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ECONOMIC Synopses

Business Dynamism and City Size

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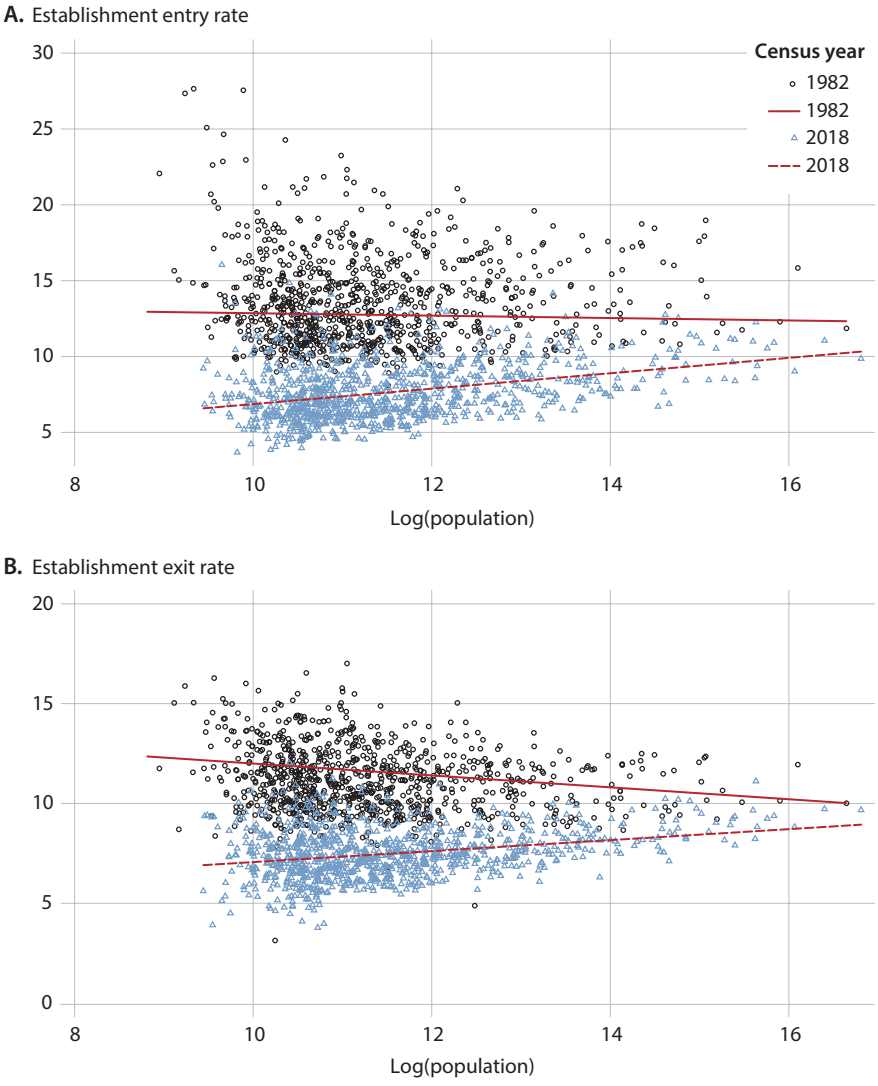
Business dynamism, a key factor in the growth of the economy, is measured by the rates at which firms enter the market, grow, and leave the market. Stronger dynamism is related to higher rates of productivity growth, as unproductive firms leave and more productive firms enter or grow (Bartelsman and Doms, 2000).

Dynamism in the United States has been decreasing since the 1980s (Decker et. al, 2014), but the change has been distributed unequally. Larger cities have experienced a smaller decrease in dynamism, while smaller cities have seen a larger drop. At the same time, large and small cities have diverged on several important dimensions: Large cities increasingly have a more educated workforce and offer higher wage premiums for skilled workers (Rubinton, 2020). Given that dynamism is important for productivity and economic growth, the differential changes in dynamism across cities could be important to understanding the divergence in wages and skill-composition between large and small cities.



SOURCE: Census Bureau Business Dynamics Statistics and intercensal population estimates.

The figure uses two proxies for dynamism to show how the relation between dynamism and city size has changed over time.[1] Panel A uses the establishment entry rate, the percentage of new businesses in a given year, while Panel B uses the establishment exit rate, the percentage of businesses that close in a given year. The black dots represent the average rate of dynamism between 1978 and 1982, while the blue dots represent that average between 2014 and 2018.[2] The red lines indicate the lines of best fit.

Business dynamism has been decreasing since the 1980s, but less so for larger cities.

In 1982, the rates of establishment entry and exit decreased as population increased—small cities were actually, on average, more dynamic than big cities. That is, the solid red lines through the black dots have a negative slope. By 2018, the relationship had flipped, with larger cities having higher rates of establishment entry and exit. That is, the red dashed lines through the blue dots have a positive slope.

One possible explanation for the changing relationship between city size and dynamism is that big cities are simply growing faster. Population growth has been shown to be a prime determinant of dynamism rates (Karahan, Pugsley, and Şahin, 2019). Another explanation could be that larger cities have experienced an increasing concentration of young people, who are more likely to become entrepreneurs, another driver of dynamism (Engbom, 2017). However, neither of these explanations fully accounts for these patterns; together, they can only explain about half of the increasing relationship between dynamism and city size (Rubinton, 2020).

Rubinton (2020) shows that these patterns are consistent with competition becoming tougher in large cities relative to small cities. Large cities have become more congested than they were in 1980: As population has grown and technology has improved, rents and wages have increased. Less-productive firms that cannot afford the higher prices are more likely to exit, leaving room for new firms to enter.

The geographic pattern of business dynamism in the United States has changed over the past four decades, with small cities experiencing the biggest declines in dynamism. Understanding the underlying drivers and the implications of these changes for economic growth and regional convergence remains a key goal of economic research. ■

Notes

[1] We measure dynamism using the five-year averages of establishment entry and exit rates. Instead, one could measure dynamism as the rate at which new firms enter the market, the rate at which old firms exit, the rate of job creation, or the rate of job destruction or measure it as a function of those rates. We use five-year averages because the underlying data depend on the Economic Census that takes place every five years. These measures all exhibit a similar relationship with city size. Cities here are defined as core-based statistical areas.

[2] Data on business dynamism come from the Census Bureau Business Dynamics Statistics and on population come from Census Bureau intercensal population estimates.

References

Bartelsman, E.J. and Doms, M. "Understanding Productivity: Lessons from Longitudinal Microdata." *Journal of Economic Literature*, 2000, *38*(3), pp. 569-94; https://www.aeaweb.org/articles?id=10.1257/jel.38.3.569.

Decker, R.; Haltiwanger, J.; Jarmin, R. and Miranda, J. "The Secular Decline in Business Dynamism in the US." Unpublished manuscript, University of Maryland, 2014.

Engbom, N. "Firm and Worker Dynamics in an Aging Labor Market." Working Paper 756, Federal Reserve Bank of Minneapolis, April 2017; https://doi.org/10.21034/wp.756.

Karahan, F.; Pugsley, B. and Şahin, A. "Demographic Origins of the Startup Deficit." Staff Report No. 88, Federal Reserve Bank of New York, May 2019; https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr888.pdf.

Rubinton, H. "The Geography of Business Dynamism and Skill-Based Technical Change." Working Paper 2020-020B, Federal Reserve Bank of St. Louis, July 2020; https://research.stlouisfed.org/wp/more/2020-020.

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