

How Does Finance Fuel Growth?

BY RENEE HALTOM

Economists have long thought financial markets to be beneficial to economic growth. Financial markets allow savings to be put to use, facilitate investment by pooling risk, and help allocate capital to the most lucrative and efficient projects. All of the above foster competition and innovation, which contribute to rising living standards.

Measuring the relative importance of the channels through which finance boosts growth has been harder. One challenge for researchers is that measures of financial development — such as stock market activity or measures of the supplies of money and credit — are both affected by growth and affect growth in turn. That makes the causal effect of finance statistically harder to distinguish.

A recent paper by Clemson University economist Michal Jerzmanowski takes a stab at this question using a natural experiment — that is, when a measure of the topic one is interested in studying (in this case, financial market development) arises fortuitously in a way that overcomes statistical problems like simultaneous causation. As a proxy for financial development, Jerzmanowski looks at the dates of steps that U.S. states took toward deregulating their banking systems. This began in the mid-1970s, when states began allowing their institutions to branch within state lines, out-of-state banks to branch within their states, and bank holding companies to consolidate their subsidiaries into branches of a single bank. (Barriers to bank branching were later eliminated nationally with the Riegle-Neal Act of 1994.) States made these moves at different times, allowing researchers to look at whether the timing of these policy shifts was met with a boost in growth.

But is the timing of deregulation truly unrelated to growth and thus valid as the basis of a natural experiment? Previous research suggests so. Local lobbying power — historically in the form of agricultural interests that preferred banks to be small and local, as well as on behalf of smaller banks themselves — has been found to be a much stronger predictor of banking deregulation than overall economic conditions.

Jerzmanowski employs a new dataset to evaluate the specific channels through which finance affects growth, one based on output and stocks of physical and human capital across U.S. states. Physical capital estimates are from various sector censuses while human capital is calculated from state-level school-attainment data. The data span 48 states (Hawaii and Alaska are omitted) from 1970 through 2000.

The results confirm prior work indicating a positive and

significant effect of financial deregulation, adding roughly 0.8 percentage points to growth in state output per worker each year. But how? Financial development is found to increase growth of total factor productivity (TFP), a measure of the state of technology, as well as other determinants of the productivity of labor and capital. This, in turn, suggests that “financial development fosters innovation and entry of new firms, which together boost the economy’s productivity,” Jerzmanowski notes. Deregulation also coincides with the accumulation of physical capital, consistent with the notion that access to credit facilitates investment. He finds no evidence that access to credit affects the rate of human capital development, perhaps due to the large role of the government and nonprofits, as opposed to banks, in funding private educational investment.

Contrary to evidence across countries, Jerzmanowski finds little evidence that finance fuels “convergence,” the rate at which poorer states catch up to richer states. (Capital accumulation does seem to accelerate in states that start with very low capital stocks, but the evidence for this is weak.) The author suggests this may be because rates of innovation and technology adoption do not stop once economies leave the

bottom rung; development furthers these processes for rich economies as well. It could also be due to the fact that there’s little convergence left to be had among U.S. states compared to the starker differences in income levels among countries. And finally, traditional commercial banking is not the only place where credit is offered; venture capital and financial markets also play a significant role in more developed economies like the United States.

Finally, Jerzmanowski addresses a common critique of studies on banking deregulation: that financial development boosts growth merely by growing the finance industry itself. He looks at the effect across three sectors: manufacturing, agriculture, and a collection of “other” sectors that includes financial-related sectors. The results show that finance actually has the largest effect on manufacturing, boosting growth by about 2 percentage points per year compared to about 1 percentage point for all sectors. Financial deregulation appears to boost manufacturing through improvements to TFP and, somewhat surprisingly, not the accumulation of physical capital (as elsewhere, finance had no effect on human capital). This is consistent with the long-held notion that financial development and access to credit speed entry, innovation, and all-important creative destruction. **EF**

Michal Jerzmanowski. “Finance and Sources of Growth: Evidence from the U.S. States.” *Journal of Economic Growth*, March 2017, vol. 22, no. 1, pp. 97-122.