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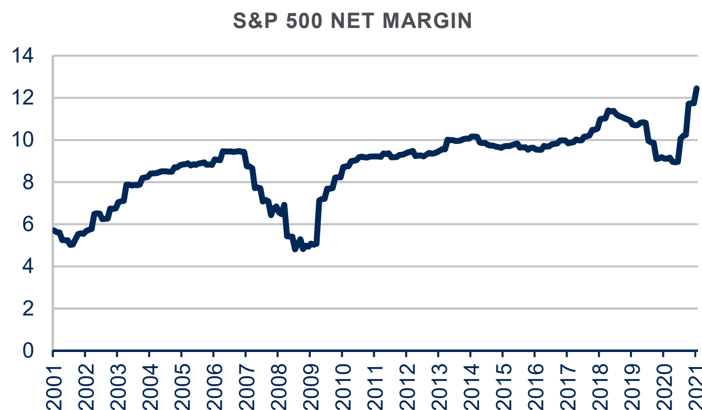
RESEARCH NOTE

Rising Inflation is Not All Bad News for Profit Margins

Analysis of historical S&P 500 data shows which sectors benefit is a high-inflation, high-growth environment.

Kathryn Asher, New York, and Matteo Cominetta, London

Concerns over companies' profit margins continue to mount as the U.S. economy faces the highest inflation since the 1980s. However, we find that some sectors' margins actually *increase* in high-inflation environments; this is the case for energy, materials, industrials, and consumer staples. We also have determined that inflation's effect on margins depends on economic growth. Communication, energy, industrials, materials, and consumer discretionary are the biggest beneficiaries in a high-growth, high-inflation scenario. At the other end of the spectrum, utilities, health care, and IT sectors generally see their margins suffer with inflation, irrespective of growth rates. So far, healthy U.S. consumer balance sheets have allowed the overall S&P 500 net margins to reach a record high. However, what protects companies hurts consumers, and with risks to consumer spending and growth mounting, something will have to give. We look to the historical performance of S&P 500 profit margins by sector to understand what the impact of this trade-off may be in different growth and inflation regimes.



Source: FactSet. As of February 2022.

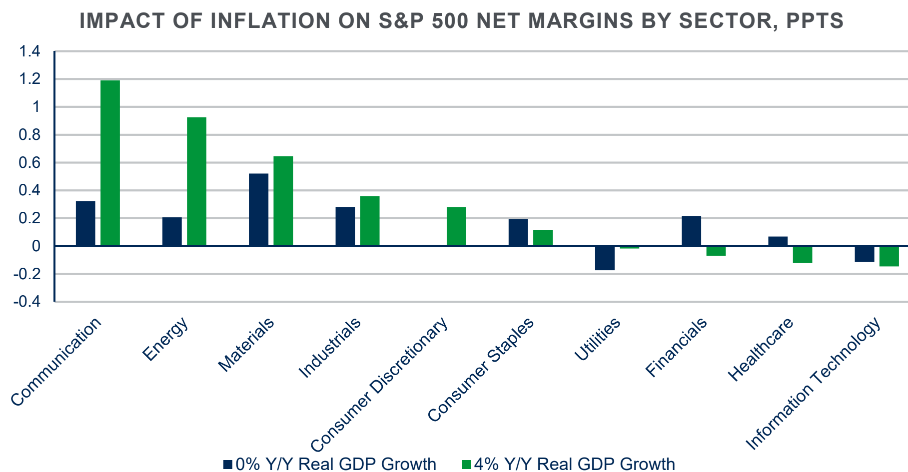
When growth is strong, inflation aids aggregate S&P 500 profit margins

A regression analysis utilizing data on net profit margins from 2002 to 2019 for the S&P 500 index shows that, ceteris paribus, **when real GDP growth is above 3% Y/Y, rising inflation does not hurt net margins.** This is due to the fact that inflation is materializing in the context of a booming economy, and a booming economy is good for profit margins, as it likely gives firms room to pass on higher prices to consumers. Confirming this intuition, we find that **when GDP growth is below 3% Y/Y, higher inflation is associated with lower profit margins**. The results also show that rising wage growth that supports demand then comes back to weigh on profit margins through higher production costs. Given the

global nature of companies in the S&P 500, a stronger U.S. dollar weighs on margins, as it hurts their competitiveness. Given the incredible noise during the COVID crisis, we focused on the more stable period prior to the pandemic, as we do not think the pandemic has fundamentally changed the relationship between growth, inflation, and margins.

Some sectors see rising inflation boosting profit margins

Using monthly historical data from 2002-2019, our results show that, **while profit margins of some sectors suffer in a high-inflation, high-growth environment, others actually expand**.



Source: FactSet, Bloomberg, and Barings calculations. As of February 2022.

In fact, **rising inflation positively contributes to profit margins for the materials, energy, industrials, and consumer staples sectors, at all levels of GDP growth**. At first, it may seem counterintuitive that profit margins could increase when inflation rises regardless of growth. However, for the materials, energy, and industrials sectors, it is likely because inflation is often driven or accompanied by higher commodity prices, and higher prices for these goods actually boosts revenues of these sectors' firms more than they boost costs, which are relatively fixed. Consumer staples, which represent essential goods, will be in demand by consumers regardless of the business cycle. A less-elastic demand provides companies in this sector relatively more pricing power, protecting profit margins.

As for growth, this also has very different impacts on different sectors' margins. Cyclical sectors such as financials and materials see their margins improve more than those of defensive sectors, such as consumer staples and health care, as growth accelerates.

Growth interacts with inflation, influencing margins. Our results show that **when growth is strong, the positive impact of inflation is magnified for the communications, energy, industrial, materials, and consumer discretionary sectors. For all other sectors, we find instead that inflation becomes less beneficial to margins when associated with high growth.** Financials and health care sectors see their margins declining in a high-growth, high-inflation scenario.

Finally, the impact of inflation is not statistically significant for profit margins in the utilities and information technology sectors. For utilities, many firms in this sector generally must deal with regulated prices. For IT, the high margins may make these companies less sensitive to inflation.

Given concerns about wage growth in a very tight labor market, we zoomed in on this issue and found that rising wages have the largest adverse impact on margins in the financials and consumer discretionary sectors—given consumer firms see some of the greatest exposure to labor costs.

Overall, with high inflation likely to prevail in the U.S. this year and next, our analysis allows us to identify which equity sectors' profit margins should perform better in different growth-inflation mixes. Regardless of how growth evolves, companies that have better pricing power should prove more resilient, as should those for the energy, materials, industrials, and consumer staples sectors. Moreover, while rising wages boost input costs, particularly for labor-intensive sectors, higher wages support demand, which benefits those sectors less reliant on labor as an input.

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Appendix – Regression Analysis

For the regressions discussed on overall S&P 500 net margins, we ran two separate regressions. The first included data from 2002 to 2019; the second included data from 2002 to 2021. We ran an OLS model with Newey-West standard errors to correct for autocorrelation, regressing the year-ago change in S&P 500 net margins on Y/Y percent change in U.S. CPI, Y/Y percent change in U.S. real GDP, the interaction of the CPI and real GDP variables, Y/Y percent change in wages, and the year-ago difference in the U.S. dollar index. The regression results are presented below:

Sample from 2002-2019

Regression with Newey-West standard errors
maximum lag: 1

Number of obs = 206
F(5, 200) = 63.52
Prob > F = 0.0000

SP500NetMarginYYD~f	Coef.	Newey-West Std. Err.	t	P>|t|	[95% Conf.	Interval]
CPIYoY	-.1517526	.0775586	-1.96	0.052	-.3046901	.0011849
CPIRealGDP	.0476794	.0196408	2.43	0.016	.0089498	.0864091
USRealGDPYoY	.4678424	.044079	10.61	0.000	.3809233	.5547616
USDollarIndexYYDiff	-.0204422	.010531	-1.94	0.054	-.0412082	.0003238
WageGrowthYoY	-.4896139	.1376879	-3.56	0.000	-.7611201	-.2181077
_cons	.965387	.4559994	2.12	0.035	.0662036	1.86457

Sample from 2002-2021

Regression with Newey-West standard errors
maximum lag: 1

Number of obs = 229
F(5, 223) = 7.52
Prob > F = 0.0000

SP500NetMarginYYD~f	Coef.	Newey-West Std. Err.	t	P>|t|	[95% Conf.	Interval]
CPIYoY	.0678181	.127627	0.53	0.596	-.1836911	.3193274
CPIRealGDP	-.0252696	.031681	-0.80	0.426	-.0877022	.0371629
USRealGDPYoY	.2998175	.0726797	4.13	0.000	.1565907	.4430444
USDollarIndexYYDiff	-.0103736	.0129013	-0.80	0.422	-.0357975	.0150504
WageGrowthYoY	-.405097	.1451621	-2.79	0.006	-.691162	-.1190321
_cons	.9525146	.5270175	1.81	0.072	-.0860572	1.991086

Similar models were used for the sector-level regressions using the sample between 2002 and 2019. We ran separate regressions for each sector, regressing the respective sectors' year-ago change in net margins on Y/Y percent change in U.S. CPI, Y/Y percent change in U.S. real GDP, the interaction of the CPI and real GDP variables, Y/Y percent change in wages, and the year-ago difference in the U.S. dollar index, using Newey-West standard errors to correct for autocorrelation.

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