

## Creative destruction and productivity

As economists like to say, “assume” there is a factory producing a certain amount of output using a given amount of inputs such as capital and labor. Suppose there is demand for more of this particular output. What can be done? Perhaps enlarge the factory and increase the inputs accordingly. Or build a second factory and supply it with the needed inputs. But what about increasing the output of the factory without using any more of a particular input, say, labor? Can that be done? The question that is asked of manufacturers can also be asked of retail stores: can they sell more products with the same amount of labor? In many cases, the answer is yes. When more output is obtained with an unchanged input of labor, labor productivity has increased. Growth in productivity can result in a rising standard of living.

In the United States, labor productivity—measured as a ratio of output per hour of labor—has, except for some slight downturns during recessions, increased steadily for decades. However, the Nation’s aggregate measure of labor productivity does not apply equally to individual firms. Just as the unemployment rate varies from location to location, and the unemployment rate for the Nation as a whole may not adequately describe areas with unemployment rates significantly different than the national rate, so the Nation’s aggregate growth in labor productivity does not describe every firm. Firms vary from one another: their managerial philosophy, use of technology, organizational structure, size, knowledge, location, and other

factors are different. Thus their ability to adapt new ideas and respond to changing market conditions also varies. Look at the aggregate measure of labor productivity for the Nation as a whole, and one misses something that economists such as Joseph Schumpeter held to be an essential part of capitalism: the “creative destruction” that is the birth and death of individual firms. The theory of creative destruction has intrigued economists for decades, but data which allow the theory to be tested have only become available in recent years.

In “Creative Destruction and Aggregate Productivity Growth” (*Business Review*, Third Quarter 2008, Federal Reserve Bank of Philadelphia) Shigeru Fujita makes the case for analyzing productivity at certain types of establishments, comparing their productivity measures to the Nation’s aggregate, and calculating how much each type of establishment contributes to overall growth in productivity. The types of establishments are defined as those that are extant throughout an entire period for which the aggregate productivity is known, those that changed in size during the period, and those that came into existence or ceased to exist during the period

Among the findings is that entry of new establishments accounted for 30 percent of productivity growth in manufacturing over the 1977–87 period, whereas the largest share of productivity growth came from establishments that existed throughout the period. Furthermore, the data show that firms that did not survive from the beginning to the end of the period showed markedly lower productivity than those that did survive. This evidence is consistent with the theory

of creative destruction. Higher productivity, the result of innovation, in new and existing establishments spurs other establishments to improve their own production methods—or face the dismal consequences.

In retail trade the share of productivity growth due to new establishments is markedly higher: 98 percent. Retail trade is characterized by two things: the births of new establishments belonging to existing firms that are expanding into new locations, that is, new retail chain stores; and the death of establishments accompanying the death of the parent firm. Large chains with retail establishments throughout the Nation possess significantly higher levels of productivity than firms that operate a single retail establishment. One study cited by Fujita found that establishments operating nationally are about 24 percent more productive than single-unit firms.

This study affirms the importance of the process of creative destruction in shaping the aggregate measure of labor productivity and in the U.S. economy; those establishments, whether they are new or old, that creatively find ways to increase productivity will thrive, and eventually displace and destroy older and less productive establishments. □

We are interested in your feedback on this column. Please let us know what you have found most interesting and what essential readings we may have missed. Write to: Executive Editor, *Monthly Labor Review*, Bureau of Labor Statistics, Washington, DC 20212, or e-mail, [mlr@bls.gov](mailto:mlr@bls.gov)