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Corporate Board Quotas and Labor Market Outcomes for Women

After Norway passed a law mandating that public limited-liability corporations create boards with no less than 40 percent of each gender represented, the number and quality of women board directors rose and the pay gap vis-a-vis male board members shrank. But 10 years into this experiment, which now is being copied in other countries, there's not much evidence of a trickle-down effect for other women in the workforce, according to **Breaking the Glass Ceiling?**

The Effect of Board Quotas on Female Labor Market Outcomes in Norway (NBER Working Paper No. 20256). "We find no evidence of significant differential improvements for women in the post-reform cohort, either in terms of average earnings or likelihood of filling in a top position in a Norwegian business," write authors **Marianne Bertrand, Sandra E. Black, Sissel Jensen, and Adriana Lleras-Muney,**

although large standard errors mean they cannot rule out the possibility.

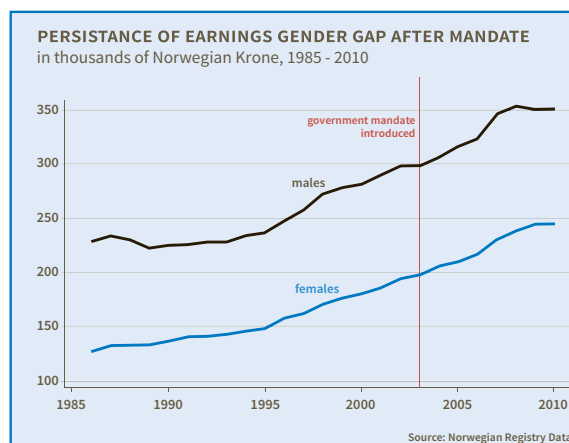
At best, the reform may have increased women's representation in the C-suite of targeted firms, a very

small group of individuals. "The representation of women does not improve

anywhere else in the [targeted] firms' income distribution (top 95th percentile, top 90th percentile, top 75th percentile). We also see no improvements on gender wage gaps among top earners and find no evidence of changing work environments in affected firms."

survey of 763 students at the prestigious Norwegian School of Economics, from

Though board representation rose, the gender wage gap persisted.



Additionally, there is no evidence that the rise in female board members inspired younger women to consider business careers or delay child-rearing in order to further careers. In the authors'

which many board members have graduated in the past, fewer than 10 percent of women said the reform encouraged them to get a business degree. "If anything, the share of women obtaining business degrees fell after 2004 (except for 2007)." The authors also write that "we see no

apparent reduction in the large gender gap in earnings that emerge in the first few years post graduation."

Although the World Economic Forum ranks Norway third among nations for opportunities for women, the proposed reform in 2003 met with considerable resistance in the business community. Before it was enacted, corporate leaders argued there were not enough qualified women to fill the board positions. Even after

the reform, most companies did not do much to increase female participation. By 2005, only 17 percent of board positions were held by women. So the government added sanctions, which took effect

in 2008. That's when the average share of women on the boards of those companies reached 40 percent.

In addition to increasing the representation of women on boards, the reform improved pay equity within boards. The pay gap with male counterparts on boards narrowed from about 38 percent to 28 to 32 percent. Moreover, despite the business community's stated fears about decreasing quality, female board

members post-reform were actually better-educated than the pre-reform cohort. The study found they had an extra half-year of education and MBA degrees on par with the male board members.

The reform may have affected too few women to have a large impact. A majority of the 563 public limited-liability companies subject to the law in 2003 went private or otherwise changed their corporate status, leaving only 179 firms subject to

the legislation by 2008. Although not all of this decline can be attributed to the legislation, it limits the number of firms and women affected by the law and thus the law's potential impact.

"While we do not observe any trickling-down to other top managerial positions in affected firms or elsewhere, it is possible not enough time has passed for such spillovers to occur," the authors write.

—Laurent Belsie

Insurer Competition and Premiums on Health Exchanges

The Affordable Care Act (ACA) introduced dramatic reforms to the health insurance industry, including the creation of online marketplaces for the purchase of insurance, a key element in the effort to expand insurance coverage. The success of these health insurance marketplaces (HIMs) will depend on their ability to attract multiple insurers to strengthen price competition. However, insurer participation in these marketplaces in the first year was limited. In the 34 states served by federally-facilitated marketplaces (FFMs), half of the population had three or fewer choices of insurers.

In More Insurers Lower Premiums: Evidence from Initial Pricing in the Health Insurance Marketplaces (NBER Working Paper No. 20140), **Leemore Dafny, Jonathan Gruber, and Christopher Ody** explore the effect of insurer participation in HIMs on 2014 premiums. The authors focus on the 34 FFMs, and they investigate whether the top three insurers in the pre-ACA individual health insurance market in each of these states—a total of 102 insurers—participate in the marketplace. They find that 55 of these insurers, or 54 percent, participated in the relevant FFM. States are

subdivided into ratings areas, and insurers need not participate in all ratings areas within a state. The population-weighted average number of insurers per ratings area was 3.9; this includes insurers who

were not in the top three. Because insurers may prefer to participate in markets where medical costs are lower or incomes are higher, the degree of concentration in an FFM may be related to other market characteristics. To identify the effect

all FFMs. United's individual insurance market share varies widely across states, so the decision differentially affected competition across markets. The authors construct a measure of the change in mar-

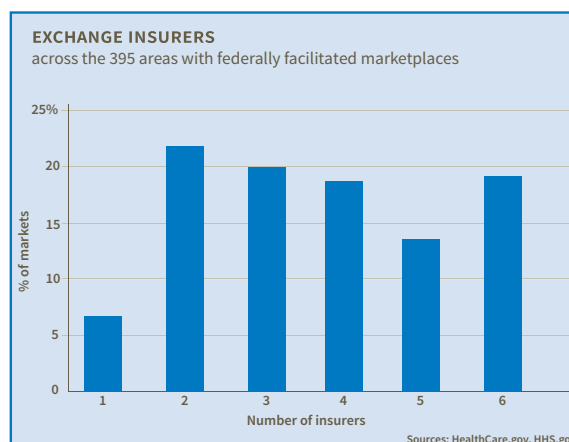
Costs are higher where fewer providers participate.

ket concentration resulting from United's nonparticipation decision and model its effect on the premium of the second-lowest-price silver plan (2LPS), a premium directly linked to federal subsidies.

The results suggest that additional competitors can have a large effect on premiums and federal subsidies. Premiums are highest in marketplaces where United's participation would have had the largest effect in increasing competition. On average, the population-weighted 2LPS premium would have been 5.4 percent lower had United entered all markets. And if all insurers present in a state in 2011 had entered the exchanges, FFM premiums would

have been 11 percent lower. In turn, this would have translated into estimated savings in federal subsidies totaling \$1.7 billion in 2014, and as much as \$105 billion over the next ten years if non-participation were to persist.

Comparing these results to previ-



of competition without such potentially confounding factors, the authors exploit quasi-experimental variation in marketplace concentration generated by the decision of United Healthcare, the nation's largest insurer, to forgo participation in

ous work, the authors conclude that the competitive dynamics characterizing these early exchange markets are akin to

those of the mature, but imperfectly competitive, large-group markets. However, future entry (such as the large increase in

insurers entering in the second year of the exchanges) and greater plan standardization may change this assessment.

— Claire Brunel

Informed Shoppers and Brand Premiums

Why are consumers willing to pay for a nationally advertised product when a store brand or generic of the same product may be had at one-third the price? In **Do Pharmacists Buy Bayer? Informed Shoppers and the Brand Premium** (NBER Working Paper No. 20295), **Bart J. Bronnenberg, Jean-Pierre Dubé, Matthew Gentzkow, and Jesse M. Shapiro** analyze wide-ranging shopper surveys and conclude that the answer lies in consumer information—and misinformation.

In a detailed case study of headache remedy purchases, the researchers find that more-informed consumers are less likely to pay extra to buy national brands, with pharmacists choosing them over store brands only 9 percent of the time, compared with 26 percent of the time for the average consumer. Similarly, chefs devote 12 percentage points less of their purchases of kitchen staples to national brands than otherwise similar non-chefs. The authors extend their analysis to cover 50 retail health categories and 241 food and drink categories and use the resulting estimates to develop a model of demand and pricing. They then quantify the degree to which brand premia result from misinformation, and determine how more accurate information would change the division of surplus among manufacturers, retailers, and consumers.

The study of headache remedies is based on a Nielsen Homescan database of purchases made on more than 77 million shopping trips by 125,114

households from 2004 to 2011. As indirect measures of information, the researchers use the shopper's occupation, educational attainment, and col-

Better-informed consumers are less likely to pay more for national brands.

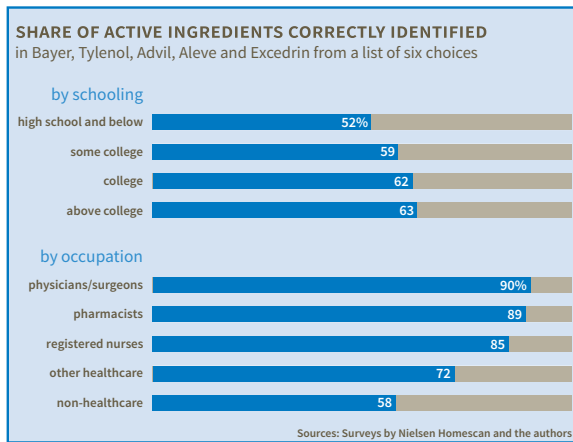
lege major. The researchers also measure information directly through a survey of a subset of Nielsen panelists, in which panelists were asked to name the active ingredient in various national-brand headache remedies. They also asked respondents whether they agreed or disagreed with a series

higher than a shopper who identifies none of the ingredients. All else equal, primary shoppers with a college degree are 4 percentage points more likely to

purchase a store brand, and when the primary shopper works in a healthcare occupation other than pharmacist or physician, this is associated with an 8 percentage point increase in the likelihood of buying the store brand. When the primary shopper is either a pharmacist or a physician, the probability of purchasing the store brand is 91 percent, 15 percentage points higher than the probability of otherwise similar buyers who are not in these fields. Primary shoppers who were science majors in college buy more store brands than those with other college degrees.

In a second case study of pantry staples such as salt, sugar, and baking powder, the researchers find that chefs devote nearly 80 percent of their purchases to store brands, compared with 60 percent for the average consumer.

The authors argue that determining how much of the brand premium reflects misinformation has important implications for consumer welfare. They estimate that consumers spend \$196 billion annually on consumer items in which a store-brand alternative to the national brand exists, and that they would save approximately \$44 billion if they switched to the store



of statements, including “Store-brand products for headache remedy/pain relievers are just as safe as the brand name products.”

Controlling for household income, other demographics, and the market, chain, and quarter in which the purchase is made, a household whose primary shopper correctly identifies all active ingredients in a national brand has an 85 percent chance of purchasing a store brand, 19 percentage points

brand. If consumers are systematically misled by advertising claims, say the analysts, this has clear implications for

evaluating the welfare effects of the roughly \$140 billion spent on advertising each year in the U.S., and for design-

ing federal regulations to minimize the potential for harm.

— Matt Nevisky

Agglomeration of Bankruptcy

Economists have long studied how a vibrant cluster of businesses can act as a catalyst for regional growth, attracting other firms to a geographic area and bolstering economic benefits enjoyed by all nearby companies. But in **The Agglomeration of Bankruptcy** (NBER Working Paper No. 20254), **Efraim Benmelech, Nittai Bergman, Anna Milanez and Vladimir Mukharlyamov** explore how such economic clusters can act as double-edged swords and how the bankruptcy of a major “anchor tenant” at a shopping mall can have negative spillover effects on other nearby companies. In the process, the authors say their findings identify a new channel through which bankruptcies by companies can drag down the performance of others.

Previous studies have documented how bankruptcies impact firms that file for Chapter 11 and their prospects for survival if they emerge from bankruptcies but less is known about the negative externalities that bankrupt companies impose on their competitors. In this paper, the authors wanted to explore whether agglomerations, in the case of retail clusters, can actually be detrimental during economic downturns, intensifying negative pressures on others when a major retail tenant files for Chapter 11 and closes stores, thus reducing the overall attractiveness of a retail cluster to customers.

Based on 2005–2010 data, the

authors compiled information from Chain Store Guide, Esri’s Business Analyst, and other sources about the locations of hundreds of thousands of

stronger for companies in the same retail industry as the liquidating chain store. The authors calculate that it is twice as likely for stores to close within

Bankrupt firms exert negative pressures on non-bankrupt neighbors.

retail outlets, including major national retailers, and scores of bankruptcy filings that led to liquidations. The study focused on bankruptcies of national chains with widespread brand recognition and geographic reach, such

a year after national-chain liquidations if those stores are within the same retail industry.

In addition, the authors show that economic pressures are more intense on neighboring stores if they are smaller and operated by firms in poor financial health. Stores within a 50-meter radius of a closing national store are 16.9 to 22.2 percent more likely to close if their parent firm is in the 25th percentile of profitability compared to others. By comparison, firms in the 75th percentile of profitability show no statistically significant likelihood of closing.

“Our analysis shows that bankrupt firms impose negative externalities on non-bankrupt



as Circuit City, KB Toys, Linens ‘n Things, and G+G Retail. The geographic diversity of national chains diminished the possibility that specific regional economic conditions might account for hardships and closures suffered by various stores.

The authors found that stores of non-bankrupt firms that were exposed to stores of bankrupt retailers were more likely than non-exposed stores to close. Indeed, this spillover effect was

neighboring firms through the weakening of retail agglomeration economies,” the authors conclude. “Store closures naturally lead to reduced attractiveness of retail areas as customers prefer to shop in areas with full occupancy. This, in turn, leads to declines in demand for retail services in the vicinity of bankrupt stores, causing contagion from financially distressed companies to stores of non-bankrupt firms.”

— Jay Fitzgerald

Long-Term Damage from the Great Recession in OECD Countries

Many macroeconomics textbooks describe recessions as temporary declines in aggregate demand, when actual output drops below potential output, followed by a recovery period when output returns to potential. However, a number of studies of deep recessions around the world find that recessions have highly persistent effects on output. These effects, sometimes labeled “hysteresis,” could arise because a recession reduces capital accumulation, scars workers who lose their jobs, and disrupts the economic activities that produce technological progress.

Experience since the global financial crisis and Great Recession of 2008–09 has strengthened the evidence for long-term effects of recessions, since output in many countries is still highly depressed in 2014, with many forecasters predicting little recovery in the next five years.

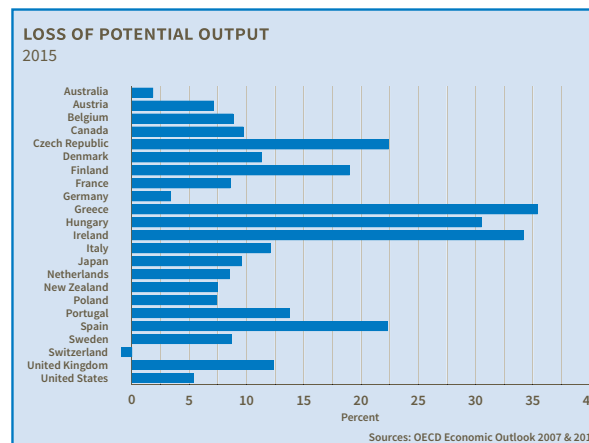
The global financial crisis of 2008–09 contributed to national recessions of varying severity. The hardest-hit economies include those in the periphery of the euro area, which experienced severe banking and debt crises. At the other extreme, Australia was almost unscathed because of factors including fiscal stimulus and strong exports to Asia.

In **Long-Term Damage from the Great Recession in OECD Countries** (NBER Working Paper No. 20185), **Laurence M. Ball** uses OECD estimates of potential output in 23 countries to

quantify the long-term damage from the Great Recession. For each country, he takes the path that potential output

The loss of potential output relative to the pre-crisis path is 8.4 percent in 2015.

was following before the financial crisis, according to OECD estimates from December 2007, and extrapolates this



path through 2015. He then compares this pre-crisis trend to estimates of potential output in the most recent vintage of OECD data (May 2014), and interprets the differences as effects of the recession. To check robustness, he performs a similar exercise using IMF estimates of potential output from October 2007 and from April 2014.

Ball finds that the recent recessions have had dire effects on economies’ productive capacity, as measured by OECD and IMF estimates of potential output. In most countries, the fall in potential relative to its pre-crisis trend has been

almost as large as the fall in actual output. Consequently, the countries with the deepest recessions have also experienced

the greatest long-term damage.

By aggregating the 23 countries in his sample, the author finds that the loss of potential output relative to the pre-crisis path is 8.4 percent in 2015. To appreciate the size of this loss, note that Germany accounts for 8.2 percent of the aggregate economy. The total damage from the Great Recession is slightly larger than the loss if Germany’s entire economy disappeared.

Ball suggests that recessions sharply reduce capital accumulation, have long-term effects on employment—largely through lower labor force participation—and may slow the growth of total-factor productivity. This last effect is poorly understood. One possible mechanism is a decrease in the formation of businesses with new technologies.

A pressing question is whether hysteresis effects are reversible. Perhaps a strong economic expansion could push potential output back toward its pre-crisis path as procyclical investment increases the capital stock and plentiful job opportunities increase workers’ attachment to the labor force. Ball concludes that further research is needed on the mechanisms and magnitude of long-run hysteresis.

—Les Picker

Student Absences, Instructional Time, and Academic Achievement

The average American student misses two weeks of school each year.

In **Flaking Out: Student Absences and Snow Days as Disruptions of**

Instructional Time (NBER Working Paper No. 20221), **Joshua Goodman**

concludes that poor attendance can account for up to a quarter of the math achievement gap between poor and non-poor students. He finds that while achievement is apparently unaffected by school closures that affect all classes equally, both individual and school achievement decline in the face of the classroom disruption caused by irregular attendance.

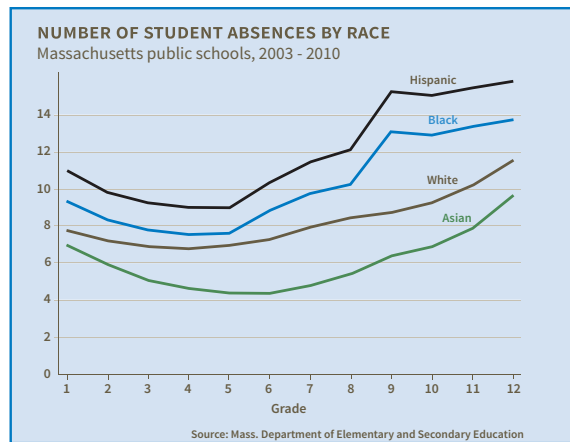
Using Massachusetts data, the author compares how absences affect the test performance of particular grades within specific schools, and how they affect the test performance of individual students as they progress through different grades. School closures for rare events like weather, broken heating systems, bomb threats and flooding account for less than one quarter of missed instructional time. At most, they have a small effect on math scores in low-income and primary schools. Student absences have a more significant effect on test scores. A one-day increase in absences in a given grade in a given school decreases math scores by 0.02 standard deviations. An individual student's absence decreases his math score by 0.008 standard deviations. It declines by an additional 0.008 standard deviations if others in his school and grade miss a day.

In Massachusetts, individual atten-

dance varies by demographic group and grade but not by gender. Poor students are absent an average of 10.1 days a

Poor attendance can account for up to a quarter of the math achievement gap between poor and non-poor students.

year, non-poor students just 6.9 days. Just 2 percent of non-poor students have more than 30 absences. More than 6 percent of poor students do. By 9th grade, the average black student is absent more than 14 days per year, the average Hispanic student is absent



more than 12 days per year, the average white student is absent almost 9 days per year and the average Asian student is absent almost 7 days per year.

Although school closures are unrelated to the characteristics of the students who attend them, absences caused by weather do vary with student characteristics. The effect of moderate snow on poor

student absences was twice as large as for non-poor students. It was also twice as large for black and Hispanic students as

for white and Asian students. The author speculates that this may be caused by dependence on “forms of transportation more likely to fail during snowstorms, such as public transit or low quality cars” or to placing “less value on school attendance.” Extremely snowy days, days with 10 or more inches of snow, produce more school closures but no additional absences because students cannot be absent when a school is closed. Previous studies finding that closures had large achievement effects may have mistakenly attributed the effect of individual absences to school closures.

The author concludes that teachers deal well with coordinated disruptions of instructional time but poorly with disruptions that affect different students at different times. The negative effect that absences have on achievement suggests that lengthening the school day or year will not necessarily have the desired effect of raising student performance, but that policies to improve attendance might help.

—Linda Gorman

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