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Why Canada Didn't Have a Banking Crisis in 2008

When European and North American banks teetered on the brink of meltdown in 2008, requiring bailouts and extraordinary central bank intervention, Canadian banks escaped relatively unscathed. History explains why, according to co-authors **Michael Bordo, Angela Redish, and Hugh Rockoff** in *Why Didn't Canada Have a Banking Crisis in 2008 (or in 1930, or 1907, or...)?* (NBER Working Paper No. 17312). Starting in the nineteenth century, Canada and the United States took divergent paths: Canada set up a concentrated banking system that controlled mortgage lending and investment banking under the watchful eye of a single, strong regulator. The United States allowed a weak, fragmented system to develop, with far more small (and less stable) banks, along with a shadow banking system of less-regulated securities markets, investment banks, and money market funds overseen by a group of competing regulators.

"[T]he stability of the Canadian banking system is not a one-off event," the authors note. "In Canada the banking system was created as a system of large financial institutions whose size and diversification enhanced their robustness.... In the [United States] the fragmented nature of the banking system created financial institutions that were small and fragile. In response the [United States] developed strong financial markets and a labyrinthine set of regulations for financial institutions."

The contrast is striking. While in

2008 and 2009 the United States experienced bank failures, bailouts, and the worst recession since the 1930s, Canada had no bank failures, no bailouts, and its recession was less severe than either that of the early 1980s or early 1990s. Long

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before 2008 in the United States, there were the failures of the private investment bank Jay Cooke and Co. (the 1873 crisis), the Knickerbocker Trust (the 1907 panic), and the runs on banks that deepened the Great Depression. Although Canada's economy suffered a collapse equally as dramatic as America's in the 1930s, not one of its banks failed.

"The twin weaknesses of the American financial system—a commercial banking system divided along state lines and volatile financial markets in which a 'shadow banking system' of unregulated or lightly regulated investment banks and other financial intermediaries participated—produced a series of financial panics," the authors write. "There were major banking panics in 1837, 1857, 1873, 1893, and 1907, and minor panics in 1839, 1884, and 1890."

One important factor, the authors argue, is that from the outset Canada's federal government had the authority to charter and regulate banks while the U.S. Constitution did not specifically reserve that power for the federal government. That led to constitutional dis-

putes, an on-again-off-again national bank, and a dual system of federal- and state-chartered banks that were smaller, geographically confined, and thus more exposed to local economic conditions. The inherent weakness of the banks led

to the development of stock and other securities markets that were far more robust than Canada's and to the rise of other intermediaries—the so-called shadow banking system—that were overseen by a patchwork of regulators.

Financial crises, particularly the Great Depression, spurred reforms to strengthen regulation. In the 1930s, the government created federal deposit insurance, the Securities and Exchange Commission to regulate securities markets, and stricter bank rules encompassed in the Glass-Steagall Act, which among other things separated commercial from investment banking.

For more than a century, the Canadian system has proven itself far more stable than its U.S. counterpart, the authors conclude. "[B]ut there is a caveat to keep in mind: greater stability may have come at a cost. A more concentrated and regulated financial system may have been slower to innovate, may have been slower to invest in emerging sectors, and may have provided services at monopoly prices."

—Laurent Belsie

Explaining Charter School Effectiveness

Comparisons of those who did and did not win charter school admissions lotteries in Massachusetts suggest that urban charter schools boost student achievement. In **Explaining Charter School Effectiveness** (NBER Working Paper No. 17332), **Joshua Angrist, Parag Pathak, and Christopher Walters** find that student demographics are related to the extent of this improvement: urban charter schools are most effective for non-whites and low-baseline achievers. They also find that while over-subscribed urban charter schools that admit students by lottery have produced the largest improvement in student achievement, non-urban charter schools are uniformly ineffective in raising measured achievement.

This research uses data on students who attended any of 32 Massachusetts charter schools at any time between the 2001–2 and 2009–10 school years.

The authors match school records with test scores and administrative data, including demographic variables such as race, gender, and poverty status, as well as information on school policies, teaching staff, and hours spent in

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school. Overall their results show that middle school charter lottery winners outscored lottery losers somewhat in English and more significantly in math. High school lottery winners outscored lottery losers about equally in English and math.

Massachusetts’ urban charter school students are drawn from a population in which middle school students generally score below the average on state-wide math and English tests. The authors estimate that one year in an urban lottery charter middle school

boosts scores dramatically, by 0.34 standard deviations in math and 0.14 standard deviations in English. In contrast, non-urban charter schools appear to degrade performance. Although, as the authors note, “most non-urban stu-

dents do reasonably well in any case,” the causal effect of a year of non-urban charter attendance is a substantial reduction in achievement in all levels and subjects, on the order of 0.16 standard deviations in middle school with almost a quarter of a standard deviation decline in high school math.

The researchers conclude that the relative effectiveness of urban lottery charter schools can be explained by over-subscribed schools’ embrace of the No Excuses approach to education.

—Linda Gorman

People Retire Later If They Understand Social Security Better

If individuals do not fully understand the incentives created by government tax and social insurance programs, they may make economic decisions that are less than optimal for them. In **Would People Behave Differently If They Better Understood Social Security? Evidence From a Field Experiment** (NBER Working Paper No. 17287), authors **Jeffrey Liebman** and **Erzo Luttmer** describe an experiment that they conducted to examine whether it is possible to affect individual behavior by using a relatively inexpensive informational intervention. A group of 2,483 older workers was randomly divided so that some received information about key Social Security provisions and others did not. The authors find

that one year after the experiment, those who were sent an informa-

“Among women who received the information [about Social Security], there was a 7.2 percentage point increase in labor force participation.”

tional brochure and an invitation to a web-based tutorial were 4 percentage points more likely to be working than those who did not receive these materials. Among women who received the information, there was a 7.2 percentage point increase in labor force participation. In addition to affecting actual labor supply behavior, having more information increased survey measures of the perceived returns to working longer, especially among the female recipients.

The authors speculate that the

reason that the intervention primarily affected the retirement behavior

of women was that it counteracted the notion that working women get no benefit on the margin from Social Security. This would have been true for most women who retired twenty or thirty years ago, but for women today who are working into their 60s, the authors estimate that 70 percent or more are receiving benefits based on their own earnings record, rather than on that of their spouses.

—Lester Picker

Deregulation, Consolidation, and Efficiency in the U.S. Nuclear Power Industry

In **Deregulation, Consolidation, and Efficiency: Evidence from U.S. Nuclear Power** (NBER Working Paper No. 17341), authors **Lucas Davis** and **Catherine Wolfram** examine an unprecedented period of deregulation and consolidation in the U.S. nuclear power industry. In particular, they analyze operating efficiency before, during, and after market restructuring using a unique, high-quality dataset that describes reactor-level operations over a 40-year period.

The authors find that deregulation and consolidation are associated with a 10 percentage-point increase in operating efficiency, and that these increases are similar across reactors of different types, manufacturers, and vintages. They further show that the

increase in operating efficiency was primarily due to a decline in the number of outage days per year.

These results provide evidence of

“Deregulation and consolidation are associated with a 10 percentage-point increase in operating efficiency [for nuclear power plants].”

efficiency gains from the deregulation of electricity markets. As predicted by economic theory, removing regulation has provided incentives for firms to increase efficiency, reduce costly outages, and make prudent investments in capacity. As plants have been sold to private companies, the financial cost of poor operating efficiency has been transferred from ratepayers to shareholders. Companies like Exelon and Entergy have responded by achieving the highest levels of

nuclear reactor operating efficiency in history. Each additional operating hour for a typical nuclear power plant represents about \$120,000 in profit.

The increased nuclear output replaced electricity from fossil fuel-fired power plants, which would have emitted substantial amounts of pollution, including greenhouse gases. Notably, the authors calculate that deregulation, a policy that had nothing to do with the environment, led to greater carbon reductions than all the wind and solar generation combined.

—Lester Picker

Organ Allocation Policy and Organ Donation Decisions

In **Organ Allocation Policy and the Decision to Donate** (NBER Working Paper No. 17324), **Judd Kessler** and **Alvin Roth** find that an organ allocation policy known as the “priority rule,” which grants priority on organ waiting lists to those who have previously registered as organ donors, can significantly raise the number of potential donors. Their results suggest that the priority rule, which is currently used in Singapore and which is being introduced in Israel, is a potentially powerful policy tool for encouraging donor registration.

The researchers devise an experimental game which captures some of the key features of the organ donation problem and collect data when students play this game. Each player begins the experiment with “kidneys” that may, with some probability, “fail” during the game. Players receive monetary compensation for each round of the game in which they remain alive. A player may “die”

from “kidney failure” if he cannot obtain donated organs. He may also “die” during the game for other reasons—that creates

“The ‘priority rule,’ which grants priority on organ waiting lists to those who have previously registered as organ donors, can significantly raise the number of potential donors.”

a potential supply of donors whose “kidneys” may be assigned to still-living players who face organ failure. A player gives up some money if he registers to donate his “kidneys” in the event of death—this captures what the authors view as the psychic cost of registering as an organ donor. A larger pool of potential donors conveys benefits for all players, because it raises the likelihood that if a player experiences “kidney failure” a replacement organ will be available.

The authors compare the effect of reducing this cost of donation, which in their game is a monetary cost, with the effect of adopting a priority rule. Both

approaches increase the number of registered donors, but the “priority rule” performs at least as well as, and sometimes

better than, an equivalent decrease in the cost of donation. The authors try introducing the priority rule after subjects have made donation decisions a number of times, as well as at the start of the game. In the latter case, the increased performance of the priority rule is even greater. With regard to actual policy design, Kessler and Roth point out that one advantage of the priority rule over strategies for compensating registered donors, and thereby reducing their costs of registering, is that the priority rule seems feasible and can be implemented without any additional costs to the system.

—Matt Nesvisky

The “CAPS” Prediction System and Stock Market Returns

In The “CAPS” Prediction System and Stock Market Returns (NBER Working Paper No. 17298), co-authors Christopher Avery, Judith Chevalier, and Richard Zeckhauser study the predictive power of approximately 2.5 million stock predictions submitted by individual users to the “CAPS” website run by the Motley Fool company. The data used in this analysis spans the time period between November 2006 and December 2008, a period with significant swings in stock market performance.

In the past, using different data sets, researchers have found that individuals perform poorly as stock market investors, except when they concentrate their portfolios on stocks for which they have an informational advantage. And, while internet trading and message boards have facilitated trading, there is no evidence that those boards predict performance of the stocks. But the CAPS data differ from internet trading or online prediction markets in three ways. First, participants make precise predictions about future price, rather than simple buy/sell/hold recommendations. Second, the website provides a rating of participants by scoring their reputation. And finally, CAPS synthesizes the history of past picks to produce a rating of each stock—on a 5-star scale.

The authors analyze the informational content of the CAPS picks by

tracking the performance of portfolios formed on the basis of positive and negative picks (that is, predictions of increases and decreases in the prices of individual stocks, respectively). A preliminary look

“Shorting stocks with a disproportionate number of negative picks... and buying stocks with a disproportionate number of positive picks produces a return of over 9 percent per annum.”

at the relationship between individual picks in the CAPS system and subsequent stock market returns shows some interesting facts. For example, on average CAPS participants—like most stock market analysts—have been relatively bullish, producing a ratio of about five positive picks per negative pick. Second, the relationship between returns for positive versus negative picks varies very little by market cap. Third, averaging across the whole time period, 5-star stocks outperformed 1-star stocks by 9 percentage points (although removing the height of the financial crisis increases the difference in returns between 5-star and 1-star to 14.6 percentage points).

Most interestingly, these picks prove to be surprisingly informative about future stock prices. Although the return from investing in the positive-pick portfolio would have been negative over the course of the study period, the Motley Fool participants’ positive picks systematically outperformed the negative picks.

Indeed, a strategy of shorting stocks with a disproportionate number of negative picks on the site and buying stocks with a disproportionate number of positive picks produces a return of over 9 percent

per annum over the sample period.

These results are mostly driven by the fact that negative picks on the site strongly predict future stock price declines, while positive picks on the site produce returns that are statistically indistinguishable from the market. The authors posit that it may not be surprising that social investing websites are more successful at predicting abnormally negative future stock performance than they are at predicting abnormally positive future stock performance, because acting on negative information about the prospects for a stock can be more costly and difficult than acting on positive information about the prospects for a stock. But the differences in returns between stocks ranked highly and stocks ranked poorly might be attributable to inherent differences in their characteristics, such as differences in risk, in market cap, or in past performance. Controlling for those factors, the authors find that differences in return are mostly due to stock picking.

—Claire Brunel

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