Research

Should We Care About The Size of Firms? Charting the Connections Between Productivity, Entrepreneurism, and Big Business

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Executive Summary

The steady advance of new technological capacities has made it easier than ever for Americans to strike out on their own and work independently. Yet new business creation has bottomed out in recent years, causing alarm. In reaction, policymakers at all levels of government are considering measures to spark new firm creation. At the same time, voices from across the political spectrum are calling for tougher antitrust actions, especially for the largest tech companies. While the two might not seem related, there are important connections.

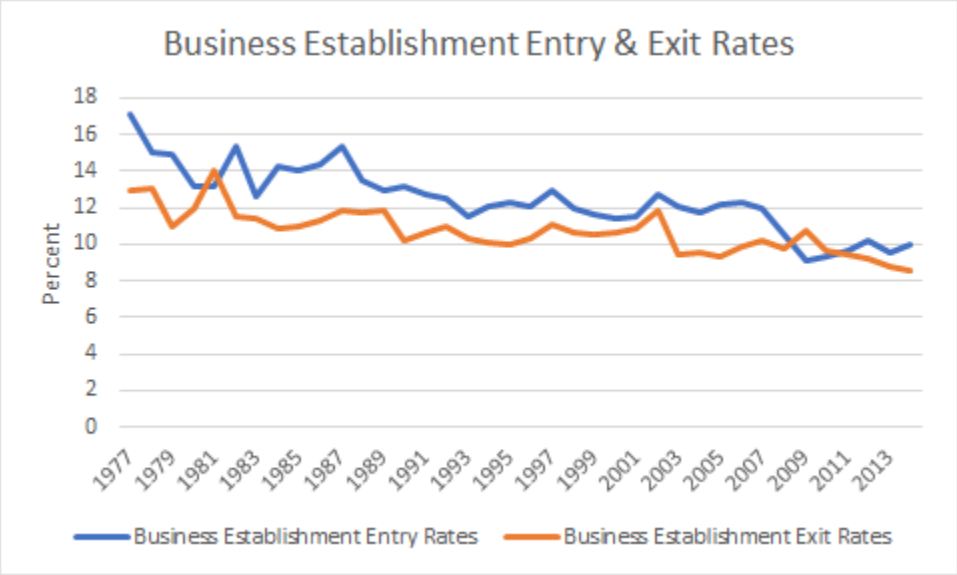
Those who argue for expanded antitrust action often claim that productivity will increase and startups will expand. As the thinking goes, more emboldened antitrust enforcement will return us to the higher productivity and startup rates of the 1960s. And yet, bigger businesses and fewer entrepreneurs were predicted long ago. In work that goes back to the 1970s, economists have charted the relationship between higher productivity, lower rates of entrepreneurism, and bigger companies. So, policymakers considering new regulation or stronger antitrust enforcement should understand these long-term movements before they undertake efforts to undermine the engines of productivity. Big isn't bad, it merely reflects long term economic changes.

The Current State of Play in Business Stats

After a series of sluggish years during the recessions, many labor and business indicators have rebounded to their pre-recession levels. Unemployment is down to 4.4 percent, which was last bested in 2000. The total number of unfilled jobs stood at record highs in July with nearly 6 million openings. In July, the number of people quitting their jobs rose to 3.6 million, the highest since the downturn, signaling confidence with the labor market. The return of labor dynamism should be heralded as a sign of better times.

The poverty rate in 2016 dropped to the same levels as 2007, the year before the most recent recession. The child poverty rate is down from a post-recession high. All the while, inflation has continued to stay below the 2 percent level targeted by the Federal Reserve.

Business creation indicators have improved as well. As the chart below illustrates, the rate of new business creation is again higher than business exits. This return to normal stands in contrast to the direction of business exits and entries in the middle of the recession, where more companies were leaving than entering into the economy.



However, new firm creation overall seems to be stuck in a long-term secular decline since the 1970s. As economists Robert E. Litan and Ian Hathaway noted surveying the data, "dynamism has declined in all fifty states and in all but a handful of the more than three hundred and sixty U.S. metropolitan areas during the last three decades." Business dynamism across states and metropolitan areas have converged, becoming similar over time. What gives?

The Relationship Between Low Startup Rates and Large Firms

The decline in new businesses has been blamed on varying causes. Some think the greying of the baby boom generation might be a contributing factor. Still others point to expanding business license requirements and high corporate tax rates as the culprit.

But, why should we assume that the baseline needs to be indexed to the economy of the 1960s?

Indeed, Nobel prize winning economist Robert Lucas predicted a decline in new businesses in the 1970s. Lucas built on the insights of Henry Manne, who first took seriously the idea that variation in skills and timing of managers can drastically matter for the productivity within a company. Some managers are far better at managing and producing, which is related to the size of the firm. The actual model involves some calculus, but the insight is simple. If the supply of capital increases, then labor will become more productive, increasing the demand for labor, which translates into higher wages. This wage increase induces marginal entrepreneurs to become employees, which increases productivity at the company, but also increases the size of the firm. Over time, as productivity and wages inch upwards, working at a firm gets incentivized over starting a company. Entrepreneurs as a portion of the economy will thus decline and industries with higher productivity rates will see bigger firms.

This model opened an important line of questioning about the relationship between productivity, entrepreneurship, and firm size. While some parts of the model have been revised and improved upon, the basic insight has largely been proven right.

The introduction of the Global Entrepreneurship Monitor (GEM) survey in 1999 helped to firmly root

contemporary studies. Recent analysis of 50 separate national economies confirmed the inverse relationship between entrepreneurship rates and Gross Domestic Product (GDP). This tendency for entrepreneurism to fall as GDP per capita grows has also been confirmed by the World Bank Group Entrepreneurship Survey, research relying upon data from the International Labour Organization, and others.

Time series analysis also confirms this relationship. Employment within large firms tends to grow over time as a country gets wealthier. Analysis of the Census Business Dynamics Statistics (BDS) illustrates this, as does groundwork conducted in American manufacturing from 1850 to 1880. But the United States isn't the only country where this relationship can be found. The same trend exists for Canada, Germany, Indonesia, Japan, South Korea, and Thailand.

Moreover, the distribution of firms tends to change as a country becomes wealthier. As economist Markus Poschke noted, "richer countries thus feature fewer, larger firms, with a firm size distribution that is more dispersed and more skewed." So, it not just the United States that has large firms. Sweden, the Netherlands and Ireland all have large firms, but they too are relatively wealthy by international standards. Productivity goes a long way to explain the distributional changes.

The Relationship Between Large Firms and Productivity

While productivity growth has been sluggish in the United States in recent years, the trend hasn't been even. Research from the Organisation for Economic Co-operation and Development (OECD) has confirmed slower productivity in high-income countries is not because cutting-edge firms are slowing down in their productivity growth. Rather, the rest of the industry is failing to keep up. As the aforementioned report outlines, "the gap between those global leaders and the rest has increased over time, and especially so in the services sector."

These leading companies have come to be known by several monikers, like frontier firms, or superstar firms. Still, the characteristics tend to be similar, as they have high levels of productivity and are relatively large firms within their sector. While Silicon Valley has come to be a stand in for tech giants, frontier firms can be found in retail, wholesale, manufacturing, services, finance, real estate, and countless other services. Throughout the economy, some firms have been pulling away from their counterparts.

Employees within these firms are able to better utilize capital, compared to what they could have done on their own. Because of this, they can quickly introduce frontier technologies that are both complex and have uncertain but potentially rewarding outcomes. However, this is a double-edged sword for startups, since the acquisition of the knowledge and skills to lead a firm takes longer. This is why entrepreneurs tend to be middle aged when they first branch out. Studies in entrepreneurship tend to support the Lucas model. Research out of the National Bureau of Economic Research finds that serial entrepreneurs, those who open multiple businesses, have markedly higher sales and productivity compared to novices. Looked at from another perspective, serial entrepreneurs show that skill is clearly involved.

Contrasting the United States' economic system to others helps to tease out these relationships. The Bank of Canada, for example, found that differences in the firm size between Canada and the United States can account for half of the productivity gap in manufacturing. In Europe, regulatory burdens of all kinds are far more endemic, limiting the growth of firms, their productivity, and the adoption of frontier technologies. In Northern Europe, however, where wages and productivity tend to be higher and tech adoption is more prevalent, labor and firm regulations have been far lower. In France, labor laws tend to kick in when firms employ 50 or more workers, resulting in a significant dropoff in firms above this level. In one seminal paper on this topic, the

cost of these regulations was equivalent to a 2.3-percent variable tax on labor, which translated to 3.4 percent of GDP. As the authors concluded, "The main losers from the regulation are workers—and to a lesser extent, large firms—and the main winners are small firms."

Taken together, the regulatory burdens limit growth and productivity, which in turn constrains new companies from taking advantage of advanced technologies. Commenting on the disparity and the lack of strong growth since the 1990s, the European Investment Bank noted that, "The EU was not able to benefit from new technology to the same extent as the US mainly because of insufficient investments in skills and organisational changes."

The Policy Implications for Antitrust

Entrepreneurialism is key to any vibrant economy, yet isolating the beneficial trends is difficult. When we say we want a dynamic economy, we don't necessarily want more startups without any qualifiers. Few would want the startup rates of Brazil if it meant that we also had to accept their lower wages and lower productivity rates. And yet, historical, and cross-country trends, as well as fundamental economic theory, all point to a broad tradeoff between productivity and total startups.

Calls for invigorated antitrust enforcement are being marshalled under a broad entrepreneurialism banner without the appropriate qualifiers. Looking back towards a previous era where antitrust was more prevalent, one commenter noted, "These policies created fierce competition, driving down the prices that companies could charge consumers. And it prevented them from juicing profits by depressing wages. The only way to maintain a profit was to continuously innovate new ways to do more with less." Lina Kahn, a leading anti-monopoly advocate, paralleled the idea, noting, "It is true that restoring competitive markets would boost growth and productivity."

Just this year, congressional Democrats took up the cause in their "Better Deal" platform. This proposal is a return to the economically illiterate 1920s as it would require regulators to review how merger and acquisitions could impact wages and jobs, instead of continuing with the consumer welfare standard which has been a driving force for decades and has been adopted worldwide. As one champion this Better Deal platform framed it , "anti-concentrators won over Democrats."

The radical cadre of new antitrust advocates are a departure from the norm. American Antitrust Institute President Diana Moss sees these advocates as a new threat, even though their cause is one she's been championing for years. The "alt-left" competition movement, as she calls them, isn't as focused on the nuance, but pushes hard for anti-concentration. Stalwarts in the antitrust community also see the resurgence as simply a reiteration of the big as bad trope, including former FTC Commissioner Joshua Wright, former FTC Deputy Director Alden Abbott, current FTC Commissioner Maureen Ohlhausen, and countless others.

Instead of creating a productivity and startup boom like adherents would want, rewriting the antitrust rules would be a tax on productivity and labor. The European experience serves as a warning. Stronger antitrust won't result in a startup boom or an upswell of productivity in the rest of the industry, but rather will act as a drag on technological adoption. To achieve better overall productivity gains, a different set of tools is needed. As the OECD noted, "well-designed framework policies can aid productivity diffusion by sharpening firms' incentives for technological adoption and by promoting a market environment that reallocates resources to the most productive firms." Nearly everyone who has studied these phenomena comes to the same conclusion. We need to aid information diffusion, help workers skill sets, foster research and development collaboration, and

sharpening firms' incentives for technological adoption, not punish those who are at the frontier.

Anti-concentration advocates desire better economic outcomes but press for policies that will likely do the opposite. There is wide agreement about the diagnosis, and it is a topic that economic research has focused on for years. There is also a growing consensus in how to reverse the worst of these trends. Instead of using antitrust to solve this problem, advocates of all stripes should be searching for ways to help companies adopt technology. Punishing success is no way to breed success.