



A Tune-Up for the U.S. Innovation Engine

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A common mantra of economists and politicians is that “innovation is the engine of U.S. economic growth,” and one of the best fuels for that engine is investments in research and development (R&D). [One study](#) estimated that for every one percent increase in R&D spending as much as \$122 billion in 2017 dollars is added to the U.S. economy. However, with stagnant gross domestic R&D spending over the last decade and anemic productivity and wage growth, many economists feel that the U.S. innovation engine is due for a tune-up.

Proponents of the 2018 tax reform bill will point out that the large cut in the corporate tax rate is just what is needed to boost the economy. By reducing the nominal tax rate from 35% to 21 percent, companies will have more money in their pockets for investments like R&D. But is that really how companies will spend their tax windfall? A [study of corporate investments after the 2004 tax holiday](#) revealed that U.S. firms spent the vast majority (84 percent) of their tax windfall on two things: stock

buybacks (37 percent) and mergers and acquisitions (47 percent). Firms choose overwhelmingly to engage in these two activities in an effort to increase shareholder value, so just how beneficial are they to jumpstarting U.S. innovation?

When firms engage in stock buybacks they are purchasing their own stock to reduce the number of total available shares and thereby increase their stock price. At first glance it might seem that boosting stock prices would be a good thing for the economy—but however, the stock market isn't the economy. Buybacks are great for major shareholders such as the C-suite (i.e., top senior executives) and large institutional investors, but in practice they are a [poor substitute for increasing worker's wages](#) and is a lost opportunity for firms to invest in equipment and R&D that would rev up the innovation engine.

The other preferred method for increasing shareholder value is market consolidation through mergers and acquisitions (M&As). In an industry with many competing firms, M&As can be beneficial in streamlining cost structures, acquiring key intellectual property, or eliminating rivals. However, as the field becomes more consolidated, shrinking competitive forces can create a business environment that stifles innovation. In a recent [Harvard Business Review report of M&As](#) in the pharmaceutical industry, researchers found that there was a 30 percent reduction in R&D spending and patent filings in post-merger firms. This consolidation also had a considerable spillover effect on competing firms not involved with the merger which exhibited a seven percent reduction in R&D spending and patents filings.

Despite these findings, stock buybacks and market consolidation through M&As are on the rise. American companies have so far spent over \$171 billion on buybacks since January 1, 2018. The [total number of deals in the high tech industry](#), for instance, has increased by nine percent since 2012 and it is the deals greater than \$500M that have shown the greatest growth by volume. These activities have been effective at boosting stock prices but have done little to address the [slow growth in worker productivity](#).

To be fair, responsibility for U.S. innovation should not rest on the private sector alone. Despite a decline in federally funded R&D over the past 30 years, the private sector has more than compensated for that decline with increased private sector R&D spending over the same period. Although the types of activities funded by the private sector are different from the federal government, we need to recognize the evolving role of the private sector in U.S. innovation and start a discussion on how to strike the right balance.

Image: Yan Zheng

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