Goldman Sachs | Economics Research

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US Economics Analyst

Who Pays for Input Cost Increases? Evaluating the Impact on Prices and Profit Margins (Briggs)

- Labor and intermediate input costs have risen sharply in 2021, but so far businesses have been able to push through rising labor and input costs and preserve profit margins. In fact, national accounts profit margins reached an all-time high in 2021Q3, and remain at their second-highest level on record even after removing pandemic-related fiscal transfers. Whether profit margins will remain elevated will depend on whether companies can continue to pass higher costs through to prices, so in this *US Economics Analyst* we review the evidence regarding price pass-through from three sources of cost pressure.
- First, although rapid wage growth in 2021Q2-Q3 will likely slow as labor shortages ease, we expect that wage growth will remain firmer than at the end of last cycle and average a bit over 4% in 2022-2024. Using a set of industry- and state-level panel regressions, we estimate that a 1pp acceleration in wage growth boosts price inflation by about 35bps and lowers profit margins by about 20bps, although the pass-through rate likely varies over time.
- Second, upstream costs of intermediate goods and materials have also increased. We find that broad-based input cost increases have historically been mostly passed on to final prices. Rising costs of intermediate goods and materials will therefore likely continue to put upward pressure on consumer prices, but pose less of a threat to profit margins.
- Third, the coming reconciliation bill will likely increase corporate taxes, and academic studies suggest that the incidence of corporate tax increases falls roughly evenly on consumers, workers, and businesses. We therefore expect modest inflation and margin pressures from corporate tax increases, although the ultimate effect will depend on the details of the upcoming legislation.
- Based on our pass-through estimates, we expect that rising costs will boost price inflation in 2021 by around 0.9pp relative to trend, and that the inflationary pressure will ease sequentially to 0.7pp in 2022 and 0.4pp in 2023. Additionally, we estimate that cost pressures will lower national accounts profit margins by around 0.3pp in 2021, 0.6pp in 2022, and 0.9pp in 2023, with the hit to margins mostly reflecting higher labor costs, since most other cost increases will ultimately be passed through to consumers.

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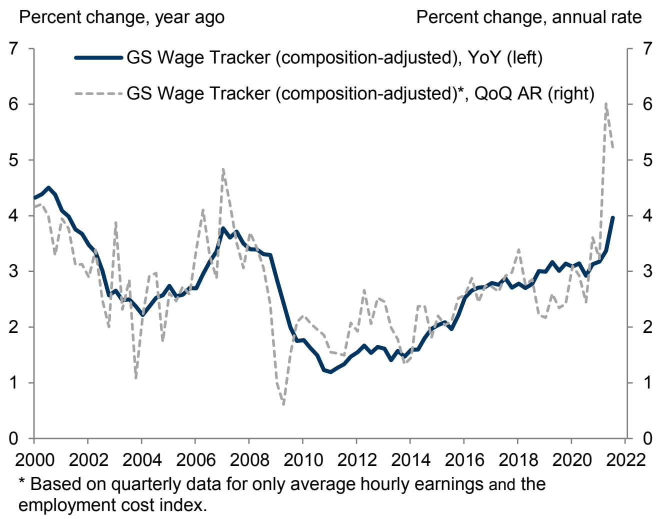
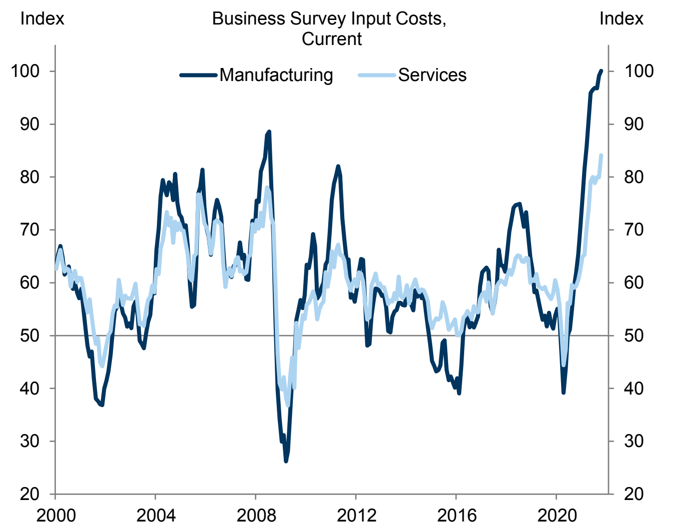
Who Pays for Input Cost Increases? Evaluating the Impact on Prices and Profit Margins

Widespread labor shortages and supply chain disruptions have generated significant cost pressures for businesses in 2021. In particular, wage growth accelerated sharply in 2021Q2 and 2021Q3 to a 5-6% annualized pace and our composition-adjusted wage tracker currently stands at 4% (left chart, Exhibit 1)—well above last cycle's 3% peak—while costs for non-labor intermediate inputs have similarly surged to very high levels for both manufacturing and service-providing firms (right chart).

Exhibit 1: Labor and Input Costs Rose Sharply in 2021...

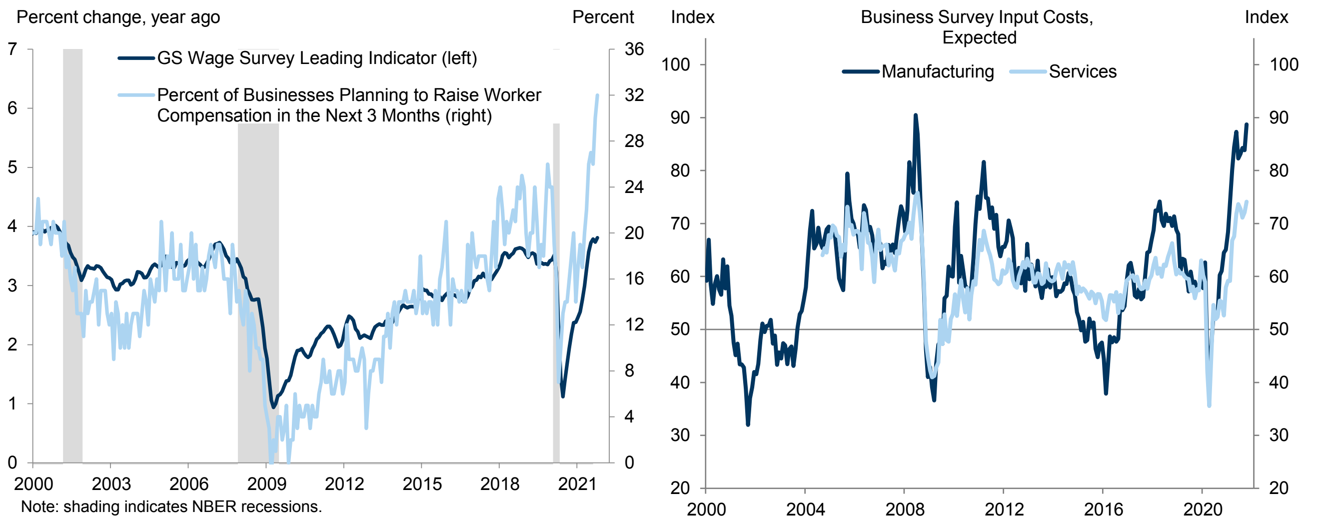




Source: Goldman Sachs Global Investment Research

While labor and intermediate-goods supply shortages will likely improve going forward, forward-looking cost measures suggest that business cost pressures are likely to remain firm. For example, our wage survey leading indicator—which summarizes responses to ten survey questions on wage and income growth expectations from consumer and business surveys—currently stands at 4% (left chart, Exhibit 2), again well above last cycle's peak. Similarly, business survey expectations of non-labor input costs are well above historical norms (right chart), suggesting that most businesses expect that supply shortages and input price pressures will take some time to normalize.

Exhibit 2: … And Are Expected to Rise Further

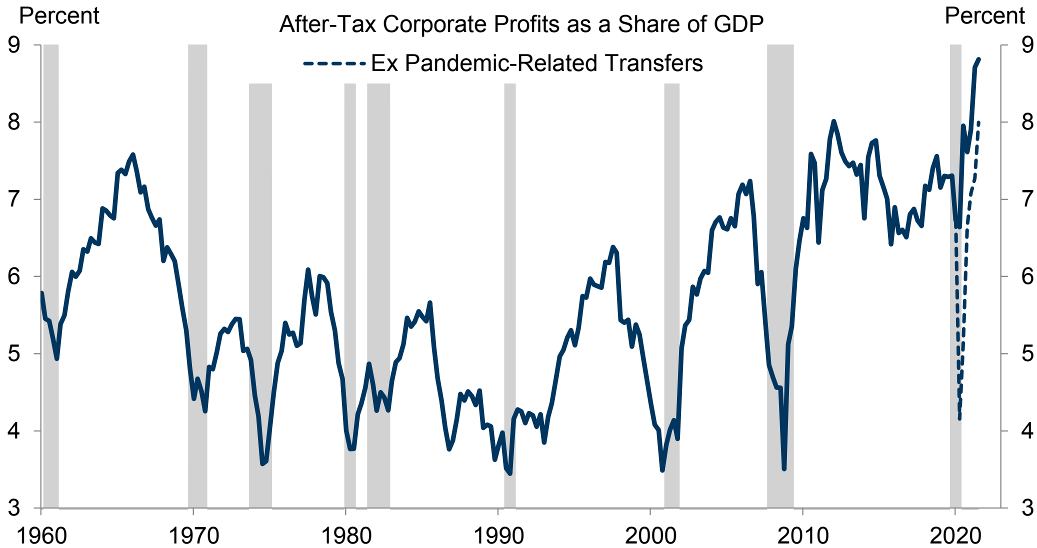


Source: NFIB, Goldman Sachs Global Investment Research

So far, businesses appear to have been able to push through rising labor and input costs and preserve their bottom line. S&P 500 profit margins outperformed expectations in 2021Q3 and currently stand at 12.3% (vs. 11% prior to the pandemic), with company commentary from Q3 earnings calls suggesting that companies were able to leverage pricing power to pass price increases on to consumers. Additionally, our GS Company Price Announcement Index—which measures the share of comments mentioning higher prices vs. the share of comments mentioning lower prices in Russell 3000 earnings calls—reached an all-time high following Q3 earnings data.

It is not just large companies that are reporting strong profit margins. Profit margins in the national accounts soared to an all-time high in 2021Q2 and 2021Q3 (Exhibit 3), and although these margins are somewhat inflated due to residual paycheck protection loans and other business support programs from the Phase 4 and 5 pandemic-relief fiscal packages, profit margins in Q3 were the second highest on record even after excluding pandemic-related fiscal transfers.

Exhibit 3: Profit Margins Have Risen to a Record High, and Remain Firm Even After Accounting for Pandemic-Related Fiscal Transfers



Source: US Bureau of Economic Analysis (BEA), Goldman Sachs Global Investment Research

Whether profit margins remain elevated—and whether price inflation cools—will depend partly on whether companies can continue to pass higher costs through to prices. Q3 earning calls suggest that many companies maintain a strong margins outlook and anticipate they will remain able to do so. However, it's less clear whether companies will be able to actually maintain current margin levels as normal economic dynamics assert themselves in the coming years, or if businesses will be forced to absorb a larger share of cost increases.

In this *US Economics Analyst* we therefore examine evidence regarding price pass-through from three sources of cost pressures—higher labor costs, higher intermediate input prices, and higher corporate tax rates—and their implications for profit margins and price inflation going forward.

The Effect of Rising Labor Costs on Prices

The first cost pressure we consider is rising labor costs. Although the acute wage pressures seen in 2021Q2-Q3 will likely ease as labor shortages improve, we forecast that wage growth will remain firmer than at the end of last cycle and average a bit over 4% in 2022-2024, which is a main reason we expect that inflation will settle moderately above 2% this cycle, above the pace seen last cycle and in line with the Fed's goal under its new framework.

This view assumes that companies pass along some share of their costs along to consumers at a rate roughly consistent with our rule of thumb that a 1pp boost to wage inflation provides a roughly 40bp boost to price inflation over two years. Since compensation of employees totals roughly 55% of GDP, this pass-through rate implies that producers typically absorb some of the cost increase, which lowers margins as a share of GDP by about 0.2pp.

Although it's intuitive that rising labor costs would lead to higher final prices, a sizable literature examining whether wage growth causes price inflation has reached mixed conclusions, largely because wages and prices are typically simultaneously determined, and because there is a limited amount of relevant aggregate data since inflation became anchored at around 2% in the late 1990s.

For a more convincing estimate of the wage-to-price pass-through, we update our prior analysis of a much larger industry-level dataset. We regress the growth rate of an industry's output deflator on the growth rate of either its average weekly wage, unit labor costs, or a smoothed proxy for unit labor costs that divides weekly wages by trend productivity. As shown in the left panel of Exhibit 4, we find strong evidence that wage growth does partly pass through to price inflation.

To provide further evidence on the wage-to-price pass-through, we also conduct a similar set of state-level panel regressions using new state-level price indices constructed from the BLS's underlying price microdata by Emi Nakamura, Jón Steinsson, and coauthors (right panel).[1] These analyses also suggest a very significant, albeit slightly smaller, effect of wage growth on price inflation.

Exhibit 4: Industry- and State-Level Panel Data Show Strong Evidence that Wage Growth Affects Price Inflation

The Effect of Labor Costs on Consumer Prices	A. Industry Regressions			B. State Regressions	
Dependent Variable:	**Output Deflator, %∆YOY**			**CPI, %∆YOY**	
	1	**2**	**3**	**4**	**5**
Weekly Wages (YoY)	0.27 [8.33]**			0.15 [20.75]**	
Trend Productivity (YoY)	-0.39 [-10.41]**			-0.61 [-6.97]**	
Unit Labor Costs, Smoothed Proxy (YoY)		0.32 [12.11]**			
Unit Labor Costs (YoY)			0.10 [7.95]**		0.15 [3.71]**
Observations:	3972	3972	4004	4383	330
R-squared:	0.18	0.16	0.18	0.14	0.13
Sample:	'97-'20	'97-'20	'97-'20	'80-'17	'08-'17
Sector/State Fixed Effects:	x	x	x	x	x

Note: Figures in brackets denote t-statistics.
** Significant at the 1% level. * Significant at the 5% level

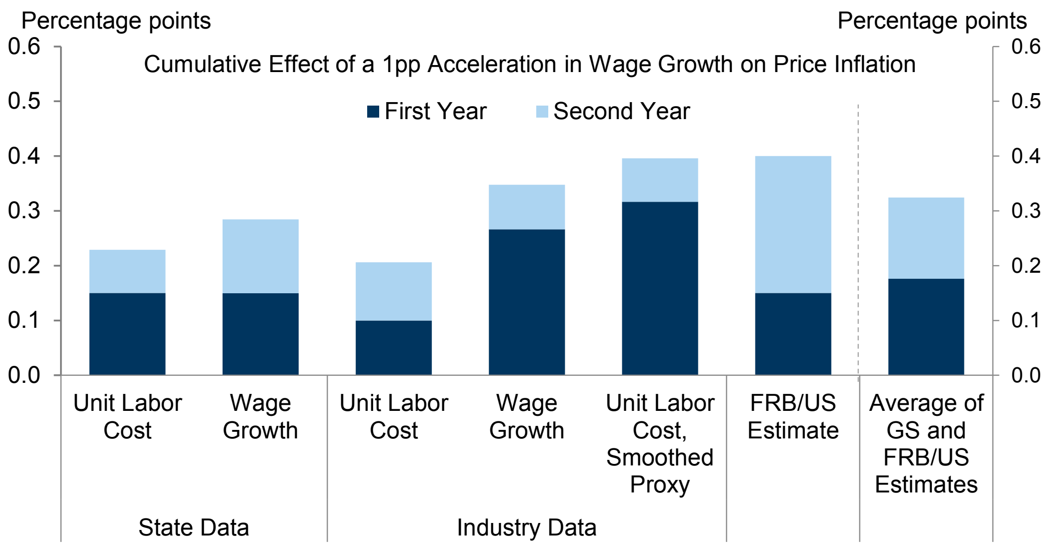
Source: Goldman Sachs Global Investment Research

In Exhibit 5 we summarize the key takeaway from these analyses, including the estimated effect on one-year-ahead price growth, as well as the results from our prior simulations of the FRB/US model. All estimates suggest that a 1pp acceleration in wage growth implies a roughly 0.2-0.4pp acceleration in price inflation after two years, and averaging across estimates suggests around a 35bp cumulative boost, a similar

[1] Hazell, J., Herreno, J., Nakamura, E. and Steinsson, J., 2020. The slope of the Phillips Curve: evidence from US states (No. w28005). National Bureau of Economic Research.

estimate to our standard rule of thumb.

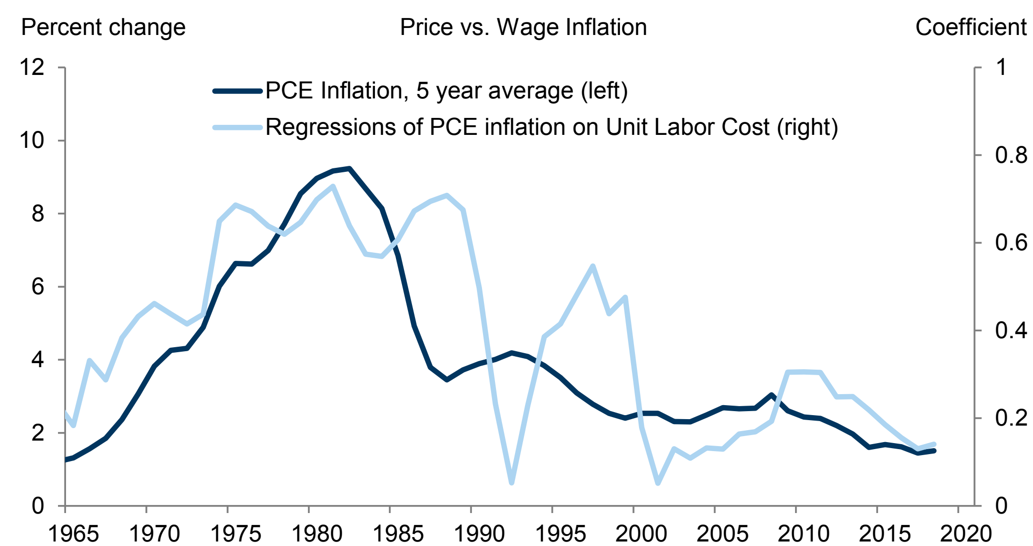
Exhibit 5: Averaging Across Estimates Suggests That a 1pp Increase in Wage Inflation Boosts Price Inflation by About 35bps Over Two Years



Source: Goldman Sachs Global Investment Research

One caveat in applying our analysis is that the pass-through from wages to prices has likely not been constant over time. Exhibit 6 compares the coefficient from a set of rolling regressions of unit labor costs on PCE inflation, which suggest that wage-price-pass-through was much higher in the 70s and 80s, but has moderated since inflation expectations stabilized in the late-1990s. This pattern suggests that the pass-through from wages to prices may be higher in inflationary periods, although the direction of causality is of course hard to determine.

Exhibit 6: Wage-To-Price Pass-Through Has Varied Over Time



Source: Bureau of Economic Analysis, Goldman Sachs Global Investment Research

The Effect of Intermediate Input Costs on Prices

A second cost pressure is rising upstream goods and materials prices. Official price data confirms the rising input costs reported in business surveys (Exhibit 1). For example, the national accounts intermediate inputs price index has risen by over 7% since the start of the pandemic, and the most recent PPI report shows an ever sharper rise, with prices of input goods excluding food and energy for final demand producers increasing by 15% since the start of the pandemic.

Identifying the price effects from intermediate-goods cost increases poses an arguably greater empirical challenge than identifying the price effects from wage growth, since in addition to being simultaneously determined, the pass-through from input costs depends critically on the market structure and the type of shock considered.

The current input cost increases are fairly broad-based and likely affect most firms within a given industry. We therefore turn to an academic literature that evaluates the effect of industry-wide cost shocks on prices to evaluate the likely pass-through rates. As shown in Exhibit 7, these studies suggest that on average over 90% of upstream goods and material cost increases are passed through to final prices after 1-2 years.

Exhibit 7: Academic Research Suggests That Industry-Wide Input Price Increases for Intermediate Goods and Inputs Are Mostly Passed Through to Prices

Academic Estimates of the Pass-Through From Industry-Wide Cost Increases to Consumer Prices		
Study	**Industry/Market**	**Share of Cost Increase Passed Through**
Borenstein Shephard (1998)	Gasoline	Two weeks: 55% Ten weeks: 81%
Leibtag, Nakamura, Nakamura, Zerom (2007)	Coffee	Same quarter: 14% Longer run: 80%
Kim Cotterill (2008)	Processed Cheese	Longer run: 73-103%
Hanson Sullivan (2009)	Cigarettes	Longer run: 108-117%
Nakamura Zerom (2010)	Coffee	Same month: 14% Longer run: 92%
Marion Muehlegger (2011)	Diesel	Longer run: 100%
Fabra Reguant (2014)	Electricity	Longer run: 80%
Miller Osbourne Sheu (2017)	Cement	Longer run: 80%
Muehlegger Sweeney (2021)	Oil Refining	Longer run: 100%
Average	**—**	**90.4%**

Source: Goldman Sachs Global Investment Research

Applying a 90% pass-through rate to the yoy increase in prices of input goods excluding food and energy for final demand producers (+7pp annual average in 2021 vs. trend) and multiplying by a 10% input share suggests around 65bps in upward pressure on price inflation in 2021, and repeating this exercise for 2022 (assuming input prices remain at current level going forward) suggests a cumulative boost to the price level of just under 1pp. In contrast, the cost-burden for corporations implied by this pass-through rate implies roughly a 0.1pp reduction in profit margins as a share of GDP. Rising costs of intermediate goods and materials will therefore likely put upward pressure on prices, but pose less of a threat to corporate profits.

The Incidence of Corporate Tax Increases

A final potential source of pressure on profit margins is that the coming reconciliation bill will likely increase corporate taxes. Although the amount and structure of corporate tax increases included in the final bill will likely change before passing the Senate, corporate taxes seem set to increase, and the average US company would pay around one-fifth more in federal corporate taxes than they otherwise would under current legislative proposals, although the overall tax burden would increase by slightly less.

A number of academic studies on the incidence of corporate tax increases use changes in state-level corporate rates to evaluate the pass-through to labor costs, and generally find that about a third of corporate tax increases are passed through to workers. The most compelling empirical evidence comes from a recent academic study that links point-of-sale price-scanner data, the location of each items' producer, and state-specific tax rate changes to estimate that the incidence of corporate tax increases on consumers, workers and shareholders is 31%, 38% and 31%, respectively (Exhibit 8).[2]

Exhibit 8: Academic Research Suggests that Consumers, Workers, and Business Profits All Bear the Cost of Corporate Tax Increases

Pass-through of Corporate Tax Rates			
Pass-through Type	Study	Details	Estimate
Prices	Baker Sun Yannelis (2020)	Effects of changes in corporate tax rates of states where firms' primary operations are located on barcode-level prices in other states.	Net-of-tax elasticity on prices of 0.17. Around 30% of tax incidence falls on consumers.
Wages and Income	Ljungqvist Smolyansky (2016)	State- and county-level difference-in-differences with matching on neighboring states and counties, using data from 1969 to 2013	Top-statutory-tax-rate elasticity of income between -0.3 and -0.6 for tax increases, while only finding a significant effect for tax cuts if enacted during a recession.
	Caroll (2009)	Pooled cross-sectional state data from 1970 through 2007 for the top and average corporate tax rate and for average hourly earnings.	Top-statutory-tax-rate elasticity of wages of -0.14, average-tax-rate elasticity of wages of -0.01.
	Hassett Mathur (2006)	Cross-country regression from 1981 to 2005 for 65 countries using the five-year average manufacturing hourly wage and the top statutory tax rate.	Top-statutory-tax-rate elasticity of manufacturing wages between -0.3 and -1.
General Equilibrium and Welfare	Suarez Serrato Zidar (2016)	Spatial equilibrium model with imperfectly-mobile firms and workers.	Business owners bear 40%, labor bears 30-35%, and landowners bear 25-30% of the incidence respectively.
	Harberger (2008)	Large open economy model with perfect international capital mobility, and traded and nontraded corporate and noncorporate sectors.	Domestic labor bears between 96-130% of the tax burden, while domestic capital bears 12-14%

Source: Goldman Sachs Global Investment Research

In Exhibit 9 we check these findings using a set of state-level panel regressions using the same price and wage data from Exhibit 4, but also using state-level corporate tax rate changes. In the left panel, we find that corporate tax increases are associated with an acceleration in price inflation and that the effect is larger for non-tradeable output with locally set prices, although the effect is not statistically significant in either regression. In the right panel, we find that increases in state-level corporate tax rates are associated with statistically-significant negative effects on wage growth.

[2] Baker, Scott R., Stephen Teng Sun, and Constantine Yannelis. "Corporate taxes and retail prices". No. w27058. National Bureau of Economic Research, 2020.

Exhibit 9: State-Level Panel Regressions Imply a Statistically Significant Decline in Wages and a Statistically Insignificant Increase in Consumer Prices Following an Increase in State Corporate Tax Rates

Effect of Corporate Tax Changes on Prices and Wages			
	Prices		Wages
Dependent Variable:	%∆CPI, Overall	%∆CPI, Non-Tradeable	%∆UWW
	1	2	3
∆ Corporate Tax Rate (pp)	0.02 [0.56]	0.05 [1.02]	-0.22 [-2.66]**
U3	-0.05 [-1.30]	-0.02 [-0.53]	-0.45 [-8.76]**
Lagged Dependent Variable	0.060 [1.84]	0.07 [2.18]	0.010 [0.72]
Observations:	1080	1080	1068
R-squared:	0.54	0.46	0.75
Sample:	81-'17	81-'17	81-'17
State Fixed Effects	x	x	x

Note: Figures in brackets denote t-statistics.
** Significant at the 1% level.

Source: Goldman Sachs Global Investment Research

Our estimates are broadly consistent with the aforementioned academic studies, and therefore support the view that the incidence of corporate tax increases falls roughly evenly on consumers, workers, and corporate shareholders. Under this assumption, the proposed tax increases would result in about a 2% reduction in profits or around 15bps of margin compression in the national accounts, although—as recently noted by our portfolio strategy team—the hit to profits among S&P 500 and other large firms would likely be a bit larger due to their larger exposure to the proposed tax hikes.

Adding Up the Effects on Prices and Margins

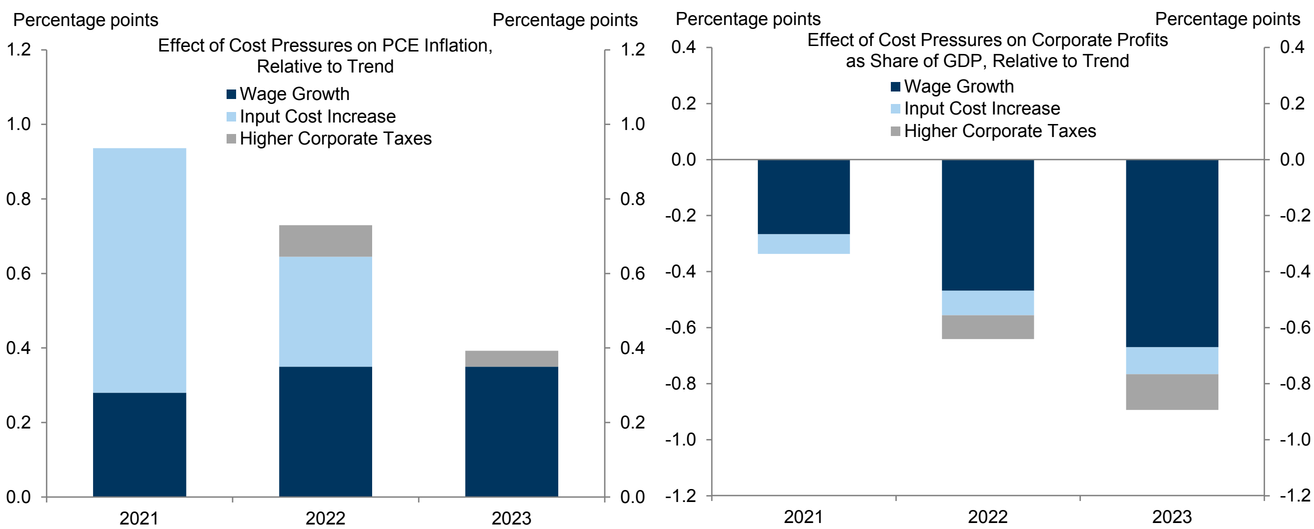
Exhibit 10 combines the pass-through rates for wage growth, input costs, and corporate tax changes with our wage growth forecast, observed changes to goods and material excluding food and energy prices in 2020 and 2021, and our expected tax increases to estimate the impact on price inflation and profit margins.

In the left chart, we estimate that cost pressures have boosted inflation by around 0.9pp in 2021 relative to trend,[3] although the boost will ease sequentially to 0.7pp in 2022 and 0.4pp in 2023. Furthermore, our analysis suggests that pass-through from input cost increases and firmer wage growth are both contributing to near-term inflation pressures, but firmer wage growth will account for most of the remaining pressure in 2023.

[3] Our price growth trend assumes 3% wage growth, 2% growth in intermediate input prices, and no change in corporate tax rates.

In the right chart, we estimate that cost pressures will lower national accounts profit margins by around 0.3pp in 2021, 0.6pp in 2022, and 0.9pp in 2023, with the hit to margins mostly reflecting labor cost increases, since most other cost increases will ultimately be passed through to prices. Our finding that rising labor costs present the biggest threat to profit margins suggests that profits for larger public companies will outperform the broader corporate sector due to lower exposure to labor costs, and is consistent with the view from our portfolio strategy team that companies with greater exposure to rising wage bills will underperform in 2022.

Exhibit 10: We Estimate Cost Pressures Will Boost Inflation Relative to Trend by 0.9pp/0.7pp/0.4pp and Lower Profit Margins by 0.3pp/0.6pp/0.9pp in 2021-2023



Source: Goldman Sachs Global Investment Research

Joseph Briggs

The US Economic and Financial Outlook

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

	2019	2020	2021 (f)	2022 (f)	2023 (f)	2024 (f)	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4
OUTPUT AND SPENDING														
Real GDP	2.3	-3.4	5.6	4.2	2.1	2.2	6.3	6.7	2.1	6.0	4.5	4.0	3.0	1.8
Real GDP (annual=Q4/Q4, quarterly=yoy)	2.6	-2.3	5.3	3.3	1.9	2.3	0.5	12.2	4.9	5.3	4.8	4.1	4.4	3.3
Consumer Expenditures	2.2	-3.8	8.0	3.7	2.1	2.2	11.4	12.0	1.7	5.2	3.5	3.0	2.0	2.0
Residential Fixed Investment	-0.9	6.8	9.2	0.9	2.6	2.0	13.3	-11.7	-8.3	2.7	4.0	4.0	3.0	3.0
Business Fixed Investment	4.3	-5.3	7.5	4.6	3.6	3.7	12.9	9.2	1.5	4.4	6.1	4.4	4.0	3.4
Structures	2.1	-12.5	-7.7	0.0	2.0	2.6	5.4	-3.0	-5.0	-2.2	2.0	2.0	2.0	2.0
Equipment	3.3	-8.3	13.2	4.9	2.8	2.8	14.1	12.2	-2.4	5.1	8.0	5.0	4.0	2.5
Intellectual Property Products	7.2	2.8	10.0	6.6	5.0	5.2	15.6	12.5	9.3	7.0	6.0	5.0	5.0	5.0
Federal Government	3.8	5.0	0.9	-1.8	-0.8	-0.1	11.3	-5.3	-4.9	-1.0	-1.0	-1.0	-1.0	-1.0
State & Local Government	1.3	0.9	0.5	2.3	1.6	1.0	-0.1	0.2	4.7	0.8	2.5	2.5	2.5	2.5
Net Exports ($bn, '12)	-905	-943	-1,275	-1,384	-1,354	-1,322	-1226	-1245	-1312	-1319	-1356	-1384	-1396	-1401
Inventory Investment ($bn, '12)	75	-42	-81	149	105	60	-88	-169	-73	5	80	150	190	175
Industrial Production, Mfg.	-2.0	-6.6	6.5	5.5	2.3	1.8	2.8	4.9	4.7	7.8	6.3	5.2	3.7	2.3
HOUSING MARKET														
Housing Starts (units, thous)	1,292	1,397	1,613	1,680	--	--	1,599	1,588	1,555	1,711	1,693	1,667	1,637	1,723
New Home Sales (units, thous)	683	828	818	910	933	927	896	737	713	925	933	894	867	944
Existing Home Sales (units, thous)	5,327	5,658	6,070	6,159	6,247	6,324	6,303	5,833	6,057	6,087	6,117	6,146	6,175	6,200
Case-Shiller Home Prices (%yoy)*	3.4	9.9	15.4	9.8	7.5	5.9	11.7	15.9	15.3	15.4	13.3	11.3	10.5	9.8
INFLATION (% ch, yr/yr)														
Consumer Price Index (CPI)**	2.3	1.3	6.8	3.1	2.6	2.5	1.9	4.8	5.3	6.6	6.7	5.6	4.7	3.4
Core CPI **	2.2	1.6	5.4	3.3	2.6	2.5	1.4	3.7	4.1	5.0	5.9	4.9	4.4	3.6
Core PCE** †	1.6	1.5	4.5	2.3	2.1	2.2	1.7	3.4	3.6	4.4	4.4	3.5	3.0	2.4
LABOR MARKET														
Unemployment Rate (%)^	3.6	6.7	4.2	3.5	3.3	3.2	6.0	5.9	4.8	4.2	3.9	3.7	3.5	3.5
U6 Underemployment Rate (%)^	6.8	11.7	7.7	6.7	6.3	6.1	10.7	9.7	8.5	7.7	7.2	7.0	6.8	6.7
Payrolls (thous, monthly rate)	168	-785	570	223	127	99	518	615	629	519	317	230	180	167
Employment-Population Ratio (%)^	61.0	57.4	59.2	59.9	60.0	59.9	57.8	58.1	58.9	59.5	59.5	59.7	59.8	59.9
Labor Force Participation Rate (%)^	63.3	61.5	61.9	62.1	62.0	61.9	61.5	61.6	61.6	61.9	61.9	62.0	62.0	62.1
GOVERNMENT FINANCE														
Federal Budget (FY, $bn)	-984	-3,129	-2,800	-1,200	-1,250	-1,300	--	--	--	--	--	--	--	--
FINANCIAL INDICATORS														
FF Target Range (Bottom-Top, %)^	1.5-1.75	0-0.25	0-0.25	0.75-1	1.25-1.5	1.75-2	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0.25-0.5	0.5-0.75	0.75-1
10-Year Treasury Note^	1.92	0.93	1.70	2.00	2.40	2.45	1.74	1.45	1.52	1.70	1.80	1.90	1.95	2.00
Euro (€/$)^	1.12	1.22	1.13	1.18	1.22	1.25	1.17	1.18	1.16	1.13	1.15	1.16	1.17	1.18
Yen ($/¥)^	109	103	115	111	107	104	111	111	112	115	114	113	112	111

* 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.

Source: Goldman Sachs Global Investment Research

Economic Releases

Date		Time (ET)	Indicator	Estimate GS	Estimate Consensus	Last Report
Mon	**Nov 29**	**10:00**	**Pending Home Sales (October)**	**+1.0%**	**+0.8%**	**-2.3%**
		10:30	Dallas Fed Manufacturing Index (November)	n.a.	17.0	14.6
Tue	**Nov 30**	9:00	FHFA House Price Index (September)	n.a.	+1.2%	+1.0%
		9:00	**S&P/Case-Shiller Home Pirce Index (September)**	**+1.1%**	**+1.25%**	**+1.17%**
		9:45	**Chicago PMI (November)**	**68.4**	**67.0**	**68.4**
		10:00	**Consumer Confidence (November)**	**113.0**	**110.7**	**113.8**
Wed	**Dec 01**	**8:15**	**ADP Employment (November)**	**+500k**	**+525k**	**+571k**
		9:45	Markit US Manufacturing PMI (November final)	n.a.	59.1	59.1
		10:00	**Construction Spending (October)**	**+0.2%**	**+0.4%**	**-0.5%**
		10:00	**ISM Manufacturing (November)**	**61.4**	**61.1**	**60.8**
		17:00	**Lightweight Motor Vehicle Sales (November)**	**13.5M**	**13.4M**	**13.0M**
Thu	**Dec 02**	**8:30**	**Initial Jobless Claims**	**240k**	**250k**	**199k**
			Continuing Claims	n.a.	2,000k	2,049k
Fri	**Dec 03**	**8:30**	**Nonfarm Payrolls (November)**	**+550k**	**+535k**	**+531k**
			Private Payrolls (November)	**+550k**	**+525k**	**+604k**
			Unemployment Rate (November)	**4.5%**	**4.5%**	**4.6%**
			Average Hourly Earnings (November)	**+0.5%**	**+0.4%**	**+0.4%**
			Labor Force Participation Rate (November)	n.a.	61.7%	61.6%
		9:45	Markit US Services PMI (November final)	n.a.	57.0	57.0
		10:00	**ISM Services (November)**	**64.7**	**65.0**	**66.7**
		10:00	**Factory Orders (October)**	**+0.4%**	**+0.5%**	**+0.2%**

Source: Goldman Sachs Global Investment Research

Disclosure Appendix

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We, Jan Hatzius, Alec Phillips, David Mericle, Spencer Hill, CFA, Joseph Briggs and Ronnie Walker, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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