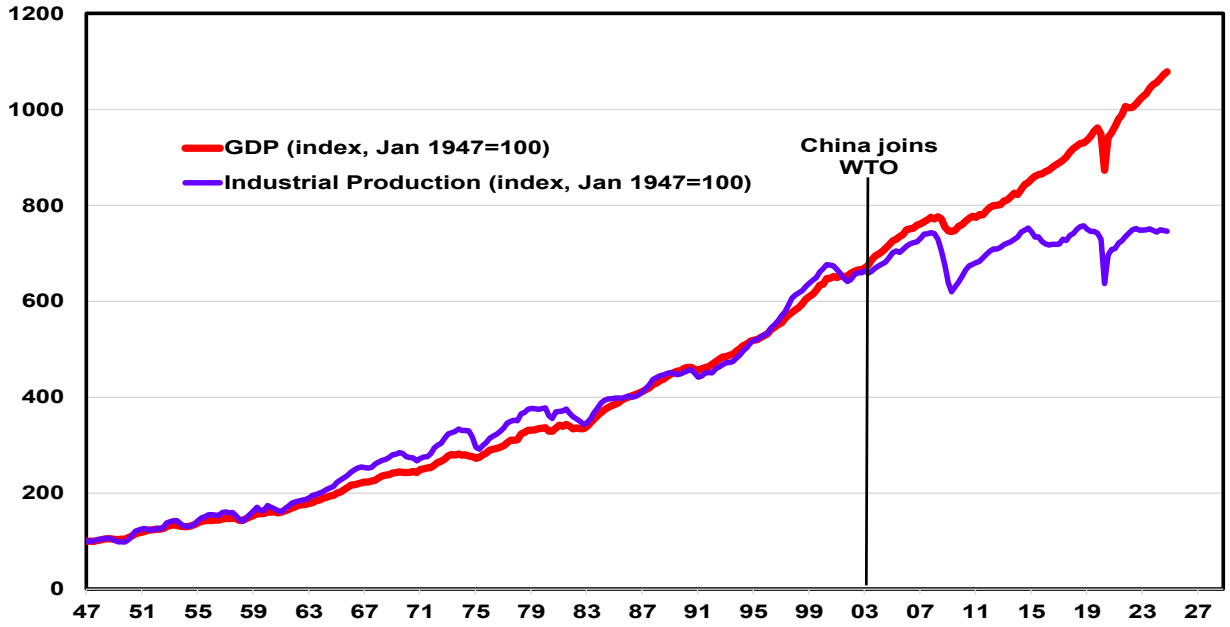
Figure C1
U.S. Reliance on Chinese Imports is Astounding
(U.S. Imports from China, percent of total imports)



These trends have created a peculiar symbiosis between the U.S. and China. The U.S. accounts for just over 30% of global consumption, while China produces nearly 30% of global goods. But the bilateral trade relationship reveals even stranger asymmetries. America's top export to China is soybeans; next come aircraft parts, followed by oil and gas. China's top exports to the U.S., by contrast, are high-end manufactured goods: smartphones, computers, and EV batteries. In essence, the U.S. is exporting raw materials, while importing complex, sophisticated, value-added products from China.

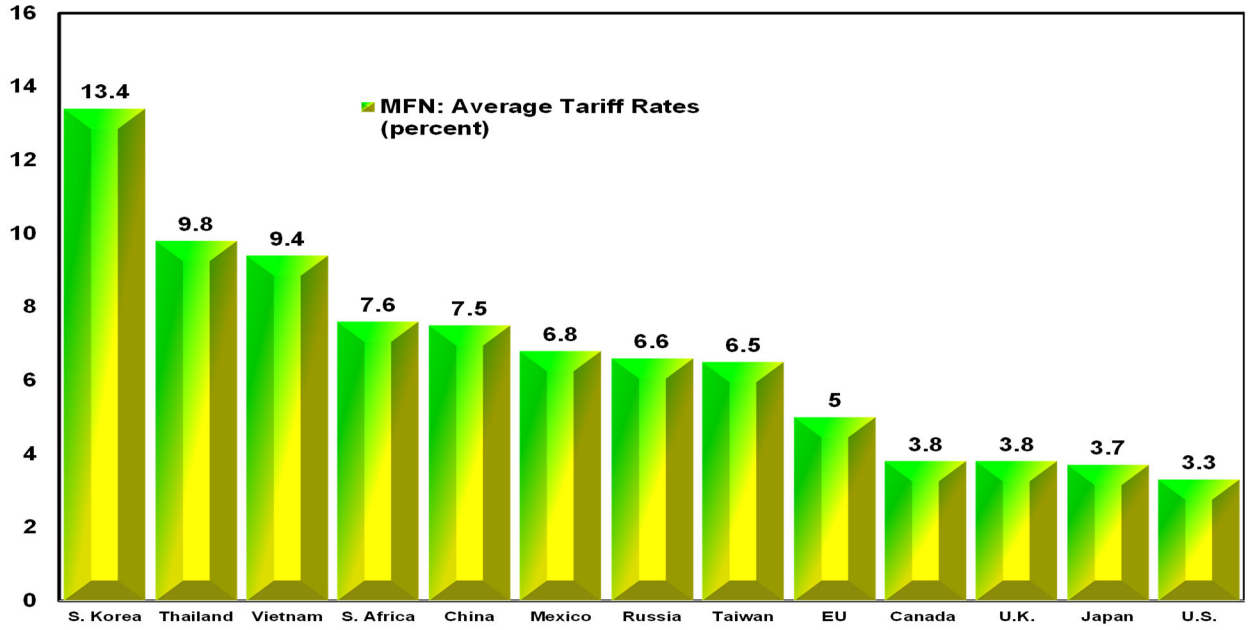
The erosion of U.S. manufacturing capacity has come at a steep cost: widening income inequality. Over the past two decades, millions of well-paying manufacturing jobs have moved overseas—particularly to China—as the U.S. steadily ceded sector after sector of its industrial base (some of this is also due to automation). Since China joined the World Trade Organization (WTO) in 2001, U.S. GDP has continued to rise, but industrial production has largely flatlined (Figure C2). This divide has widened the gulf between returns to labor and returns to capital—fueling inequality. In 2023, the top 1% of households captured 20% of all income—more than double their 9% share in 1980. Today, they hold more wealth than the entire middle 60% of Americans.

Figure C2
The Silence of the Plants: GDP and Industrial Production Have Diverged
(index)



But what seems to provoke Mr. Trump's ire most are what he calls "unfair trade practices." At the heart of this concern is the recognition that the post-WWII trade system—though far superior to the protectionism that came before—is not truly free trade, but rather managed trade. The cornerstone of this system, the "most-favored nation" (MFN) clause, requires that WTO members apply the same tariff on a given good to all trading partners, ostensibly treating everyone equally. But in practice, MFN treatment is highly asymmetric. Countries are allowed to shield domestic industries, and less-developed nations are granted wider leeway to impose higher duties. Prior to the recent mammoth tariffs, America's average tariff rate was one of the lowest in the world, at 3.3%, far below the EU (5%), Mexico (6.5%), China (7.5%), Vietnam (11.5%), South Korea (13.5%), and India (17%) (Figure C3).

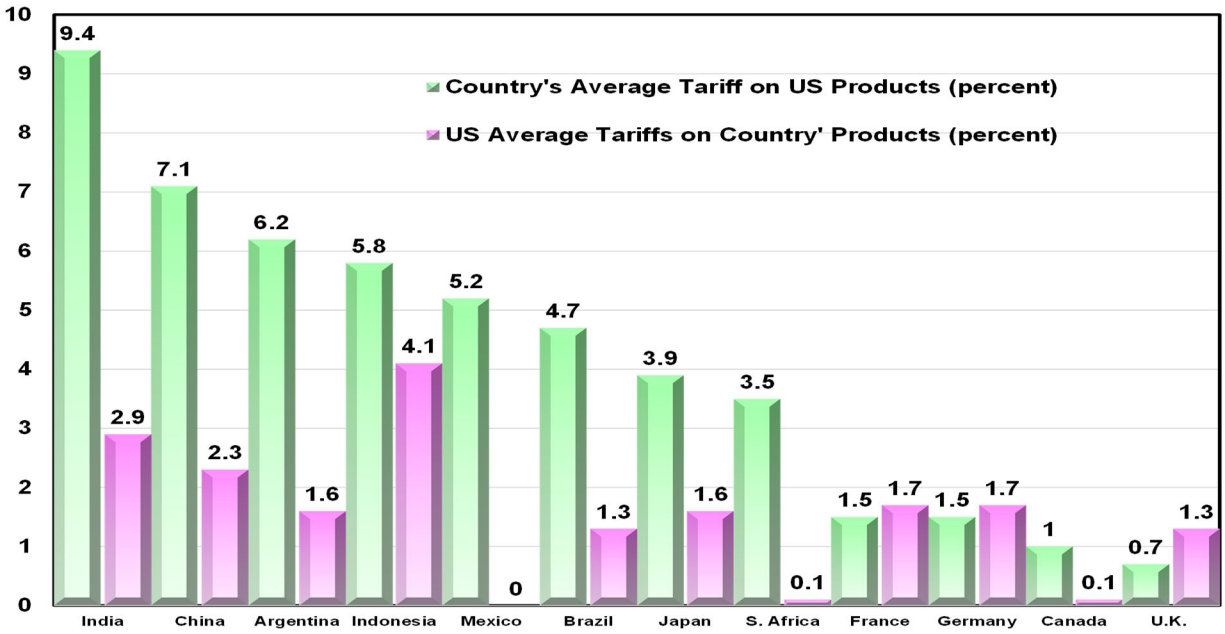
Figure C3
Glaring Differences: US Tariff Rates Are Some of the Lowest in the World
(MFN, simple average tariff rates)



The disparity is even more glaring when considering bilateral trade. Thus, while U.S. tariffs on Indian exports average just 2.9%, India imposes a strikingly higher 9.4% on American goods—more than three times as high (Figure C4). The U.S. levies 0% on Mexican imports, while facing an average 5.2% tariff on its exports to Mexico. Colombia pays only 0.3% to export to the U.S., but charges 5.2% on American products. Even Japan faces a modest 1.6% U.S. tariff, while its tariffs on U.S. goods are more than double that, at 3.9%. The U.S. imposes an average tariff of 3.3% on South Korean goods, while South Korea's duties on American exports are twice as high, at 6.6%. Similarly, the EU levies a 10% tariff on U.S. cars, compared to just 2.5% imposed by the U.S. on European vehicles.

And that's before factoring in the many non-tariff trade barriers—export controls, subsidies, and other restrictive measures deployed by governments around the world. China has emerged as the dominant force in high-tech manufacturing through a potent mix of state subsidies, low borrowing costs, and forced technology transfers. But it isn't just China. Some 94% of European imports face some form of non-tariff barrier, compared to only 64% of U.S. imports. Government support—not textbook notions of "comparative advantage"—drove the rise of South Korea's steel industry and Taiwan's semiconductor sector. It wasn't cheap iron ore or silicon that built their industrial base in these industries—it was deliberate, strategic industrial policy.

Figure C4
US Tariff Rates Were Generally Far Lower than Other Countries
(average tariff rate applied on products, percent)

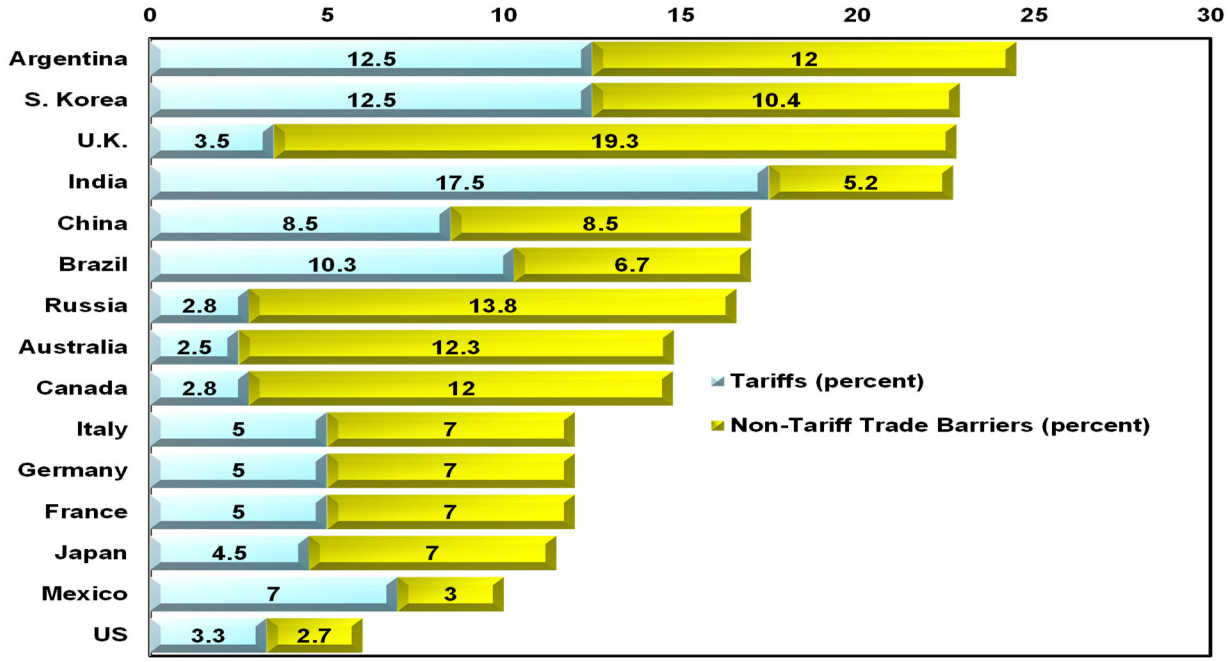


Accounting for the myriads of non-tariff barriers—such as subsidies, export controls, other trade-restrictive measures, and value-added taxes (VATs), which are especially prevalent in European countries—the disparity in effective trade barriers between the U.S. and its trading partners becomes particularly glaring. The U.K.'s average tariff rate is just 3.5%, but that figure surges to nearly 23% when VAT is included (Figure C5). Similarly, Germany, France, and Italy—each with base tariff rates around 5%—see their effective rates rise to roughly 12% with VATs. China's effective rate climbs from 8.5% to 17% when non-tariff measures are factored in. Australia rises from 2.5% to nearly 15%, Canada from 2.8% to 14.8%, Japan from 4.5% to 11.5%, and South Korea from 12.5% to almost 23%. By comparison, the U.S. average tariff rate of 3.3% increases only modestly to around 6% when accounting for non-tariff barriers—substantially lower than any of its major trading partners.

The USMCA free trade agreement is also riddled with loopholes. To sidestep U.S. tariffs, Chinese and European firms have ramped up manufacturing operations just across the U.S. border to benefit from the agreement's favorable trade terms and lower labor costs. As a result, U.S. imports from Mexico have surged—rising to over half a trillion dollars, up from $343 billion in 2017, before the first Sino-American trade war. The administration's recent browbeating of Mexico and Canada

likely stems from these concerns, with the U.S. ultimately expected to push for a crackdown on such trade loopholes and circumvention tactics.

Figure C5
Including Non-Tariff Barriers, Trade Restrictions Are Much Higher
(percent)



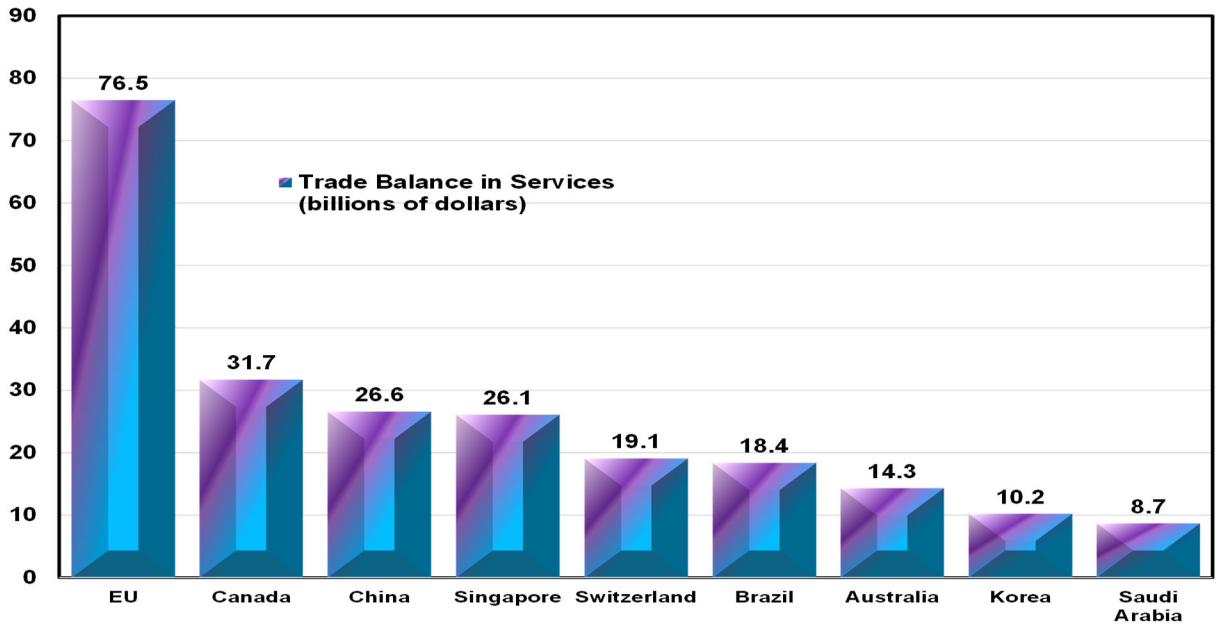
The administration is right to prioritize some of these longstanding issues. In fact, had it confined itself to a regime of purely reciprocal tariffs—charging no more and no less than what U.S. exports face abroad—it might have corralled more support within the business community. Instead, on April 2, it unleashed a barrage of levies that were so out of line with reciprocity, they verged on the incomprehensible. Not only was the formula based on crude calculations tied to bilateral trade deficits, but it also contained a glaring error. One of the key parameters—a Greek-lettered variable representing the elasticity of import prices—was set at a value roughly four times smaller than empirical estimates. Had the elasticity been correctly specified, the resulting tariffs would have been four times lower, with none exceeding 14% for any country. As Warren Buffett once quipped, "Beware of geeks bearing formulas"—a clever twist on the old adage, "Beware of Greeks bearing gifts."

There were other oddities. The formula appears to have been based solely on one year of data—2024—instead of a more representative historical average. That's likely why Switzerland, which happened to export an unusually large amount of gold bullion to the U.S. last year, ended up with a steep tariff of 32%. Had a multi-year average been used to smooth out anomalies, its tariff rate would have landed closer to 19%. Botswana and Madagascar were saddled with stiff tariff rates—

38% and 47%, respectively—because each exported rare, high-value products to the U.S.: diamonds from Botswana and vanilla from Madagascar. If the goal is to boost domestic production, these tariffs seem particularly misguided: We are hard-pressed to come up with viable domestic alternatives for such niche imports.

Moreover, the administration's tariff formula focused exclusively on trade in goods—ignoring services, where the U.S. consistently runs large surpluses. In 2024, the surplus in services reached nearly $300 billion, including $75 billion with the EU alone (Figure C6). In fact, factoring in services reduces the U.S. trade deficit with the 27-nation bloc from $235 billion to a more manageable $160 billion. Had this been reflected in the formula, EU's tariff rate would have been closer to 10%. Similarly, while the U.S. posted a $38 billion goods deficit with Switzerland last year, it ran a $21 billion surplus in services. Correcting the formula for services would have brought Switzerland's tariff rate down to 14%—even using 2024's lopsided figures.

Figure C6
The U.S. Runs a Sizable Trade Surplus in Services with Most Countries
(billions of dollars)



Given their broad decoupling from reality, it is no surprise that the outsized tariffs were largely put on pause just 12 hours after taking effect. But uncertainty persists as countries haggle and negotiate for relief. Thus, to make sense of the evolving tariff landscape, it is perhaps instructive to take a longer-term view and, for simplicity, group the measures into five broad categories: (a) USMCA countries; (b) reciprocal tariff countries—typically those with which the U.S. runs large trade deficits;

(c) sector-specific tariffs; (d) China; and (e) the universal 10% group. The possibility of broader trade deals varies by each category.

Take USMCA countries first. Though they escaped the brunt of the April 2 measures, the trade-weighted tariff rate on Mexico and Canada now averages around 11%—with USMCA-compliant goods entering duty-free and the rest facing rates as high as 20%. Auto imports are hit harder, facing a 25% tariff, though vehicles that meet USMCA rules are eligible for partial relief, with the tariff applying only to their non-U.S. content. In practice, this means that only 8.2% of vehicles from Mexico and 9% from Canada—those that fail to meet USMCA requirements—will be subject to the full 25% tariff. The remainder will be taxed only on their non-U.S. value-added content, which could still end up being substantial. For auto parts, non-compliance is more widespread, with 20.4% failing to meet USMCA rules. Mr. Trump has recently mused about possible temporary exemptions to his tariffs on imported vehicles and parts to give auto companies more time to set up US manufacturing.

There is little doubt that, among the barrage of tariffs, those levied on Mexico and Canada are the most harmful. They threaten to unravel decades of hard-won progress—a carefully choreographed trading system that stands as one of the most successful examples of economic integration since World War II. Together, the USMCA countries form a market of 500 million people, large enough to rival the European Union. Each brings distinct strengths: Canada offers abundant natural resources, Mexico provides cost-effective labor, and the U.S. contributes a vast consumer base, cutting-edge technology, and unmatched productivity. Moreover, these countries are vital suppliers of critical goods to the United States. America imports 55% of its fresh fruit, 32% of fresh vegetables, and a staggering 94% of seafood—most of it from its two North American neighbors. An overwhelming 98% of live cattle, 97% of tomatoes and canola oil, and 93% of pickup trucks come from Canada and Mexico (Figure C7).

The auto industry is perhaps the clearest example of how deeply trade flows run between the three countries. Some vehicle parts cross the border up to seven times before final assembly. Roughly 50% of America's auto-part imports come from Canada and Mexico, while about 75% of U.S. auto-part exports are sent right back to them. In 2024 alone, the U.S. exported an astonishing $69 billion in transportation equipment to Canada and imported nearly as much—$67 billion. The trade flow with Mexico is even more lopsided: $174 billion in car imports compared to just $46 billion in exports (Figure C8). Disrupting this system with steep tariffs would add an estimated $2,500 to $7,000 to the cost of a new vehicle—costs that would either squeeze manufacturers' margins or be passed on to consumers, potentially cooling demand.

Figure C7
Imports from Canada and Mexico by Value and Percent of Total Imports
(billions and percent of total)

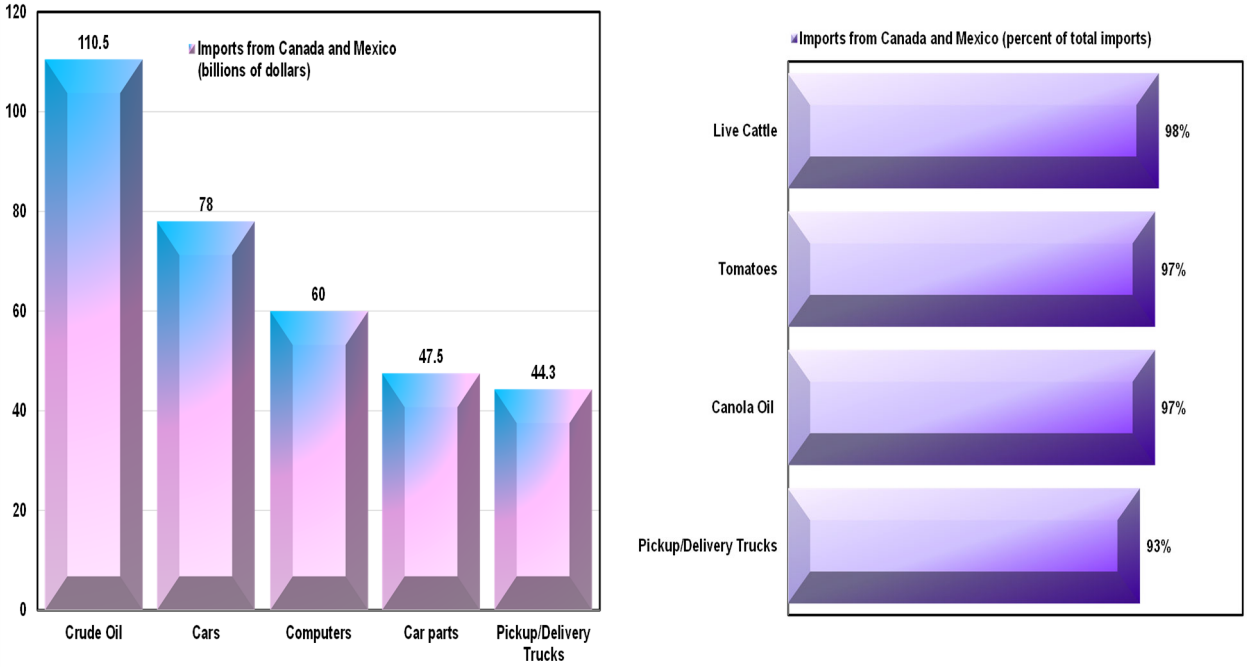
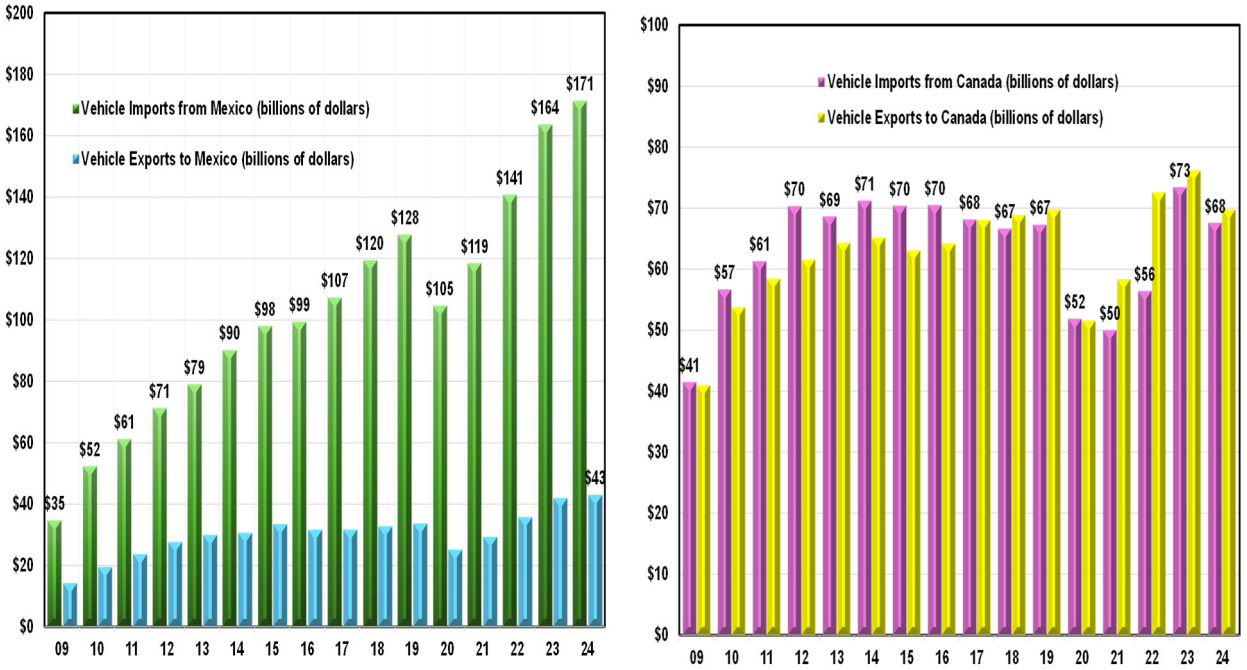


Figure C8
Car Imports from Mexico Have Ballooned
(billions of dollars)



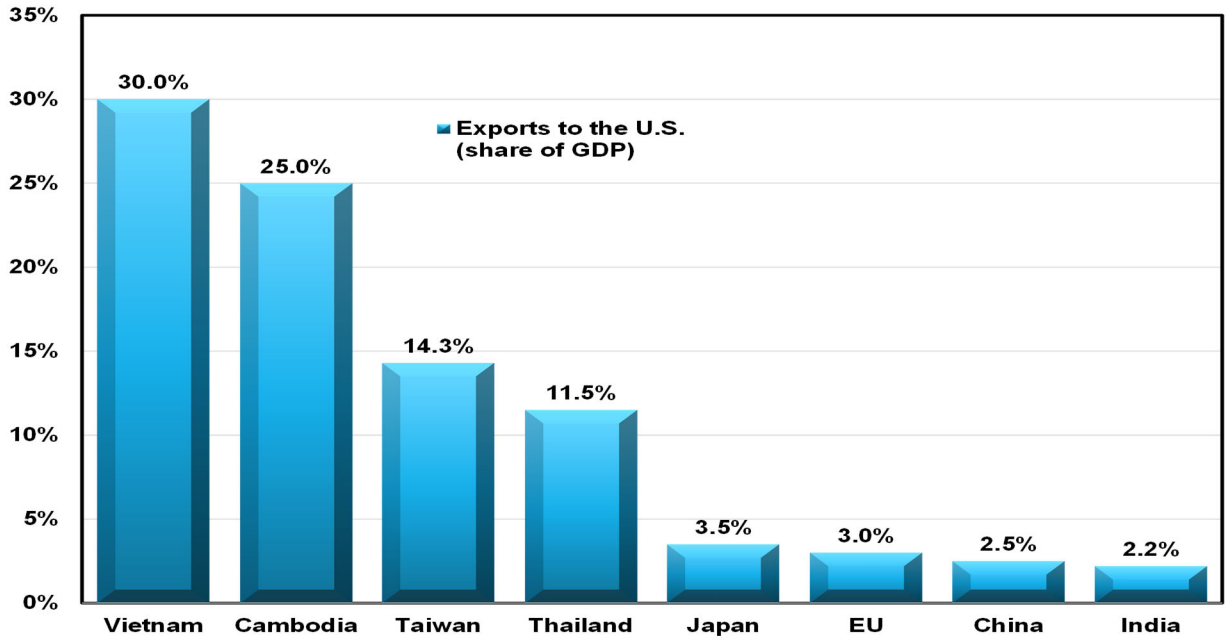
Our view is that the current tariffs will be substantially reduced as part of a renegotiated USMCA, which is slated for review in 2026. Goods that meet existing USMCA rules will likely remain tariff-free, as they have been to date. However, future negotiations are expected to tighten these rules, particularly for the auto industry. Currently, the USMCA requires that passenger vehicles contain at least 75% North American content, meet a labor value content (LVC) threshold—with 40–45% of a vehicle's value produced by workers earning at least $16 per hour—and ensure that at least 70% of steel and aluminum used is sourced from within North America. These requirements are likely to be ratcheted up, in a broader push to preserve and expand manufacturing within North America, especially in the United States. Another likely area of focus will be closing loopholes that have allowed rising volumes of Chinese imports to enter the U.S. via its neighbors, particularly Mexico, or through the growing presence of Chinese firms just outside U.S. borders seeking to capitalize on USMCA's favorable trade terms.

The second group – the reciprocal tariff countries, typically those with which the U.S. runs large trade deficits – is so broad that predicting specific outcomes remains difficult, especially with trade talks still in their infancy. Yet even here, there are glimmers of hope. Aside from China – and to a lesser extent, Canada – no country has retaliated against the "Liberation Day" tariffs. In fact, quite the opposite: most have signaled a willingness to negotiate, many even offering to come bearing gifts. Vietnam, Taiwan, and Israel have proposed eliminating tariffs on U.S. goods entirely, while the European Union has offered zero tariffs on industrial goods, including autos. Still, this may fall short of satisfying the administration, which sees tariffs as a crude benchmark—one that fails to capture the broader landscape of non-tariff barriers that continue to distort trade. Indeed, the administration's goals appear to go well beyond tariff reciprocity. Among its broader demands are increased foreign investment in the U.S., expanded purchases of U.S. energy exports, and more favorable treatment for American firms operating abroad.

Some countries are preparing sweeping offers to avoid steep U.S. tariffs. Japan is reportedly crafting a package that includes increased purchases of U.S. natural gas, investments in the Alaskan pipeline, additional arms imports, and looser restrictions on American agricultural and auto exports. India has offered to cut tariffs on farm goods and politically sensitive items such as bourbon and Harley-Davidson motorcycles, while also pledging to shift oil purchases from Russia to the U.S. Vietnam has already signed an agreement with Elon Musk's Starlink and committed to boosting U.S. imports in defense and security sectors, while pledging to tackle non-tariff barriers—including exchange rate policies—and to foster a more favorable investment environment for American firms.

The European Union has struck a firmer tone but has made clear it prefers negotiation over escalation. That's largely because it has both the economic heft and the strategic position to push back more effectively against U.S. pressure. U.S. exports account for only 3% of the EU's GDP, a stark contrast to the much higher exposure of others: Vietnam's exports to the U.S. make up 30% of its GDP, Cambodia's 25%, Taiwan's 14.3%, and Thailand's 11.5% (Figure C9). Still, the EU is preparing countermeasures in case talks break down. These include 25% tariffs on selected U.S. goods such as motorcycles, poultry, fruit, and clothing. Plans to target bourbon and wine were scrapped after the U.S. threatened retaliatory 200% tariffs on European wine and champagne. However, the EU's most potent weapon may be the Anti-Coercion Instrument—a sweeping tool designed to deter countries from using economic leverage to influence EU policy. It allows for a broad range of retaliatory measures that go well beyond tariffs, including export controls, restrictions on intellectual property rights, investment curbs, service bans, and duties on digital platforms. Most of these would strike at the U.S. service sector, where America runs a sizable trade surplus.

Figure C9
Some Asian Countries Have Large Exposure to the U.S.
(country exports to the U.S. as share of GDP)



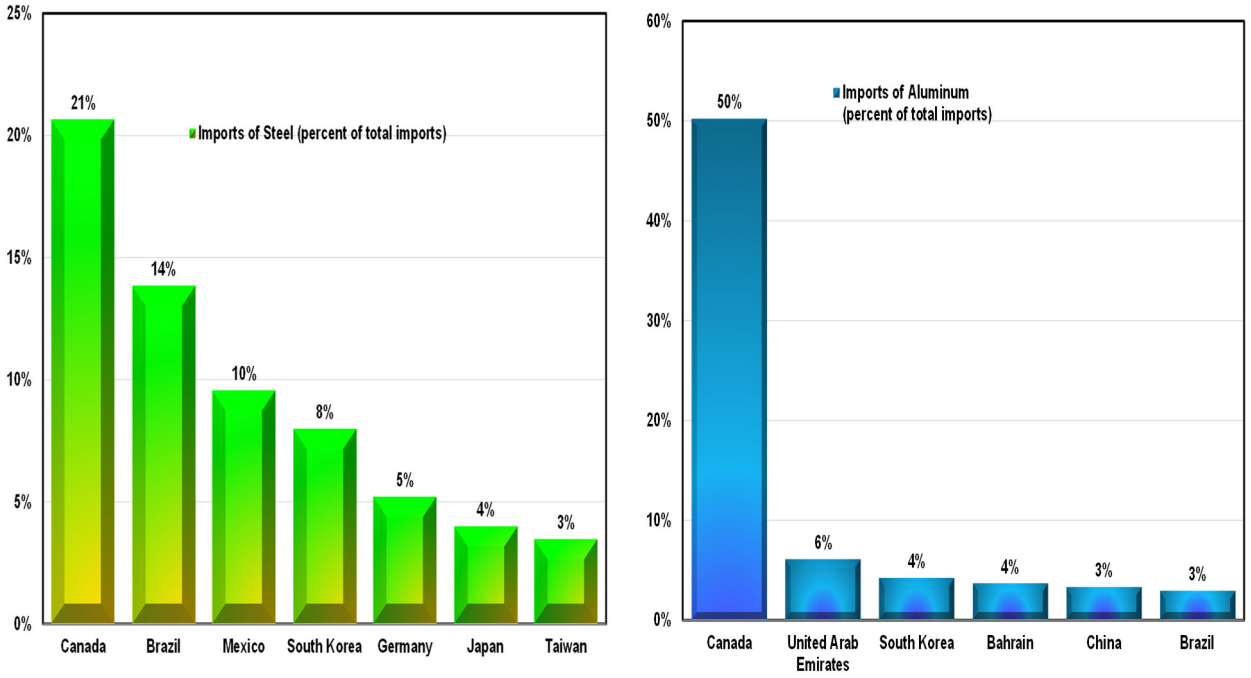
Overall, our view is that countries in this second category will likely be able to negotiate the April 2nd tariffs down—even below the current 10% level. The likelihood is higher for East Asian and Pacific Rim nations, though we do not rule out a broader trade accord with Europe. Another reason the "reciprocal tariffs" announced on April 2 are unlikely to be fully implemented is their shaky legal foundation. Unlike Section 232 tariffs, justified on national security grounds for steel and

aluminum, or Section 301 tariffs, used against China for discriminatory trade practices, the April 2 tariffs rely on the International Emergency Economic Powers Act (IEEPA). This statute grants the president authority to respond to an "unusual and extraordinary threat" to national security—but only if a national emergency is declared. President Trump has invoked the IEEPA by designating large trade deficits as a national emergency and citing the fentanyl and immigration crises to justify tariffs on Mexico and Canada. But these justifications are tenuous. The U.S. has run trade deficits for over five decades—hardly an "extraordinary" threat. And citing the fentanyl crisis to justify tariffs on Canada is a stretch: virtually no fentanyl is trafficked into the U.S. through its northern border.

The third category—sector-specific tariffs—will likely be implemented first, then negotiated away through country-specific trade deals. The U.S. has already imposed 25% tariffs on steel and aluminum imports under Section 232, citing national security concerns. Coddling these industries has long been a priority for presidents on both sides of the isle, and Mr. Trump is no different. During his first term, he invoked national security concerns to justify tariffs under Section 232, aiming to protect domestic producers from an influx of cheap foreign supply. Canada, as the largest exporter of both steel and aluminum to the U.S., would again be most affected (Figure C10). The administration is also reviewing additional sectors, including copper, lumber, pharmaceuticals, and semiconductors. We expect these industries to be next in line for 25% tariffs, though we also anticipate some country- and product-specific exemptions to follow. During the 2018–2019 trade war, the administration granted more than 100,000 exemptions for steel and 20,000 for aluminum. Though the carveouts are likely to be far less generous this time around, we expect some of the sector-specific tariffs to be used in negotiations for broader trade deals.

China occupies a category of its own, not least because it is the only country with which the trade war has fully escalated. In response to the U.S.'s "reciprocal tariffs," Beijing imposed a 34% levy on U.S. imports, prompting Washington to retaliate with an additional 50% tariff. Though the tit-for-tat escalation is dizzying, retaliatory tariffs on Chinese goods have climbed to 125%—or 145% with the previous baseline included. Chinese tariffs on U.S. goods are also now at 125%, mirroring Washington's escalation. However, Beijing has signaled it will not impose further levies, even if the U.S. does—because at these levels, bilateral trade is, for all practical purposes, effectively shut down.

Figure C10
The Majority of Steel and Aluminum Imports Come from Canada
(billions of dollars)



Given how vertiginous these bilateral tariffs have become, it's hard to imagine they remain at current levels for long. The U.S. has already rolled back "reciprocal tariffs" on a wide range of consumer electronics, including smartphones and computers—amounting to nearly $390 billion in U.S. imports, with more than $101 billion coming from China. While Chinese imports of these goods are still subject to the earlier 20% tariff, imports from other countries now face no tariffs at all.

The possibility of a U.S.–China deal is probably higher than what originally meets the eye. While the U.S. economy is slowing, China faces its own set of vulnerabilities—many of them mirror images of America's. Instead of inflation, China is battling deflationary pressures; domestic consumption remains weak despite stimulus efforts; the property crisis continues to simmer, and youth unemployment remains persistently high. Now, it's facing a trade war that threatens up to $438 billion of its exports. If tariffs remain at current levels, the estimated hit to Chinese GDP could reach 2.4% in 2025—making it nearly impossible for Beijing to meet its 5% growth target. Our view is that when all is said and done, the tariff rate between the U.S. and China will likely settle between 25% and 35%—still steep by historical standards, but a marked improvement over current levels. The only concern is that any potential deal between the two countries is likely to take time to materialize, given the deeply thorny issues that will need to be hammered out.

The final group—the universal 10% tariff—is likely to see the least direct negotiation, though some countries, particularly in Latin America, may still attempt to engage in bilateral talks to reduce it further. We anticipate varying degrees of success, with countries like Argentina, and possibly Brazil—which is especially concerned about steep tariffs on steel and aluminum—having a reasonable chance of securing reduced rates through targeted negotiations.

Thus, our view is that by the end of 2026, the effective tariff rate will be lower than the current 16.3%, and significantly below the 25.5% proposed on April 2nd. Tariffs could generate approximately $280 billion in annual revenue, but not without cost: we estimate a near-term reduction in GDP growth of about 1.1 percentage point, and a rise in inflation of roughly 1.3 percentage points.

This means that the outlook for the U.S. economy is simultaneously both less frightening and more complex than what the markets and financial analysts expect, split into two distinct phases: a bumpier, more uncertain short term, followed by a more resilient and robust long-term trajectory. While odds of a downturn have risen appreciably, we still expect the U.S. economy to skirt a recession, even as growth slows and inflation ticks higher. Thus, our outlook for the remainder of the year calls for a period of heightened volatility market by moderate stagflationary dynamics—stagflationary-ish, if you will. We expect inflation to edge up to the high 3s, unemployment to rise to the high 4s, and growth to slow to the low 1s. This is more painful than it sounds especially since we do not expect the Fed to ease the pain, not by much, anyway. If it is any consolation, the stagflationary features are likely to be more moderate than the full-blown variety of the 70s when the unemployment rate averaged 6% and inflation 7%. Longer-term, the outlook is brighter as tax cuts and an ambitious deregulatory agenda are expected to boost growth and buoy investments.

The outlook for Mexico and Canada has dimmed considerably since the start of the year, as rising U.S. tariffs have imposed significant economic costs on both countries. We now project that each will slip into a shallow recession in the second half of 2025, largely due to trade disruptions with the United States—their largest trading partner and an anchor of their export sectors.

In Canada, the economic drag is being felt most acutely in manufacturing, autos, and resource-based exports such as steel and aluminum—all hit by retaliatory tariffs. Business investment is softening, consumer confidence has dipped, and the Bank of Canada is signaling caution, keeping rates on hold at 2.75% to assess the fallout. The labor market is also beginning to show signs of strain, with rising unemployment and reduced hiring in trade-exposed industries. While fiscal policy remains supportive, the potential for deeper recessionary pressure looms if trade tensions persist or intensify.

Mexico faces its own set of challenges. With the threat of a 25% blanket tariff on Mexican imports into the U.S., investor sentiment has soured, particularly in key sectors like autos, electronics, and agriculture. Domestic consumption has weakened, foreign direct investment is stalling, and the peso has come under pressure. A recent downgrade of Mexico's sovereign debt outlook underscores the fragility of its fiscal position. A growing share of Mexican business leaders now expect stagnation or outright contraction in the months ahead, with political uncertainty adding to the unease.

China, by contrast, may weather the trade war with the U.S. slightly better, but its economy is far from unscathed. Roughly 14% of Chinese exports are U.S.-bound, leaving it exposed to escalating tariffs. Domestically, China remains on unsteady footing. Consumer confidence has yet to fully recover from the trauma of the COVID-19 lockdowns. Households are still saving at higher rates than before the pandemic—a rate that was already elevated—dampening domestic demand at a critical time.

In response, Chinese authorities have made boosting consumption a top priority. They've doubled the size of a trade-in scheme to encourage households to replace old appliances and vehicles, increased subsidies for medical insurance, and raised the basic rural pension. Additional measures include planned increases to minimum wages (which are set locally), expanded workfare programs, more generous student financial aid, and subsidized consumer credit for low-risk borrowers. To shore up market confidence, state-owned firms have been directed to step in and purchase equities to help stem the bleeding in the stock market. But even these efforts may fall short. A larger fiscal and monetary stimulus package will likely be needed to counteract the drag from U.S. trade restrictions. In our view, the Chinese economy will struggle to achieve 4% growth this year—falling short of the government's official 5% target.

A final consideration is the outlook for Europe. For a region at war, on the edge of recession, demographically strained, productivity-constrained, economically sluggish, and energy dependent, Europe suddenly has a bounce in its step. Prior to the tariff tantrum, the Stoxx 600 was up 5.6%, handily outperforming the S&P 500, which had slipped 4.9%. The Euro has risen nearly 10% against the dollar so far this year.

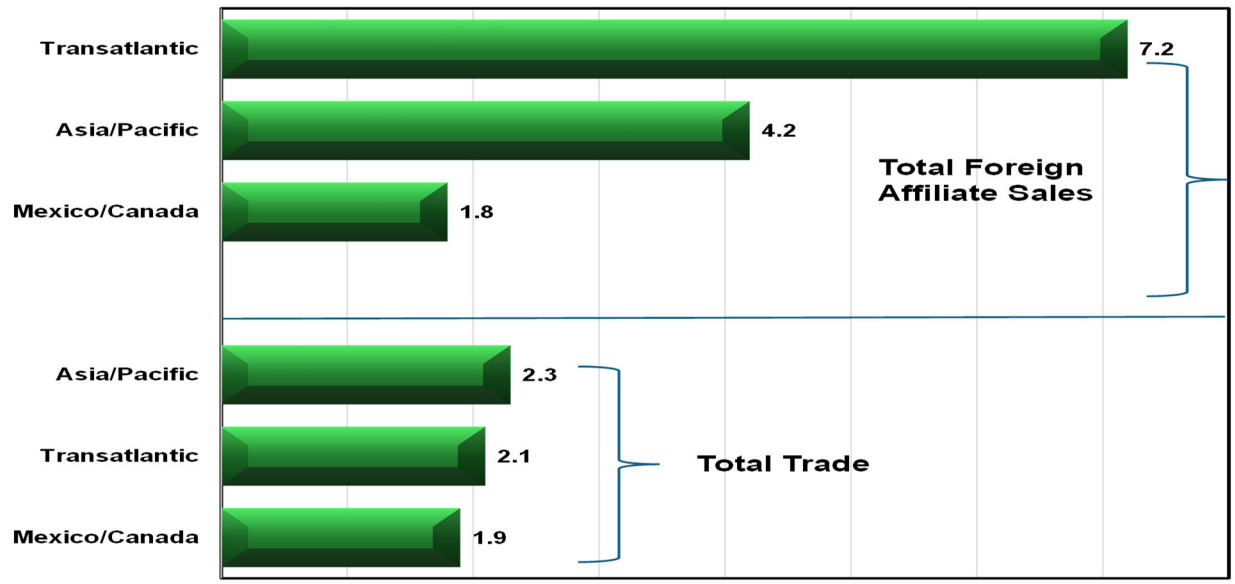
Much of this newfound momentum stems from America's strategic retreat from the continent, which has jolted the EU into a "whatever it takes" posture—echoing Draghi's era and the effort to save the single currency. At last, the continent has begun to rediscover its resolve. It has pledged to ramp up defense spending, offering $165 billion in subsidized loans to countries willing to boost military budgets, while agreeing to loosen fiscal rules to accommodate those increases. In a remarkable reversal, Germany—long known for its perennial aversion to deficits—proposed a

constitutional amendment to exempt defense and infrastructure investments from its strict budgetary limits. It followed through with a sweeping legislative package—€1 trillion in total, to be spent over the next ten years—amounting to more than 2.5% of GDP per year, split evenly between defense and infrastructure.

In true European form, not all countries have shown the same level of resolve. Some are already pushing for creative reinterpretations: Spain has argued that climate change initiatives should count as defense spending, while Italy has lobbied to include measures that improve competitiveness—whatever that means. Still, assuming the tariff spat with the U.S. does not escalate—and just as importantly, that Europe's newfound resolve proves genuine—the continent's medium-term outlook is unquestionably brighter.

This matters. A full 41% of S&P 500 earnings come from abroad—much of it from Europe. U.S. companies are linked to Europe primarily through their affiliates: in 2023, U.S. affiliate sales to Europe totaled $3.8 trillion, far exceeding direct exports of goods and services, which stood at $942 billion. Europe accounts for 46% of all U.S. affiliate sales, well above the 30% share from the Asia-Pacific region (Figure C11). It also remains the top destination for U.S. foreign direct investment (FDI), with the total stock reaching $4 trillion in 2023—nearly 60% of all U.S. FDI abroad, and close to seven times the combined total invested in Mexico and Canada. In this light, a European rebound is most welcome as it offers corporate America a much-needed external cushion as tariff shocks at home begin to weigh on domestic earnings.

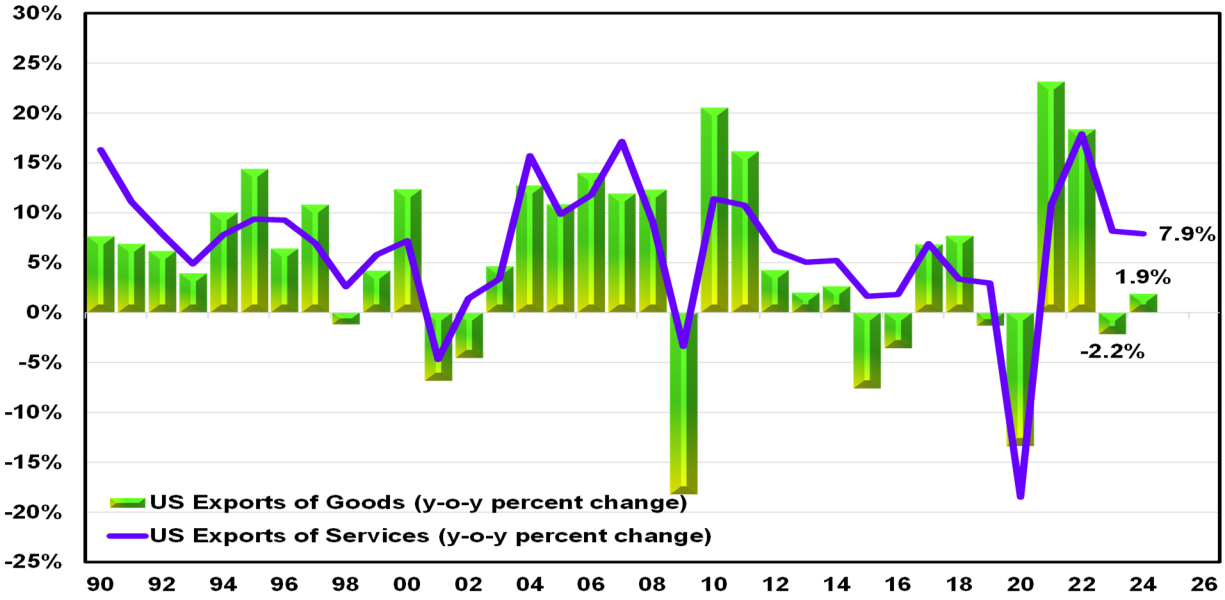
Figure C11
Corporate Affiliate Sales Are Much Larger Than Trade Flows
(trillions of dollars)



D. U.S. EXPORTS: RECENT TRENDS AND OUTLOOK

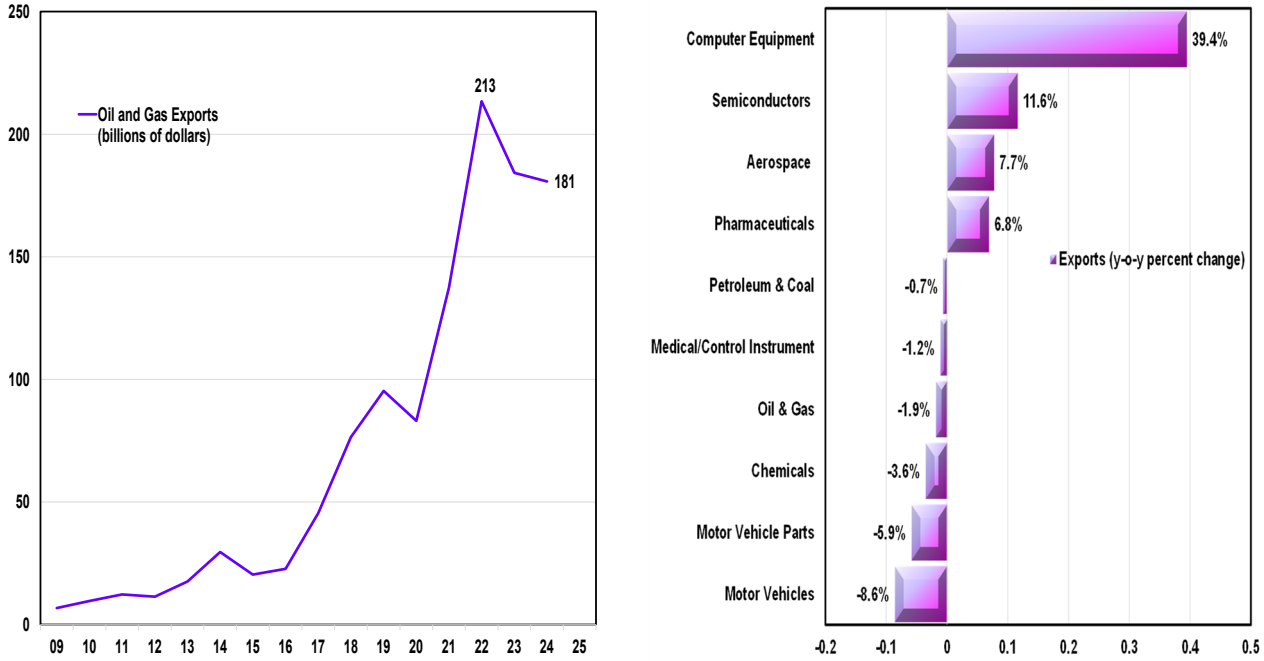
2024 was a better year for US exports than 2023—but just barely. Merchandise exports grew by 1.9%, rebounding from a nearly identical decline in 2023 (Figure D1). However, the pace of growth remained well below the historical average of roughly 5% and also lagged behind global GDP growth, which came in at 3.2%. In contrast, U.S. imports surged by 6%, far outpacing domestic GDP growth of 2.8%. It's no surprise, then, that the trade deficit in merchandise goods widened—reaching a jaw-dropping $1.2 trillion, the highest on record.

Figure D1
A Slightly Better Year for US Exports of Goods and Robust Year for Services
(y-o-y percent change)



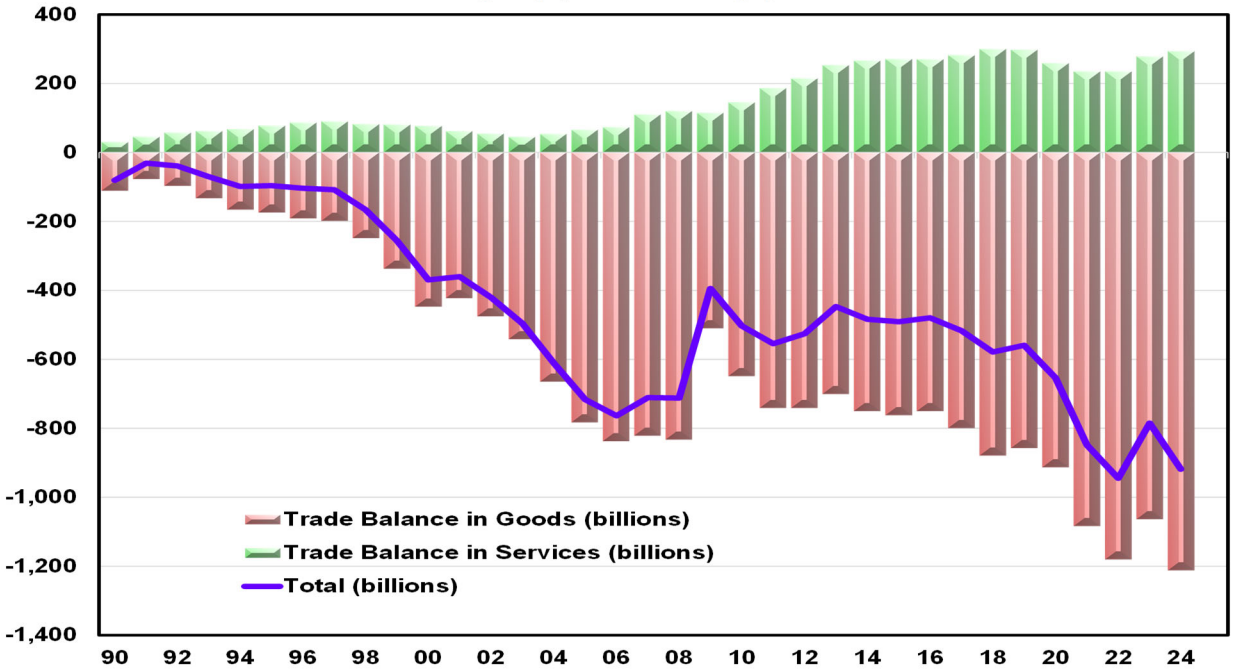
Several factors weighed on export performance, including a strong U.S. dollar and weaker global demand, particularly for energy products. After peaking at $213 billion in 2022 following Russia's invasion of Ukraine, oil exports dropped to $180 billion in 2024—a 15% decline (Figure D2). Other energy exports, such as petroleum products and coal, also fell from $152 billion to $127 billion. To be sure, much of this decline reflects lower prices rather than falling volumes, as U.S. energy exports in physical terms have continued to reach new highs. Beyond energy, other sectors also posted losses: chemical exports declined by 3.5% and vehicle exports fell by 8.6%. On the brighter side, computer equipment led the gainers with an astonishing 40% jump in exports, while semiconductors rose 11.7%, aerospace products and parts grew by 7.7%, and pharmaceuticals increased by 6.8%.

Figure D2
Export Growth Was Mixed for Various Industries
(y-o-y percent change)



As has been the trend since the end of the pandemic, service exports continued to outperform. In 2024, U.S. exports of services rose by a solid 7.9%, just shy of the 8.1% pace recorded in 2023 (Figure D1). This marks the fourth consecutive year of strong growth, driven largely by business services, financial services, intellectual property, and travel. Service exports reached a record $1.1 trillion in 2024—a historic milestone. Because the U.S. exports significantly more services than it imports, it maintains a substantial trade surplus in this area. That surplus climbed to nearly $300 billion in 2024, helping to offset, at least in part, the massive trade imbalance in goods. When services are factored in, the overall U.S. trade deficit narrows to $915 billion—still sizable, but far less alarming than the headline-grabbing $1.2 trillion deficit in goods alone (Figure D3). Nonetheless, services still account for just one-third of the overall exports—with two-thirds still consisting of exports in merchandise goods.

Figure D3
Trade Deficit is Improved When Accounting for Services
(y-o-y percent change)



In fact, the U.S. runs a trade surplus in services with virtually all its major trading partners, which helps to partially offset the sizable goods deficit and moderate the overall trade imbalance. For instance, while the U.S. recorded a $236 billion goods trade deficit with the EU in 2024, it also ran a $75 billion surplus in services—bringing the total deficit down to a more manageable $160 billion. Similarly, when factoring in a nearly $35 billion surplus in services, the overall trade deficit with Canada shrinks from $64 billion to $29 billion. The same pattern holds elsewhere: the U.S. trade deficit with South Korea narrows by $10.7 billion (from $66 billion to $55 billion), and the deficit with Switzerland shrinks by $21 billion, falling from $38 billion to just $17 billion.

Focusing closer on merchandise exports, the trend of shifting trade toward Europe and away from Asia was still intact in 2024—though at a slower pace than in 2022, when the Russia-Ukraine war broke out. The USMCA region (Mexico and Canada) remained the top destination for U.S. exports last year, totaling $682 billion. Asia followed with $531 billion, while Europe was close behind at $504 billion. Since 2022 though, exports to Europe have surged by an impressive 30%, outpacing the 16% growth for USMCA countries. In contrast, Asia has significantly lagged, with just a 6.3% increase over the same period. That said, 2024 did see a bit of renewed momentum in exports to Asia, which rose by 4.3%, compared to a modest 1.4% increase to Europe and flat growth to USMCA partners.

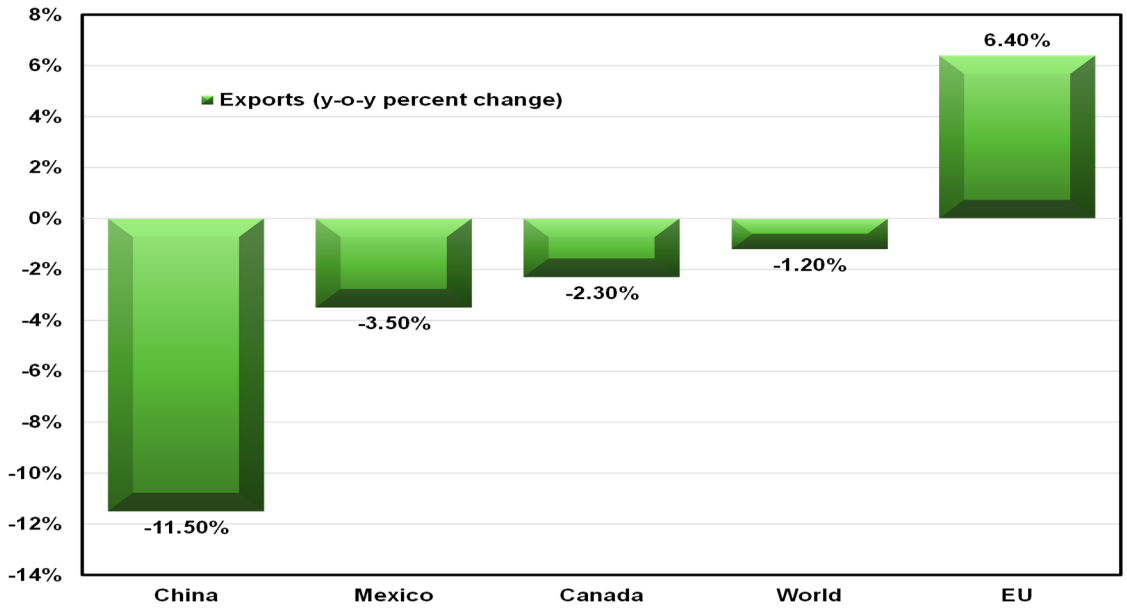
As noted in our previous report, the pivot toward Europe has been largely driven by surging U.S. oil and gas exports, which are increasingly replacing Russian pipeline supplies. The Netherlands has emerged as a major player in this shift, rising to the fourth-largest destination for U.S. exports in 2024, up from eighth in 2021. The U.K. has also climbed the ranks, moving from seventh to fifth.

Meanwhile, Japan and South Korea have slipped, falling to sixth and eighth, respectively, from fourth and fifth. Canada remained the top destination for U.S. exports ($348 billion), followed by Mexico ($334 billion) and China ($143 billion). Still, export growth to these top three markets was lackluster last year: exports declined to both Canada (-1.7%) and China (-3.9%), and rose by just 3.4% to Mexico.

Energy exports played a key role in boosting U.S. trade with the Netherlands, which totaled nearly $90 billion in 2024, generating a $56 billion trade surplus. Oil and gas alone accounted for nearly one-third of all U.S. exports to the country. As a central hub for energy distribution in Europe, the Netherlands now represents the largest trade surplus the U.S. holds with any partner. In the U.K., exports of gold and aircraft contributed to a nearly $12 billion surplus. However, these gains were offset by substantial deficits with other European countries, leaving the overall U.S. trade balance with the continent in the red. Imports of pharmaceutical products from Ireland exceeded $50 billion last year, fueling an $87 billion trade deficit. Similarly, $68 billion in vehicle and machinery imports from Germany contributed to an $85 billion deficit with that country.

To gain some insights about the effect of current tariffs, it is instructive to take a look at the impact the first trade war had on U.S. exports. While exports grew in 2018, when the first trade war first commenced (by 7.7%), they fell by 1.2% in 2019, when the trade war with China ramped up. Exports to China in 2019 fell by a staggering 11.5% (Figure D4). But it wasn't just China: exports to our two major trading partners, Canada and Mexico, also fell, by 2.3% and 3.5% respectively, even though the U.S. never levied tariffs on these countries, though it threatened to do so. The only major trading partner where exports rose in 2019 was the EU—they climbed by 6.4%.

Figure D4
Impact of First Trade War Was Negative for Exports Across Most Trading Partners
(y-o-y percent change)

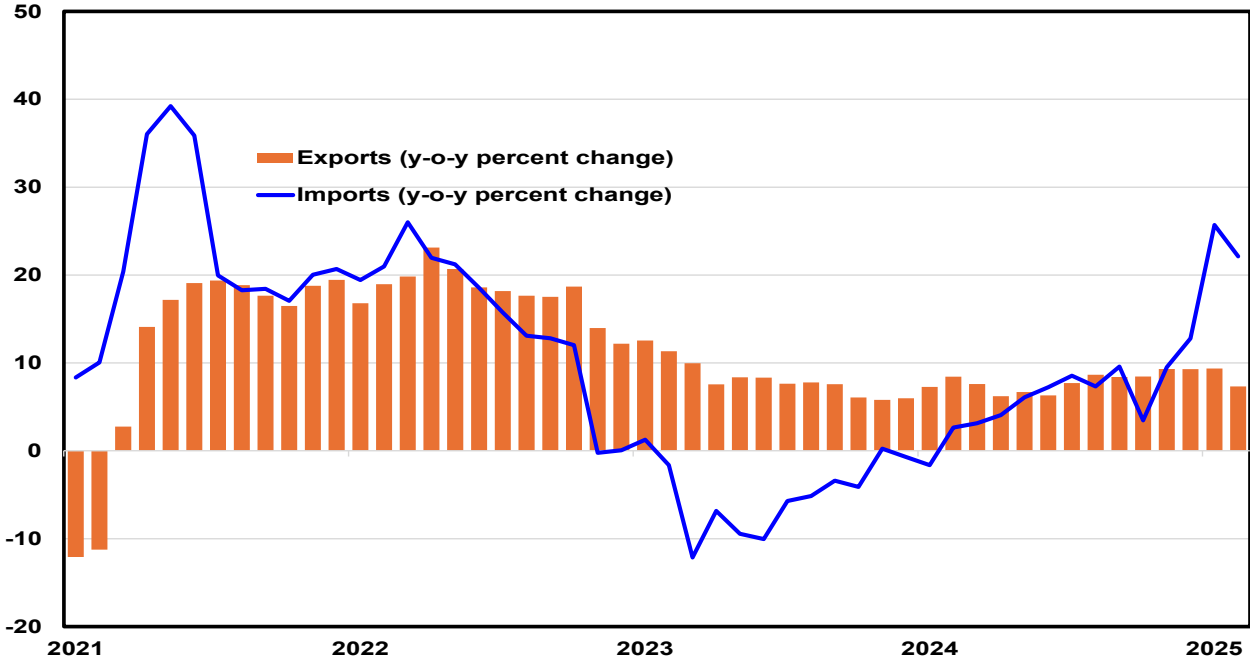


The second trade war is poised to have far more far-reaching and disruptive effects than the first, given the scale and scope of the imposed tariffs. Already, the opening months of 2025 are revealing just how deeply it's rattling U.S. trade flows. In anticipation of the newly announced tariffs, importers rushed to get goods in before the higher duties took effect. As a result, U.S. imports surged by a jaw-dropping 25% year-over-year in January, followed by an additional 22% increase in February (Figure D5). This kind of front-loading is typical ahead of tariff hikes, but the scale of the spike is extraordinary—even by historical standards—suggesting a sharp pullback is likely in the months ahead as inventories swell and demand normalizes.

In contrast, exports posted a far more modest performance, rising at an average pace of 8% over the first two months of the year—roughly in line with year-ago levels (Figure D5). This asymmetry between import and export growth has widened the trade deficit, reversing some of the narrowing seen in late 2024. The imbalance underscores the disproportionate burden that tariff uncertainty places on import-dependent industries, from consumer electronics to auto parts and machinery.

We expect U.S. exports to decline by 7.8% in 2025, driven by retaliatory tariffs from China and a broader slowdown in global growth triggered by mounting trade disruptions. But as trade negotiations move forward and global supply chains begin to stabilize, we anticipate a rebound: exports are projected to grow by 7.2% in 2026 and a further 3.4% in 2027.

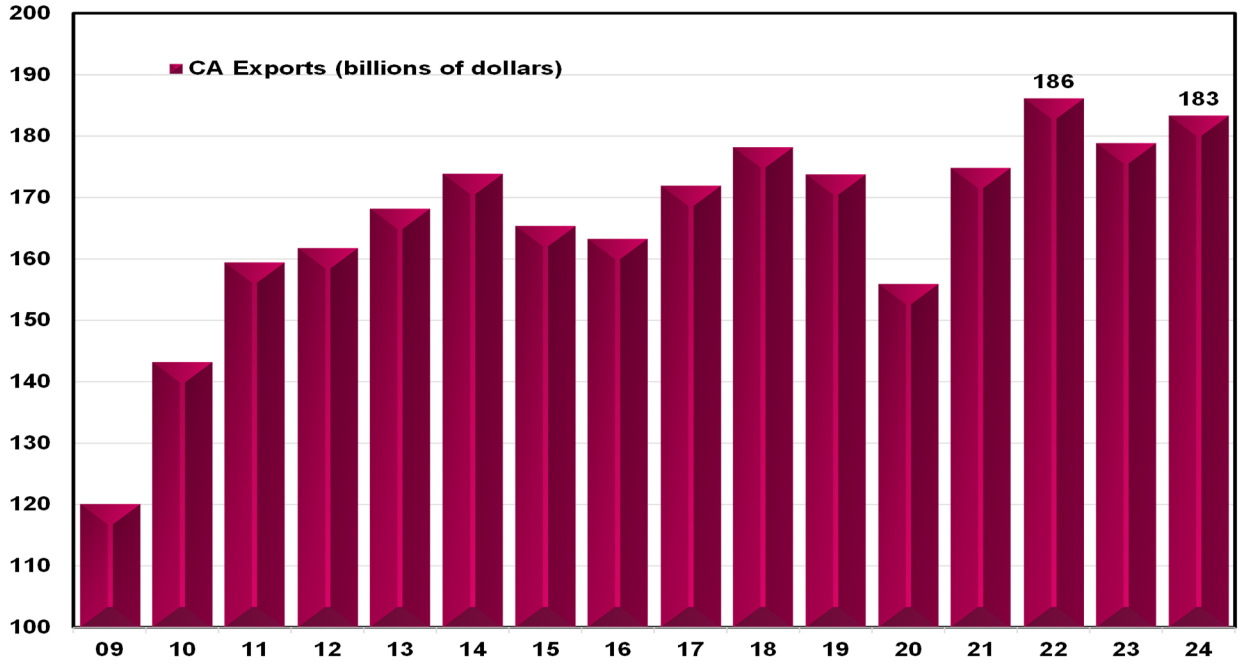
Figure D5
A Surge in Imports due to Tariffs in the First Quarter of this Year
(y-o-y percent change)



E. CALIFORNIA EXPORTS: RECENT TRENDS AND OUTLOOK

California's merchandise exports rose by 2.5% last year, reaching $183 billion—just shy of the all-time high of $186 billion set in 2022 (Figure E1). The state ranks second nationally in total exports, trailing only Texas. But it's a distant second: Texas exports more than twice as much—$455 billion—largely driven by its dominance in energy exports. Despite this recent boost, California ranks second-to-last among the top ten exporting states in terms of export growth since the pandemic. Since 2019, states like Indiana (+52%), Texas (+38%), Louisiana (+36%), Illinois (+35%), and Florida (+29%) have seen far more robust gains. By comparison, California's exports have grown by just 5.5% over the past five years—edging out only Washington, whose exports declined by 4.2% over the same period (Figure E2). California's more sluggish export performance reflects a broader pattern of slower post-pandemic economic growth in the state, weighed down by high costs, regulatory burdens, and industry-specific headwinds.

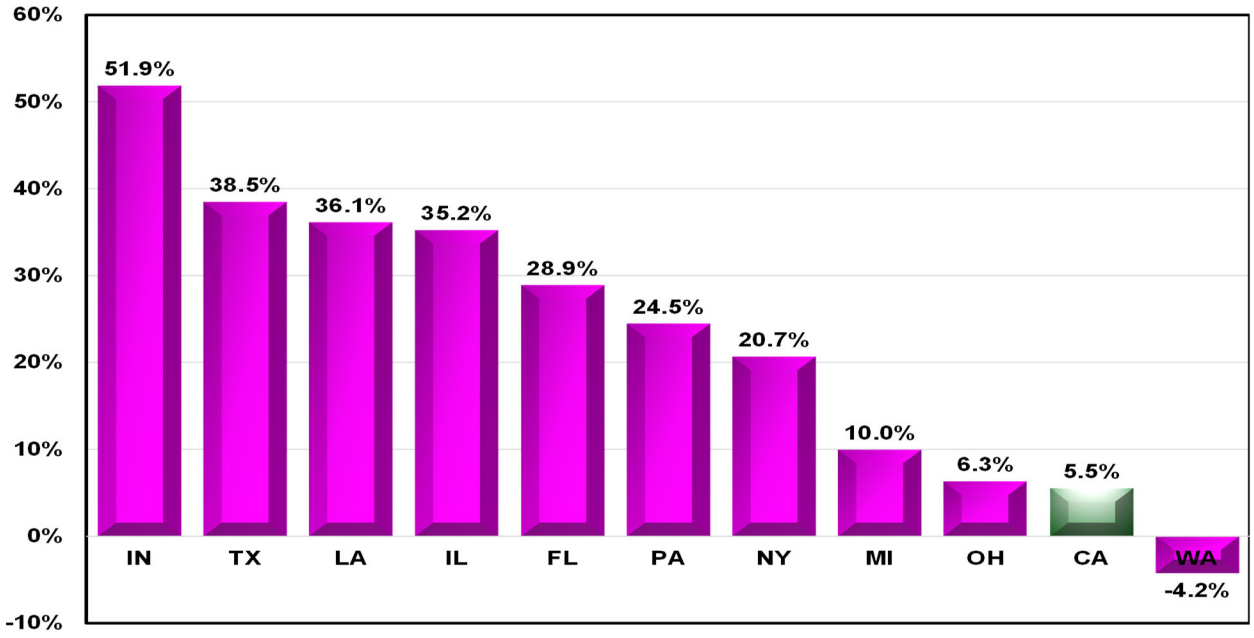
Figure E1
California Exports Have Treaded Water Over the Past Five Years
(billions of dollars)



California's top export destinations in 2024 were Mexico ($33.5 billion), Canada ($18.3 billion), China ($15 billion), Japan ($10.8 billion), Taiwan ($9.5 billion), and South Korea ($8.7 billion) (Figure E3). The results, however, were decidedly mixed. Exports grew the most to Taiwan (up 8%), followed by Japan (2.6%) and Mexico (0.79%). In contrast, exports to China plunged by a jaw-dropping 10.5%, while those to South Korea and Canada fell by 6.7% and 5.3%, respectively.

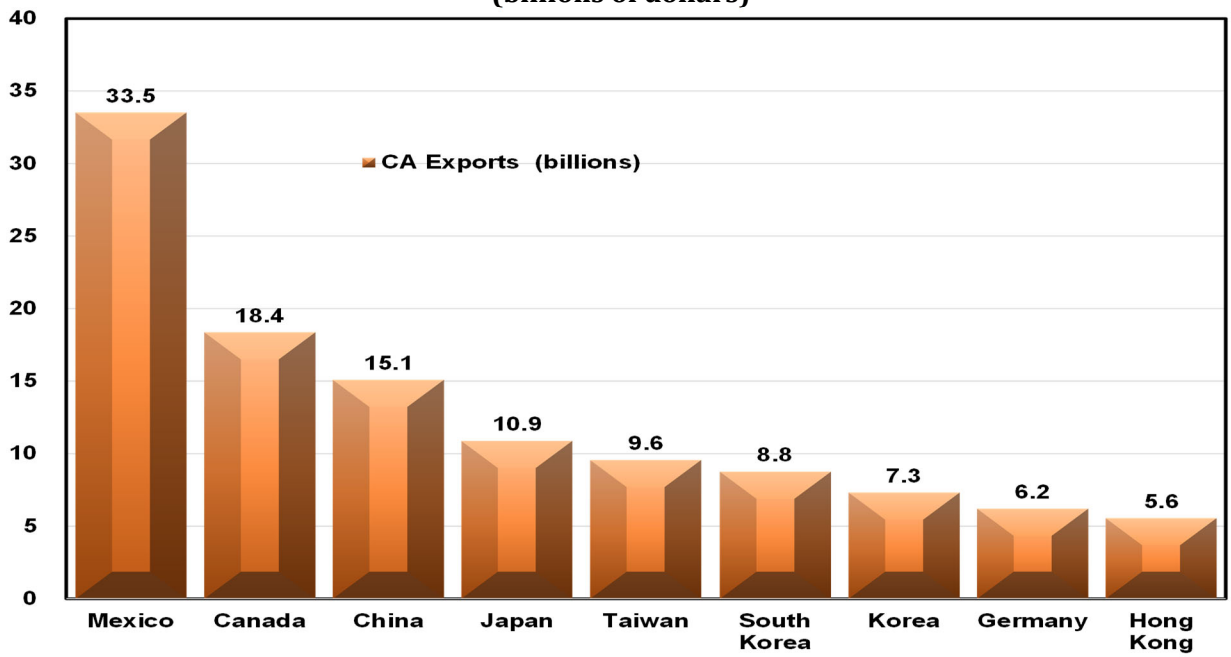
Of these major trading partners, only exports to Mexico reached new highs in 2024. With China, the decline appears to reflect a broader and more entrenched decoupling that began during the first trade war. For other key partners, such as Canada, Japan, and South Korea, export levels remain below their 2022 peaks, suggesting that global demand has yet to fully recover or stabilize across the board.

Figure E2
California Ranks Second Lowest in Terms of Export Growth Since the Pandemic
(percent change since 2019)



Exports from nearly all of California's top industries—those with annual export values exceeding $10 billion—increased last year, with the lone exception of Medical Instruments, which saw a modest decline. More auspiciously, the state's largest export category, Computer Equipment, surged by an extraordinary 75%, reaching nearly $17 billion—the highest level on record. This dramatic rise points to a potential revival in high-tech manufacturing and global demand for advanced computing hardware. Agricultural exports, particularly in Fruits and Tree Nuts—the state's second-largest export category—also posted solid gains, rising by nearly 11% year-over-year. The strength in agriculture underscores California's continued competitive edge in specialty crops, even amid climate challenges and global trade volatility.

Figure E3
California Has Large Exposure to USMCA Countries
(billions of dollars)



A rise in protectionism, such as we are confronting now, is likely to trigger a sharp contraction in international trade volumes. This is particularly significant for California, whose ports handle roughly 40% of the nation's containerized imports and 30% of its exports. In 2024, the state exported $184 billion in merchandise goods, while importing a staggering $500 billion—including $121 billion from China alone. The ports of Los Angeles and Long Beach serve as critical gateways for trade with China and Southeast Asia, leaving Southern California especially vulnerable to global trade disruptions. The region's logistics sector, closely intertwined with international shipping and distribution, would bear the brunt of any slowdown.

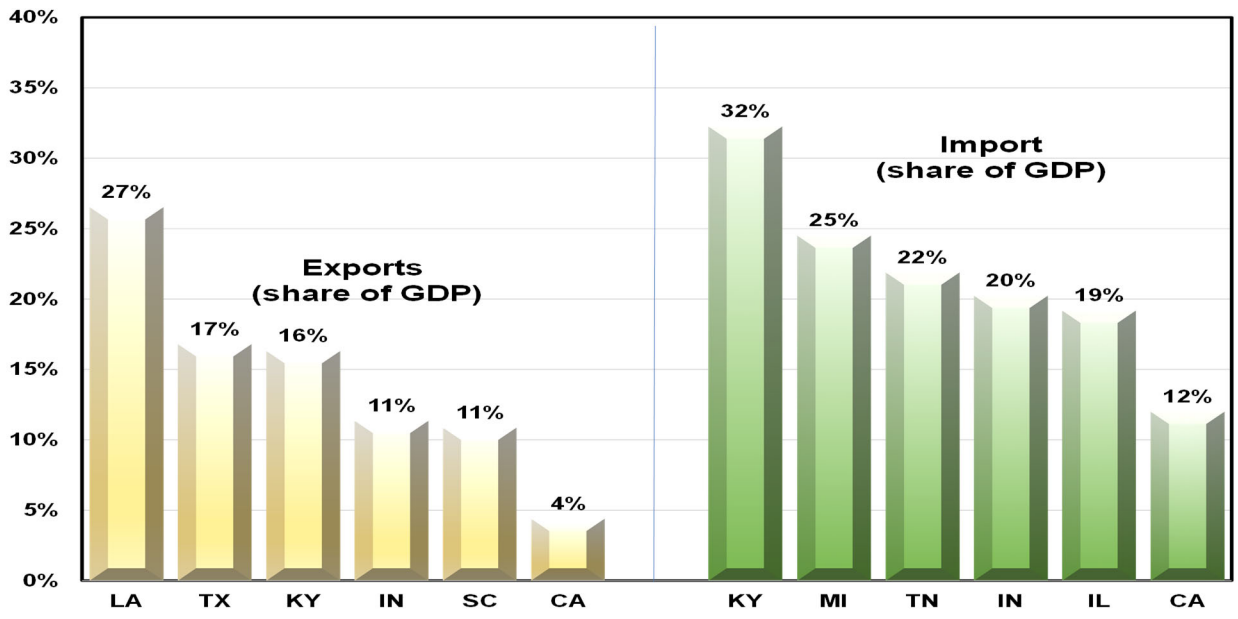
Mexico and Canada—two of California's primary trading partners—now face renewed headwinds under the current trade regime. While USMCA-compliant goods remain tariff-exempt, nearly half of imports from Mexico and 62% from Canada are currently non-USMCA compliant, making them subject to a 25% tariff. However, these figures may overstate the true level of non-compliance. In many cases, firms have simply not completed the necessary paperwork to certify compliance—suggesting that actual non-compliance may prove significantly lower once firms are prodded to act. Still, under current conditions, the effective tariff rate stands at 9% for Mexico and 12% for Canada, impacting roughly $80 billion in imports to California. On the export side, as much as $52 billion in goods could be affected should these trading partners retaliate (as Canada already

has) or enter an economic downturn (which is very likely), thereby reducing demand for California-made products.

Certain sectors are particularly vulnerable to the fallout from trade wars. In 2024, California exported $37 billion in high-tech goods, including computers, semiconductors, and medical devices—making it one of the most exposed segments of the state's economy. Agriculture ranks a close second. The state exported $14.9 billion in agricultural products, with almonds and citrus alone accounting for $11.4 billion, much of it produced in Central and Southern California, where farms are likely to bear the brunt of trade-related disruptions. Adding to the strain, China's ban on most Hollywood film imports has compounded challenges for California's entertainment industry, which is still recovering from recent labor disputes and production delays.

That said, California's diverse economy offers a measure of insulation—a blessing in disguise. Exports account for just 4.4% of the state's GDP, well below the national average of 7%, and significantly lower than states like Louisiana (26.5%), Texas (16.8%), and Kentucky (16.3%). While California's economy, particularly its logistics sector, is more exposed to imports, with imports comprising 12% of state GDP (roughly in line with the national average), this exposure is still lower than in several other states. For comparison, Kentucky's import exposure is 32.3%, Michigan's 24.5%, and Tennessee's 21.9% (Figure E4).

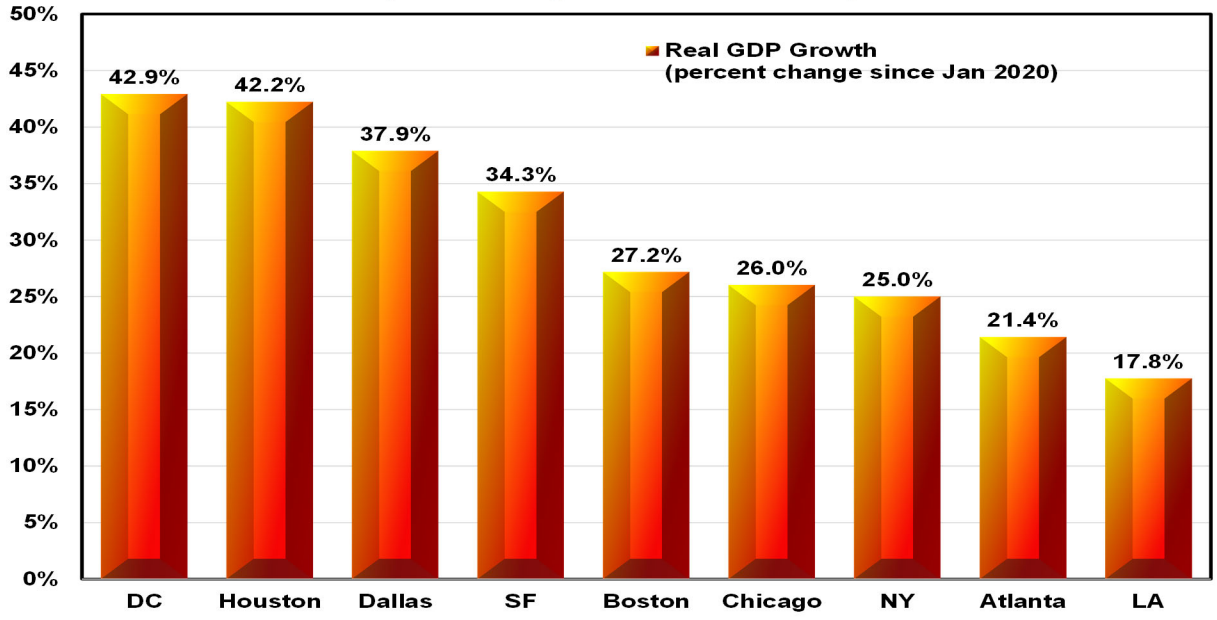
Figure E4
Mercifully, CA is Less Exposed to Trade Than Other States
(exports and imports, percent of GDP)



F. REGIONAL EXPORTS: RECENT TRENDS AND FORECASTS

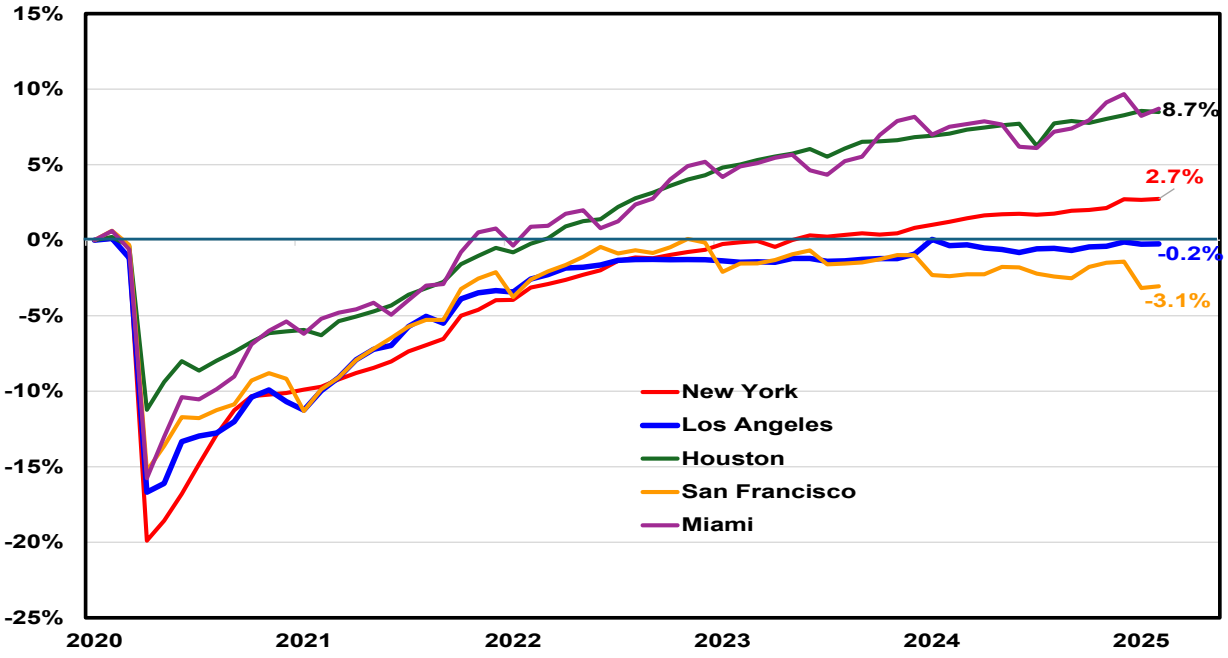
The Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area (LA MSA) is the second-largest MSA in the country by both population and real GDP. In 2023, the region's real GDP grew by 5.5%, and we estimate it expanded by an additional 3.8% in 2024. Despite these reasonably solid annual gains, the region has vastly underperformed its peers since the pandemic. In fact, the LA MSA ranks last among the ten largest metro areas in cumulative growth over that period. Since 2019, real GDP in the region has risen by just 17%, well below the gains seen in Houston MSA (42.2%), Dallas MSA (37.9%), and even San Francisco MSA (34.3%) (Figure F1).

Figure F1
LA Metro Area Has Underperformed Others Since COVID
(cumulative growth since Jan 2020)



The labor market in the LA Metro Area has also been sluggish. As of February 2025 (latest available data), employment remains just 0.2% below its pre-pandemic level. While this is a better showing than the San Francisco MSA, where employment is still down 3.3%, it lags significantly behind other major metros. The Miami and Houston metro areas are currently 8.7% and 8.5% above their pre-pandemic employment levels, respectively (Figure F2). Even the New York Metro Area—a consistent laggard since the pandemic—has managed a 2.7% increase compared to its pre-COVID employment base. Moreover, job growth has weakened further this year, slowing from a 0.87% pace in 2024 to -0.1% currently. The unemployment rate has also crept higher, rising to 5.6%, up from an average of 5.1% in 2024, and notably above the cycle-low of 4.1% recorded in September 2022.

Figure F2
LA Metro Area Labor Market Has Also Struggled to Reach Pre-Pandemic Levels
(cumulative growth since Jan 2020)



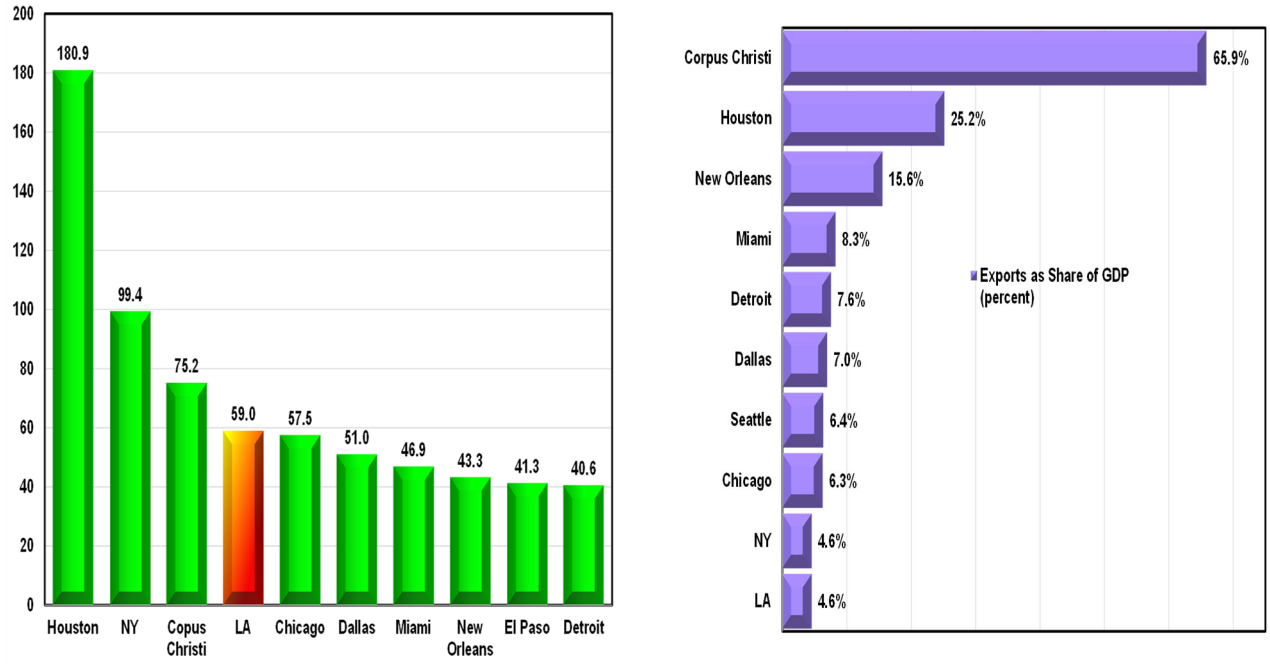
The region ranked 4th among all U.S. MSAs in 2024 for merchandise exports, with $59 billion in outbound goods—behind Houston ($180.9 billion), New York ($99.4 billion), and Corpus Christi ($75.2 billion) (Figure F3). This is unchanged from its 2023 position. As has historically been the case, exports account for only a modest share of the LA MSA's economy—just 4.6% of its GDP in 2024 (Figure F3). That pales in comparison to export-heavy metros like Corpus Christi, where exports (primarily oil and gas) make up a staggering 65.9% of GDP, Houston at 25.2%, and New Orleans at 15.6%. Indeed, the LA MSA is more dependent on imports than exports—a reflection of its massive port complex and position as a gateway for Pacific trade. But even here, its reliance remains relatively modest compared to other trade-focused metros.

That said, the Los Angeles MSA continues to benefit significantly from its direct connectivity to the nation's two busiest ports, supported by robust infrastructure, a strong manufacturing base, and expansive distribution and warehousing networks. In many ways, the diversity of its economy is its greatest strength—particularly in the current environment, where trade tensions are escalating and the U.S. tariff wall is at its highest level in nearly 85 years.

At the time of this report, merchandise export data for the Los Angeles MSA is available from the International Trade Administration (ITA) for the period 2005 through 2023. For 2024, total merchandise export figures are provided by the U.S. Census Bureau. While the ITA offers export data

by region, country (top 50), and sector (top 30) for most years, coverage is considerably more limited for 2005, 2006, 2007, and 2024, particularly in terms of geographic and product-level detail. No official export data exist for years prior to 2005.

Figure F3
Metro Area Exports
(level and percent of GDP, 2024)



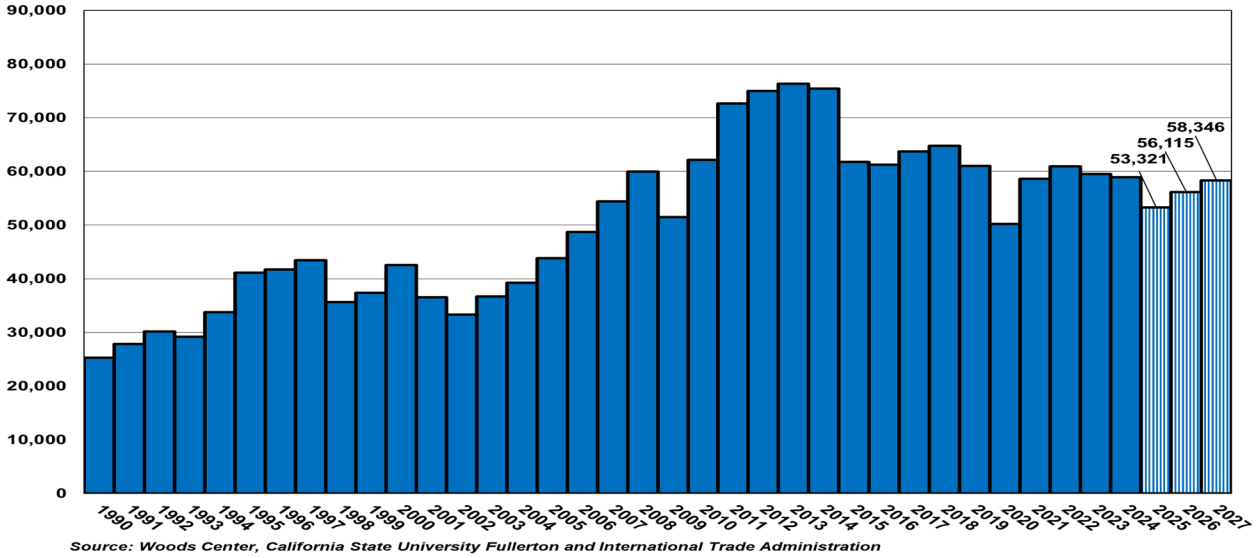
To fill this gap, the Woods Center at California State University, Fullerton provides historical estimates for the pre-2005 period—including by country, region, and sector—as well as projections for 2024, using an econometric model calibrated to trends in regional, state, national, and international trade flows. These estimates are aligned with the methodological updates adopted by the U.S. Census Bureau for export tracking (see Appendix A2 and A3). Forecasts for 2025–2027 are derived from statistical and econometric models, incorporating historical export estimates, California and national trade volumes, trade-weighted exchange rates, labor productivity in export-related industries, and projected U.S. and global real GDP growth.

F.1 Los Angles MSA Merchandise Exports

Merchandise exports from the Los Angeles MSA declined for the second consecutive year, falling by 2.3% in 2023 and a smaller 1.0% in 2024, following a 16.7% rebound in 2021 and a 4.1% gain in 2022 as the global economy emerged from the pandemic. Over the past year, exports have struggled amid a soft global outlook, as tightening by central banks worldwide has weighed on demand. Even so, the region's export performance lags the national trend: U.S. merchandise exports

rose nearly 2% in 2024. More troubling is the longer-term stagnation of LA's export base. At $58.9 billion, current export levels are $2 billion below pre-pandemic levels and a full $17.3 billion below the region's 2013 peak of $76.3 billion (Figure F4 and Table F1).

Figure F4
Los Angeles MSA Total Merchandise Exports
(millions of dollars)



Source: Woods Center, California State University Fullerton and International Trade Administration

The first trade war (2018–2019) had a disproportionately negative impact on Los Angeles metro exports, relative to both the nation and California as a whole. In 2019, as tensions with China escalated, exports from the region fell by -5.8%, a far steeper decline than the -1.2% drop nationally and the -2.5% decline in California exports. This divergence was largely due to LA's outsized exposure to China, which exceeded that of both the state and the nation. We expect a similar pattern to play out over the forecast horizon. This time, however, the region's heightened exposure is to Canada and Mexico—two trading partners that are now directly in the crosshairs of the ongoing tariff conflict. As a result, LA's export performance is likely to underperform once again, relative to broader U.S. and California trends.

Indeed, the export outlook for 2025 has darkened considerably, amid a structural reordering of global trade, sharply higher tariffs, and an escalating U.S.–China trade war. The effective tariff rate on the region's two main trading partners—Mexico and Canada—has surged to 11%, more than ten times higher than at the start of the year. Meanwhile, tariffs on Chinese goods now stand at a staggering 145%. Although Mexico has not retaliated, and Canada's response has been limited in scope, both economies are likely to enter recession, further dampening demand for exports from the Los Angeles region. China, for its part, has escalated tensions by imposing 125% tariffs on U.S. goods, effectively shutting down bilateral trade. While we expect tariffs to eventually decline from their current punitive levels, any resolution—particularly with China—is likely to take time, with prolonged negotiations required to unwind the entrenched trade barriers.

As such, merchandise exports from the Los Angeles MSA are expected to decline by 9.6% in 2025, falling to $53.3 billion—the lowest level since the pandemic. We project a modest rebound of 5.2% in 2026 and 4.0% in 2027, as tariff rates gradually come down. Even so, by the end of the forecast horizon in 2027, exports from the region will remain $0.6 billion below current levels, and $18.0 billion below the 2013 peak of $76.3 billion.

We would anticipate a stronger rebound in 2026 and 2027—if we had confidence that the administration would move swiftly to strike deals with our major trading partners: Mexico, Canada, and China. Alas, negotiations with China are likely to drag on, and while we expect some tariff relief, rates will likely settle in the 25%–35% range. Complicating matters further, the USMCA agreement is up for review next year. We expect the administration to use that opening to pursue additional concessions from Canada and Mexico, including a crackdown on Chinese imports entering via third parties and increased scrutiny of Chinese firms establishing operations just outside U.S. borders. All of this takes time—hence, exports are expected to remain somewhat subdued over the forecast horizon.

Table F1
Los Angeles MSA Total Merchandise Exports
(millions of dollars)

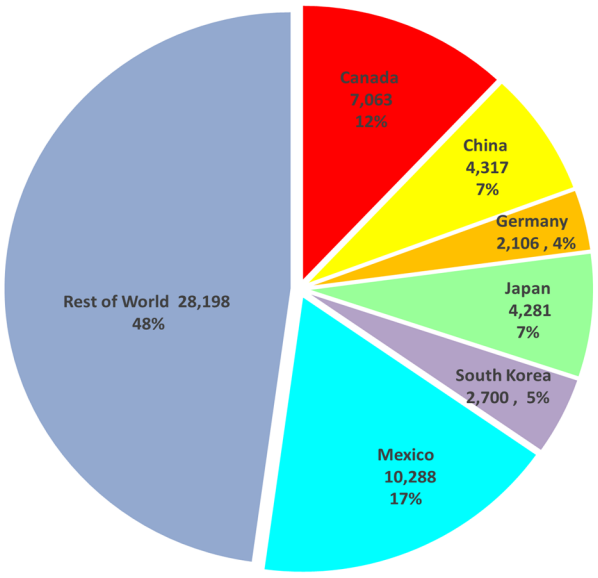
Year	Total Export Volume	Growth Rate
1990	25,290	n/a
1991	27,824	10.0%
1992	30,208	8.6%
1993	29,229	-3.2%
1994	33,757	15.5%
1995	41,113	21.8%
1996	41,739	1.5%
1997	43,480	4.2%
1998	35,669	-18.0%
1999	37,372	4.8%
2000	42,573	13.9%
2001	36,538	-14.2%
2002	33,324	-8.8%
2003	36,725	10.2%
2004	39,279	7.0%
2005	43,814	11.5%
2006	48,718	11.2%
2007	54,433	11.7%
2008	59,986	10.2%
2009	51,528	-14.1%
2010	62,168	20.6%
2011	72,689	16.9%
2012	75,008	3.2%
2013	76,306	1.7%
2014	75,471	-1.1%
2015	61,759	-18.2%
2016	61,246	-0.8%
2017	63,753	4.1%
2018	64,815	1.7%
2019	61,041	-5.8%
2020	50,185	-17.8%
2021	58,588	16.7%
2022	60,980	4.1%
2023	59,562	-2.3%
2024	58,953	-1.0%
	Forecast	
2025	53,321	-9.6%
2026	56,115	5.2%
2027	58,346	4.0%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

F.2 Los Angeles MSA Merchandise Exports by Country

In 2024, the six largest merchandise export destinations for the Los Angeles MSA were: Mexico ($10.3 billion, 17.5% of total exports), Canada ($7.0 billion, 12.0%), China ($4.3 billion, 7.3%), Japan ($4.2 billion, 7.3%), South Korea ($2.7 billion, 4.6%), and Germany ($2.1 billion, 3.6%), as shown in Figure F5 and Table F2. Export performance across these destinations was mixed in 2024. Germany led in growth, with exports rising 4.7%, followed by Japan (3.2%) and Mexico (+1.3%). On the downside, exports to China declined sharply by 9.1%, while those to South Korea and Canada fell by 5.8% and 4.7%, respectively.

Figure F5
Los Angeles MSA Exports by Country
(millions of dollars, 2024)



The first trade war had a sharp negative impact on exports from the Los Angeles region to nearly every major trading partner. In 2019, exports to Mexico fell by 19.4%, to Canada by 6.3%, and to China by 15.6%. This is somewhat surprising, given that the first trade war was primarily focused on China, with far less direct targeting of the U.S.'s two North American neighbors. We attribute this broader decline not solely to tariffs, but also to ongoing structural changes in regional trade patterns. Notably, exports to Mexico have been range-bound between $11–$12 billion since peaking at $19.4 billion in 2013, reflecting a longer-term stagnation rather than short-term disruption. Likewise, exports to Canada rose to an all-time high of nearly $9 billion in 2008 but have remained within the $7-$7.5 billion over the past few years. The only major trading partner to buck the trend during the first trade war was South Korea, where exports from the region rose by 11.5% in 2019—a rare bright spot amid otherwise widespread declines.

The current trade escalation is far broader and more disruptive than the first. With reciprocal tariffs between the U.S. and China now ranging from 125% to 145%, bilateral trade has effectively come to a halt. For the Los Angeles MSA, this means the region's current $4.3 billion in exports to China is likely to dwindle to near zero. Such a dramatic contraction is too abrupt for the broader U.S. economy to absorb without adjustment. We therefore expect to see some exemptions, revisions, and phased adjustments to tariff rates over the forecast horizon—eventually settling in the 25% to 35% range. Still, a final resolution will take time, and disruptions will persist in the interim. As a result, we project a steep 44% decline in exports to China this year. We expect U.S. exports to China to decline by an additional 6.0% in 2026, followed by a rebound of 7.1% in 2027. However, even with that recovery, exports are projected to reach just $2.4 billion by the end of the forecast horizon—still a staggering $5.5 billion below the 2011 peak of $8.0 billion.

Exports to Canada are also expected to fall sharply in 2025 —by 8.5%—as it is the only major trading partner aside from China that has retaliated. Canada has imposed 25% tariffs on non-USMCA-compliant vehicles, and for compliant vehicles, the 25% applies only to U.S.-origin content. In addition, Canada levied 25% tariffs on U.S. steel and aluminum products, affecting an estimated $29.8 billion in U.S. exports. Beyond the current year, as the USMCA undergoes renegotiation, we project a 7.8% increase in U.S. exports to Canada in 2026, followed by a more moderate 4.5% gain in 2027.

Exports to Mexico are projected to decline by 6.6% in 2025, driven not by retaliation, but by weaker domestic demand and slowing economic growth amid broader trade disruptions. Exports to Mexico are expected recover by 6.9% in 2026 and another 6.3% in 2027. Exports to South Korea are expected to decline by 6.1% in 2025, while those to Japan are projected to fall by 3.4%. The introduction of "Liberation Day" tariffs raised rates dramatically—to 25% for South Korea and 24% for Japan. However, both countries are currently covered under a 90-day pause, during which a universal 10% tariff rate applies. We anticipate that both nations will reach negotiated agreements with the U.S., resulting in a meaningful reduction in tariff rates.

Japan's economic exposure to trade with the U.S. is relatively modest, with exports to the U.S. accounting for just 3.5% of its GDP. In contrast, South Korea's exposure is far greater—approximately 8% of GDP. If punitive tariffs were to remain in place beyond the 90-day pause, the impact on the Korean economy would likely be severe, which in turn could depress U.S. exports to South Korea well beyond the currently projected 6.1%. Nevertheless, we expect that bilateral trade deals are likely in the coming months, which should substantially ease tensions and stabilize export flows.

Table F2
Los Angeles MSA Exports by Country
(millions of dollars)

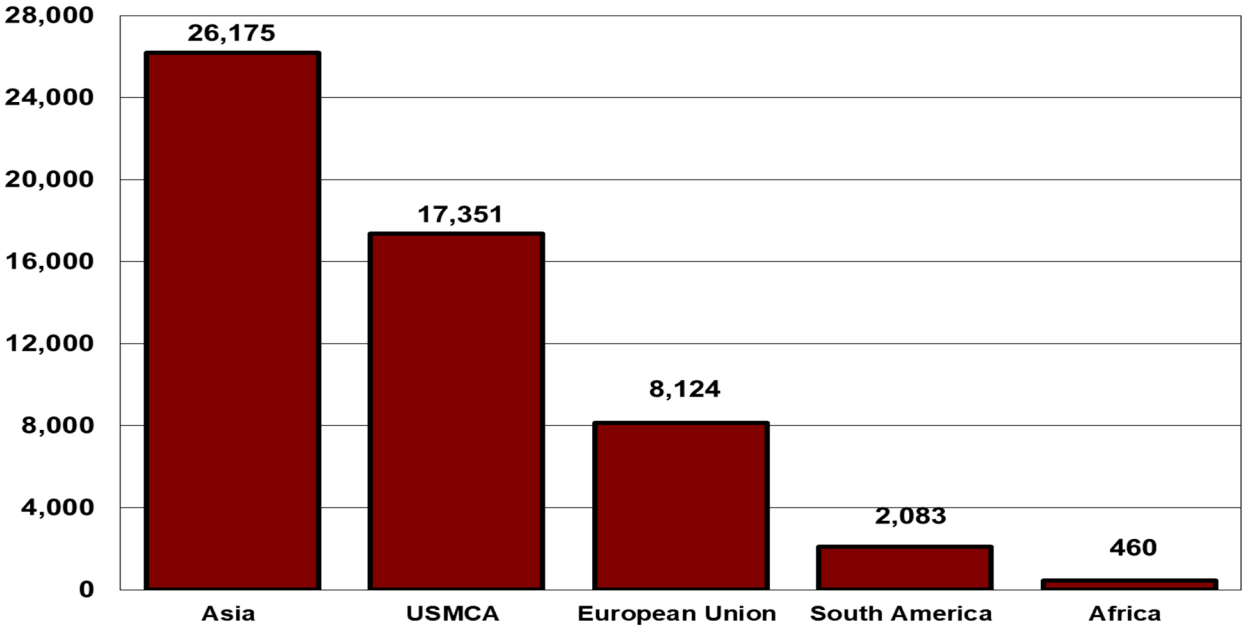
Year	Canada	China	Germany	Japan	South Korea	Mexico	Rest of World	Total Exports
1999	5,096	860	704	4,933	1,568	4,815	19,397	37,372
2000	5,949	1,322	755	6,700	2,293	6,196	19,359	42,573
2001	5,125	1,816	756	6,203	1,783	6,003	14,853	36,538
2002	4,323	1,814	745	4,414	1,586	5,934	14,509	33,324
2003	4,849	2,302	689	4,599	1,708	5,418	17,160	36,725
2004	5,600	3,041	749	5,452	2,186	5,970	16,281	39,279
2005	6,397	3,649	837	5,777	2,412	6,115	18,626	43,814
2006	6,895	5,068	1,039	5,791	2,577	7,847	19,500	48,718
2007	8,871	6,005	1,115	5,869	3,155	6,559	22,858	54,433
2008	9,246	5,988	1,639	6,070	3,436	7,945	25,661	59,986
2009	7,127	4,964	1,290	5,049	2,695	8,936	21,467	51,528
2010	8,061	6,506	1,458	5,558	3,038	14,205	23,342	62,168
2011	8,630	7,985	1,679	6,226	3,074	17,681	27,414	72,689
2012	8,904	7,244	1,594	5,970	3,089	18,340	29,867	75,008
2013	8,287	7,329	2,026	5,707	3,187	19,415	30,354	76,306
2014	8,251	7,221	1,885	5,580	3,149	16,845	32,540	75,471
2015	7,585	6,266	1,756	4,712	2,932	11,125	27,383	61,759
2016	7,121	5,507	1,925	5,126	2,745	9,881	28,940	61,246
2017	7,567	6,134	2,366	5,026	2,874	10,899	28,887	63,753
2018	7,774	5,866	2,661	5,621	3,181	11,853	27,860	64,815
2019	7,280	4,949	2,617	5,420	3,548	9,559	27,668	61,041
2020	6,101	4,134	2,711	4,332	2,546	8,853	21,508	50,185
2021	6,949	4,506	3,524	4,472	3,046	10,825	25,266	58,588
2022	7,480	5,412	1,921	4,495	3,073	10,633	27,966	60,980
2023	7,410	4,751	2,011	4,147	2,866	10,161	28,216	59,562
2024	7,063	4,317	2,106	4,281	2,700	10,288	28,198	58,953
				Forecast				
2025	6,465	2,421	1,994	4,135	2,535	9,613	26,158	53,321
2026	6,969	2,276	2,058	4,399	2,599	10,272	27,123	55,696
2027	7,282	2,437	2,114	4,657	2,677	10,915	27,828	57,911

Source: *Woods Center, California State University Fullerton and International Trade Administration*

F.3 Los Angeles MSA Merchandise Exports by Region

In 2024, the three largest trading regions for the Los Angeles MSA were: Asia ($26.2 billion, 44.4% of total merchandise exports), the USMCA partners—Mexico and Canada ($17.4 billion, 29.4%), and the European Union ($8.1 billion, 13.8%) (see Figure F6 and Table F3). With the exception of USMCA, where exports are estimated to have declined modestly by 1.2%, shipments to other major regions increased in 2024: exports to Asia rose by 3.5%, while those to the EU grew by 2.0%. Notably, despite the ongoing U.S.–China decoupling, total exports to Asia reached their highest post-pandemic level in 2024, as Southeast Asian and Pacific Rim nations increasingly replaced China as key destinations for U.S. goods.

Figure F6
Los Angeles MSA Exports by Region
(millions of dollars, 2024)



Source: *Woods Center California State University Fullerton and International Trade*

The reciprocal tariffs unveiled on April 2nd hit Asian countries particularly hard: India faced tariffs of 26%, South Korea 25%, Japan 24%, Taiwan 32%, and Thailand 36%. The European Union was hit with a 20% rate. However, just one week later, these were reversed to a universal 10%, as pressure mounted, and financial markets seized up. Notably, none of the Asian countries retaliated, opting instead to engage diplomatically. We expect this approach to yield results, with bilateral trade agreements likely to materialize in the coming months.

The EU, however, presents a different challenge. With its economic scale and political weight, it is less easily pressured—more akin to China in its ability to retaliate. While still pursuing negotiations, the EU has made clear it is preparing countermeasures should talks fail. These include 25% tariffs on targeted U.S. goods, such as motorcycles, poultry, fruit, and clothing. Notably, plans to include bourbon and wine were dropped after the U.S. threatened retaliatory 200% tariffs on European wine and champagne. Arguably, the EU's most formidable tool is its Anti-Coercion Instrument—a sweeping policy framework designed to deter countries from leveraging economic coercion to influence EU policy. This mechanism enables retaliatory actions beyond tariffs, such as export controls, restrictions on intellectual property rights, foreign investment limits, service bans, and duties on digital platforms. Most of these measures would target the U.S. service sector, where the U.S. runs a substantial trade surplus with the EU. Nonetheless, our baseline expectation is for de-escalation between the U.S. and the EU. Both sides have strong economic incentives to avoid a full-blown trade conflict, and we anticipate that negotiations will ultimately prevail over escalation, leading to a dialing back of the most punitive measures over the coming months.

Thus, while we anticipate a decline in exports to all major trading regions in 2025, some will be more affected than others. We project a 20.1% drop in exports to Asia, driven largely by a precipitous collapse in trade with China, followed by declines of 9.1% to the EU and 7.3% to USMCA partners. The expected drop in EU exports reflects the bloc's capacity to push back—it cannot be easily pressured and is likely to retaliate with higher tariffs if negotiations drag on. Most importantly, their own economies will feel the strain of higher tariffs—even under the current 10% baseline—likely weakening demand for U.S. goods in the near term. The outlook improves in 2026 and beyond, as we forecast positive export growth across all regions, supported by lower tariff rates and the successful conclusion of key trade deals. Even so, by the end of the forecast horizon (2027), exports to Asia are projected to remain 7.2% below current levels, exports to the EU will be essentially flat, while shipments to USMCA countries are expected to rise by nearly 5%.

Table F3
Los Angeles MSA Exports by Region
(millions of dollars)

Year	Africa	Asia	European Union	USMCA	South America
1999	266	14,615	7,736	9,910	1,099
2000	233	16,295	8,437	12,145	1,054
2001	238	13,047	7,293	11,128	1,012
2002	238	12,362	6,195	10,257	722
2003	267	14,203	7,054	10,267	753
2004	352	15,249	7,351	11,570	973
2005	406	17,684	7,827	12,512	1,221
2006	520	19,508	8,049	14,742	1,477
2007	456	21,982	9,401	15,430	1,798
2008	617	22,727	10,226	17,191	2,434
2009	613	19,212	8,188	16,062	1,806
2010	511	22,803	8,234	22,266	2,274
2011	525	26,630	9,429	26,311	2,912
2012	641	25,169	9,771	27,244	3,055
2013	511	25,550	10,417	27,702	3,123
2014	432	29,763	11,122	25,096	3,392
2015	388	25,732	9,978	18,710	2,413
2016	421	26,857	10,316	17,002	2,118
2017	314	27,293	11,224	18,466	2,155
2018	401	27,528	10,907	19,626	2,021
2019	375	26,640	11,152	16,839	1,794
2020	322	20,913	9,279	14,954	1,420
2021	399	24,005	10,675	17,774	1,771
2022	390	25,998	7,911	18,114	2,426
2023	407	25,294	7,968	17,571	2,143
2024	460	26,175	8,124	17,351	2,083
			Forecasts		
2025	405	20,902	7,385	16,077	1,974
2026	423	23,405	7,775	17,240	2,066
2027	444	24,265	8,108	18,197	2,201

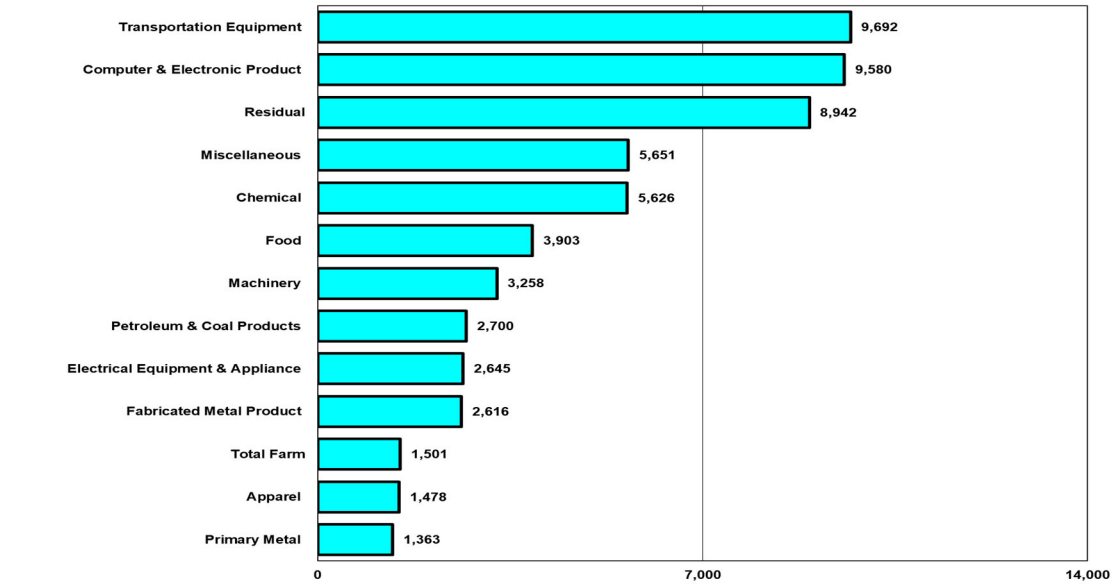
Source: *Woods Center, California State University Fullerton and International Trade Administration*

F.4 Los Angeles MSA Merchandise Exports by Sector

The sectors within the Los Angeles MSA most exposed to higher tariffs include transportation equipment, computer and electronic products, and select agricultural goods. While tariff levels are an important factor, it's worth noting that the volume and export share of these sectors have historically fluctuated over time. In 2024, transportation equipment and computer and electronic products together accounted for roughly one-third of all merchandise exports from the Los Angeles MSA, totaling $9.7 billion and $9.6 billion respectively (see Figure F7 and Table F4).

Export shares across key sectors in the Los Angeles MSA have shifted notably over time. Transportation Equipment peaked at 23.4% in 2005 but declined to 16.4% by 2024. Computer & Electronic Products, once accounting for 32.2% of exports in 2000, has similarly dropped to 16.3%. Farm exports reached a high of $1.7 billion in 2021 but fell to $1.5 billion in 2024, while Food exports declined from a 2022 peak of $4.9 billion to $3.9 billion. Together, Transportation Equipment, Computer & Electronic Products, Farm, and Food exports totaled $24.7 billion in 2024—41.9% of all exports from the region. Chemical Manufacturing was another major contributor, with $5.6 billion in exports (9.5% share). Other key sectors—including Miscellaneous Manufacturing, Petroleum & Coal Products, Machinery, Electrical Equipment & Appliances, Fabricated Metal Products, Apparel, and Primary Metals—accounted for a combined $19.7 billion.

Figure F7
Los Angeles MSA Exports by Sector
(millions of dollars, 2024)



Source: Woods Center California State University Fullerton and International Trade Administration

For 2025, exports are projected to decline across all major Los Angeles MSA sectors—except for Petroleum & Coal Products, which is expected to post a modest increase (Table F4). Transportation Equipment is forecasted to see the steepest drop, falling by -19.3%, driven by trade

tensions with Mexico and Canada. Computer & Electronic Products are also projected to decline sharply, by -14.1%. By 2027, Transportation Equipment exports are expected to recover to $9.2 billion—still below 2024 levels—while Computer & Electronic Products are projected to reach just $8.6 billion, also short of their 2024 volume.

Total Farm exports are projected to decline by -18.9% in 2025, primarily due to escalating trade tensions with China. A further -1.2% drop is expected in 2026, before the sector returns to positive growth in 2027. Food exports are also forecasted to fall sharply—by -13.0% in 2025—before stabilizing and reaching $3.5 billion by 2027. Chemical and Machinery exports are expected to contract by -9.6% in 2025, followed by moderate growth over the remainder of the forecast horizon.

Table F4
Los Angeles MSA Exports by Sector
(millions of dollars)

Year	Transportation Equipment	Computer & Electronic	Miscellaneous	Chemical	Machinery	Petroleum & Coal Products	Food
1998	7,911	8,873	1,542	1,640	1,836	470	1,091
1999	7,145	11,038	1,629	1,579	1,933	453	1,101
2000	6,689	13,725	1,826	1,923	3,116	610	1,232
2001	5,744	11,153	1,615	1,828	2,390	675	1,229
2002	4,976	9,657	1,633	1,805	1,962	544	1,312
2003	6,802	8,902	2,087	2,354	2,133	556	1,511
2004	8,314	9,740	2,116	2,515	2,343	575	1,495
2005	10,273	10,233	2,628	2,691	2,800	939	1,649
2006	10,049	11,714	3,119	3,056	2,895	1,038	1,864
2007	11,917	11,761	3,594	3,652	3,141	1,494	2,088
2008	13,465	11,653	4,186	4,068	3,638	3,141	2,552
2009	10,566	11,965	3,910	3,698	2,892	1,953	2,312
2010	11,064	17,946	4,325	4,268	3,208	2,094	2,911
2011	12,215	21,160	5,117	5,046	3,554	3,372	3,590
2012	14,109	21,561	5,662	4,954	3,707	2,790	3,600
2013	15,505	21,793	5,120	5,134	3,584	2,499	3,336
2014	15,305	18,562	5,396	5,635	3,432	2,843	3,449
2015	11,780	12,728	5,172	5,338	3,254	1,552	3,148
2016	12,776	11,825	6,007	4,807	2,833	1,117	3,455
2017	13,142	11,676	5,806	4,527	2,824	1,617	3,681
2018	11,903	12,099	6,556	4,553	2,868	2,300	3,717
2019	11,254	10,240	6,996	4,646	2,808	1,513	3,886
2020	7,426	10,103	4,053	4,542	2,307	915	3,961
2021	7,685	11,256	4,500	5,635	2,715	1,547	4,662
2022	8,710	10,070	5,578	5,983	3,018	2,967	4,904
2023	10,231	9,777	5,830	5,471	3,171	2,368	3,878
2024	9,692	9,580	5,651	5,626	3,258	2,700	3,903
			Forecast				
2025	7,819	8,227	5,290	5,088	2,946	2,813	3,394
2026	8,722	8,173	5,667	5,349	3,101	3,256	3,392
2027	9,232	8,600	5,892	5,525	3,185	3,457	3,484

Los Angeles MSA Exports by Sector (continued)

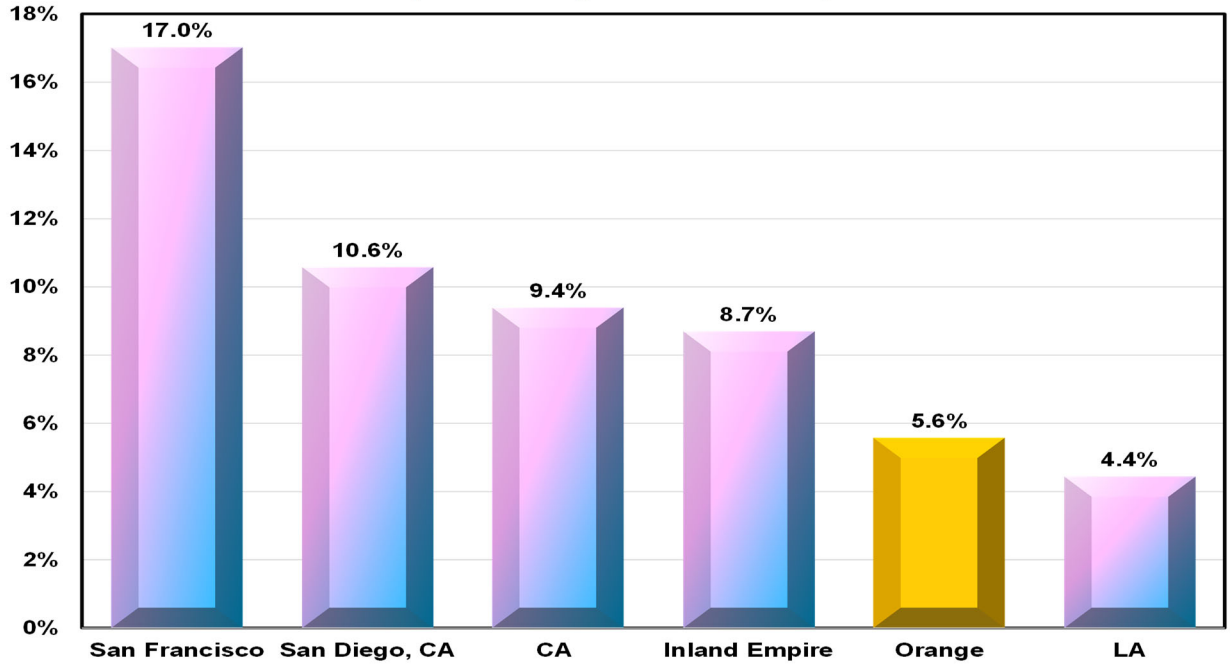
Year	Fabricated Metal Product	Electrical Equipment	Apparel	Total Farm	Primary Metal	Other Sectors	Total Export
1998	1,098	1,037	837	536	607	8,192	35,669
1999	962	1,056	825	431	439	8,782	37,372
2000	1,065	1,454	949	572	598	8,815	42,573
2001	1,050	1,270	979	560	549	7,497	36,538
2002	1,041	1,156	977	487	497	7,277	33,324
2003	1,192	1,130	893	814	554	7,797	36,725
2004	1,307	1,309	892	859	621	7,193	39,279
2005	1,535	1,395	1,052	987	744	6,886	43,814
2006	1,791	1,706	1,092	1,061	878	8,454	48,718
2007	1,818	1,799	1,074	1,082	922	10,091	54,433
2008	1,764	1,640	1,199	1,159	1,081	10,438	59,986
2009	1,544	1,375	1,208	1,055	829	8,222	51,528
2010	1,768	1,519	1,349	1,031	1,012	9,673	62,168
2011	1,762	1,671	1,383	1,367	1,259	11,191	72,689
2012	1,839	1,825	1,433	1,447	1,344	10,736	75,008
2013	2,079	1,943	1,436	1,552	1,482	10,844	76,306
2014	2,039	2,530	1,507	1,503	1,577	11,692	75,471
2015	1,944	2,492	1,449	1,330	1,431	10,140	61,759
2016	1,885	2,370	1,225	1,597	1,906	9,441	61,246
2017	2,011	2,549	1,260	1,528	2,442	10,689	63,753
2018	2,070	2,544	1,456	1,529	1,916	11,304	64,815
2019	2,136	2,554	1,339	1,642	1,636	10,390	61,041
2020	1,632	1,995	1,053	1,698	1,092	9,409	50,185
2021	1,789	2,183	1,645	1,731	1,392	11,849	58,588
2022	2,039	2,471	1,839	1,581	1,282	10,536	60,980
2023	2,504	2,629	1,433	1,519	1,408	9,341	59,562
2024	2,616	2,645	1,478	1,501	1,363	8,942	58,953
				Forecast			
2025	2,571	2,470	1,394	1,217	1,258	8,833	53,321
2026	2,936	2,711	1,450	1,203	1,326	8,829	56,115
2027	3,290	2,947	1,458	1,251	1,422	8,601	58,346

Source: Woods Center, California State University Fullerton and International Trade Administration

G. ORANGE COUNTY

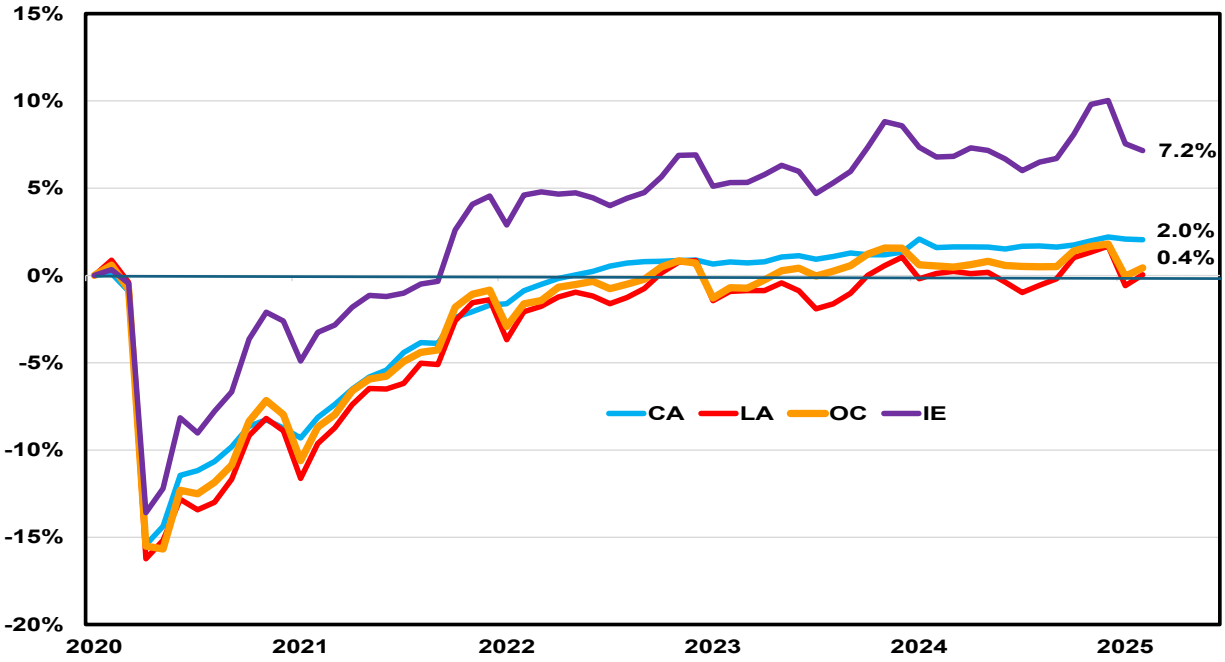
Orange County's economy grew by 0.5% in 2023 (latest available data), with growth projected to pick up to 2.4% in 2024. Despite its relatively small geographic footprint, the county remains an economic powerhouse. Based on real GDP of $273 billion in 2023, Orange County ranks second only to Los Angeles County (at $800 billion), followed by San Diego ($260 billion) and San Francisco ($237 billion). Nonetheless, much like its larger neighbor, Orange County's economic performance since the pandemic has lagged behind other major California counties. Since 2019, San Francisco's GDP has surged by 17%, San Diego by 10.6%, and the Inland Empire by 8.7% (Figure G1). In comparison, Orange County's economy has expanded by just 5.6%, outpacing only Los Angeles County, which posted a modest 4.4% gain over the same period.

Figure G1
Orange County Growth Since the Pandemic Has Been Sluggish
(cumulative growth since 2020)



A similar pattern is evident in the labor market: with the exception of Los Angeles County, Orange County has underperformed both the state and the Inland Empire in terms of job growth. As of 2024, employment in Orange County is just 0.4% above pre-pandemic levels, indicating that the region has spent the past five years merely recouping the jobs lost during the pandemic (Figure G2). By comparison, statewide employment is now 2% above pre-pandemic levels, while the Inland Empire has experienced a surge of 7.2%, reflecting far stronger labor market momentum. More recently, job growth in Orange County has lost steam—slowing from a 0.6% pace in 2024 to a current -0.4% contraction. The unemployment rate has held steady at 3.9%, roughly in line with its average over the past year. Still, it remains a full percentage point above its cycle low of 2.7%, recorded in May 2022.

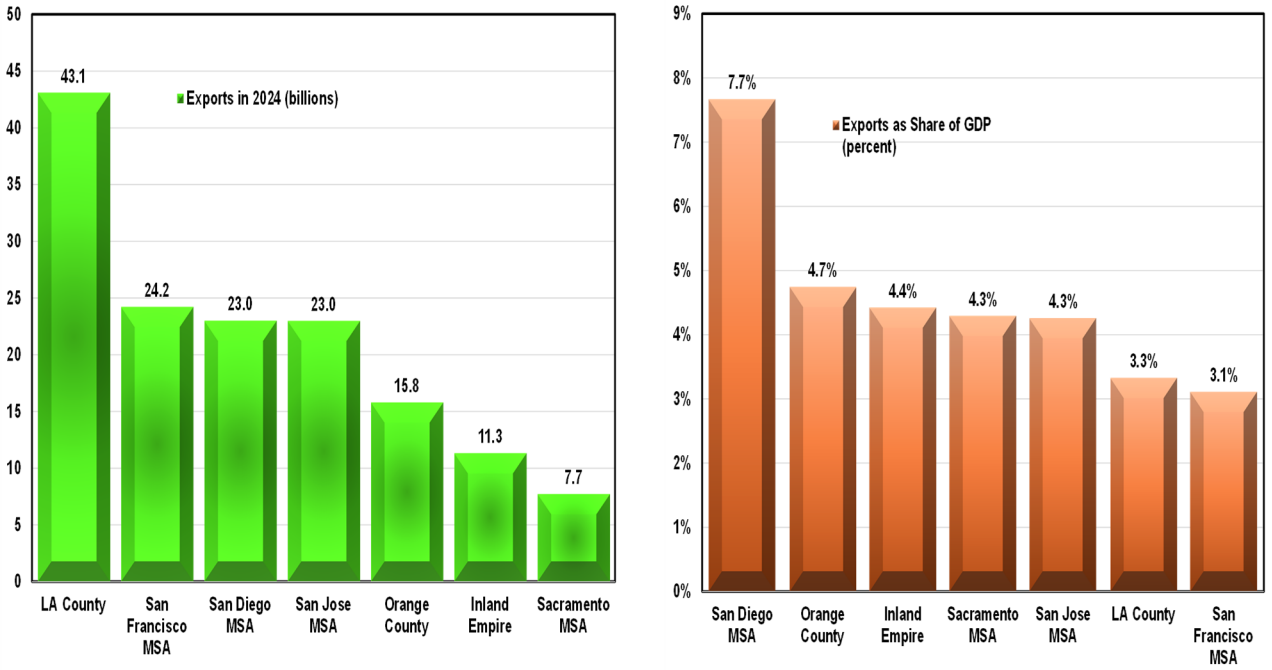
Figure G2
The Labor Market Has Also Been Lackluster
(cumulative growth since 2020)



Much like other major California regions, merchandise exports make up a relatively small share of Orange County's diverse economy, accounting for just 4.4% of Gross County Product in 2023 (latest available data) (Figure G3). In 2024, the county exported an estimated $15.8 billion in merchandise, ranking fifth in the state among large MSAs. Los Angeles County continues to lead the state with $43.1 billion in exports, followed by the San Francisco MSA ($24.2 billion), and both the San Diego and San Jose MSAs, each with $23 billion. This lower export exposure may help insulate the county from some of the volatility tied to ongoing global trade disruptions. The same is true for much of California: with the exception of the San Diego MSA, most regions in the state have below-average export intensity, with merchandise exports accounting for only 3%–4% of GDP, well below the U.S. average of 6.8%.

The International Trade Administration (ITA) has only recently begun reporting total merchandise exports for Orange County, covering a limited time span from 2012 through 2023. As of the time of this report, no official data are available for 2024. Additionally, the ITA does not provide any breakdown of Orange County exports by region, country, or sector. To address this gap, the Woods Center at California State University, Fullerton produces historical estimates and forward-looking projections of Orange County's merchandise exports—disaggregated by volume, region, country, and sector. These figures are generated using an econometric model that incorporates trends in regional, state, national, and international trade patterns.

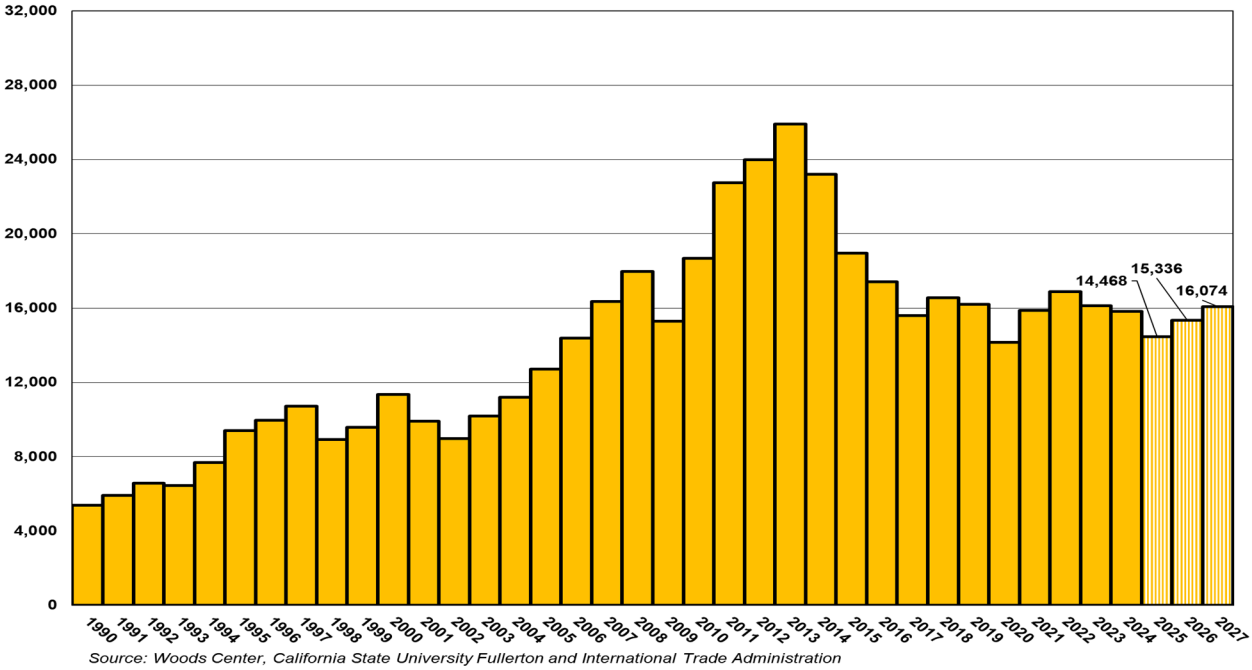
Figure G3
Exports by Main Regions
(level and percent of GDP, 2024)



G. 1 Orange County Merchandise Exports

Exports from Orange County are estimated to have declined for two consecutive years—falling by 4.5% in 2023 (actual data) and by an additional 1.8% in 2024 (estimated) (see Figure G4 and Table G1). As a result, exports from the county now stand 2.4% below pre-pandemic levels, significantly underperforming U.S. merchandise exports, which have risen by more than 25% over the same period. California's exports have also grown, albeit more modestly, with a 5.5% increase since the pandemic. Still, Orange County's export performance has fared slightly better than the broader Los Angeles–Long Beach–Anaheim MSA, where exports remain 3.4% below pre-pandemic levels. The underlying story is similar across the region: Orange County has simply not prioritized export expansion over the past decade—at least not to the extent it did in the aftermath of the Great Recession.

Figure G4
OC Total Merchandise Exports
(millions of dollars)



Source: Woods Center, California State University Fullerton and International Trade Administration

The first trade war (2018–2019) had a modest negative impact on Orange County exports, which declined by 2.1% in 2019—a smaller drop than the broader Los Angeles MSA (5.8%), though slightly larger than the national decline of 1.2%. The second trade war, however, is far broader in scope, with potentially deeper ramifications for the economies of key trading partners. This, in turn, is likely to dampen demand for goods produced in the county. As a result, we forecast a 8.6% decline in export volume in 2025, driven by widespread reductions in exports to nearly all major trading partners. A recovery is expected to follow, with a 6.0% rebound in 2026 and a 4.8% increase in 2027. Even so, by the end of the forecast horizon, total export volume from the county is projected to reach $16 billion—essentially unchanged from 2023 levels.

Table G1
OC Total Merchandise Exports
(millions of dollars)

Year	Total Export Volume	Growth Rate
1990	5,385	n/a
1991	5,923	10.0%
1992	6,568	10.9%
1993	6,457	-1.7%
1994	7,688	19.1%
1995	9,401	22.3%
1996	9,973	6.1%
1997	10,717	7.5%
1998	8,932	-16.7%
1999	9,597	7.5%
2000	11,353	18.3%
2001	9,910	-12.7%
2002	8,973	-9.5%
2003	10,192	13.6%
2004	11,212	10.0%
2005	12,707	13.3%
2006	14,381	13.2%
2007	16,360	13.8%
2008	17,979	9.9%
2009	15,302	-14.9%
2010	18,694	22.2%
2011	22,746	21.7%
2012	23,995	5.5%
2013	25,902	7.9%
2014	23,208	-10.4%
2015	18,948	-18.4%
2016	17,418	-8.1%
2017	15,588	-10.5%
2018	16,554	6.2%
2019	16,205	-2.1%
2020	14,159	-12.6%
2021	15,888	12.2%
2022	16,891	6.3%
2023	16,126	-4.5%
2024	15,836	-1.8%
	Forecast	
2025	14,468	-8.6%
2026	15,336	6.0%
2027	16,074	4.8%

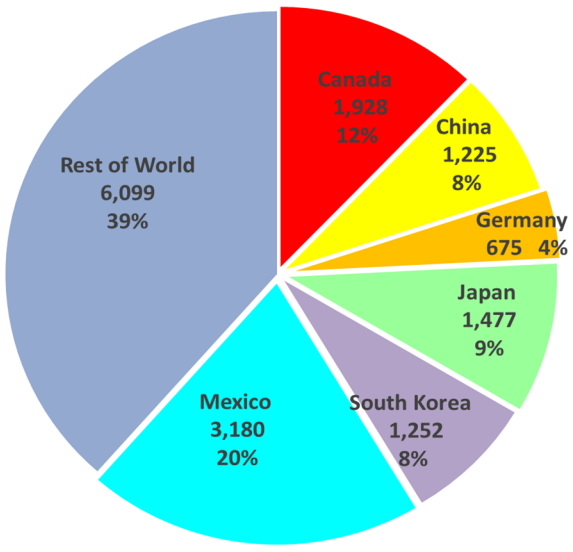
Source: *Woods Center, California State University Fullerton and International Trade Administration*

G.2 Orange County Merchandise Exports by Country

In 2024, Orange County's top export destinations were Mexico ($3.2 billion), Canada ($1.9 billion), Japan ($1.5 billion), South Korea ($1.3 billion), China ($1.2 billion), and Germany ($0.7 billion), as shown in Figure G5 and Table G2. Exports to Mexico—still the county's largest market at 20.1% of total exports—declined by 0.6% in 2024 after a 3.5% drop in 2023, following strong gains in 2021 (17%) and 2022 (9.6%). However, they remain 44% below the 2013 peak of $7.2 billion. Exports to Canada fell by 4.5% in 2024 after a 2.3% decline in 2023. Despite post-pandemic growth (8.1% in 2021 and 7.6% in 2022), current levels are still well below the 2012 peak of $3.1 billion. Together, Mexico and Canada accounted for about one-third of Orange County's exports.

The ongoing U.S.–China decoupling led to a 6.5% drop in Orange County exports to China in 2024, following an 11.0% decline in 2023. Export levels are now below pre-pandemic figures and 55% below the 2011 peak of $2.7 billion. Exports to Japan rose 1.5% in 2024, returning to pre-pandemic levels, though they remain still $0.6 billion below the 2011 high of $2.1 billion. South Korea saw consecutive declines of -3.0% in both 2023 and 2024, keeping exports above pre-pandemic levels but below the 2022 peak of $1.3 billion. Germany was the only major trading partner to post strong growth in 2024, with exports rising 6.5% to $675 million. This still falls short of the near-$1 billion peak recorded in 2021.

Figure G5
OC Merchandise Exports by Country
(millions of dollars, 2024)



In 2019, Orange County exports declined sharply: 16.5% to Mexico, 3.0% to Canada, and 12.6% to China. While the drop in exports to China was a direct consequence of the first trade war, the declines to USMCA partners reflect more secular trends, as no tariffs were imposed on those countries during that period.

Merchandise exports from Orange County to all major trading partners are projected to decline in 2025. The steepest drop is expected with China (38.8%), driven directly by the escalating trade war. Exports to Canada are forecast to fall by 8.4%, reflecting both Canadian retaliation and a weaker economic outlook. Declines are also expected with Germany (-6.3%), South Korea (-5.7%), Mexico (-5.7%), and Japan (-3.1%), largely due to broader global weakness triggered by newly imposed U.S. tariffs.

We project a rebound in exports to all major trading partners in 2026—except for China, where exports are expected to decline by an additional -4.8%. By 2027, exports to all key markets are forecast to rise as trade tensions ease up and global trade normalizes.

Table G2
OC Merchandise Exports by Country
(millions of dollars)

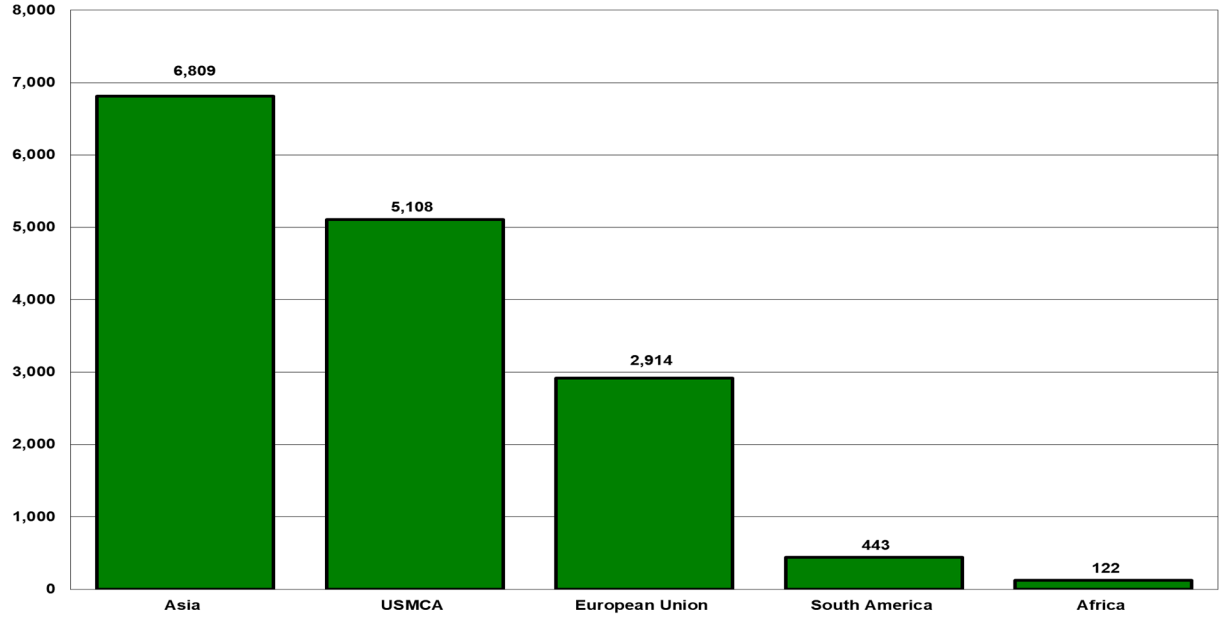
Year	Canada	China	Germany	Japan	South Korea	Mexico	Rest of World	Total Exports
1999	1,496	264	188	1,448	481	1,484	4,237	9,597
2000	1,657	368	210	1,867	639	1,726	4,886	11,353
2001	1,452	515	214	1,758	505	1,701	3,765	9,910
2002	1,212	508	209	1,237	445	1,663	3,699	8,973
2003	1,403	666	199	1,331	494	1,568	4,530	10,192
2004	1,675	909	224	1,630	654	1,785	4,335	11,212
2005	1,945	1,110	255	1,757	734	1,860	5,047	12,707
2006	2,146	1,578	323	1,803	802	2,443	5,286	14,381
2007	2,838	1,921	357	1,878	1,009	2,098	6,258	16,360
2008	2,957	1,915	524	1,941	1,099	2,541	7,001	17,979
2009	2,264	1,577	410	1,604	856	2,839	5,750	15,302
2010	2,601	2,099	471	1,793	980	4,583	6,168	18,694
2011	2,931	2,712	570	2,115	1,044	6,005	7,369	22,746
2012	3,111	2,531	557	2,086	1,079	6,408	8,223	23,995
2013	3,059	2,705	748	2,107	1,176	7,166	8,941	25,902
2014	2,763	2,418	631	1,868	1,054	5,640	8,833	23,208
2015	2,529	2,089	585	1,571	978	3,709	7,486	18,948
2016	2,215	1,713	599	1,595	899	3,074	7,323	17,418
2017	1,935	1,569	605	1,285	846	2,787	6,560	15,588
2018	2,042	1,541	699	1,477	910	3,114	6,770	16,554
2019	1,981	1,346	712	1,475	965	2,601	7,125	16,205
2020	1,778	1,205	790	1,263	1,027	2,581	5,515	14,159
2021	1,922	1,386	975	1,423	1,146	3,020	6,016	15,888
2022	2,068	1,473	603	1,542	1,336	3,312	6,689	16,891
2023	2,020	1,311	634	1,454	1,290	3,200	6,217	16,126
2024	1,928	1,225	675	1,477	1,252	3,180	6,099	15,836
				Forecast				
2025	1,766	750	633	1,431	1,180	2,998	5,709	14,468
2026	1,870	714	665	1,559	1,251	3,280	5,997	15,336
2027	1,943	754	697	1,634	1,320	3,472	6,254	16,074

Source: *Woods Center, California State University Fullerton & International Trade Administration*

G.3 Orange County Merchandise Exports by Region

In 2024, Orange County's top export regions were Asia ($6.8 billion, 43.0% of total exports), USMCA partners Mexico and Canada ($5.1 billion, 32.3%), and the European Union ($2.9 billion, 18.4%) (see Figure G6 and Table G3). Exports declined modestly to Asia (-2.3%) and the USMCA region (-2.1%), while exports to the EU posted a slight gain of 0.4%.

Figure G6
OC Merchandise Exports by Region
(millions of dollars, 2024)



Source: Woods Center California State University Fullerton

Table G3
OC Exports by Region
(millions of dollars)

Year	Africa	Asia	European Union	USMCA	South America
1999	71	3,852	1,979	2,980	294
2000	65	4,697	2,383	3,384	294
2001	67	3,909	2,070	3,154	287
2002	67	3,670	1,804	2,875	203
2003	77	4,448	2,042	2,971	198
2004	105	4,810	2,203	3,460	304
2005	124	5,392	2,387	3,805	372
2006	162	6,090	2,513	4,589	461
2007	146	7,058	3,018	4,936	577
2008	198	7,299	3,284	5,498	782
2009	196	6,133	2,614	5,104	577
2010	166	7,396	2,671	7,184	738
2011	179	9,099	3,222	8,936	995
2012	225	8,853	3,437	9,519	1,075
2013	190	9,496	3,872	10,225	1,161
2014	145	9,190	3,637	8,403	1,143
2015	130	7,977	3,051	6,239	810
2016	138	7,826	3,084	5,289	658
2017	80	6,980	2,871	4,723	551
2018	105	7,233	2,866	5,157	531
2019	102	7,248	3,034	4,582	488
2020	94	6,096	2,705	4,359	414
2021	102	6,963	2,920	4,943	484
2022	109	7,392	3,040	5,380	510
2023	111	6,967	2,903	5,220	460
2024	122	6,809	2,914	5,108	443
			Forecasts		
2025	113	5,787	2,705	4,764	434
2026	120	6,226	2,822	5,150	447
2027	125	6,558	2,966	5,415	468

Source: *Woods Center, California State University Fullerton*

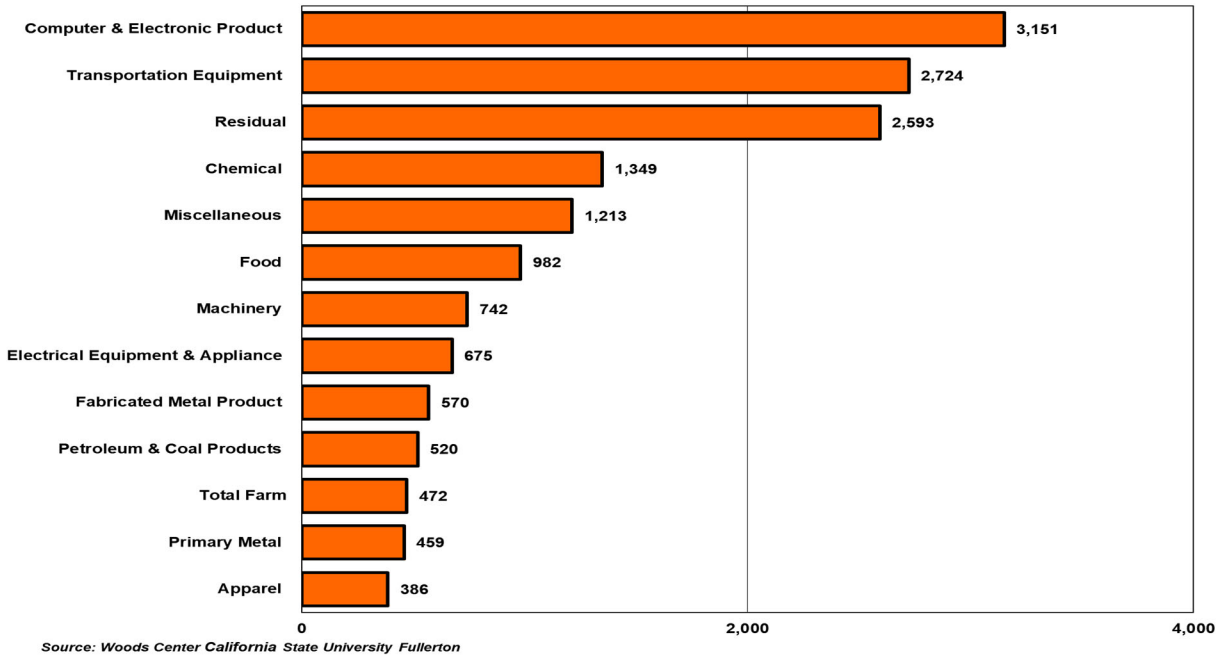
Exports to all of Orange County's major trading regions are projected to decline in 2025, followed by a recovery through 2027. The steepest drop is expected in Asia (-15.0%), with smaller declines for the EU (-7.1%) and USMCA (-6.7%). By 2027, exports to Asia are forecast to reach $6.6 billion—still 31% below the 2013 peak of $9.5 billion. EU exports are projected at $3.0 billion, about $0.9 billion below their 2013 high, while USMCA exports are expected to total $5.4 billion—just over half of the $10.2 billion record.

G.4 Orange County Merchandise Exports by Sector

The ongoing reconfiguration of global trade is likely to negatively impact Orange County, where high-tech industries make up a substantial share of merchandise exports (see Figure G7 and

Table G4). In 2024, the top two export sectors were Computer & Electronic Products ($3.2 billion, 19.9%) and Transportation Equipment ($2.7 billion, 17.2%). While both remain key drivers, they are well below their 2013 peaks—down $4.1 billion and $3.0 billion, respectively. Last year, Total Farm exports totaled $0.5 billion, and Food exports reached $0.9 billion. Two additional sectors—Miscellaneous and Chemical Manufacturing—each surpassed $1 billion. The remaining sectors, including Machinery, Petroleum & Coal Products, Fabricated Metals, Electrical Equipment, Apparel, and Primary Metals, collectively accounted for $3.4 billion, or 21.1% of total exports.

Figure G7
OC Merchandise Exports by Sector
(millions of dollars, 2024)



Source: Woods Center California State University Fullerton

In 2025, steep declines are projected across nearly all major export sectors in Orange County, with the exception of Petroleum & Coal Products, which are expected to see a slight increase (Table G4). Computer & Electronic Products—the county's largest export sector—are forecast to fall by 10.5%, while Transportation Equipment is projected to decline by an even steeper 16.1%. Total Farm exports are expected to drop sharply by 20.2%, and Food exports by 11.6%.

Looking ahead, most sectors are expected to recover gradually over the remainder of the forecast horizon. Computer & Electronic Products are projected to grow by 6.5% in 2026 and 5.3% in 2027, reaching $3.2 billion—still 56% below the 2013 peak of $7.2 billion. Transportation Equipment is forecast to rebound by 12.1% in 2026 and 6.3% in 2027, ending the period at $2.7 billion, or 52.1% below the 2013 high of $5.7 billion. Total Farm exports are projected to reach $0.4 billion by 2027, 27.7% below their 2013 peak of $0.6 billion. Food exports are expected to recover to $1 billion by 2027, returning to their 2024 level. Collectively, the remaining sectors—including Machinery, Petroleum & Coal Products, Fabricated Metal, Electrical Equipment, Apparel, and Primary Metals—are projected to reach $3.5 billion by 2027, surpassing their 2024 total.

Table G4
OC Merchandise Exports by Sector
(millions of dollars)

Year	Transportation Equipment	Computer & Electronic	Miscellaneous	Chemical	Machinery	Petroleum & Coal Products	Food
1998	1,737	2,474	383	391	470	120	258
1999	1,914	2,877	408	405	466	124	276
2000	2,097	3,440	481	499	754	171	318
2001	1,557	3,054	426	445	664	163	295
2002	1,383	2,526	429	377	588	157	274
2003	1,669	2,993	469	429	613	152	320
2004	1,882	3,022	491	520	751	175	417
2005	2,378	3,347	598	694	867	229	464
2006	2,826	3,610	829	888	870	318	546
2007	3,440	3,955	955	1,130	930	415	613
2008	3,788	4,387	1,149	1,156	1,061	440	748
2009	3,049	3,336	992	1,081	892	493	638
2010	4,061	4,764	1,220	1,274	1,000	585	875
2011	4,889	6,191	1,653	1,533	1,064	836	1,105
2012	5,157	6,696	1,739	1,555	1,178	807	1,171
2013	5,685	7,212	1,711	1,739	1,323	879	1,168
2014	5,155	6,069	1,519	1,703	1,104	846	1,058
2015	4,172	4,605	1,205	1,354	838	697	849
2016	3,908	3,924	1,083	1,273	766	593	772
2017	3,352	3,113	1,104	1,138	680	586	798
2018	3,305	3,467	1,334	1,265	721	607	819
2019	3,113	2,981	1,526	1,312	687	599	910
2020	2,191	2,837	1,038	1,166	635	411	962
2021	2,337	3,251	1,148	1,441	758	591	1,157
2022	2,659	3,389	1,364	1,462	777	594	1,134
2023	2,919	3,193	1,290	1,306	790	484	968
2024	2,724	3,151	1,213	1,349	742	520	982
			Forecast				
2025	2,286	2,821	1,120	1,242	686	521	868
2026	2,563	3,006	1,207	1,298	726	583	955
2027	2,725	3,167	1,256	1,353	766	595	982

OC Merchandise Exports by Sector (continued)

Year	Fabricated Metal Product	Electrical Equipment	Apparel	Total Farm	Primary Metal	Other Sectors	Total Export
1998	276	257	212	115	156	2,085	8,932
1999	248	274	219	120	116	2,152	9,597
2000	276	387	252	151	157	2,372	11,353
2001	292	314	287	159	145	2,110	9,910
2002	246	308	276	167	133	2,109	8,973
2003	335	311	251	216	154	2,280	10,192
2004	389	373	257	227	173	2,534	11,212
2005	440	419	313	242	222	2,496	12,707
2006	524	494	329	284	260	2,605	14,381
2007	562	513	331	307	281	2,928	16,360
2008	539	505	351	348	328	3,179	17,979
2009	463	411	371	291	263	3,023	15,302
2010	549	470	400	371	329	2,798	18,694
2011	647	589	441	431	409	2,957	22,746
2012	665	624	477	441	409	3,077	23,995
2013	748	769	535	554	543	3,037	25,902
2014	637	811	482	471	507	2,846	23,208
2015	495	678	369	377	421	2,888	18,948
2016	470	643	343	343	413	2,886	17,418
2017	449	604	356	331	414	2,664	15,588
2018	503	671	391	376	406	2,689	16,554
2019	556	718	376	393	430	2,604	16,205
2020	461	624	340	438	436	2,620	14,159
2021	515	637	421	467	523	2,643	15,888
2022	571	739	424	486	519	2,773	16,891
2023	613	686	355	484	500	2,539	16,126
2024	570	675	386	472	459	2,593	15,836
			Forecast				
2025	550	611	355	376	447	2,585	14,468
2026	559	656	368	374	466	2,575	15,336
2027	597	684	381	400	488	2,681	16,074

Source: Woods Center, California State University Fullerton

H. CONCLUSION

While exports are not the primary engine of Southern California's economy, they remain a vital component. Recent tariff increases are expected to weigh heavily on the economies of key trading partners, thereby significantly curbing regional export activity. In this context, the Woods Center at California State University, Fullerton provides a unique and detailed analysis of recent trends, forward-looking projections, and the broader implications of these tariffs on merchandise exports from Orange County and the greater Los Angeles-Long Beach-Anaheim MSA.

While the International Trade Administration provides export data for Orange County and the broader MSA from 2012 to 2023, it includes only total volumes for the county, without any detail by country, region, or sector. For 2024, the U.S. Census Bureau offers total export figures—but only at the MSA level, and without breakdowns. This report fills that critical gap, delivering the only comprehensive source of historical data through 2024 and forward-looking forecasts through 2027 for merchandise exports from both Orange County and the Los Angeles-Long Beach-Anaheim MSA.

Merchandise exports from both Orange County and the broader Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area declined in 2024, and a much sharper contraction is projected for 2025. This is driven by the full-year impact of newly imposed tariffs, escalating trade tensions—particularly with China—and weaker economic growth in key partners. The steepest declines are expected in exports to China and across major sectors such as agriculture, transportation equipment, and computer and electronic products. As trade negotiations unfold, we anticipate some easing of tariff pressures, supporting a projected rebound in exports in 2026 and 2027.

Merchandise exports for the Los Angeles Metro area are projected to reach the following levels by the end of 2027 (end of forecast horizon):

- Total: $58.3 billion which is $18.0 billion below the record high of $76.3 billion in 2013.
- Six largest countries: Mexico ($10.3 billion), Canada ($7.0 billion), China ($4.3 billion, Japan ($4.2 billion), South Korea ($2.7 billion), and Germany ($2.1 billion).
- Major regions: Asia ($26.2 billion), USMCA ($17.4 billion), European Union ($8.1 billion)
- Two largest exporting sectors: Computer & Electronic Products ($9.6 billion) and Transportation Equipment ($9.7 billion).

For Orange County, merchandise exports are projected to reach the following levels by the end of 2027:

- Total: $16.1 billion which is $10.0 billion below the record high of $25.9 billion in 2013.
- Six largest countries: Mexico ($3.2 billion), Canada ($1.9 billion), Japan ($1.5 billion), South Korea ($1.3 billion), China ($1.2 billion), and Germany ($0.7 billion).
- Major regions: Asia ($6.8 billion), USMCA ($5.1 billion), European Union ($2.9 billion).
- Two largest exporting sectors: Computer & Electronic Products ($3.2 billion) and Transportation Equipment ($2.7 billion).

I. APPENDIX
A1. Data Sources
A2. Export Data
A3. Methodology
A4. Export Regions
A5. Orange County Exports Detailed Statistics
A6. Los Angeles-Long Beach-Anaheim Exports Detailed Statistics

APPENDIX
A1. DATA SOURCES

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APPENDIX
A2. EXPORT DATA

The following is a summary of the export data sources. Parts of the summary are cited directly from the respective data source.

National Trade Data

TradeStats Express, International Trade Administration, U.S. Department of Commerce

The International Trade Administration (ITA) of the U.S. Department of Commerce provides comprehensive trade data on merchandise exports for the nation. This data, available annually from 1989 to 2024, covers individual countries, trade/economic groups, and geographic regions, categorized by product type and industry. Export data is classified under three major systems:

- North American Industry Classification System (NAICS) (up to four-digit level)
- Harmonized System (HS) (at two- and four-digit levels)
- Standard International Trade Classification (SITC) (up to three-digit level)

These classifications allow for detailed analysis of U.S. trade flows, used extensively in this report.

State Export Data

TradeStats Express, International Trade Administration, U.S. Department of Commerce

State-level export data are available annually from 1999 through 2024, covering individual countries, trade/economic groups, and geographic regions by product type and industry. The data are classified under the North American Industry Classification System (NAICS), up to the three-digit level. The dataset captures Origin-of-Movement (OM) series, which tracks exports based on the state from which the merchandise begins its journey to the port of export. This differs from the earlier Exporter Location (EL) series (1993-2002), which recorded exports based on the exporter's zip code—often capturing company headquarters, wholesalers, brokers, and freight forwarders rather than direct linkages to production. While OM data do not directly indicate the state of production, they serve as the best available proxy, particularly for manufactured goods, where they may also reflect the state of consolidation or the location of brokers and wholesalers.

U.S. Metropolitan Areas Export Data

International Trade Administration, U.S. Department of Commerce

The U.S. Metro Area Export data is available annually from 2006 to 2023 and is updated semi-annually by the International Trade Administration. For 2024, total export volumes for major exporting metro areas, including the Los Angeles MSA, are available from the U.S. Census Bureau. The top five export product profiles for selected Metropolitan Statistical Areas (MSAs) are available from 2005 to 2023, while NAICS three-digit export data is available from 2008 to 2023, but only for the top 50 metropolitan areas. Additionally, export destination data for the top 50 trading partners is available for the top 10 MSAs from 2008 to 2023.

The metro area export series is derived by matching five-digit ZIP codes from U.S. export declarations with ZIP codes assigned to metro areas, using concordance files from the Census Bureau's Geography Division and the U.S. Postal Service. This dataset exclusively measures the dollar value of merchandise exports, and it does not include services. The data is presented only in nominal U.S. dollars, unadjusted for inflation or other factors. Metropolitan areas referenced in the 2005–2023 dataset are based on 2020 Census definitions.

The Metro Area export series is based on the origin of movement, determined by the ZIP code of the U.S. Principal Party of Interest (USPPI) of record. In 2004, the definition of the USPPI ZIP code — the party that receives the primary benefit (monetary or otherwise) —was revised to indicate the origin of movement of goods. Initially it did not necessarily represent the location of the USPPI. However, with

the increased adoption of electronic reporting in the Automated Export System (AES), the validity of ZIP code data has significantly improved since 2004. Despite these improvements, the USPPI of record does not always correspond to the producer of the merchandise. As a result, this dataset does not provide a fully comprehensive or reliable measure of the actual production origin of U.S. exports.

The current Metro Area Export data differs from an earlier series (1993–2002) produced by the U.S. International Trade Administration, which relied on the Exporter Location (EL) series collected by the Census Bureau from shipper's export declarations. With the introduction of the Automated Export System (AES) by U.S. Customs and the Census Bureau, the accuracy of the EL series became increasingly unreliable, leading to its discontinuation. As a result, metro-level export reporting ceased until the zip-based Origin of Movement (OM) series was introduced in 2005. Because the 2001 data are based on the Exporter Location series and the 2005 data follow the Origin of Movement series, the Census Bureau cautions that the two datasets are not directly comparable.

The OM zip-code series used to measure metropolitan exports differs from the OM data based on origin-state, which is used for state-level exports. The state-based OM series provides export statistics based on the state from which the merchandise began its journey, as recorded on the shipper's export declaration. In contrast, the OM zip-code series captures the origin of movement using the ZIP code of the U.S. Principal Party of Interest (USPPI). This zip-based methodology enables export tracking at the metropolitan level. Because of these differences, metro-level export data should only be compared to other sources using the OM zip-based series. It cannot be directly compared to state-level export data from sources like *TradeStats* and *USA Trade Online*, which report exports based on the state-level OM series.

Customs District Data

U.S. Census Bureau

Customs District and port data measure exports based on the location where goods physically leave the U.S., regardless of their point of origin within the country. This differs from metropolitan export data, which is based on the Origin of Movement (OM) series and attempts to trace exports back to their point of origin rather than the port of exit. Unlike port-based export data, which reflects shipments processed through specific Customs Districts, the OM-based metropolitan export data provides a closer approximation of where goods originate within the U.S., offering a more geographically meaningful measure of export activity.

APPENDIX

A3. METHODOLOGY

Estimation of Exports for the Los Angeles – Long Beach – Anaheim Region

Total export volume before year 2005 for the Los Angeles–Long Beach–Anaheim Region (LA-LB-SA) was extrapolated from regional, state, national and international trade trends as well as estimates from an econometric model. To estimate the historical data, regional, state, national and international merchandise exports volumes were used in conjunction with exchange rates, labor productivity in export industries, U.S. and foreign growth measured by real gross domestic product and exports by industry. Forecasts for year 2025 onwards are based on statistical and econometric modeling methodology.

Estimation of Orange County Exports

Orange County's total export volume was extrapolated from regional, state, national and international trade trends as well as estimates from an econometric model. An annual survey, the *California International Trade Register* from Database Publishing Company was also used to estimate historical export volume for Orange County using 401 companies involved in export activities from Orange County. However, this publication is no longer available. The original estimated exports for Orange County have been revised because the newly released 2005-2023 MSA export data has some new important differences concerning the various sectors and export-tracking based on zip-codes. To estimate the historical data, regional, state, national and international merchandise exports volumes were used in conjunction with exchange rates, labor productivity in export industries, and U.S. and foreign growth measured by real gross domestic product. Historical estimates for Orange County exports are also based on exports from the LA-LB-SA region because Orange County is part of the region. Forecasts are based on statistical and econometric modeling methodology.

APPENDIX
A4. EXPORT REGIONS

Africa

Algeria, Angola, Benin, Botswana, British Indian Ocean Territories, Burkina, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo (Brazzaville), Congo (Kinshasa), Cote d'Ivoire, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, French Southern and Antarctic Lands, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mayotte, Morocco, Mozambique, Namibia, Niger, Nigeria, Reunion, Rwanda, St. Helena, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Western Sahara, Zambia, Zimbabwe.

Asia

Afghanistan, Bangladesh, Bhutan, Brunei, Burma, Cambodia, China, East Timor, Hong Kong, India, Indonesia, Japan, Laos, Macau, Malaysia, Maldives, Mongolia, Nepal, North Korea, Pakistan, Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand, Vietnam.

European Union

Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Federal Republic of Germany, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.

United States-Mexico-Canada Agreement (USMCA)

United States, Canada, Mexico

South America

Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Falkland Islands, French Guaina, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela

Source: *U.S. Census Bureau, Foreign Trade Statistics*

A5. LOS ANGELES–LONG BEACH -ANAHEIM EXPORTS

Table A1
Los Angeles MSA Exports by Country: Growth Rate

Year	Canada	China	Germany	Japan	South Korea	Mexico	Rest of World	Total Exports
2000	16.7%	53.7%	7.3%	35.8%	46.3%	28.7%	-0.2%	13.9%
2001	-13.9%	37.4%	0.1%	-7.4%	-22.2%	-3.1%	-23.3%	-14.2%
2002	-15.7%	-0.1%	-1.4%	-28.8%	-11.0%	-1.1%	-2.3%	-8.8%
2003	12.2%	26.9%	-7.5%	4.2%	7.7%	-8.7%	18.3%	10.2%
2004	15.5%	32.1%	8.6%	18.6%	28.0%	10.2%	-5.1%	7.0%
2005	14.2%	20.0%	11.9%	6.0%	10.3%	2.4%	14.4%	11.5%
2006	7.8%	38.9%	24.1%	0.2%	6.8%	28.3%	4.7%	11.2%
2007	28.7%	18.5%	7.3%	1.3%	22.4%	-16.4%	17.2%	11.7%
2008	4.2%	-0.3%	46.9%	3.4%	8.9%	21.1%	12.3%	10.2%
2009	-22.9%	-17.1%	-21.3%	-16.8%	-21.6%	12.5%	-16.3%	-14.1%
2010	13.1%	31.1%	13.0%	10.1%	12.7%	59.0%	8.7%	20.6%
2011	7.1%	22.7%	15.1%	12.0%	1.2%	24.5%	17.4%	16.9%
2012	3.2%	-9.3%	-5.1%	-4.1%	0.5%	3.7%	8.9%	3.2%
2013	-6.9%	1.2%	27.1%	-4.4%	3.2%	5.9%	1.6%	1.7%
2014	-0.4%	-1.5%	-7.0%	-2.2%	-1.2%	-13.2%	7.2%	-1.1%
2015	-8.1%	-13.2%	-6.9%	-15.6%	-6.9%	-34.0%	-15.8%	-18.2%
2016	-6.1%	-12.1%	9.7%	8.8%	-6.4%	-11.2%	5.7%	-0.8%
2017	6.3%	11.4%	22.9%	-1.9%	4.7%	10.3%	-0.2%	4.1%
2018	2.7%	-4.4%	12.5%	11.8%	10.7%	8.8%	-3.6%	1.7%
2019	-6.3%	-15.6%	-1.7%	-3.6%	11.5%	-19.4%	-0.7%	-5.8%
2020	-16.2%	-16.5%	3.6%	-20.1%	-28.2%	-7.4%	-22.3%	-17.8%
2021	13.9%	9.0%	30.0%	3.2%	19.6%	22.3%	17.5%	16.7%
2022	7.7%	20.1%	-45.5%	0.5%	0.9%	-1.8%	10.7%	4.1%
2023	-0.9%	-12.2%	4.7%	-7.7%	-6.7%	-4.4%	0.9%	-2.3%
2024	-4.7%	-9.1%	4.7%	3.2%	-5.8%	1.3%	-0.1%	-1.0%
				Forecasts				
2025	-8.5%	-43.9%	-5.3%	-3.4%	-6.1%	-6.6%	-7.2%	-9.6%
2026	7.8%	-6.0%	3.2%	6.4%	2.5%	6.9%	3.7%	4.5%
2027	4.5%	7.1%	2.7%	5.8%	3.0%	6.3%	2.6%	4.0%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

Table A2
Los Angeles MSA Exports by Country: Shares of Total Volume

Year	Canada	China	Germany	Japan	South Korea	Mexico	Rest of World
1999	13.6%	2.3%	1.9%	13.2%	4.2%	12.9%	51.9%
2000	14.0%	3.1%	1.8%	15.7%	5.4%	14.6%	45.5%
2001	14.0%	5.0%	2.1%	17.0%	4.9%	16.4%	40.6%
2002	13.0%	5.4%	2.2%	13.2%	4.8%	17.8%	43.5%
2003	13.2%	6.3%	1.9%	12.5%	4.6%	14.8%	46.7%
2004	14.3%	7.7%	1.9%	13.9%	5.6%	15.2%	41.5%
2005	14.6%	8.3%	1.9%	13.2%	5.5%	14.0%	42.5%
2006	14.2%	10.4%	2.1%	11.9%	5.3%	16.1%	40.0%
2007	16.3%	11.0%	2.0%	10.8%	5.8%	12.1%	42.0%
2008	15.4%	10.0%	2.7%	10.1%	5.7%	13.2%	42.8%
2009	13.8%	9.6%	2.5%	9.8%	5.2%	17.3%	41.7%
2010	13.0%	10.5%	2.3%	8.9%	4.9%	22.8%	37.5%
2011	11.9%	11.0%	2.3%	8.6%	4.2%	24.3%	37.7%
2012	11.9%	9.7%	2.1%	8.0%	4.1%	24.5%	39.8%
2013	10.9%	9.6%	2.7%	7.5%	4.2%	25.4%	39.8%
2014	10.9%	9.6%	2.5%	7.4%	4.2%	22.3%	43.1%
2015	12.3%	10.1%	2.8%	7.6%	4.7%	18.0%	44.3%
2016	11.6%	9.0%	3.1%	8.4%	4.5%	16.1%	47.3%
2017	11.9%	9.6%	3.7%	7.9%	4.5%	17.1%	45.3%
2018	12.0%	9.1%	4.1%	8.7%	4.9%	18.3%	43.0%
2019	11.9%	8.1%	4.3%	8.9%	5.8%	15.7%	45.3%
2020	12.2%	8.2%	5.4%	8.6%	5.1%	17.6%	42.9%
2021	11.9%	7.7%	6.0%	7.6%	5.2%	18.5%	43.1%
2022	12.3%	8.9%	3.1%	7.4%	5.0%	17.4%	45.9%
2023	12.4%	8.0%	3.4%	7.0%	4.8%	17.1%	47.4%
2024	12.0%	7.3%	3.6%	7.3%	4.6%	17.5%	47.8%
			Forecasts				
2025	12.1%	4.5%	3.7%	7.8%	4.8%	18.0%	49.1%
2026	12.5%	4.1%	3.7%	7.9%	4.7%	18.4%	48.7%
2027	12.6%	4.2%	3.7%	8.0%	4.6%	18.8%	48.1%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

Table A3
Los Angeles MSA Exports by Region: Growth Rate

Year	Africa	Asia	European Union	USMCA	South America
2000	-12.3%	11.5%	9.1%	22.5%	-4.1%
2001	2.0%	-19.9%	-13.6%	-8.4%	-4.0%
2002	-0.1%	-5.2%	-15.1%	-7.8%	-28.6%
2003	12.3%	14.9%	13.9%	0.1%	4.2%
2004	32.0%	7.4%	4.2%	12.7%	29.2%
2005	15.2%	16.0%	6.5%	8.1%	25.5%
2006	28.1%	10.3%	2.8%	17.8%	21.0%
2007	-12.2%	12.7%	16.8%	4.7%	21.7%
2008	35.3%	3.4%	8.8%	11.4%	35.4%
2009	-0.7%	-15.5%	-19.9%	-6.6%	-25.8%
2010	-16.6%	18.7%	0.6%	38.6%	25.9%
2011	2.7%	16.8%	14.5%	18.2%	28.0%
2012	22.0%	-5.5%	3.6%	3.5%	4.9%
2013	-20.2%	1.5%	6.6%	1.7%	2.2%
2014	-15.5%	16.5%	6.8%	-9.4%	8.6%
2015	-10.1%	-13.5%	-10.3%	-25.4%	-28.9%
2016	8.3%	4.4%	3.4%	-9.1%	-12.2%
2017	-25.2%	1.6%	8.8%	8.6%	1.7%
2018	27.5%	0.9%	-2.8%	6.3%	-6.2%
2019	-6.3%	-3.2%	2.3%	-14.2%	-11.2%
2020	-14.3%	-21.5%	-16.8%	-11.2%	-20.9%
2021	24.2%	14.8%	15.0%	18.9%	24.7%
2022	-2.3%	8.3%	-25.9%	1.9%	37.0%
2023	4.3%	-2.7%	0.7%	-3.0%	-11.7%
2024	13.0%	3.5%	2.0%	-1.2%	-2.8%
			Forecasts		
2025	-11.9%	-20.1%	-9.1%	-7.3%	-5.2%
2026	4.5%	12.0%	5.3%	7.2%	4.7%
2027	4.9%	3.7%	4.3%	5.5%	6.5%

Source: Woods Center, California State University Fullerton and International Trade Administration

Table A4
Los Angeles MSA Exports by Sector: Growth Rates

Industry	Transportation Equipment	Computer Electronic Product	Miscellaneous	Chemical	Machinery	Petroleum & Coal Products	Food
1999	-9.7%	24.4%	5.6%	-3.7%	5.3%	-3.5%	0.9%
2000	-6.4%	24.3%	12.1%	21.8%	61.2%	34.6%	12.0%
2001	-14.1%	-18.7%	-11.6%	-5.0%	-23.3%	10.7%	-0.3%
2002	-13.4%	-13.4%	1.1%	-1.3%	-17.9%	-19.5%	6.8%
2003	36.7%	-7.8%	27.8%	30.4%	8.7%	2.3%	15.2%
2004	22.2%	9.4%	1.4%	6.9%	9.9%	3.4%	-1.1%
2005	23.6%	5.1%	24.2%	7.0%	19.5%	63.4%	10.3%
2006	-2.2%	14.5%	18.7%	13.5%	3.4%	10.5%	13.0%
2007	18.6%	0.4%	15.2%	19.5%	8.5%	43.9%	12.0%
2008	13.0%	-0.9%	16.5%	11.4%	15.8%	110.3%	22.3%
2009	-21.5%	2.7%	-6.6%	-9.1%	-20.5%	-37.8%	-9.4%
2010	4.7%	50.0%	10.6%	15.4%	10.9%	7.2%	25.9%
2011	10.4%	17.9%	18.3%	18.2%	10.8%	61.1%	23.3%
2012	15.5%	1.9%	10.6%	-1.8%	4.3%	-17.3%	0.3%
2013	9.9%	1.1%	-9.6%	3.6%	-3.3%	-10.4%	-7.3%
2014	-1.3%	-14.8%	5.4%	9.8%	-4.3%	13.8%	3.4%
2015	-23.0%	-31.4%	-4.1%	-5.3%	-5.2%	-45.4%	-8.7%
2016	8.5%	-7.1%	16.1%	-9.9%	-12.9%	-28.0%	9.8%
2017	2.9%	-1.3%	-3.3%	-5.8%	-0.3%	44.7%	6.5%
2018	-9.4%	3.6%	12.9%	0.6%	1.6%	42.2%	1.0%
2019	-5.5%	-15.4%	6.7%	2.0%	-2.1%	-34.2%	4.6%
2020	-34.0%	-1.3%	-42.1%	-2.2%	-17.9%	-39.5%	1.9%
2021	3.5%	11.4%	11.0%	24.1%	17.7%	68.9%	17.7%
2022	13.3%	-10.5%	24.0%	6.2%	11.2%	91.9%	5.2%
2023	17.5%	-2.9%	4.5%	-8.6%	5.1%	-20.2%	-20.9%
2024	-5.3%	-2.0%	-3.1%	2.8%	2.7%	14.0%	0.7%
			Forecasts				
2025	-19.3%	-14.1%	-6.4%	-9.6%	-9.6%	4.2%	-13.0%
2026	11.6%	-0.7%	7.1%	5.1%	5.2%	15.8%	-0.1%
2027	5.8%	5.2%	4.0%	3.3%	2.7%	6.2%	2.7%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

Los Angeles MSA Exports by Sector: Growth Rates (continued)

Industry	Fabricated Metal Product	Electrical Equipment Appliance	Apparel	Total Farm	Primary Metal	Other Sectors	Total Export Volume
1999	-12.4%	1.8%	-1.4%	-19.6%	-27.7%	7.2%	4.8%
2000	10.7%	37.6%	15.1%	32.8%	36.3%	0.4%	13.9%
2001	-1.4%	-12.7%	3.1%	-2.0%	-8.1%	-15.0%	-14.2%
2002	-0.9%	-8.9%	-0.2%	-13.0%	-9.5%	-2.9%	-8.8%
2003	14.5%	-2.3%	-8.5%	67.1%	11.4%	7.1%	10.2%
2004	9.7%	15.8%	-0.2%	5.5%	12.0%	-7.8%	7.0%
2005	17.4%	6.6%	18.0%	14.9%	19.9%	-4.3%	11.5%
2006	16.7%	22.3%	3.8%	7.4%	18.0%	22.8%	11.2%
2007	1.5%	5.4%	-1.7%	2.1%	4.9%	19.4%	11.7%
2008	-3.0%	-8.8%	11.6%	7.1%	17.3%	3.4%	10.2%
2009	-12.5%	-16.2%	0.8%	-9.0%	-23.3%	-21.2%	-14.1%
2010	14.5%	10.5%	11.6%	-2.2%	22.1%	17.6%	20.6%
2011	-0.3%	10.0%	2.6%	32.6%	24.4%	15.7%	16.9%
2012	4.4%	9.2%	3.6%	5.9%	6.7%	-4.1%	3.2%
2013	13.0%	6.4%	0.2%	7.2%	10.3%	1.0%	1.7%
2014	-1.9%	30.3%	4.9%	-3.2%	6.4%	7.8%	-1.1%
2015	-4.7%	-1.5%	-3.9%	-11.5%	-9.3%	-13.3%	-18.2%
2016	-3.0%	-4.9%	-15.5%	20.1%	33.2%	-6.9%	-0.8%
2017	6.7%	7.5%	2.9%	-4.3%	28.1%	13.2%	4.1%
2018	2.9%	-0.2%	15.6%	0.1%	-21.6%	5.8%	1.7%
2019	3.2%	0.4%	-8.0%	7.4%	-14.6%	-8.1%	-5.8%
2020	-23.6%	-21.9%	-21.3%	3.4%	-33.3%	-9.4%	-17.8%
2021	9.6%	9.4%	56.2%	2.0%	27.4%	25.9%	16.7%
2022	13.9%	13.2%	11.8%	-8.7%	-7.9%	-11.1%	4.1%
2023	22.8%	6.4%	-22.0%	-3.9%	9.9%	-11.3%	-2.3%
2024	4.4%	0.6%	3.1%	-1.2%	-3.2%	-4.3%	-1.0%
			Forecasts				
2025	-1.7%	-6.6%	-5.7%	-18.9%	-7.8%	-1.2%	-9.6%
2026	14.2%	9.8%	4.0%	-1.2%	5.4%	-0.1%	5.2%
2027	12.1%	8.7%	0.6%	4.0%	7.2%	-2.6%	4.0%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

Table A5
Los Angeles MSA Exports by Sector: Shares of Total Volume

Industry	Transportation Equipment	Computer & Electronic	Miscellaneous	Chemical	Machinery	Petroleum & Coal	Food
1998	22.2%	24.9%	4.3%	4.6%	5.1%	1.3%	3.1%
1999	19.1%	29.5%	4.4%	4.2%	5.2%	1.2%	2.9%
2000	15.7%	32.2%	4.3%	4.5%	7.3%	1.4%	2.9%
2001	15.7%	30.5%	4.4%	5.0%	6.5%	1.8%	3.4%
2002	14.9%	29.0%	4.9%	5.4%	5.9%	1.6%	3.9%
2003	18.5%	24.2%	5.7%	6.4%	5.8%	1.5%	4.1%
2004	21.2%	24.8%	5.4%	6.4%	6.0%	1.5%	3.8%
2005	23.4%	23.4%	6.0%	6.1%	6.4%	2.1%	3.8%
2006	20.6%	24.0%	6.4%	6.3%	5.9%	2.1%	3.8%
2007	21.9%	21.6%	6.6%	6.7%	5.8%	2.7%	3.8%
2008	22.4%	19.4%	7.0%	6.8%	6.1%	5.2%	4.3%
2009	20.5%	23.2%	7.6%	7.2%	5.6%	3.8%	4.5%
2010	17.8%	28.9%	7.0%	6.9%	5.2%	3.4%	4.7%
2011	16.8%	29.1%	7.0%	6.9%	4.9%	4.6%	4.9%
2012	18.8%	28.7%	7.5%	6.6%	4.9%	3.7%	4.8%
2013	20.3%	28.6%	6.7%	6.7%	4.7%	3.3%	4.4%
2014	20.3%	24.6%	7.1%	7.5%	4.5%	3.8%	4.6%
2015	19.1%	20.6%	8.4%	8.6%	5.3%	2.5%	5.1%
2016	20.9%	19.3%	9.8%	7.8%	4.6%	1.8%	5.6%
2017	20.6%	18.3%	9.1%	7.1%	4.4%	2.5%	5.8%
2018	18.4%	18.7%	10.1%	7.0%	4.4%	3.5%	5.7%
2019	18.4%	16.8%	11.5%	7.6%	4.6%	2.5%	6.4%
2020	14.8%	20.1%	8.1%	9.1%	4.6%	1.8%	7.9%
2021	13.1%	19.2%	7.7%	9.6%	4.6%	2.6%	8.0%
2022	14.3%	16.5%	9.1%	9.8%	4.9%	4.9%	8.0%
2023	17.2%	16.4%	9.8%	9.2%	5.3%	4.0%	6.5%
2024	16.4%	16.3%	9.6%	9.5%	5.5%	4.6%	6.6%
			Forecasts				
2025	14.7%	15.4%	9.9%	9.5%	5.5%	5.3%	6.4%
2026	15.5%	14.6%	10.1%	9.5%	5.5%	5.8%	6.0%
2027	15.8%	14.7%	10.1%	9.5%	5.5%	5.9%	6.0%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

Los Angeles MSA Exports by Sector: Shares of Total Volume (continued)

Industry	Fabricated Metal	Electrical Equipment	Apparel	Total Farm	Primary Metal	Other Sectors
1998	3.1%	2.9%	2.3%	1.5%	1.7%	23.0%
1999	2.6%	2.8%	2.2%	1.2%	1.2%	23.5%
2000	2.5%	3.4%	2.2%	1.3%	1.4%	20.7%
2001	2.9%	3.5%	2.7%	1.5%	1.5%	20.5%
2002	3.1%	3.5%	2.9%	1.5%	1.5%	21.8%
2003	3.2%	3.1%	2.4%	2.2%	1.5%	21.2%
2004	3.3%	3.3%	2.3%	2.2%	1.6%	18.3%
2005	3.5%	3.2%	2.4%	2.3%	1.7%	15.7%
2006	3.7%	3.5%	2.2%	2.2%	1.8%	17.4%
2007	3.3%	3.3%	2.0%	2.0%	1.7%	18.5%
2008	2.9%	2.7%	2.0%	1.9%	1.8%	17.4%
2009	3.0%	2.7%	2.3%	2.0%	1.6%	16.0%
2010	2.8%	2.4%	2.2%	1.7%	1.6%	15.6%
2011	2.4%	2.3%	1.9%	1.9%	1.7%	15.4%
2012	2.5%	2.4%	1.9%	1.9%	1.8%	14.3%
2013	2.7%	2.5%	1.9%	2.0%	1.9%	14.2%
2014	2.7%	3.4%	2.0%	2.0%	2.1%	15.5%
2015	3.1%	4.0%	2.3%	2.2%	2.3%	16.4%
2016	3.1%	3.9%	2.0%	2.6%	3.1%	15.4%
2017	3.2%	4.0%	2.0%	2.4%	3.8%	16.8%
2018	3.2%	3.9%	2.2%	2.4%	3.0%	17.4%
2019	3.5%	4.2%	2.2%	2.7%	2.7%	17.0%
2020	3.3%	4.0%	2.1%	3.4%	2.2%	18.7%
2021	3.1%	3.7%	2.8%	3.0%	2.4%	20.2%
2022	3.3%	4.1%	3.0%	2.6%	2.1%	17.3%
2023	4.2%	4.4%	2.4%	2.6%	2.4%	15.7%
2024	4.4%	4.5%	2.5%	2.5%	2.3%	15.2%
			Forecast			
2025	4.8%	4.6%	2.6%	2.3%	2.4%	16.6%
2026	5.2%	4.8%	2.6%	2.1%	2.4%	15.7%
2027	5.6%	5.1%	2.5%	2.1%	2.4%	14.7%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

A6. ORANGE COUNTY EXPORTS

Table A6
OC Exports by Country: Growth

Year	Canada	China	Germany	Japan	South Korea	Mexico	Rest of World
2000	10.8%	39.6%	12.0%	28.9%	32.8%	16.3%	15.3%
2001	-12.4%	39.8%	1.8%	-5.8%	-20.9%	-1.5%	-22.9%
2002	-16.6%	-1.2%	-2.5%	-29.6%	-12.0%	-2.2%	-1.7%
2003	15.8%	31.1%	-4.5%	7.6%	11.2%	-5.7%	22.5%
2004	19.3%	36.5%	12.3%	22.5%	32.3%	13.9%	-4.3%
2005	16.2%	22.0%	13.8%	7.7%	12.2%	4.2%	16.4%
2006	10.3%	42.2%	27.0%	2.6%	9.4%	31.4%	4.7%
2007	32.2%	21.8%	10.3%	4.1%	25.8%	-14.1%	18.4%
2008	4.2%	-0.3%	46.9%	3.4%	8.9%	21.1%	11.9%
2009	-23.4%	-17.6%	-21.8%	-17.4%	-22.1%	11.7%	-17.9%
2010	14.8%	33.1%	14.8%	11.8%	14.4%	61.4%	7.3%
2011	12.7%	29.2%	21.2%	17.9%	6.5%	31.0%	19.5%
2012	6.1%	-6.7%	-2.3%	-1.4%	3.4%	6.7%	11.6%
2013	-1.7%	6.9%	34.3%	1.0%	9.0%	11.8%	8.7%
2014	-9.7%	-10.6%	-15.6%	-11.3%	-10.4%	-21.3%	-1.2%
2015	-8.5%	-13.6%	-7.3%	-15.9%	-7.3%	-34.2%	-15.2%
2016	-12.4%	-18.0%	2.3%	1.5%	-8.1%	-17.1%	-2.2%
2017	-12.6%	-8.4%	1.0%	-19.4%	-5.9%	-9.3%	-10.4%
2018	5.5%	-1.8%	15.6%	14.9%	7.6%	11.7%	3.2%
2019	-3.0%	-12.6%	1.8%	-0.1%	6.1%	-16.5%	5.2%
2020	-10.2%	-10.5%	11.0%	-14.4%	6.4%	-0.8%	-22.6%
2021	8.1%	15.0%	23.4%	12.7%	11.7%	17.0%	9.1%
2022	7.6%	6.3%	-38.2%	8.4%	16.5%	9.6%	11.2%
2023	-2.3%	-11.0%	5.2%	-5.7%	-3.4%	-3.4%	-7.0%
2024	-4.5%	-6.5%	6.5%	1.5%	-3.0%	-0.6%	-1.9%
			Forecasts				
2025	-8.4%	-38.8%	-6.3%	-3.1%	-5.7%	-5.7%	-6.4%
2026	5.9%	-4.8%	5.0%	8.9%	6.0%	9.4%	5.0%
2027	3.9%	5.5%	4.8%	4.8%	5.5%	5.9%	4.3%

Source: *Woods Center, California State University Fullerton*

Table A7
OC Exports by Country: Shares of Total Volumes

Year	Canada	China	Germany	Japan	South Korea	Mexico	Rest of World
1999	15.6%	2.7%	2.0%	15.1%	5.0%	15.5%	44.1%
2000	14.6%	3.2%	1.9%	16.4%	5.6%	15.2%	43.0%
2001	14.7%	5.2%	2.2%	17.7%	5.1%	17.2%	38.0%
2002	13.5%	5.7%	2.3%	13.8%	5.0%	18.5%	41.2%
2003	13.8%	6.5%	2.0%	13.1%	4.8%	15.4%	44.4%
2004	14.9%	8.1%	2.0%	14.5%	5.8%	15.9%	38.7%
2005	15.3%	8.7%	2.0%	13.8%	5.8%	14.6%	39.7%
2006	14.9%	11.0%	2.2%	12.5%	5.6%	17.0%	36.8%
2007	17.3%	11.7%	2.2%	11.5%	6.2%	12.8%	38.3%
2008	16.4%	10.7%	2.9%	10.8%	6.1%	14.1%	38.9%
2009	14.8%	10.3%	2.7%	10.5%	5.6%	18.6%	37.6%
2010	13.9%	11.2%	2.5%	9.6%	5.2%	24.5%	33.0%
2011	12.9%	11.9%	2.5%	9.3%	4.6%	26.4%	32.4%
2012	13.0%	10.5%	2.3%	8.7%	4.5%	26.7%	34.3%
2013	11.8%	10.4%	2.9%	8.1%	4.5%	27.7%	34.5%
2014	11.9%	10.4%	2.7%	8.1%	4.5%	24.3%	38.1%
2015	13.3%	11.0%	3.1%	8.3%	5.2%	19.6%	39.5%
2016	12.7%	9.8%	3.4%	9.2%	5.2%	17.6%	42.0%
2017	12.4%	10.1%	3.9%	8.2%	5.4%	17.9%	42.1%
2018	12.3%	9.3%	4.2%	8.9%	5.5%	18.8%	40.9%
2019	12.2%	8.3%	4.4%	9.1%	6.0%	16.0%	44.0%
2020	12.6%	8.5%	5.6%	8.9%	7.3%	18.2%	39.0%
2021	12.1%	8.7%	6.1%	9.0%	7.2%	19.0%	37.9%
2022	12.2%	8.7%	3.6%	9.1%	7.9%	19.6%	39.6%
2023	12.5%	8.1%	3.9%	9.0%	8.0%	19.8%	38.6%
2024	12.2%	7.7%	4.3%	9.3%	7.9%	20.1%	38.5%
			Forecasts				
2025	12.2%	5.2%	4.4%	9.9%	8.2%	20.7%	39.5%
2026	12.2%	4.7%	4.3%	10.2%	8.2%	21.4%	39.1%
2027	12.1%	4.7%	4.3%	10.2%	8.2%	21.6%	38.9%

Source: *Woods Center, California State University Fullerton*

Table A8
OC Exports by Region: Growth Rate

Year	Africa	Asia	European Union	USMCA	South America
2000	-8.5%	21.9%	20.4%	13.6%	0.2%
2001	3.8%	-16.8%	-13.1%	-6.8%	-2.3%
2002	-1.2%	-6.1%	-12.9%	-8.8%	-29.4%
2003	15.9%	21.2%	13.2%	3.3%	-2.2%
2004	36.5%	8.1%	7.9%	16.5%	53.1%
2005	17.3%	12.1%	8.4%	10.0%	22.6%
2006	31.2%	12.9%	5.3%	20.6%	23.8%
2007	-9.8%	15.9%	20.1%	7.6%	25.2%
2008	35.4%	3.4%	8.8%	11.4%	35.4%
2009	-1.3%	-16.0%	-20.4%	-7.2%	-26.2%
2010	-15.3%	20.6%	2.2%	40.7%	27.9%
2011	8.2%	23.0%	20.6%	24.4%	34.9%
2012	25.6%	-2.7%	6.7%	6.5%	8.0%
2013	-15.7%	7.3%	12.6%	7.4%	8.0%
2014	-23.4%	-3.2%	-6.1%	-17.8%	-1.5%
2015	-10.5%	-13.2%	-16.1%	-25.8%	-29.2%
2016	5.6%	-1.9%	1.1%	-15.2%	-18.7%
2017	-41.5%	-10.8%	-6.9%	-10.7%	-16.2%
2018	30.9%	3.6%	-0.2%	9.2%	-3.6%
2019	-3.0%	0.2%	5.9%	-11.2%	-8.1%
2020	-8.2%	-15.9%	-10.9%	-4.9%	-15.2%
2021	8.9%	14.2%	8.0%	13.4%	17.0%
2022	6.7%	6.2%	4.1%	8.8%	5.3%
2023	2.1%	-5.8%	-4.5%	-3.0%	-9.9%
2024	9.6%	-2.3%	0.4%	-2.1%	-3.5%
			Forecasts		
2025	-7.5%	-15.0%	-7.1%	-6.7%	-2.1%
2026	6.0%	7.6%	4.3%	8.1%	2.9%
2027	4.8%	5.3%	5.1%	5.1%	4.7%

Source: *Woods Center, California State University Fullerton*

Table A9
OC Exports by Sector: Growth Rate

Industry	Transportation Equipment	Computer Electronic Product	Miscellaneous	Chemical	Machinery	Petroleum & Coal Products	Food
2000	9.6%	19.6%	17.9%	23.3%	61.8%	37.6%	15.2%
2001	-25.7%	-11.2%	-11.4%	-10.8%	-11.9%	-4.2%	-7.1%
2002	-11.2%	-17.3%	0.8%	-15.3%	-11.5%	-3.8%	-7.1%
2003	20.7%	18.5%	9.3%	13.8%	4.2%	-3.4%	16.9%
2004	12.7%	1.0%	4.7%	21.1%	22.5%	15.1%	30.3%
2005	26.4%	10.7%	21.7%	33.4%	15.5%	30.8%	11.2%
2006	18.8%	7.9%	38.7%	28.0%	0.4%	39.0%	17.6%
2007	21.7%	9.6%	15.2%	27.3%	6.8%	30.6%	12.4%
2008	10.1%	10.9%	20.4%	2.4%	14.1%	5.9%	22.0%
2009	-19.5%	-24.0%	-13.7%	-6.5%	-15.9%	12.3%	-14.7%
2010	33.2%	42.8%	23.0%	17.9%	12.1%	18.5%	37.2%
2011	20.4%	29.9%	35.5%	20.3%	6.5%	43.0%	26.3%
2012	5.5%	8.2%	5.2%	1.4%	10.7%	-3.4%	6.0%
2013	10.2%	7.7%	-1.6%	11.8%	12.2%	8.9%	-0.3%
2014	-9.3%	-15.8%	-11.2%	-2.1%	-16.5%	-3.8%	-9.4%
2015	-19.1%	-24.1%	-20.7%	-20.5%	-24.1%	-17.6%	-19.7%
2016	-6.3%	-14.8%	-10.1%	-5.9%	-8.6%	-15.0%	-9.2%
2017	-14.2%	-20.7%	1.9%	-10.6%	-11.3%	-1.1%	3.4%
2018	-1.4%	11.4%	20.8%	11.2%	6.0%	3.6%	2.6%
2019	-5.8%	-14.0%	14.4%	3.7%	-4.7%	-1.4%	11.2%
2020	-29.6%	-4.8%	-32.0%	-11.1%	-7.6%	-31.3%	5.7%
2021	6.6%	14.6%	10.6%	23.6%	19.4%	43.6%	20.2%
2022	13.8%	4.2%	18.8%	1.4%	2.4%	0.5%	-2.0%
2023	9.8%	-5.8%	-5.4%	-10.7%	1.8%	-18.5%	-14.6%
2024	-6.7%	-1.3%	-6.0%	3.2%	-6.0%	7.5%	1.5%
			Forecasts				
2025	-16.1%	-10.5%	-7.7%	-7.9%	-7.6%	0.1%	-11.6%
2026	12.1%	6.5%	7.8%	4.5%	5.8%	11.9%	10.0%
2027	6.3%	5.3%	4.1%	4.2%	5.6%	2.1%	2.8%

Source: *Woods Center, California State University Fullerton*

OC Exports by Sector: Growth Rate (continued)

Industry	Fabricated Metal Product	Electrical Equipment Appliance	Apparel	Total Farm	Primary Metal	Other Sectors	Total Exports
2000	11.2%	41.3%	15.1%	25.3%	36.1%	10.2%	18.3%
2001	5.7%	-18.8%	13.8%	5.4%	-7.9%	-11.1%	-12.7%
2002	-15.8%	-2.1%	-3.9%	5.1%	-7.9%	0.0%	-9.5%
2003	36.5%	1.1%	-9.1%	29.3%	15.2%	8.1%	13.6%
2004	16.2%	19.9%	2.5%	5.3%	13.0%	11.2%	10.0%
2005	13.0%	12.2%	21.7%	6.3%	28.0%	-1.5%	13.3%
2006	19.2%	17.9%	5.4%	17.3%	16.9%	4.3%	13.2%
2007	7.1%	3.9%	0.6%	8.2%	8.4%	12.4%	13.8%
2008	-4.1%	-1.6%	5.9%	13.6%	16.7%	8.6%	9.9%
2009	-14.1%	-18.7%	5.7%	-16.6%	-19.9%	-4.9%	-14.9%
2010	18.7%	14.4%	7.7%	27.5%	25.0%	-7.5%	22.2%
2011	17.8%	25.3%	10.4%	16.4%	24.5%	5.7%	21.7%
2012	2.7%	6.0%	8.0%	2.2%	-0.1%	4.1%	5.5%
2013	12.6%	23.3%	12.2%	25.6%	32.7%	-1.3%	7.9%
2014	-14.9%	5.4%	-9.9%	-15.1%	-6.6%	-6.3%	-10.4%
2015	-22.2%	-16.4%	-23.3%	-19.9%	-17.0%	1.4%	-18.4%
2016	-5.0%	-5.1%	-7.1%	-8.9%	-1.9%	0.0%	-8.1%
2017	-4.6%	-6.1%	3.9%	-3.6%	0.4%	-7.7%	-10.5%
2018	12.2%	11.1%	9.6%	13.6%	-2.0%	0.9%	6.2%
2019	10.4%	7.1%	-3.8%	4.5%	5.9%	-3.2%	-2.1%
2020	-17.0%	-13.1%	-9.6%	11.5%	1.2%	0.6%	-12.6%
2021	11.6%	2.0%	23.9%	6.7%	20.0%	0.9%	12.2%
2022	11.0%	16.1%	0.7%	4.2%	-0.7%	4.9%	6.3%
2023	7.3%	-7.2%	-16.4%	-0.6%	-3.7%	-8.4%	-4.5%
2024	-7.0%	-1.7%	8.9%	-2.5%	-8.1%	2.1%	-1.8%
			Forecasts				
2025	-3.6%	-9.4%	-8.3%	-20.2%	-2.6%	-0.3%	-8.6%
2026	1.7%	7.4%	3.8%	-0.5%	4.3%	-0.4%	6.0%
2027	6.7%	4.2%	3.6%	7.0%	4.5%	4.1%	4.8%

Source: *Woods Center, California State University Fullerton*

Table A10
OC Exports by Sector: Shares of Total Volume

Industry	Transportation Equipment	Computer & Electronic	Miscellaneous	Chemical	Machinery	Petroleum & Coal	Food
1999	19.9%	30.0%	4.2%	4.2%	4.9%	1.3%	2.9%
2000	18.5%	30.3%	4.2%	4.4%	6.6%	1.5%	2.8%
2001	15.7%	30.8%	4.3%	4.5%	6.7%	1.6%	3.0%
2002	15.4%	28.2%	4.8%	4.2%	6.6%	1.8%	3.1%
2003	16.4%	29.4%	4.6%	4.2%	6.0%	1.5%	3.1%
2004	16.8%	27.0%	4.4%	4.6%	6.7%	1.6%	3.7%
2005	18.7%	26.3%	4.7%	5.5%	6.8%	1.8%	3.7%
2006	19.6%	25.1%	5.8%	6.2%	6.1%	2.2%	3.8%
2007	21.0%	24.2%	5.8%	6.9%	5.7%	2.5%	3.7%
2008	21.1%	24.4%	6.4%	6.4%	5.9%	2.4%	4.2%
2009	19.9%	21.8%	6.5%	7.1%	5.8%	3.2%	4.2%
2010	21.7%	25.5%	6.5%	6.8%	5.3%	3.1%	4.7%
2011	21.5%	27.2%	7.3%	6.7%	4.7%	3.7%	4.9%
2012	21.5%	27.9%	7.2%	6.5%	4.9%	3.4%	4.9%
2013	21.9%	27.8%	6.6%	6.7%	5.1%	3.4%	4.5%
2014	22.2%	26.2%	6.5%	7.3%	4.8%	3.6%	4.6%
2015	22.0%	24.3%	6.4%	7.1%	4.4%	3.7%	4.5%
2016	22.4%	22.5%	6.2%	7.3%	4.4%	3.4%	4.4%
2017	21.5%	20.0%	7.1%	7.3%	4.4%	3.8%	5.1%
2018	20.0%	20.9%	8.1%	7.6%	4.4%	3.7%	4.9%
2019	19.2%	18.4%	9.4%	8.1%	4.2%	3.7%	5.6%
2020	15.5%	20.0%	7.3%	8.2%	4.5%	2.9%	6.8%
2021	14.7%	20.5%	7.2%	9.1%	4.8%	3.7%	7.3%
2022	15.7%	20.1%	8.1%	8.7%	4.6%	3.5%	6.7%
2023	18.1%	19.8%	8.0%	8.1%	4.9%	3.0%	6.0%
2024	17.2%	19.9%	7.7%	8.5%	4.7%	3.3%	6.2%
			Forecasts				
2025	15.8%	19.5%	7.7%	8.6%	4.7%	3.6%	6.0%
2026	16.7%	19.6%	7.9%	8.5%	4.7%	3.8%	6.2%
2027	17.0%	19.7%	7.8%	8.4%	4.8%	3.7%	6.1%

Source: *Woods Center, California State University Fullerton*

OC Exports by Sector: Shares of Total Volume (continued)						
Industry	**Fabricated Metal**	**Electrical Equipment**	**Apparel**	**Total Farm**	**Primary Metal**	**Other Sectors**
1999	2.6%	2.9%	2.3%	1.3%	1.2%	22.4%
2000	2.4%	3.4%	2.2%	1.3%	1.4%	20.9%
2001	2.9%	3.2%	2.9%	1.6%	1.5%	21.3%
2002	2.7%	3.4%	3.1%	1.9%	1.5%	23.5%
2003	3.3%	3.1%	2.5%	2.1%	1.5%	22.4%
2004	3.5%	3.3%	2.3%	2.0%	1.5%	22.6%
2005	3.5%	3.3%	2.5%	1.9%	1.7%	19.6%
2006	3.6%	3.4%	2.3%	2.0%	1.8%	18.1%
2007	3.4%	3.1%	2.0%	1.9%	1.7%	17.9%
2008	3.0%	2.8%	2.0%	1.9%	1.8%	17.7%
2009	3.0%	2.7%	2.4%	1.9%	1.7%	19.8%
2010	2.9%	2.5%	2.1%	2.0%	1.8%	15.0%
2011	2.8%	2.6%	1.9%	1.9%	1.8%	13.0%
2012	2.8%	2.6%	2.0%	1.8%	1.7%	12.8%
2013	2.9%	3.0%	2.1%	2.1%	2.1%	11.7%
2014	2.7%	3.5%	2.1%	2.0%	2.2%	12.3%
2015	2.6%	3.6%	1.9%	2.0%	2.2%	15.2%
2016	2.7%	3.7%	2.0%	2.0%	2.4%	16.6%
2017	2.9%	3.9%	2.3%	2.1%	2.7%	17.1%
2018	3.0%	4.1%	2.4%	2.3%	2.5%	16.2%
2019	3.4%	4.4%	2.3%	2.4%	2.7%	16.1%
2020	3.3%	4.4%	2.4%	3.1%	3.1%	18.5%
2021	3.2%	4.0%	2.7%	2.9%	3.3%	16.6%
2022	3.4%	4.4%	2.5%	2.9%	3.1%	16.4%
2023	3.8%	4.3%	2.2%	3.0%	3.1%	15.7%
2024	3.6%	4.3%	2.4%	3.0%	2.9%	16.4%
Forecast						
2025	3.8%	4.2%	2.5%	2.6%	3.1%	17.9%
2026	3.6%	4.3%	2.4%	2.4%	3.0%	16.8%
2027	3.7%	4.3%	2.4%	2.5%	3.0%	16.7%

Source: *Woods Center, California State University Fullerton*

International Trade Forecasts

An Overview and Analysis of World, U.S., California, Orange County and Southern California Exports

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COLLEGE OF BUSINESS AND ECONOMICS

International Trade Economic Forecasts No. 10: First release December 2010

Next Release: 2026

Online: The report is available at http://business.fullerton.edu/centers/CEAF/

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