When Stocks and the Economy Diverge

Do you find it puzzling when a bleak economic report emerges from the press, only to be accompanied by a positive surge in the stock market? You're not alone. The last few weeks have produced many examples of a stark contrast between stock market performance and economic indicators. So why the apparent disconnect?

Markets are forward-looking, meaning current asset prices reflect market participants' aggregate expectations. Those expectations include whatever future economic developments are anticipated and their potential impact on cash flows, which are key to a stock's value. For example, if the market expects the economic environment to weaken company cash flows, stock markets may react well in advance of when we observe the impact on cash flows, as expectations are embedded in prices. And the eventual direction of the stock market will depend on how the economic outcome compares to expectations. If things aren't as bad as expected, poor economic news can be greeted with a positive stock reaction.

LOOKING AHEAD

We can see this anticipatory nature of markets in action by looking at the relation between US gross domestic product (GDP) growth and equity premiums, or stock market returns in excess of one-month US Treasury bills. When annual US equity premiums are plotted against GDP growth for the same year (top panel of **Exhibit 1**), there is no discernable relation between the two. Changes in GDP have not been strongly related to simultaneous stock market returns.

It's important to note that this result does not imply financial markets ignore macroeconomic data. After all, GDP encompasses several measures of the economy, not just corporate profits. However, while GDP may be an imprecise representation of the activities that ultimately drive stock prices, further analysis shows that is not the sole cause for the lack of relation between GDP growth and simultaneous equity premiums.

Plotting GDP growth against the previous year's equity premium (bottom panel of **Exhibit 1**) reveals a noticeable relation. The positive trend in the data suggests market prices have in fact reacted to changes in GDP but have done so in advance of these economic developments coming to fruition. This result is consistent with markets pricing in their expectation of economic growth.

Exhibit 1

Plot Development
US equity premium vs. GDP Growth, 1930-2019

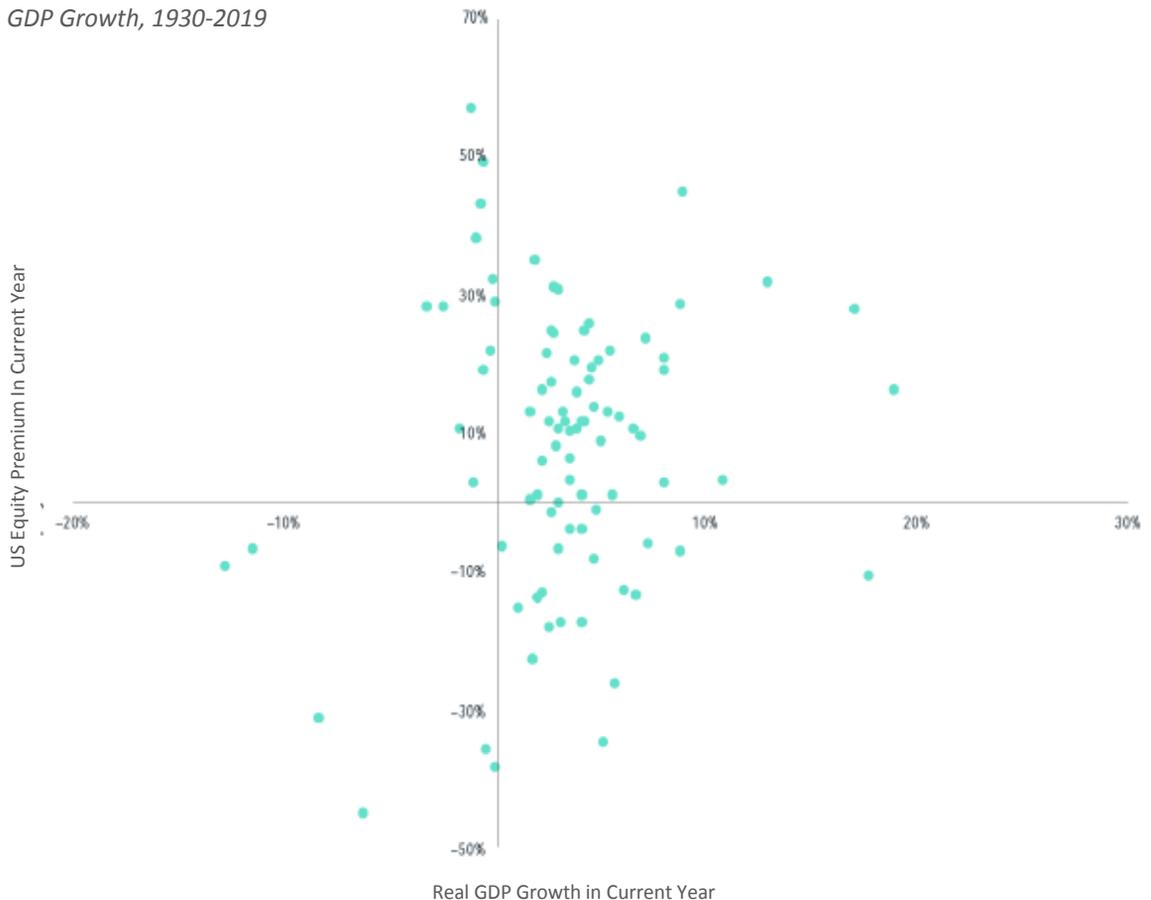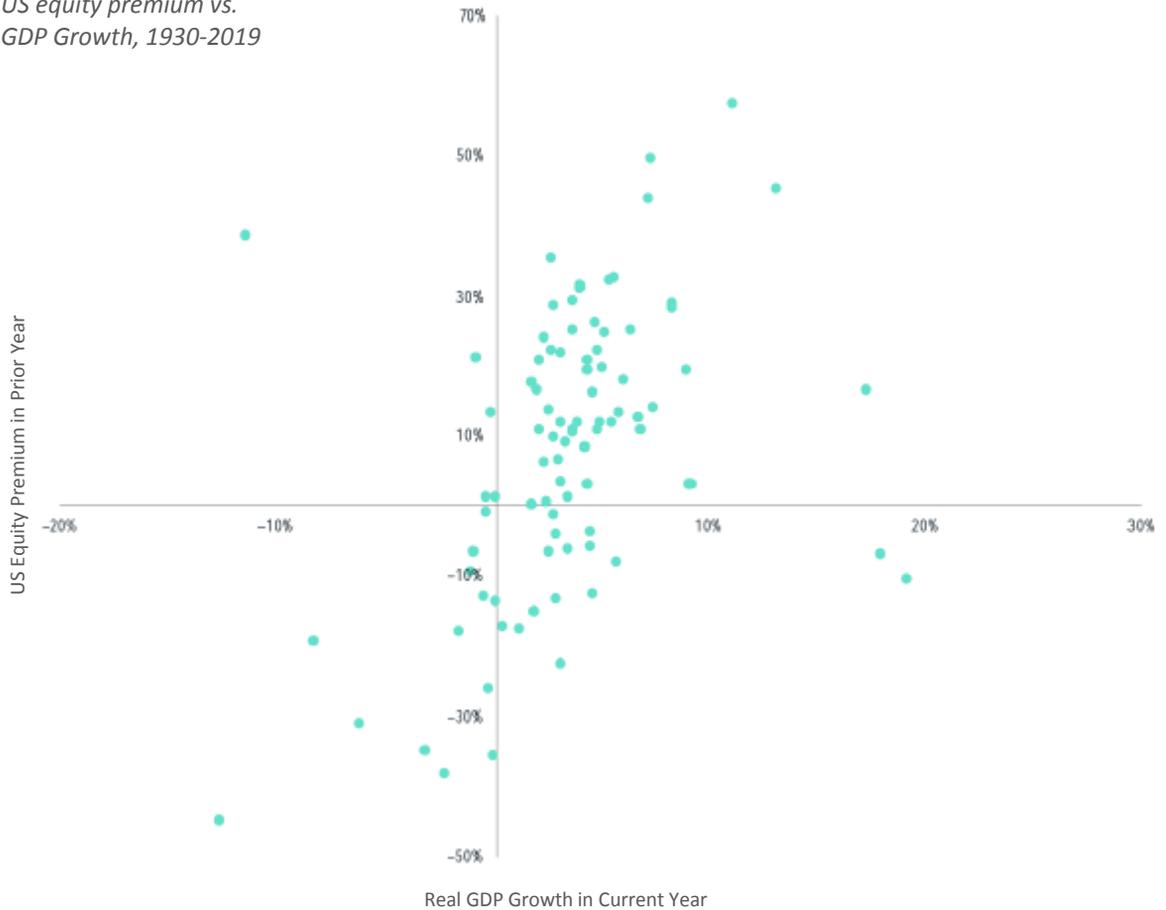Panel A: Equity Premium in Same Year as GDP Growth

US Equity Premium In Current Year

Real GDP Growth in Current Year

Exhibit 1 (Cont.)
Plot Development
US equity premium vs. GDP Growth, 1930-2019

Panel B: Equity Premium in Year Before GDP Growth

That brings us to the latest news headline worrying some investors: the eventual fallout from increasingly large US government expenditures designed to ease the economic burden of the COVID-19 pandemic. Will these efforts ultimately create a financial burden for the US government that affects future stock returns?

The results in **Exhibit 2** should help allay concerns over the debt level impacting equity market performance. When we sort countries each year on their debt-to-GDP for the prior year (top panel), average annual equity premiums have been slightly higher for high debt countries than low-debt countries in both developed and emerging markets. However, the return differences' small t-statistics—a measure of the precision of a value's estimate – suggest these averages are not reliably different from one another.[1]

The top panel uses prior year debt-to-GDP data to sort countries into the high/low groups. But investors may be more focused on where they expect the debt to end up, rather than on where it's been. In the bottom panel of Exhibit 2, we rank countries on debt-to-GDP at the end of the current year, assuming perfect foresight of end-of-year debt levels. Again, average equity premiums have been similar for high- and low-debt countries. Like the results for GDP growth, these results imply that markets have generally priced in expectations for future government debt.

Exhibit 2

Debt Defying
Average equity premiums for countries sorted on debt

	Developed Markets (1975–2018)	Emerging Markets (1995–2018)
Prior Year Debt/GDP		
High-Debt Countries	8.14%	10.42%
Low-Debt Countries	6.57%	8.68%
Difference	1.57%	1.74%
t-statistic	0.63	0.49
Same Year Debt/GDP		
High-Debt Countries	7.94%	8.28%
Low-Debt Countries	7.06%	9.22%
Difference	0.88%	−0.94%
t-statistic	0.41	−0.25

[1]Researchers often cite a t-statistic value of 2.0 as the threshold for statistical reliability.

Past performance is not a guarantee of future results.
All returns in USD. Countries are sorted at the beginning of each year. High-Debt and Low-Debt refer to countries above and below the median debt, respectively. Debt is general government debt and central government debt. Source: The International Monetary Fund. Equity market returns represented by MSCI country indices. Dimensional calculations from Bloomberg and MSCI data. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.
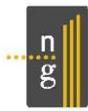
MARKETS AT WORK

Macroeconomic variables and investment decisions are like frozen turkeys and deep fryers—caution should be exercised when combining the two. The results presented here are consistent with markets aggregating and processing vast sets of macroeconomic indicators and expectations for those indicators. By incorporating this information into market prices, we believe public capital markets effectively become the best available leading macroeconomic indicator.

GLOSSARY

Macroeconomic data: Data used to measure the output of an economy, such as employment or production.

Gross domestic product: The total value of goods and services produced by, for example, a country over a set period of time.

Debt-to-GDP: The ratio of a company's debt to its gross domestic product.

Fama/French Total US Market Research Index: The value-weighed US market index is constructed every month, using all issues listed on the NYSE, AMEX, or Nasdaq with available outstanding shares and valid prices for that month and the month before. Exclusions: American depositary receipts. Sources: CRSP for value-weighted US market return. Rebalancing: Monthly. Dividends: Reinvested in the paying company until the portfolio is rebalanced.

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