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IN THIS ISSUE

Leverage, Business Cycles, and Crises

In **When Credit Bites Back: Leverage, Business Cycles, and Crises** (NBER Working Paper No. 17621), authors **Òscar Jordà, Moritz Schularick,** and **Alan Taylor** analyze data from 14 advanced economies going back to 1870 that include nearly 200 recession episodes and find that the credit-intensity of the boom that precedes a downturn matters for the path of the recession. In other words, a stronger increase in financial leverage, measured by the rate of growth of bank credit-to-GDP in the boom, tends to lead to a deeper subsequent downturn.

The authors track the effects of leverage on key macroeconomic variables including investment, lending, interest rates, and inflation. They find that the effects of leverage are particularly pronounced when the recession coincides with a financial crisis, but that there are similar effects in normal recessions. The aftermath of leveraged booms is associated with somewhat slower growth, investment spending, and credit growth than usual. If the recession coincides with a financial crisis, these effects are compounded and typically accompanied by pronounced deflationary pressures.

> "A stronger increase in … bank credit-to-GDP in the boom tends to lead to a deeper subsequent downturn."

The authors also show that the economic costs of crises vary considerably and depend on the run-up in leverage during the preceding boom. A leverage build-up during the boom seems to heighten the vulnerability of economies to shocks, which suggests that financial factors play an important role in the business cycle.

— Lester Picker

What Makes a Charter School Effective?

Traditional measures of what makes a good school — small class size, high per pupil spending, and a large share of teachers with advanced degrees but a small share with no certification — don't necessarily determine student achievement, according to a new study of 35 New York charter schools by **Will Dobbie** and **Roland Fryer.** Instead, they find that five policies that rarely get measured systematically — frequent teacher feedback, data-driven instruction, intensified tutoring, increased instructional time, and high expectations — can explain roughly half of the variation between more effective and less effective schools. In **Getting Beneath the Veil of Effective Schools: Evidence from New York**

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City (NBER Working Paper No. 17632), the authors conclude that these five policies also do a better job of predicting student success than indicators for whether schools offer wrap-around services that serve the "whole child," whether they focus on finding and keeping the best teachers, and whether they use a "No Excuses" approach to teaching.

For this analysis, Dobbie and Fryer amassed a large data base on 35 charter schools that vary widely in their approach to teaching and learning. For example, the Bronx Charter School for the Arts focuses on the arts, while the KIPP Infinity School uses a "no excuses" approach, emphasizing instructional time, parental involvement, and a concentrated focus on math and reading. When the authors study these varied approaches, they find that schools with a larger share of certified teachers actually scored lower in math gains among pupils than other schools. They also find a slightly negative effect on test results for schools with smaller class sizes, higher per pupil expenditures, and a relatively smaller share of uncertified teachers. However, schools that offered feedback ten or more times every semester, and those that tutored students at least four days a week in small groups (six or less), had annual math and English gains that were higher than those of other schools without such programs.

This study comes with two important caveats. First, the five factors that predict student success might be the results rather than the causes of school effectiveness. The authors didn't study other potentially important inputs, such as the principal's skills, or the effects of the lottery system in selecting students. Second, this study didn't examine all of New York City's charter schools, so there may be other dynamics at work that make it hard to generalize the results for other charter schools or public schools.

The authors summarize their findings by writing that: "While there are important caveats to the conclusion that these five policies can explain significant variation in school effectiveness, our results suggest a model of schooling that may have general application."

— Laurent Belsie

White Collar Jobs and the Rise of Service Offshoring

Trade in services has expanded dramatically in the past two decades, and the number of U.S. jobs exposed to service imports is estimated to be at least double the total number of jobs in manufacturing. An important piece of this "service tradability revolution" is the rise of service offshoring, which means that educated U.S. workers are now competing with educated but low-paid foreign workers for service jobs.

In **A Sorted Tale of Globalization: White Collar Jobs and the Rise of Service Offshoring** (NBER Working Paper No. 17559), co-authors **Runjuan Liu** and **Daniel Trefler** examine the impact of trade in services with China and India on U.S. labor market outcomes, and especially on occupational switching, the incidence of unemployment, and earnings. The authors use data from the Current Population Survey for the period 1996-2007. They distinguish workers who switch up — that is, switch to an occupation that pays more on average than their current occupation — and those who switch down to an occupation that pays less on average than the current occupation.

> "Imports from China and India over the past decade have increased the [number of] transitions to unemployment for those working in the service sector ... by 0.9 percentage points."

Liu and Trefler find that rising service imports from China and India over the past decade have increased the incidence of downward switching by 17 percent, while upward occupational switching has only increased by 4 percent.

They also find that transitions to unemployment for those working in the service sector have increased by 0.9 percentage points, from 3.8 percent to 4.7 percent. This effect is substantial, although it is lower than the estimated 1.6 percentage point impact on transitions to unemployment in manufacturing that the authors associate with imports from China and India.

Finally, for occupational "stayers" in the service sector, those who remained in their jobs, the study suggests that earnings fell by 2.3 percent. Notably, these impacts are not annual: they are cumulative effects over the past decade.

— Claire Brunel

The Effect of Religious and Ethnic Diversity on Charitable Giving

In Canada, increased ethnic and religious diversity within neighborhoods is associated with a lower level of individual donations to churches and charities. This finding emerges from analysis of data reported on individual tax returns.

In **Diversity and Donations: The Effect of Religious and Ethnic Diversity on Charitable Giving** (NBER Working Paper No. 17618), **James Andreoni, Abigail Payne, Justin Smith,** and **David Karp** find that a 10 percentage point increase in ethnic diversity corresponds to a drop of about 14 percent in donations. A 10 percentage point increase in religious diversity is associated with a decline in donations of about 10 percent. As a result, the authors conclude, continuing demographic changes in North America and Europe may reduce charitable donations and have "significant and sizeable effect on charitable services provided through voluntary contributions of individuals."

"The propensity to donate and the average donation from donors are related to the ethnic makeup of the community."

Both the propensity to donate and the average donation from donors are related to the ethnic makeup of the community. In high income and low education neighborhoods, the largest contributors to the overall drop in charitable donations as diversity increases are non-minorities and Blacks. As religious diversity increases, Catholics appear to donate less, and the effect of religious diversity on donations per adult is more pronounced.

— Linda Gorman

Optimal Expectations and Limited Medical Testing

Many people who may be carrying a life-threatening genetic disease evidently prefer not to know about it. In **Optimal Expectations and Limited Medical Testing: Evidence from Huntington Disease** (NBER Working Paper No. 17629), co-authors **Emily Oster, Ira Shoulson,** and **Ray Dorsey** find that even when testing is relatively inexpensive and highly accurate, large numbers of persons at risk behave as though they believe that the burden of living with the anticipation of ill-health should be avoided. This, the researchers say, has an important impact on life decisions of patients as well as significant implications for policymakers.

Oster, Shoulson, and Dorsey study 1,001 at-risk individuals who have chosen not to undergo genetic testing for Huntington's Disease (HD), a hereditary neurological disorder that reduces life expectancy to about age 60. DNA testing for the disease is 100 percent accurate and carries little financial or time cost, but fewer than 10 percent of at-risk individuals are tested prior to the onset of symptoms. The researchers also analyze decisions made by some research participants who chose to undergo testing for HD (usually after symptoms of the disease began to appear). They link information on the probability that these tested individuals are likely to contract HD with data on their life decisions, including childbearing, marriage, retirement, education, and participation in clinical research. The authors find that untested individuals express optimistic beliefs about their likelihood of having HD and that they make their life decisions as if they do not have HD. Individuals with confirmed HD behave quite differently.

"Untested individuals report perceived probabilities [of contracting Huntington's disease] that are much lower than their objective probability."

When asked about their chance of having a genetic predisposition to HD, untested individuals report perceived probabilities that are much lower than their objective probability. Having adopted such overly optimistic beliefs, these individuals take overly optimistic actions. Oster, Shoulson and Dorsey observe that persons avoiding testing are neither making mistakes nor lacking information: they simply prefer to "consume happiness" in the anticipation period. But as the objective risk increases and people continue to behave as if they are not likely to contract the disease, the utility loss from this optimistic behavior becomes larger and larger, increasing the incentive to test. Depending on the dataset analyzed, as many as half or more of individuals will eventually be tested to "prove" what they know already from symptoms. A significant "cost" of testing is the loss of the option to believe that one is healthy, even if one has HD. This cost may be large enough to make the value of testing negative for some individuals, even ignoring any more traditional costs of the test, such as the time involved in testing or the medical costs associated with the test.

Although their study focuses on HD, the researchers demonstrate that similar patterns of low testing exist in cancer screening and HIV testing. They suggest that for a disease like HIV, higher testing rates might lead to better treatment and to less spread of the disease. Even with a non-contagious disease, overly optimistic individuals may under-save for ill health, thereby placing the burden of care on the government if and when the disease strikes.

— Matt Nesvisky

Economic Conditions Have an Effect on CEOs

In **Shaped by Booms and Busts: How the Economy Impacts CEO Careers and Management Style** (NBER Working Paper No. 17590), authors **Antoinette Schoar** and **Luo Zuo** find that economic conditions at the start of a manager's working life have lasting effects on his or her career path. Those CEOs who begin their careers during recessions take less time to become CEOs, but end up heading smaller firms, receiving lower compensation, and being more likely to stay with a given firm, rather than to move across firms and industries. Managers who start in recessions also have more conservative management styles once they become CEOs: they spend less on capital expenditures and R and D and show more concern about cost effectiveness.

"CEOs who begin their careers during recessions…end up heading smaller firms [and] receiving lower compensation."

Early economic conditions also affect the career path of a manager along the way to becoming CEO, according to the authors. The number and speed of outside offers, and industry switches during the career, increase when the manager starts his or her career in better economic conditions.

The authors also find that accepting a first job at a firm that is one of the ten firms that are most likely to be a source of CEOs is associated with favorable outcomes for a manager. Those CEOS end up heading larger companies and receiving higher compensation. However, it may be that people with certain skills self-select into jobs early on, and that the firms that are sources of CEOs attract particularly talented workers in the first place. In either case, the effects of a good start on the career path are quite persistent: they are related to the managers' career choices even twenty years later.

— Lester Picker

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