US Economics Analyst

The Long-Term Effects of Higher Tariffs (Abecasis)

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- We expect the US's effective tariff rate to increase by about 13pp this year to its highest level since the 1930s. While the ultimate level and composition of tariffs remains uncertain, they will probably remain elevated for the foreseeable future. In this week's *Analyst*, we therefore explore the long-term effects of higher tariffs on the US economy.
- Applying estimates from a range of economic studies suggests that a 13pp increase in domestic and foreign tariffs will lower US real income by around 1% in the long run. In these models, the simple efficiency losses from reduced trade are significantly amplified by the existence of differentiated goods, global supply chains, and fixed costs to engaging in trade. Higher tariffs will likely shift resources away from the most successful firms, which engage in international trade much more intensively than the typical firm.
- One way firms could adjust to higher tariffs would be to reshore production back to the US. To gauge whether reshoring is plausible at a significant scale, we construct measures of production costs for 40 countries and 24 manufacturing subindustries. Our results suggest that country-specific tariffs are unlikely to result in much reshoring because production costs for alternative suppliers of US imports are well below the US's for most products. We also estimate that domestic production of more differentiated goods like medical equipment and semiconductors is relatively less responsive to cost shocks, suggesting a higher hurdle for tariffs to boost production in these sectors.
- In addition to the standard efficiency losses from reduced trade, higher tariffs could weigh on output in three ways. First, higher tariffs will likely raise equipment costs

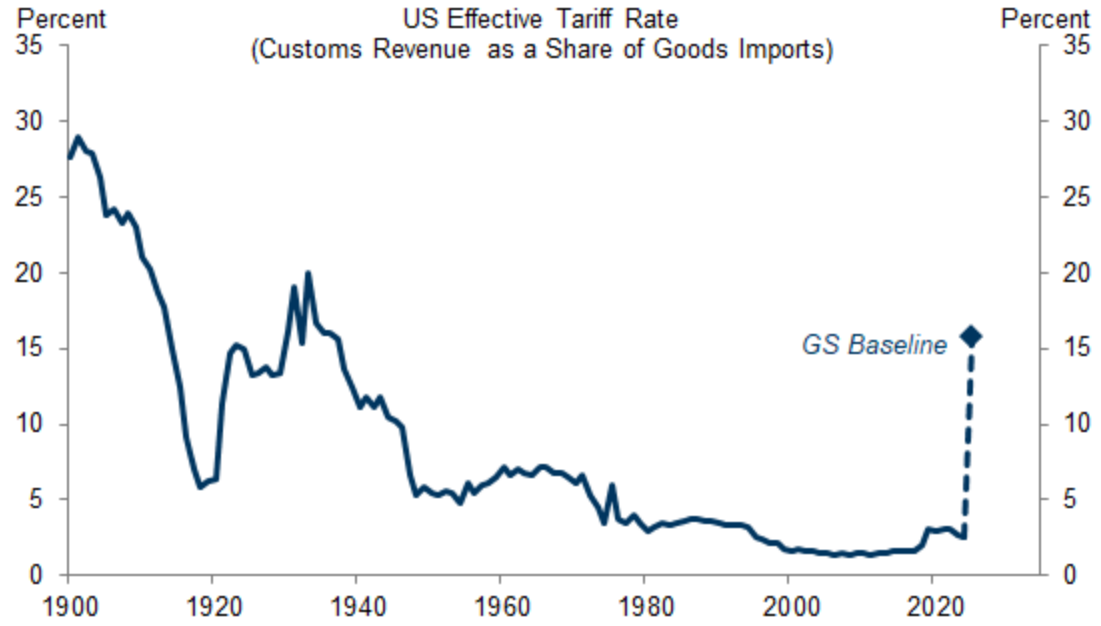
and discourage investment, lowering the capital stock and GDP in the long run. We estimate that this channel could exert a ¾% drag on output over time. Second, higher tariffs could also weigh on innovation by reducing the most innovative firms' access to export markets and raising input costs. Third, economic studies suggest that higher tariffs could lead to increased rent-seeking by businesses attempting to secure protection from foreign competition.

- Taken together, we expect higher tariffs to weigh on US real income by 1½-2% in the long run if the tariff policies we expect this year become permanent. This is broadly similar to our estimate of the growth drag from tariffs in 2025-2026, which suggests that the short-term hit to the level of output from higher tariffs will be broadly sustained, though through different channels and with different dynamics. Our estimates are highly uncertain, however, in part because they depend on the extent of foreign retaliation, how the dollar responds, and how international capital flows change as a result of the tariffs. Still, the empirical evidence on the economic performance of the UK after Brexit and countries that liberalized trade in the late 1990s and early 2000s is broadly consistent with our results.

The Long-Term Effects of Higher Tariffs

We expect the US's effective tariff rate to increase by about 13pp this year to its highest level since the 1930s. While the ultimate level and composition of tariffs remains uncertain, they will probably remain elevated for the foreseeable future. In this week's *Analyst*, we therefore explore the long-term effects of higher tariffs on the US economy.

Exhibit 1: The US's Effective Tariff Rate Will Rise Sharply and Probably Remain Elevated for the Foreseeable Future



Source: Goldman Sachs Global Investment Research, Department of Commerce

Quantifying the Gains From International Trade

A useful starting point for quantifying the long-term effects of tariffs is the large set of economic studies on the gains from international trade and globalization. By raising the costs of international trade, tariffs reverse some of the income gains that a country earns from being able to trade with the rest of the world.

Earlier studies generally estimated small gains from trade, with some models suggesting that the US would lose less than 2% of its income in the long run if it stopped trading with the rest of the world entirely. More recently, economists have shown that accounting for multiple sectors, global supply chains, and fixed costs of exporting and importing greatly amplifies the gains from trade. In some models, the gains from trade can become infinitely large, for instance if a country's supply chain is critically dependent on imported goods without which it cannot produce its own domestic goods.[1]

Exhibit 2: Simple Models in Earlier Studies Found Small Gains From Trade, While More Realistic Models Find Substantially Larger Effects

Study	Key findings on the gains from trade
Arkolakis, Costinot and Rodriguez-Clare (2012), Costinot and Rodriguez-Clare (2014)	Quantify the gains from trade for a wide class of models, including under monopolistic competition and with multiple sectors, based only on the domestic share of consumption and the trade elasticity. One-sector baseline gains are only around 2% for the US, while gains under monopolistic competition and heterogenous firms rise to 10%.
Ossa (2012)	Accounting for different elasticities across industries amplifies the gains from trade because industries where imports are critical are very costly to lose. Gains from trade rise up to 19% for the US.
Meliz and Redding (2014)	Model trade-induced changes in domestic productivity through sequential production and find that as the number of production stages increases or the domestic production share declines in any stage of production, the gains from trade can become arbitrarily large even if all sectors have the same elasticity.
Broda and Weinstein (2006)	Gains from variety have been an important source of gains from trade in the US, with expanded import varieities raising US consumer surplus by about 2.6% of GDP between 1972 and 2001.
Boehm et al. (2021)	Estimate a much smaller trade elasticity than had been commonly used in the literature, which generates gains from trade that are 5-6 times larger than the Costinot-Rodrigrez-Clare estimates, and even larger under Ossa (2012)'s multiple sector-type elasticities.
Baqaee and Malmberg (2025)	Consumption falls around 4 times as much in a trade war as standard models suggest once the impact of intermediate inputs on capital accumulation is accounted for.
Antras and Gortari (2020)	Gains from trade can be around 60% larger than standard models once the integration of firms into specialized global value chains with multiple production stages is accounted for.
Buera and Oberfield (2016)	Trade is a key part of how new ideas and insights to production are shared across countries. When the diffusion of ideas across countries is in an intermediate range (the country is neither at the technological frontier nor furthest away from it) the gains from reductions in trade costs can become very large.
Sampson (2015)	Selection into trade by firms increases technological diffusion, which leads to endogenous growth. This dynamic triples the gains from trade relative to static models that do not account for these spillovers.
Auclert et al. (2025)	Macroeconomic consequences of tariffs can dominate standard competitive losses from higher trade barriers, with welfare losses reaching up to 6 times the size of standard trade-based losses.
Boehm et al. (2025)	Gains from trade are significantly larger than in Costinon-Rodriguez-Clare once one accounts for dynamics induced by the cost of acquiring customers, sunk costs, and effects on productivity. The short-run trade elasticity becomes important even in the long run.

Source: Goldman Sachs Global Investment Research

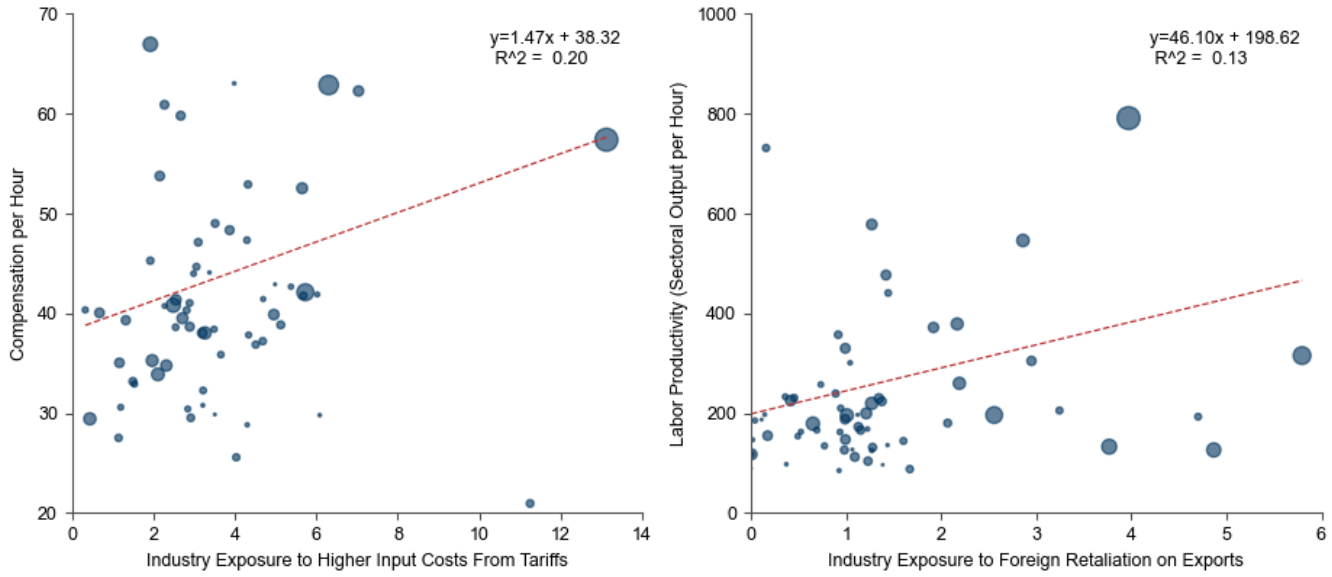
The incremental drags from integrated supply chains and multiple firms and sectors suggest that higher tariffs will likely exert a particularly large drag on the economy's most successful firms, who participate in international trade much more intensively than the average firm in the economy. Exhibit 3 shows that firms that trade with more countries enjoy a sizeable sales premium, even after controlling for industry, the number of products firms import, and other firm characteristics.[2]

Exhibit 3: Higher Tariffs Will Weigh the Most on the Most Successful US Firms, Which Participate Much More Intensively in International Markets

Source: Goldman Sachs Global Investment Research, Antas et al. (2017)

In Exhibit 4, we confirm this pattern in the current trade war at the industry level: the industries most affected by reduced access to export markets and higher input costs tend to pay higher wages and be more productive on average.

Exhibit 4: Tariffs Will Likely Exert a Drag on the Economy's Most Productive Industries

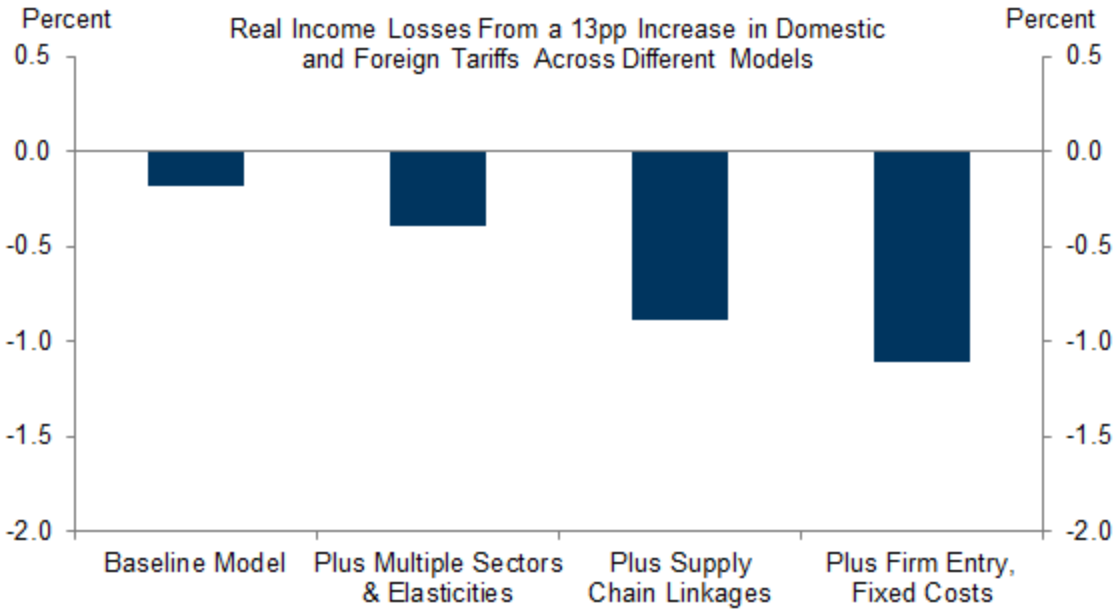


Source: Goldman Sachs Global Investment Research, Department of Labor

Applying estimates from a range of economic models (see Exhibit 2) suggests that a 13pp increase in domestic and foreign tariffs erodes US real income by about 1% (Exhibit 5). While we show averages across a range of models and parameter assumptions, the range of estimates is fairly wide even within each type of model. In

most settings, the losses from a trade war are smaller in the long run than in the short run because the economy adjusts to the higher tariffs over time.

Exhibit 5: Higher Tariffs Generate Income Losses, Which Become Larger Once Complex Supply Chains and Specialization Patterns Are Taken Into Account



Source: Goldman Sachs Global Investment Research

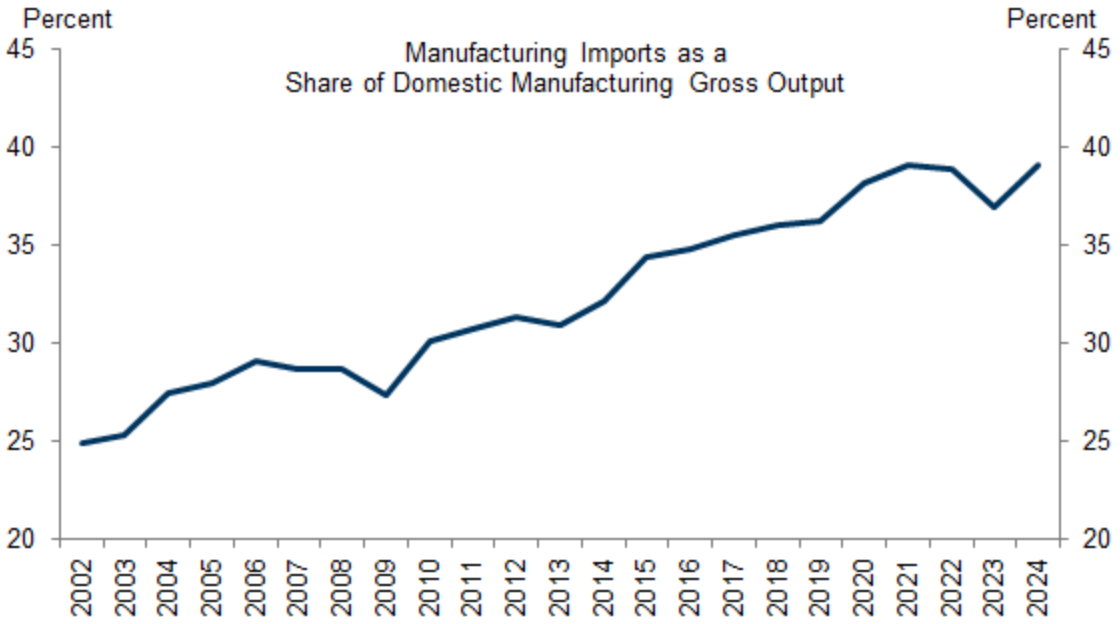
In some models, imposing moderate tariffs can result in small income gains for the tariffing country if other countries do not retaliate and the incidence of the tariffs falls at least partially on the targeted country. In practice, other countries typically retaliate—although so far retaliatory tariffs against US exports from countries other than China have been more limited than the tariffs the US has imposed on those countries. It is difficult to estimate what the average losses in Exhibit 5 would look like with different degrees of retaliation because many of these models do not simulate these outcomes, and those that do generate different predictions relative to their estimates with full retaliation. Extrapolating from the studies that do perform this exercise suggests that the income losses would fall to about 0.4% if other countries increased tariffs by only half as much as the US.

In addition, most of the cost of US tariff increases in the last trade war has been borne by the US and higher tariffs generated negative spillovers into domestic industries hit by retaliation and higher input costs, suggesting that the last trade war probably generated income losses on net. Overall, these considerations suggest that the extent of retaliation and the relative incidence of the tariffs will be important drivers of the ultimate impact on the US.

How Much Production Is Likely to Be Reshored to the US?

One way firms could adjust to higher tariffs would be to reshore production back to the US. Reshoring has been a prominent theme for the past several years—in the early 2010s, the 2018-2019 trade war, the Covid-related supply-chain disruptions, the Biden administration's manufacturing subsidies, and now with this year's tariff increases. Throughout this period, however, there was little evidence of widespread reshoring of manufacturing activity (Exhibit 6).

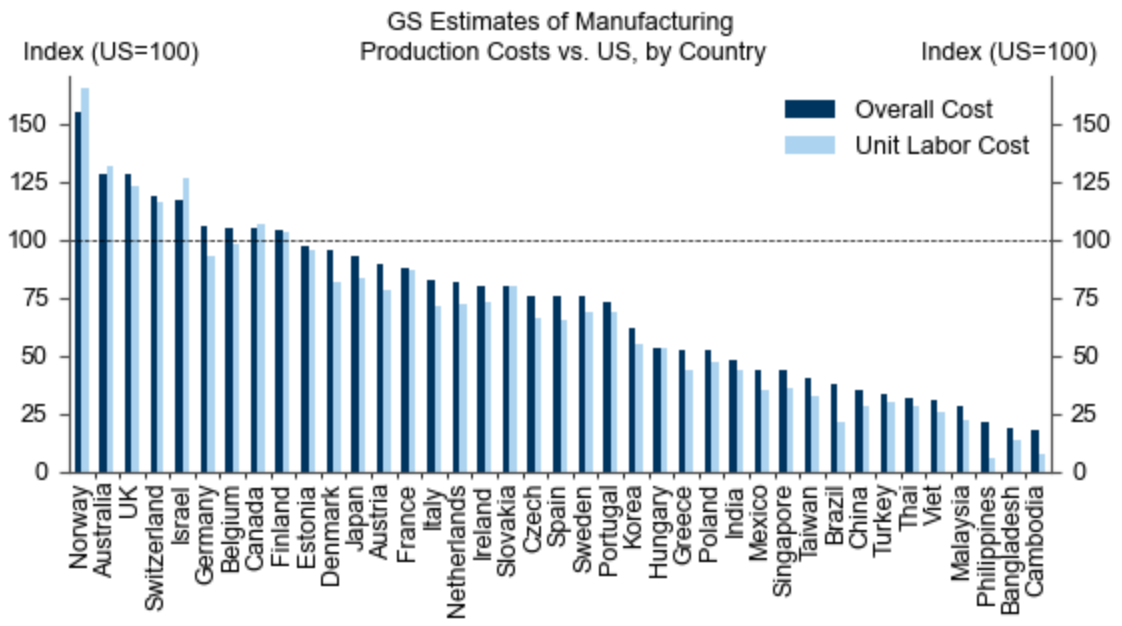
Exhibit 6: Limited Evidence of Meaningful Reshoring



Source: Goldman Sachs Global Investment Research, Department of Commerce

To gauge whether reshoring is plausible on a large scale, we construct measures of production costs for 40 countries and 24 manufacturing subindustries. We collect indicators of labor costs, industrial real estate costs, corporate tax rates, and utility costs for each country, and weight each cost factor by its share in each industry's output using the Bureau of Economic Analysis's KLEMS accounts. We use unit labor costs (ULCs) as our baseline measure of labor costs, which equal labor compensation per hour divided by output per hour—roughly speaking, wages adjusted for productivity.[3] While ULCs are particularly useful because they account for differences in productivity across countries, in practice they are vulnerable to measurement challenges because they require each country to deflate output in comparable ways. In the Appendix, we show that our results are robust to using compensation per hour as our indicator of labor costs.

Exhibit 7: Manufacturing Costs in Most Countries Are Substantially Below the US's



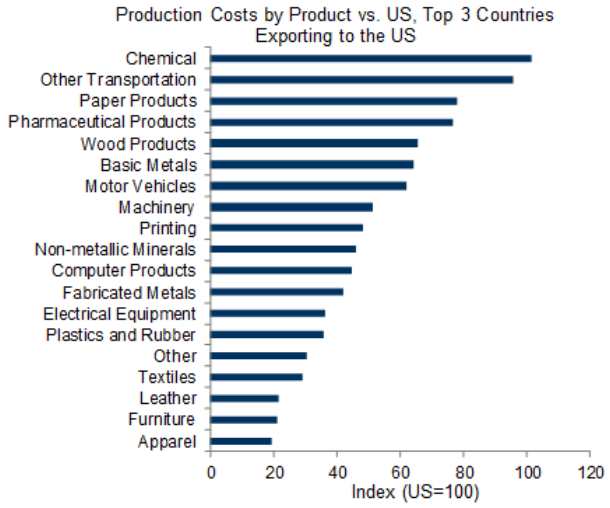
Source: Goldman Sachs Global Investment Research

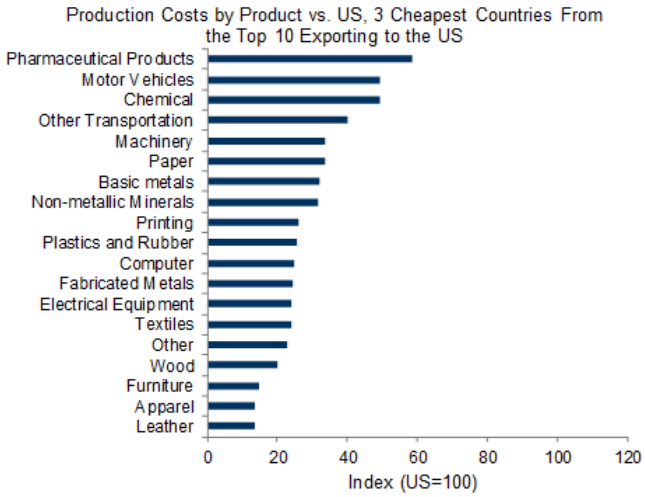
In Exhibit 8, we use our breakdown of manufacturing costs by subindustry and country to show how production costs in the US compare to the top three countries exporting to the US in each industry (left-hand side), as well as the three lowest-cost countries among the top 10 countries exporting to the US (right-hand side).

These results suggest that the US is most competitive relative to its trading partners in the chemical, pharmaceutical, and other transportation (mostly aircraft manufacturing) sectors. But for most products, US production costs are well above the relevant trading partners', especially when compared with the cheaper potential alternatives that we show on the right panel of Exhibit 5. On average, production costs are almost 50% lower for the three largest exporters compared to the US.[4]

Given these large cost differences, we believe higher bilateral tariffs are unlikely to drive a substantial increase in domestic production. This is consistent with the patterns of trade reallocation observed in the last trade war, when tariffs on China largely incentivized rerouting production through third countries with little—or slightly negative—effects on US manufacturing. High product-level tariffs could make US production relatively more competitive in a few industries, but only at the expense of significantly higher prices and lower demand.

Exhibit 8: Manufacturing Costs Are Much Higher in the US for Most Products Compared to the US's Largest Trading Partners

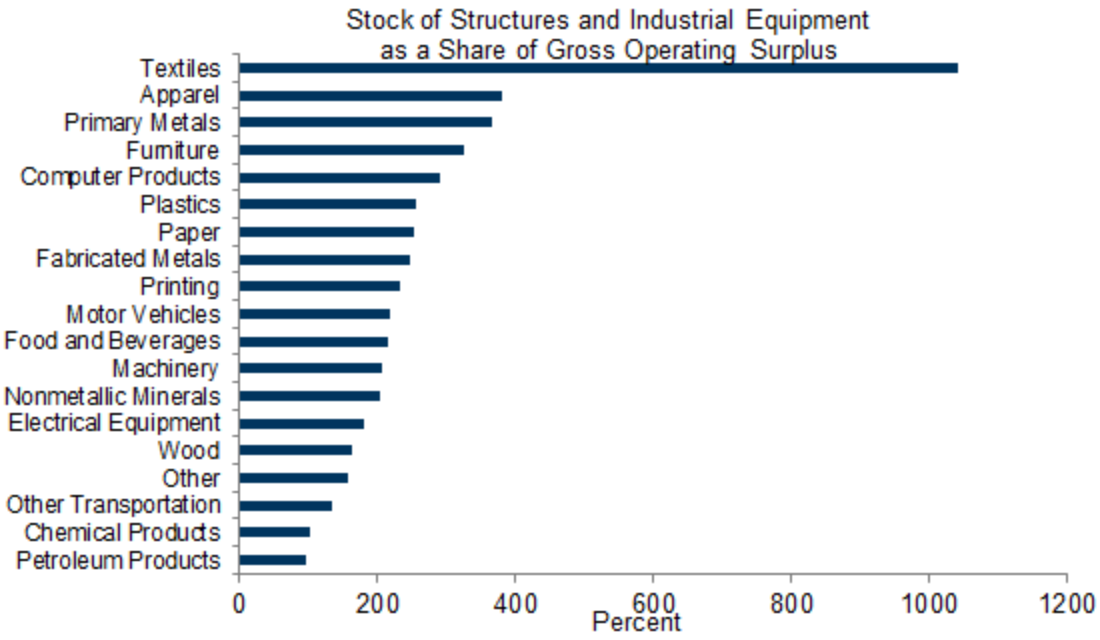




Source: Goldman Sachs Global Investment Research

Another factor that will likely limit firms' willingness to set up production in the US is the elevated uncertainty about the ultimate form that tariffs will take. Exhibit 9 shows that manufacturing production involves large fixed costs, sometimes worth several years of operating surplus. This suggests that firms will be unwilling to risk years' worth of profits to set up production capabilities that may not be profitable if the policy environment changes.

Exhibit 9: Setting Up Manufacturing Production Involves Large Fixed Costs, Sometimes Worth Several Years of Operating Surplus



Source: Goldman Sachs Global Investment Research, Department of Commerce

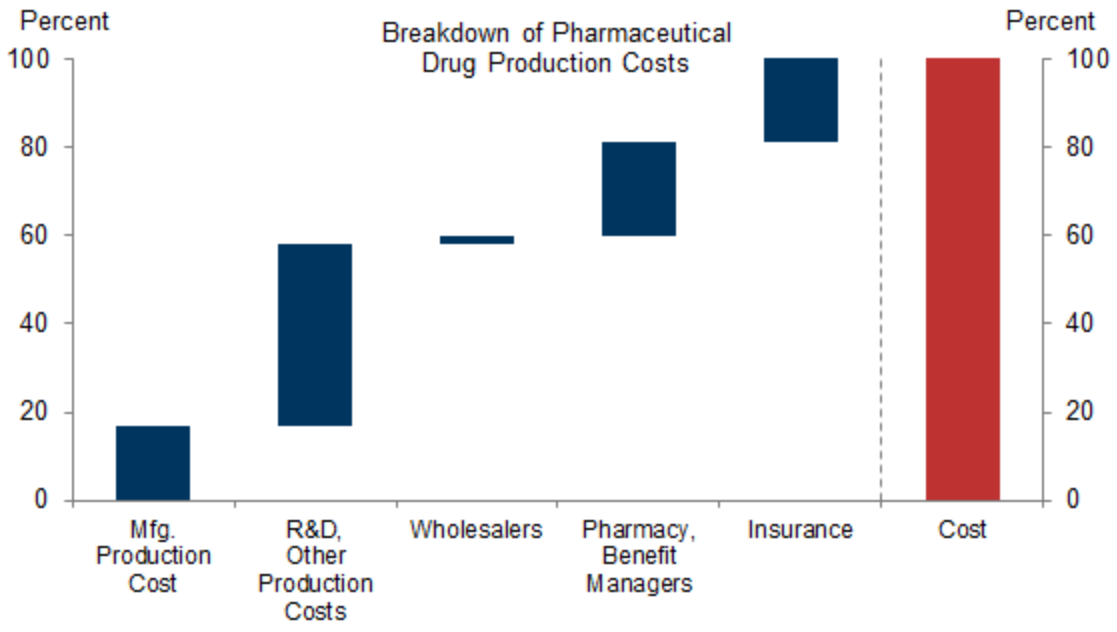
We showed in Exhibit 5 that the US was relatively competitive against its trading partners in the pharmaceutical industry, and the Trump administration will likely

include pharmaceutical products in the "critical imports" tariffs that we expect to be announced in the coming months.

That being said, we are skeptical that tariffs will drive a large increase in domestic pharmaceutical production, for a couple of reasons. First, because we expect higher intermediate input costs as a result of the tariffs to increase the cost of pharmaceutical manufacturing by about 7% of operating surplus, which will likely erode the US's competitiveness in the area.[5]

Second, because manufacturing represents only a small share of the overall production cost of pharmaceutical products, as we show in Exhibit 10. Partly because of this, the cost differential in manufacturing will likely play a small role in companies' decisions to locate production compared to other factors like tax incentives or incentives for research and development. Indeed, commentary from the pharmaceutical industry has indicated that tariffs would be unlikely to induce much reshoring to the US, with tax policy having a much greater impact on these companies' production decisions.[6]

Exhibit 10: Manufacturing Production Accounts for Only a Small Share of Overall Costs in the Pharmaceutical Industry



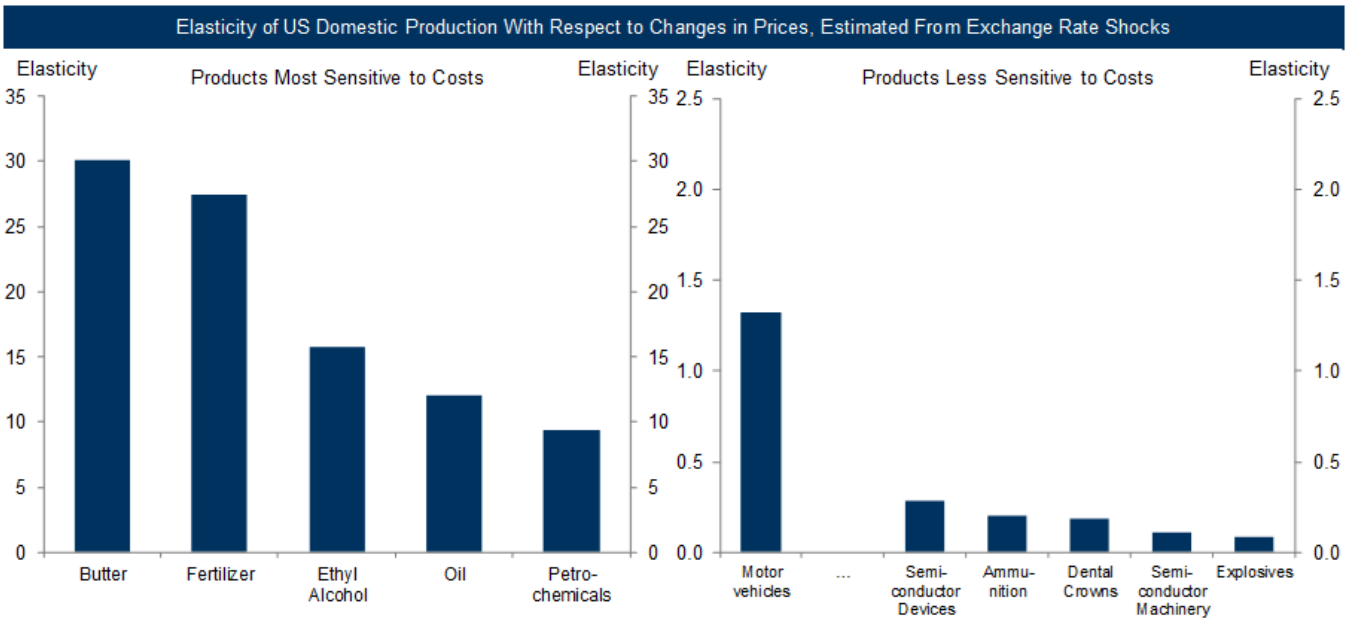
Source: Goldman Sachs Global Investment Research, University of Southern California

Even if tariffs don't generate a meaningful amount of reshoring on net, they can still shift the distribution of production within the US economy. To get a sense of how responsive supply is likely to be across different industries, we leverage product-level data on US exports and use unexpected shocks to the dollar as a proxy for shocks to

each industry's competitiveness relative to the rest of the world. We construct a series of dollar shocks as residuals from a vector autoregression of foreign trade-weighted industrial production, US industrial production, foreign trade-weighted policy rates, the fed funds rate, and the trade-weighted dollar.[7] We then regress changes in exports for each product on our FX shock series.

Exhibit 11 shows the results. We find that the production of more complex goods such as medical equipment and semiconductors is stickier, while the production of commoditized goods is more flexible. Overall, these results suggest a higher hurdle for tariffs to meaningfully boost US production of more complex, differentiated goods.

Exhibit 11: US Production of Commoditized Goods Is the Most Sensitive to Changes in Costs; Production of More Complex Goods Is Less Sensitive to Cost Shocks



Source: Goldman Sachs Global Investment Research

Other Long-Run Effects

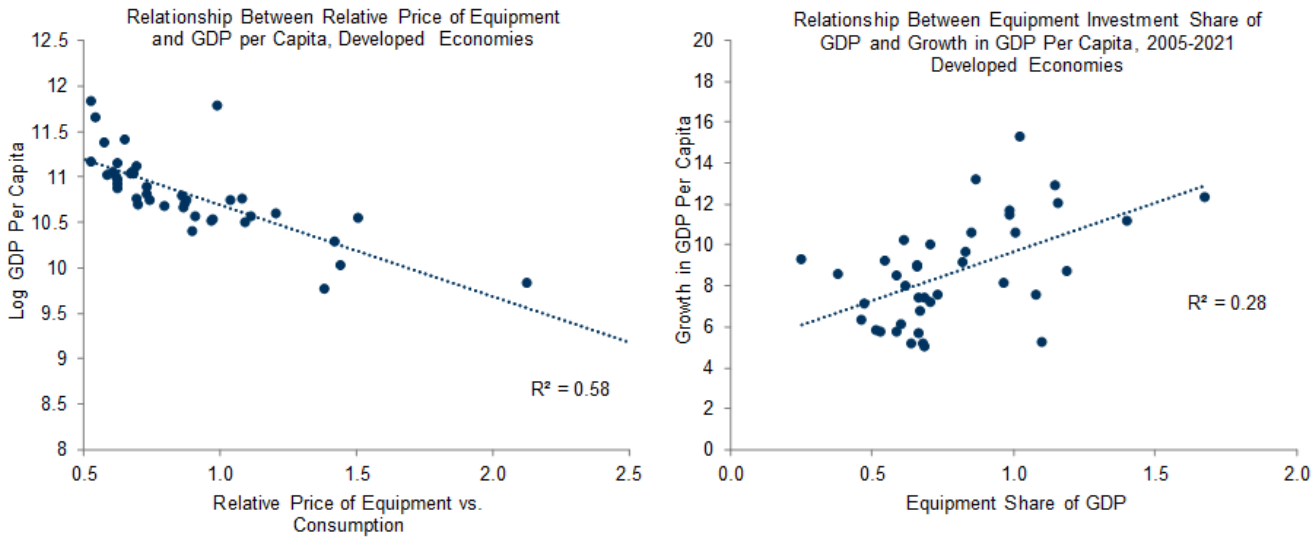
In addition to the comparative-advantage and cost-related effects we discussed above, higher tariffs will likely affect the US economy in three important ways.

Effects on Investment

First, tariffs will raise the relative prices of imported equipment and other forms of capital, which will likely discourage investment and weigh on capital accumulation.[8] Economic studies have found that lower prices of capital goods play a key role in stimulating investment and contribute to improvements in living standards.[9] These

patterns are clear across countries, as we show in Exhibit 12. The left side of Exhibit 12 shows a clear relationship between the price of equipment and the level of GDP, while the right side shows that a higher equipment share of GDP is associated with faster GDP growth over the subsequent several years.

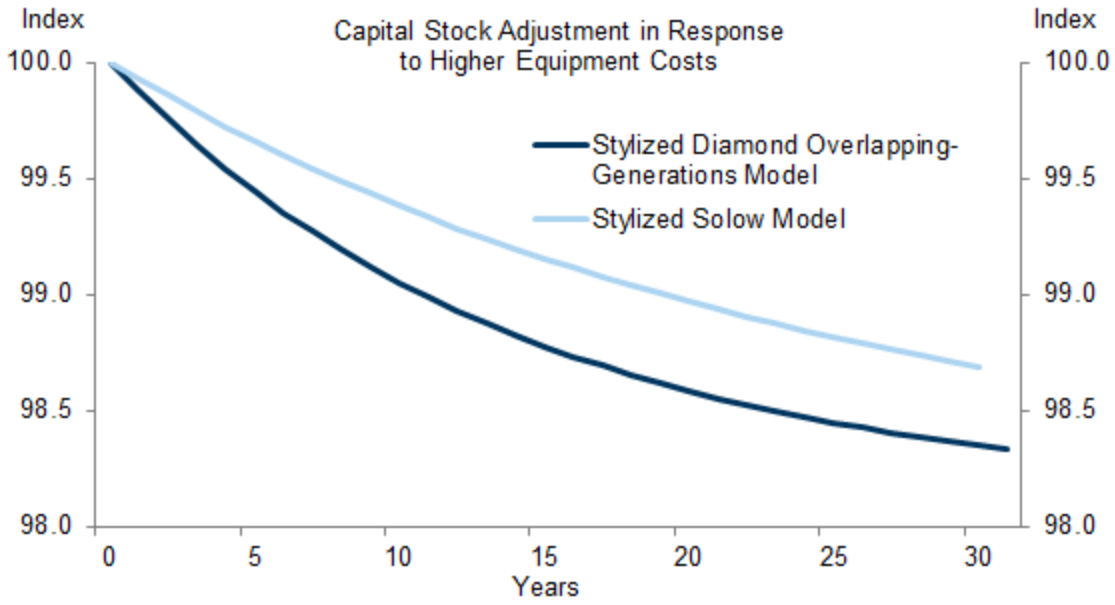
Exhibit 12: Lower Equipment Prices and Higher Investment Rates Are Associated With Higher GDP and GDP Growth Across Countries



Source: Goldman Sachs Global Investment Research, World Bank

Exhibit 13 illustrates the path of the capital stock as it adjusts to its new equilibrium using two stylized long-run growth models. This adjustment process typically takes several years, during which sluggish investment slowly drives down the country's capital stock. In the long run, the economy adjusts to an equilibrium with lower output per worker. Combining our estimates of the share of capital goods in the tariffs we expect with estimates of the elasticity of investment rates to equipment prices, we estimate that these effects will likely weigh on the long-run level of GDP by about 0.75pp.

Exhibit 13: It Takes Many Years for the Capital Stock to Adjust to Its New Equilibrium Level



Source: Goldman Sachs Global Investment Research

Efffects on Innovation at the Firm Level

In our baseline estimates, we assume that the reallocation towards less successful firms is a one-off effect. But some economic studies suggest that more restrictive trade could spill over into slower productivity growth and innovation. As shown in Exhibit 14, these studies have found that the largest effects of trade policy on productivity and innovation operate through intermediate input linkages and access to export markets. Interestingly, economists have found relatively small effects of trade liberalizations on firm-level productivity through increased competition.[10]

Exhibit 14: Economic Studies Suggest That Tariffs on Intermediate Inputs Are Likely to Weigh on Firm-Level Productivity

Study	Key findings on trade and firm-level productivity
Effect of Greater Access to Intermediate Inputs	
Juhasz and Steinwender (2018)	Roll-out of the global telegraph network increased trade in intermediate relative to final goods and facilitated technology diffusion through the ability to import machinery and learn new technologies.
Amiti and Konings (2007)	Lower tariffs on intermediate inputs raise productivity through increased learning, variety, and qualtiy. A 10pp decline in input tariffs leads to a productivity gain of 12% for firms importing inputs, twice as large as gains from reducing output tariffs.
Bas and Strauss-Kahn (2015)	Lower tariffs on intermediate inputs lead firms to upgrade input sources and improve product quality.
Halpern, Koren, and Szeidl (2015)	Using Hungarian microdata, find that domestic inputs are imperfect substitutes to imported inputs. Growth in imported inputs can explain 25% of Hungarian productivity growth in 1993-2002.
Nicolett and Johansson (2013)	Use panel data on productivity and tariffs to show that lower tariffs for upstream and intermediate industries boosts productivity downstream.
Effect of Greater Access to Export Markets	
Lileeva and Trefler (2010)	Canadian firms that were induced to export more as a result of tariff cuts had higher productivity, more product innovation, and higher adoption rates of advanced technologies.
Coelli et al. (2022)	Improved access to export markets after the General Agreement on Tariffs and Trade (GATT) Uruguay round had a large positive impact on innovation, larger for developed than developing countries.
Bernard and Jensen (2004)	Exporting is associated with reallocation of resources toward more efficient firms. These effects explain over 40% of total factor productivity growth in manufacturing in 1983-1992.
Aghin et al. (2024)	The most productive firms increase patents in response to a positive export demand shock, but this effect is reversed for the least productive firms.
Effect of Higher Import Competition	
Pavcnik (2002)	Productivity of plants in the import-competing sectors grew 3 to 10% more than in the nontraded-goods sectors in Chile.
Edmond et al. (2015)	Opening up to trade raises competition, lowers markups, and significantly lowers productivity losses from resource misallocation.
Aghin et al. (2005)	Inverted U-shaped relationship between competition and innovation, where "neck-and-neck" firms at the middle of the productivity distribution are encouraged to innovate but laggard firms are discouraged from innovation.
Autor et al. (2017)	Increased competition discourages innovation and R&D spending following China's WTO entry.
Keung et al. (2017)	Canadian firms invest less in process and product innovations in response to large increases in Chinese import penetration.

Source: Goldman Sachs Global Investment Research

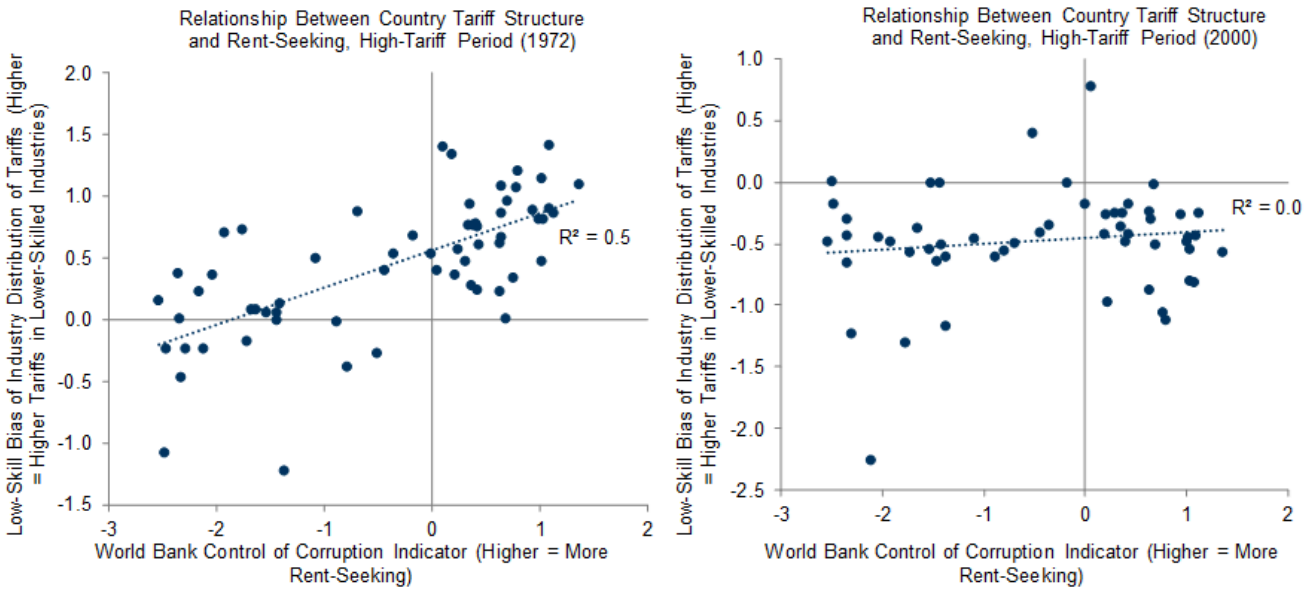
Effects on Rent-Seeking

Third, higher tariffs could encourage businesses to spend resources obtaining political influence to shape tariff policy in their favor—that is, rent-seeking. Several papers have explored how businesses and households are incentivized to spend resources trying to acquire protection from foreign competition through tariffs. [11]

Exhibit 15 provides suggestive evidence that higher tariff rates encourage rent-seeking by leveraging the patterns of each country's tariff structure.[12] It shows that there was a clear correlation between the extent to which tariffs are biased toward lower-skilled industries and away from higher-skilled industries—an economically suboptimal tariff structure—and measures of rent-seeking when overall tariff rates were high in the early 1970s. After a series of multilateral trade agreements brought down tariff levels

and reduced governments' discretion in imposing them, the relationship between countries' tariff structures and rent-seeking measures disappears.

Exhibit 15: Periods With Higher Tariffs Have Allowed More Opportunities for Rent-Seeking



Source: Goldman Sachs Global Investment Research, Nunn and Trefler (2010)

Lessons From Prior Shifts in Trade Policy

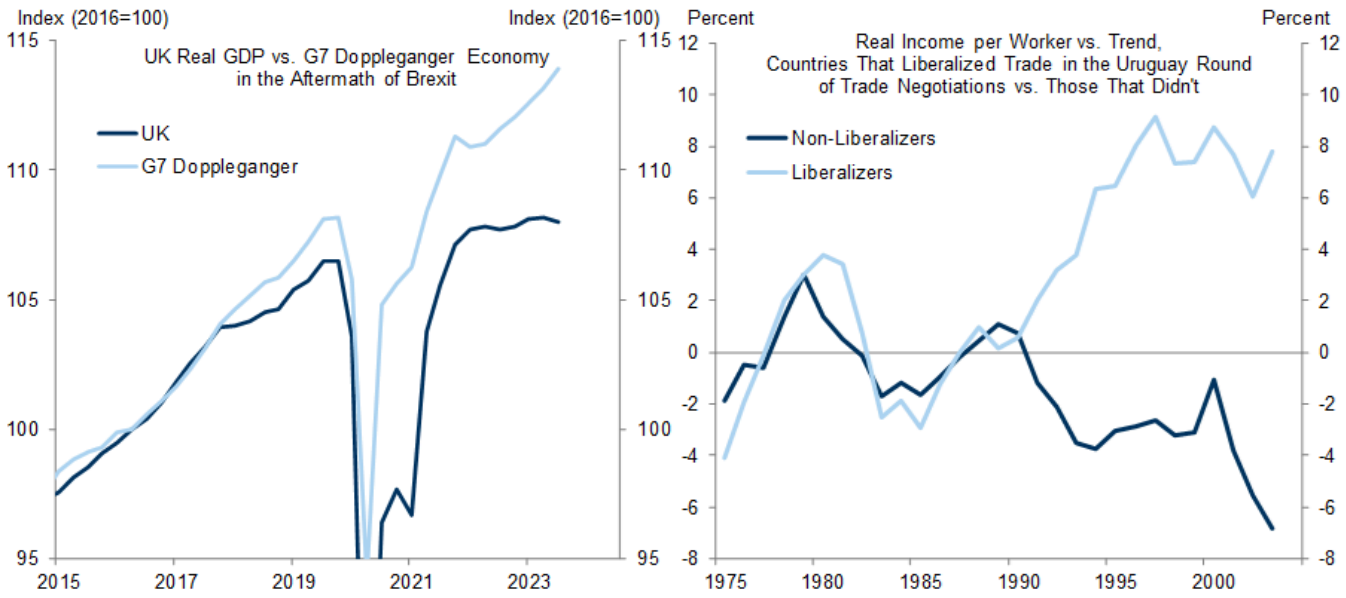
The current increase in the US's effective tariff rate is unprecedented in US postwar history. What can we learn about the long-term effects of tariffs from shifts in trade policies in other countries?

The causal effects of large shifts in trade policies and how they evolved over many years are very difficult to assess statistically, in part because confounding factors are more likely to emerge over the course of several years. We therefore turn to two prominent examples of large changes in trade policy—Brexit in 2016 and the Uruguay Round of trade negotiations that finished in 1993.[13] Exhibit 16 compares the economies undergoing trade-related changes with economies that did not undergo those changes but were following similar paths before the reforms.

Our European economists have estimated that the Brexit episode was associated with meaningful output losses relative to the UK's peer economies. Although Brexit entailed many more policy changes than just changes in trade policy, estimates suggest that tariff and non-tariff barriers rose by about 10-15pp in its aftermath. Combined with the UK's import share of about 30% of GDP at the time, this suggests that tariffs rose by about 4% of GDP and the ultimate output losses were around 6% of GDP.

The countries that liberalized in the aftermath of the Uruguay Round saw about 12% gains in real income relative to their peers (left side of Exhibit 15) following a decline in tariffs of about 30pp and an average import share of about 20% of GDP. In this case, the trade shock was worth about 6% of GDP and the output gains were roughly twice as large. Although we would not extrapolate too confidently from only two episodes in such different countries from the US, these impacts are broadly similar to the real income drag we expect from higher tariffs in the US.

Exhibit 16: Both Trade Liberalization in the 1990s and Early 2000s and the Brexit Episode Suggest That Trade Barriers Can Have Long-Lasting Output Effects



Source: Goldman Sachs Global Investment Research, Estevadeordal and Taylor (2013)

Conclusion

Taken together, we expect higher tariffs to weigh on US real income by 1½-2% in the long run, which is similar to our estimate of the tariffs' effects on GDP this year.

While the sources of the economic drag are different and play out over a longer horizon, this is similar to our estimate of the growth drag from tariffs in 2025-2026, which suggests that the short-term hit to the level of output from higher tariffs will be sustained. Our longer-run estimate implicitly reflects a lower contribution from near-term aggregate demand headwinds such as subdued risk sentiment and unusually high uncertainty but offsetting contributions from a lower capital stock and a small additional drag on productivity. These estimates are very uncertain, however, and the long-run effect of the tariffs will also hinge on their scope and duration, the extent of

foreign retaliation, the dollar's response, and the behavior of international capital flows.

Mannuel Abecasis

The US Economic and Financial Outlook

THE US ECONOMIC AND FINANCIAL OUTLOOK
(% change on previous period, annualized, except where noted)

							2024				2025			
	2022	2023	2024	2025	2026	2027	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
OUTPUT AND SPENDING														
Real GDP	2.5	2.9	2.8	1.6	1.6	2.1	1.6	3.0	3.1	2.4	-0.3	2.4	0.7	1.3
Real GDP (annual=Q4/Q4, quarterly=yoy)	1.3	3.2	2.5	1.0	1.8	2.1	2.9	3.0	2.7	2.5	2.1	1.9	1.3	1.0
Consumer Expenditures	3.0	2.5	2.8	2.2	1.5	2.1	1.9	2.8	3.7	4.0	1.8	1.2	0.7	1.0
Residential Fixed Investment	-8.6	-8.3	4.2	0.5	2.3	2.4	13.7	-2.8	-4.3	5.5	1.3	-1.4	0.0	3.0
Business Fixed Investment	7.0	6.0	3.6	1.2	1.3	4.0	4.5	3.9	4.0	-3.0	9.8	-3.8	-3.8	-1.3
Structures	3.6	10.8	3.5	-1.3	-0.3	3.0	6.2	0.2	-5.0	2.9	0.4	-3.5	-4.0	-2.0
Equipment	4.4	3.5	3.4	1.6	-0.5	3.6	0.3	9.9	10.8	-8.7	22.5	-10.2	-10.0	-5.0
Intellectual Property Products	11.2	5.8	3.9	2.3	3.8	4.9	7.5	0.7	3.1	-0.5	4.1	2.5	2.5	2.5
Federal Government	-3.2	2.9	2.6	0.3	-0.8	0.6	-0.4	4.3	8.9	4.0	-5.1	0.0	-2.5	-2.5
State & Local Government	0.2	4.4	3.9	1.4	0.4	1.2	3.1	2.3	2.9	2.5	0.8	1.1	0.2	0.2
Net Exports ($bn, '17)	-1,042	-933	-1,034	-1,109	-931	-969	-977	-1,036	-1,069	-1,053	-1,374	-1,150	-991	-921
Inventory Investment ($bn, '17)	119	33	39	38	51	61	18	72	58	9	140	63	-20	-30
Nominal GDP	9.8	6.6	5.3	4.7	5.3	4.3	4.7	5.6	5.0	4.8	3.5	5.7	4.9	4.9
Industrial Production, Mfg.	2.7	-0.5	-0.5	0.1	0.6	2.9	-0.9	1.4	-0.8	-1.5	5.1	-1.1	-3.9	-1.8
HOUSING MARKET														
Housing Starts (units, thous)	1,552	1,421	1,368	1,420	1,479	1,491	1,407	1,340	1,332	1,392	1,393	1,403	1,431	1,454
New Home Sales (units, thous)	637	666	684	748	778	800	663	693	708	673	734	737	757	763
Existing Home Sales (units, thous)	5,083	4,103	4,067	4,080	4,384	4,558	4,143	4,023	3,937	4,163	3,909	4,028	4,150	4,233
Case-Shiller Home Prices (%yoy)*	7.5	5.3	3.8	3.7	4.8	4.8	6.5	5.9	4.4	3.8	2.7	3.2	3.9	3.7
INFLATION (% ch, yr/yr)														
Consumer Price Index (CPI)**	6.4	3.3	2.9	3.3	2.7	2.2	3.2	3.2	2.7	2.7	2.7	2.8	3.4	3.4
Core CPI **	5.7	3.9	3.2	3.5	2.7	2.2	3.8	3.4	3.3	3.3	3.1	3.0	3.5	3.5
Core PCE** †	5.0	3.0	2.9	3.6	2.6	2.0	3.0	2.7	2.7	2.8	2.8	2.9	3.3	3.6
LABOR MARKET														
Unemployment Rate (%)^	3.5	3.8	4.1	4.5	4.3	4.1	3.9	4.1	4.1	4.1	4.1	4.4	4.5	4.5
U6 Underemployment Rate (%)^	6.6	7.2	7.5	8.4	8.0	7.7	7.3	7.4	7.7	7.5	7.9	8.2	8.4	8.4
Payrolls (thous, monthly rate)	380	216	168	103	132	117	196	133	133	209	133	112	78	90
Employment-Population Ratio (%)^	60.1	60.1	60.0	59.8	59.8	59.7	59.9	59.0	59.1	58.9	59.9	59.9	59.8	59.8
Labor Force Participation Rate (%)^	62.3	62.5	62.5	62.6	62.5	62.3	62.7	62.6	62.7	62.5	62.5	62.6	62.6	62.6
Average Hourly Earnings (%yoy)	5.4	4.4	3.9	3.8	3.3	3.2	4.2	3.9	3.8	3.9	3.9	3.9	3.8	3.5
GOVERNMENT FINANCE														
Federal Budget (FY, $bn)	-1,376	-1,694	-1,833	-1,850	-1,950	-2,150	--	--	--	--	--	--	--	--
FINANCIAL INDICATORS														
FF Target Range (Bottom-Top, %)^	4.25-4.5	5.25-5.5	4.25-4.5	4-4.25	3.5-3.75	3.5-3.75	5.25-5.5	5.25-5.5	4.75-5	4.25-4.5	4.25-4.5	4.25-4.5	4.25-4.5	4-4.25
10-Year Treasury Note^	3.88	3.88	4.58	4.35	4.45	4.45	4.20	4.36	3.81	4.58	4.23	4.40	4.35	4.35
Euro (€/$)^	1.07	1.11	1.04	1.15	1.20	1.20	1.08	1.07	1.11	1.04	1.08	1.13	1.16	1.15
Yen ($/¥)^	132	141	157	136	127	120	151	161	143	157	150	144	136	136

* Weighted average of metro-level HPIs for 381 metro cities where the weights are dollar values of housing stock reported in the American Community Survey. Annual numbers are Q4/Q4.
** Annual inflation numbers are December year-on-year values. Quarterly values are Q4/Q4.
† PCE = Personal consumption expenditures. ^ Denotes end of period.
Note: Published figures in bold.
Source: Goldman Sachs Global Investment Research.

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1 ^ See Meliz, Marc J. and Stephen J. Redding, "Missing Gains From Trade?" American Economic Review: Papers & Proceedings 2014, 104(5):317-321.

2 ^ See Antras, Pol, Teresa C. Fort, and Felix Tintelnot, “The Margins of Global Sourcing: Theory and Evidence From US Firms,” The American Economic Review 2017, 107(9): 2514-2564.

3 ^ We follow the methodology employed by our Asia economists to compare labor costs in the region, multiplying national unit labor costs by the real exchange rate in order to make them internationally comparable. We use purchasing power parity (PPP) exchange rates from the World Bank and Penn World Tables (PWT) when comparing other nominal quantities.

4 ^ We can only gauge differences in production costs at a fairly aggregated level. The US likely produces higher-quality goods than the countries it imports the most from in a number of the sectors we show. If these differences are not captured in the output deflators we use, the comparisons will likely exaggerate the cost differentials across countries.

5 ^ In the Appendix, we show a version of Exhibit 5 with our estimates of the erosion in competitiveness from higher input costs.

6 ^ This is likely exacerbated by offshore profit-shifting, which increases the industry’s exposure to changes in tax policy.

7 ^ We estimate the VAR and perform a Cholesky decomposition of the residuals with the variables ordered as mentioned in the text.

8 ^ See Baqaee, David and Hannes Malmberg, “Long-Run Effects of Trade Wars,” NBER Working Paper 33702, April 2025.

9 ^ For example, De Long, J. Bradford and Lawrence H. Summers, “Equipment Investment and Economic Growth,” Quarterly Journal of Economics 1991 106(2):445-502.

10 ^ Shu, Pian, and Claudia Steinwender, "The Impact of Trade Liberalization on Firm Productivity and Innovation," Innovation Policy and the Economy, Volume 19, National Bureau of Economic Research 2019.

11 ^ See, for example, Grossman, Gene M., and Elhanan Helpman, "Protection for Sale," American Economic Review 1994 84(4), 833-850.

12 ^ Nunn, Nathan, and Daniel Trefler, "The Structure of Tariffs and Long-Term Growth," American Economic Journal: Macroeconomics 2010, 158-194.

13 ^ Estevadeordal, Antoni, and Alan M. Taylor, "Is the Washington Consensus Dead? Growth, Openness, and the Great Liberalization, 1970s-2000s." The Review of Economic Statistics (2013) 95(5): 1669-1690.

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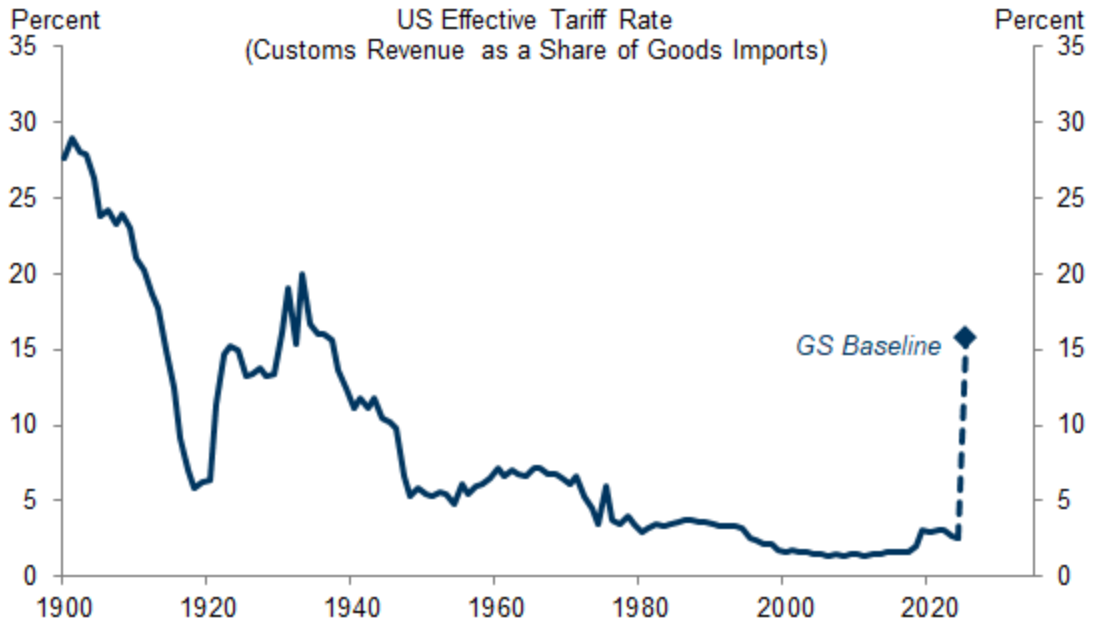

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