

RESEARCH BRIEF

What Happened to US Business Dynamism?

Based on BFI Working Paper No. 2019-55, "[Ten Facts on Declining Business Dynamism and Lessons from Endogenous Growth Theory](#)," and BFI Working Paper No. 2019-56, "[What Happened to US Business Dynamism?](#)" by [Ufuk Akcigit](#), Professor in Economics and the College, the Kenneth C. Griffin Department of Economics, University of Chicago; and [Sina T. Ates](#), Economist, Federal Reserve Board

KEY TAKEAWAYS

- ✓ In a healthy market economy, new businesses form every year and others fail
- ✓ This business dynamism ensures that resources, including labor, are allocated to their most efficient use
- ✓ Since 1980, though, and especially since 2000, business dynamism in the US has been declining
- ✓ Of the many symptoms and likely causes of this phenomenon, new research finds that a steady decrease in knowledge diffusion—or transfer of information and technological advances from one firm to another—accounts for at least half of the decrease

Competition, whether in sports or in the arts or in business, can spur players to perform better than they otherwise would. Take two runners, for example; if there is a large gap between the two, then the one falling behind is likely to slow down since there is no hope for winning, while the one in the lead may also relax as victory is ensured. In both cases, neither is performing as well as she could.

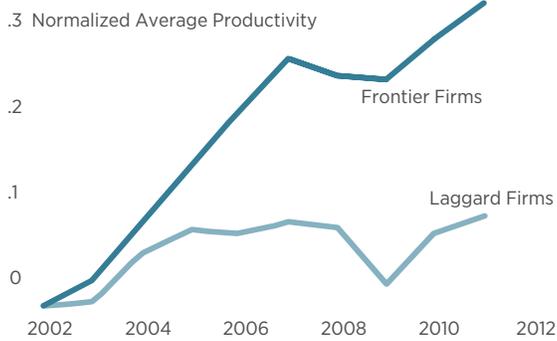
On the other hand, imagine those two running neck-and-neck to the finish line. In that case, both perform at their best and the outcome—the race itself—is better for them and for everyone involved, from the race sponsors to the spectators.

The same is often true in competition among businesses. A large market leader, for example, could effectively stifle competition by its sheer size, rendering younger and smaller firms hopeless and dissuading entrants into the market. Further, large firms can use their resources to prevent the growth of a followers by purchasing promising patents and then stifling the technology. In such a case, those firms—and the broader economy—are worse off, as neither benefits from the technological advance and overall productivity is restricted.

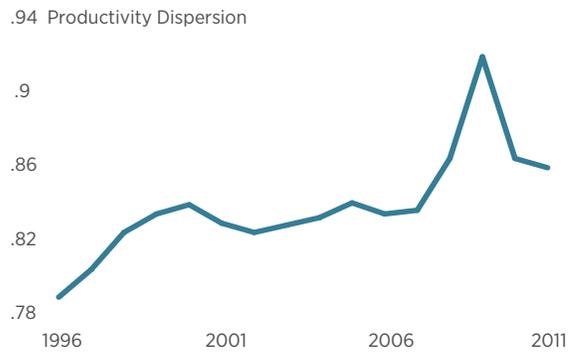
This insight, among many others, helps describe the puzzling decline in business dynamism in the United States since the 1980s,

Figure 1 • Empirical Trends That Inform the Theory

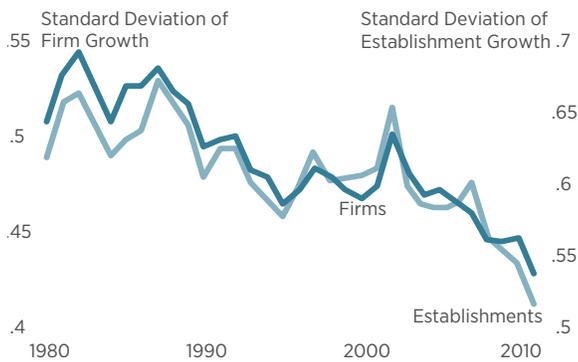
A) Productivity Gap Between Frontier and Laggard Firms



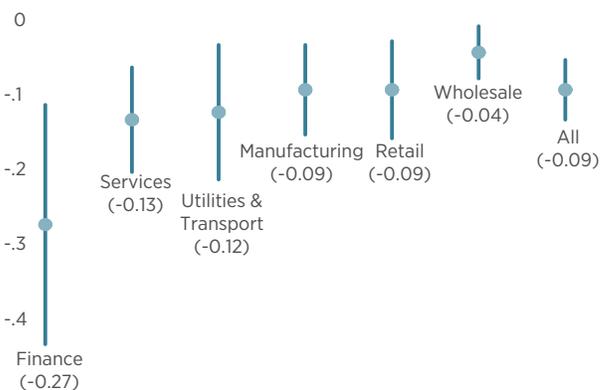
B) Labor Productivity Dispersion



C) Dispersion of Firm Growth



D) Correlation Between Changes in Concentration and Laborshare



Note: Panel 1a is taken from Andrews et al. (2016), Panel 1b from Decker et al. (2018), Panel 1c from Decker et al. (2016b), and Panel 1d from Autor et al. (2017b). Please see paper for full citations.

as described by Ufuk Akcigit, UChicago professor of economics, and Sina T. Ates, Federal Reserve economist, in their papers, “What Happened to US Business Dynamism?” and “Ten Facts on Declining Business Dynamism and Lessons from Endogenous Growth Theory.” The authors investigate this question through a careful review of the data and through the development of a novel model that incorporates features of macro and microeconomic theory. Their findings offer important insights for policymakers grappling with how to reignite business dynamism.

10 facts + 1 new hypothesis

Healthy market economies are good at allocating resources among competing firms. Normally, new firms are formed every year, for example, while others fail and go out of business, and still others continue to grow or otherwise compete for business. Resources from the failing firms, especially the workers, are not lost to the economy; rather, they then move to more successful companies. Such churning, or creative destruction, is good for the economy because it ensures that

resources are productively allocated and that workers are afforded the opportunity to maximize earnings.

This was largely the story of the US economy before 1980. Since then, and especially since 2000, business dynamism has declined. Akcigit and Ates begin their investigation of this phenomenon by reviewing 10 key facts established by the literature that describe the present state of US business dynamism (broadly described here and in more detail in their papers).

1. Market concentration has risen. The fraction of sales captured by the largest four and 20 firms in each sector has risen since 1980, with a large increase over the past 20 years.
2. Average markups have increased. A rise in markups, or the amount a company charges over the cost of production, has been driven by top-ten firms.
3. Average profits have increased. The profit share of firms as a fraction of GDP has risen from about 6 percent in 1980 to about 12 percent in the early 2010s.

4. The labor share of output has gone down. Workers, on the other hand, are getting less of the pie. The fraction of GDP paid to labor has fallen from nearly 68 percent in 1980 to under 60 percent in the 2010s.
5. The rise in market concentration and the fall in labor share are positively associated. In sectors experiencing a rise in market concentration, there is a faster decline in labor market share.
6. The labor productivity gap between frontier and laggard firms has widened. This is a particularly salient point for the authors' analysis—productivity at frontier firms has grown since 2002 at about 3 percent across OECD countries, including the US, while productivity at laggard firms hovers below 1 percent. In parallel, labor productivity dispersion has increased in the US since the mid-1990s.
7. Firm entry rate has declined. The entry rate for new firms has been declining steadily since 1980, and some researchers have estimated that 1.5 million potential US jobs were lost between 2006 and 2011 due to declines in business entrance.
8. The share of young firms in economic activity has declined. The decline in the share of young firms is noteworthy given the importance of surviving young firms in generating job growth.
9. Job reallocation has slowed down. Normally when some firms are expanding, others are slowing down, which is good because it signals a healthy circulation of workers from less productive to more productive firms. Job reallocation, defined as job creation plus job destruction, has slowed considerably since the 1980s, which implies fewer job opportunities, longer unemployment spells, and lower wage growth.
10. The dispersion of firm growth has decreased. Finally, as business entry rates have fallen and the number of young firms has declined, the dispersion of firm growth—ranging from slow- to fast-growing—has also declined. Firms are looking more similar, which reflects lack of business dynamism.

While compelling, these facts alone do not explain why this is happening. There are many competing hypotheses, including the effect of tax rates, tougher barriers to entry, more regulations, weaker labor unions that negatively impact workers, and the idea that we are running out of new and big ideas and have entered an era characterized by sluggish growth (known as a new normal). To answer the “why” question, Akcigit and Ates developed a model that incorporates competing firms within each sector (standard models have just one firm per sector), and—just as the racing metaphor described earlier—those firms can be close in productivity or they can be far apart. And that competitive dynamic has important implications.

The authors' model allowed them to analyze four key factors that shape competition among firms and, thus, influence business dynamism:

- Corporate taxes, which affect profits and the return to market leadership;
- Government research and development subsidies;
- Entry costs, which can affect entrants' incentives;
- And knowledge diffusion, which is important for followers that depend on learning from market leaders to stay competitive and grow.

What the authors do is set that model in a steady state akin to 1980, when business dynamism was more robust, and then introduce shocks related to those four factors. In effect, their model allows them to run a race between the competitors in their model to determine which factor has the greater power to explain the 10 empirical trends about business dynamism. For example, they shocked the model with a large drop in effective corporate tax rates and then compare the results with actual data. They repeated this exercise for each of the four factors. In a second experiment, they

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ran the model with all four factors acting at once and quantified the contribution for each one.

The results were clear: knowledge diffusion accounts for more than 70 percent of most symptoms of declining business dynamism and at least 50 percent of the considered trends. The other factors rarely account for more than 10 percent.

To understand why knowledge diffusion matters, consider a market where it is largely absent. When leaders are shielded from being copied, it helps them establish and keep market power. Also, just like our racers, when those leaders have a growing lead over their rivals, it discourages the followers and they, in effect, slow down. Eventually, those 10 facts listed above become reality: the productivity gap widens, markups increase, profit shares shift, and so on. When leaders eventually realize that they no longer face competitive threats, they are also inclined to slow down. Hence, overall business dynamism ebbs.

Finally, the authors discuss one likely culprit for the decrease in knowledge diffusion, and that is the proliferation of patents among top firms, as well as top firms' increasing share of the secondary patent

CLOSING TAKEAWAY

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market, whereby large firms can stifle competition by purchasing patents from smaller firms. As discussed below, the role of the secondary patent market in shaping business dynamism is a potential area of examination for policymakers.

Conclusion

There is currently a heated debate about the impact of market concentration and declining business dynamism on the US economy, and whether the two are related. This research finds that the key consideration in resolving this question is the degree of competition within markets, and the relative position of leading and following firms. Of the various factors that shape those competitive relationships and influence the level of business dynamism, the one with the greatest impact is knowledge diffusion, or the degree to which following firms learn from leaders.

While the authors refrain from offering explicit policy guidance and make a case for further research, they do discuss the strategic use of patents since 2000, which may be a restraining influence on knowledge diffusion. For example, in 1980, 35 percent of patents were produced by the largest 1 percent of the firms, by the 2010s it was 60 percent. Also, the secondary market for patents has evolved to favor large firms, with the top 1 percent buying 65 percent of patents in the resale market, as opposed to 30 percent in 1980. Some of those transactions fit the description of killer acquisitions, whereby large firms buy a patent not to incorporate its new technology, but to put the patent on a shelf, thus squelching the patent's competitive benefits. If there is a role for policymakers in addressing the decline in business dynamism, it likely does not entail traditional issues like tax rates and subsidies, but necessitates a close examination of the secondary market for patents.

READ THE WORKING PAPERS

NO. 2019-55 · APRIL 2019

Ten Facts on Declining Business Dynamism and Lessons from Endogenous Growth Theory

bfi.uchicago.edu/working-paper/201955

NO. 2019-56 · APRIL 2019

What Happened to US Business Dynamism?

bfi.uchicago.edu/working-paper/201956

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