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IN THIS ISSUE

Media Bias and Voting

Does media bias affect voting? Over 70 percent of Americans believe that there is either a great deal or a fair amount of media bias in news coverage. Evidence of bias ranges from the topic choices of the *New York Times* to the choice of think tanks to which the media refer in their broadcasts.

In **The Fox News Effect: Media Bias and Voting** (NBER Working Paper No. 12169), authors **Stefano DellaVigna** and **Ethan Kaplan** address this question by looking at the entry of Fox News into cable markets and its subsequent impact on voting. Between October 1996 and November 2000, the conservative Fox News Channel was introduced into the cable programming of 20 percent of American towns. Using voting data for 9,256 towns, the authors investigate whether Republicans gained vote share in towns where Fox News entered the cable market by the year 2000.

They find that the introduction of Fox News had a small but statistically significant effect on the vote share in Presidential elections between 1996 and 2000. Republicans gained an estimate of between 0.4 and 0.7 percentage points in the towns that broadcast Fox News. They also find that Fox News had a significant effect on Senate vote share and on voter turnout. Their estimates imply that Fox News convinced 3 to 8 percent of its viewers to vote Republican according to a first audience measure, and 11 to 28 percent according to a second, more restrictive audience measure.

The authors also analyzed whether Fox News affected voting in those races where it did not cover the candidates directly, as was the case in most Senate races. In that way, they are able to estimate whether the influence of Fox News is candidate-specific or whether it extends to general political beliefs. The researchers find that Fox News significantly increased the Republican vote share for Senate, by 0.8 percentage points. Additionally, the effect was not larger for the one Senatorial race that Fox News did cover heavily, the New York state race between Hillary Clinton and Rick Lazio. Fox News appears to have induced a generalized ideological shift.

> "The introduction of Fox News had a small but statistically significant effect on the vote share in Presidential elections between 1996 and 2000."

Rupert Murdoch introduced the 24-hour Fox News Channel in October 1996 to compete with CNN. Like CNN, it was offered only via cable and, to a smaller extent, via satellite. Thanks to an aggressive marketing campaign, a number of cable companies added Fox News to their programming over the next four years. That geographical expansion was accompanied by a corresponding increase in the audience share. By June 2000, 17.3 percent of the U.S. population reported watching Fox News regularly.

The nature of the cable industry induces substantial geographical variation in access to Fox News. Cable markets are natural monopolies with capacity constraints on the number of channels they offer. The availability of Fox News in a town depends on whether the local cable company decides to add it to the programming, possibly at the expense of another channel. Cable companies in neighboring towns often make different decisions, creating idiosyncratic variation in access. This allows the authors to compare voting patterns in neighboring towns that are similar except for the availability of Fox News. Their dataset covered 28 states.

Since Fox News was available in about 35 percent of households in 2000, its impact on the national two-party vote share that year is estimated to be 0.15 to 0.2 percentage points, or 200,000 votes nation-wide. While this vote shift is small compared to the actual 3.5 percentage point shift in the authors' sample between 1996 and 2000, it is still likely to have been decisive in the close 2000 presidential elections.

The authors also point out that their results have implications for policy, such as for the regulation of media concentration. If media bias alters voting behavior, then deregulation of media markets may have a large impact on political outcomes.

— Les Picker

Electoral Outcomes and Financial Markets

The economy has a significant impact on the outcome of elections. However, it is not known whether elections affect the economy. Some observers maintain that candidates and parties tend to converge to the same economic policies — those of the median voter — so that who wins an election is inconsequential to the economy. Others believe that political parties promote discrete economic expectations, and that the election of a Democrat or a Republican candidate for president will have substantially different — and predictable — influences on markets.

To date, evidence supporting either view has been difficult to isolate. But in **Partisan Impacts on the Economy: Evidence from Prediction Markets and Close Elections** (NBER Working Paper No. 12073), co-authors **Erik Snowberg, Justin Wolfers,** and **Eric Zitzewitz** weigh in on this contentious matter with a novel analysis of data from financial and prediction markets. They perform an in-depth analysis of the 2000 and 2004 U.S. presidential elections and then extend their analysis to presidential contests as far back as 1880. They find that in 2000, 2004, and over the entire 1880–2004 period, a Republican victory raised equity values by about 2 percent. On the other hand, since the Reagan Administration, Republican victories also have raised interest rates on government bonds by about 0.12 percent.

The researchers reach these conclusions by examining the movement of financial markets as votes are counted on Election Day. For the 2004 election, they pair data for equity index and other futures with a liquid prediction market, run by Tradesports.com, which tracked the election outcome. The TradeSports.com contract would pay $10 if Bush were re-elected and nothing if he lost. The price of this contract (multiplied by 10) can be interpreted as Bush's probability of winning. Snowberg, Wolfers, and Zitzewitz match data from this contract with the price of the last transaction in the same ten-minute window for the December 2004 futures contracts of several financial variables: the S&P 500, Dow Jones and Nasdaq 100 indices, currency futures, two- and 10-year Treasury Note futures, and several oil futures.

They find that financial prices closely tracked the election news during Election Day. Leaked exit polls favoring Kerry released at around 4 p.m. provide a sharp natural experiment; they were accompanied by stock price declines and bond price increases, and these movements were reversed when Bush emerged as the winner later in the evening. From these movements, the authors conclude that markets expected the S&P 500 to be worth 1.6 percent more under a Bush Presidency, but also expected 10-year bond yields to be 0.11 percent higher.

This analysis clearly demonstrates that political shocks were expected to cause economic changes. However, from examining the 2004 election alone one cannot distinguish whether the estimated effects are caused by the election of a Republican (indicating perceived partisan policy effects) or the re-election of the President (suggesting the perceived benefits of an incumbent). This leads the researchers to turn to the 2000 election, in which there was no incumbent running.

In 2000 the major financial indicators moved sharply when expectations of a Bush victory changed — much as they did in 2004. The researchers note that there were no prediction markets to track the probability of either candidate's victory during election night, 2000. However Centrebet, an Australian bookmaker, ran a contract that closed on the morning of the election, showing a 60 percent chance of a Bush victory.

The researchers reasoned that when Florida was called for Gore, Bush's probability of victory could not have dropped more than 60 percent. This, paired with various futures contracts, allowed them to determine that a Bush victory in 2000 was expected to lead to at least a 1.3 percent increase in the S&P 500, and a 0.6 percent appreciation of the dollar. After Florida was moved back to the undecided column, the prices of all the economic indicators reverted to their original levels. When Florida was later called for Bush, the researchers assume no more than a 40 percent increase in the chance of a Bush victory, yielding lower bounds of Bush's effect on the above economic indicators of 1.9 percent, and 0.7 percent respectively. These estimates are consistent with the researchers' findings for the 2004 elections, so they conclude that it was the differences between Bush and his Democratic opponents that drove the market's reaction, rather than Bush's status as an incumbent in 2004.

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To study earlier elections, the researchers compared stock market returns from the pre-election close to the post-election close. Their innovation is to complement this data with election betting that dates back to 1880. They find that equity markets rose when Republican presidential candidates were elected. Significantly, the more surprising the Republican victory, the more markets rose. Surprising Democratic victories were likewise accompanied by market declines.

Snowberg, Wolfers, and Zitzewitz conclude that changes in the perceived probability of electing a Republican president caused changes in expected bond yields, equity returns, and oil prices. The authors conjecture that the 2-3 percent jump in equity prices accompanying a Bush victory could be attributable to expectations of capital receiving favored treatment over labor, of existing firms receiving favorable treatment over potential entrants, or of general economic expansion under the Bush administration. That long bond yields were expected to rise under Bush is inconsistent with the traditional perception of Republicans as fiscally conservative, but consistent with the higher deficits created under Republicans since the 1980s.

The researchers caution that the sign of partisan effects on equity prices and economic well being need not be the same. Furthermore, their analysis captures traders' expectations of partisan effects, not the parties' actual effects on economic outcomes.

— Matt Nesvisky

The Evolution of Top Incomes

Among economists, there has been general dissatisfaction with existing international data on income inequality. The data are difficult to compare over time or across countries, and cover only a few isolated years per country, generally being restricted to the post-1970 or post-1980 period. They almost never offer any decomposition of income inequality into its labor income and capital income components. Yet economic mechanisms can be very different for the distribution of labor income (demand and supply of skills, labor market institutions, and so on) versus the distribution of capital income (capital accumulation, credit constraints, inheritance law and taxation, and the like). The fact that existing data are not long run is also problematic, because structural changes in income and wealth distributions often span several decades. In order to properly understand such changes, one needs to be able to put them into broader historical perspective.

In **The Evolution of Top Incomes: A Historical and International Perspective** (NBER Working Paper No. 11955), authors **Thomas Piketty** and **Emmanuel Saez** construct a high quality, long-run, international database on income and wealth concentration using historical tax statistics. The resulting database includes annual series covering most of the twentieth century for a number of (mostly Western) countries.

They find that most countries experienced a dramatic drop in top income shares in the first part of the century because large wealth holdings dropped precipitously during the wars and the Depression. Top income shares did not recover in the immediate post-war decades. However, over the last thirty years, top income shares have increased substantially in English speaking countries, while not at all in the continental European countries or Japan. This increase is attributable to an unprecedented surge in top wage incomes that began in the 1970s and accelerated in the 1990s. As a result, top wage earners have replaced capital income earners at the top of the income distribution in English speaking countries.

"This rise in top income shares is not due to the revival of top capital incomes, but rather to the very large increases in top wages (especially top executive compensation)."

The fact that the drop in income concentration in the first part of the twentieth century is primarily due to the fall in top capital incomes, and that the fall took place mostly during wartime and the Great Depression in most of those countries, suggests an obvious explanation. For the most part, income inequality dropped because capital owners experienced severe shocks to their capital holdings during the 1914 to 1945 period, including destructions, inflation, bankruptcies, and the fiscal shocks of financing wars. The available wealth and estate data for countries such as France, the United States, or Japan confirm this interpretation.

The more challenging issue for the authors to explain is the lack of recovery of top capital incomes after 1945. Their proposed explanation is that the capital shocks between 1914 and 1945 had a permanent effect because the introduction of progressive income and estate taxation (there was virtually no tax progressivity prior to 1914, and top rates increased enormously between 1914 and 1945) made it impossible for top capital holders to fully recover. Simple simulations suggest that the long-run impact of tax progressivity on wealth concentration is indeed large enough to explain the magnitude of the observed changes.

After 1970, the authors observe a major divergence among rich countries. While top income shares have remained fairly stable in Continental European countries or Japan over the past three decades, they have increased enormously in the United States and other English speaking countries. This rise in top income shares is not due to the revival of top capital incomes, but rather to the very large increases in top wages (especially top executive compensation). As a consequence, top executives (the "working rich") have replaced top capital owners at the top of the income hierarchy over the course of the twentieth century.

Understanding why top wages have surged in English speaking countries in recent decades, but not in continental Europe or Japan, remains controversial, with three broad points of view. The free-market view claims that technological progress has made managerial skills more general and less firm-specific, hence increasing competition for the best executives from segregated, within-firm markets to a single economy-wide market. While this view can possibly account for U.S. trends, it cannot explain why executive pay has not changed in other countries, such as Japan or France, which have gone through similar technological changes. A second view claims that impediments to free markets attributable to labor market regulations, unions, or social norms regarding pay inequality, can keep executive pay below market. Such impediments have been largely removed in the United States but still exist in Europe or Japan, explaining the trends. Under this view, the surge in executive compensation actually represents valuable efficiency gains. A third view claims that the surge in top compensation in the United States is attributable to an increased ability of executives to set their own pay and to extract rents at the expense of shareholders.

— Les Picker

A Healthy Economy Can Break Your Heart

Sustained growth in income generally has been associated with improvements in health, but all growth may not be equally healthy. In **A Healthy Economy Can Break Your Heart** (NBER Working Paper No. 12102), author **Christopher Ruhm** shows that transitory upturns, those involving more intensive use of existing labor and changes in environmental conditions, may be associated with increased mortality from heart attacks.

To investigate this relationship, Ruhm uses a variety of measures from each of the twenty largest states, measured each year from 1970 to 1998. He calculates heart attack mortality rates using data from the Centers for Disease Control, using the number of deaths from heart attack in a state for a particular year divided by the estimated state population during that year. The rates are calculated for males, females, whites, blacks, and three age groups: 20–44, 45–64, and over 64. The annual state unemployment rate serves as a proxy for economic conditions. And, the estimates are adjusted for the fraction of state residents who are female, black, under 25 years of age, over 64, who never attended college, and who were college graduates.

In general, the results suggest that a single percentage point reduction in unemployment increases predicted deaths from heart attack by about 1.3 percent. The percentage increase in fatalities is similar for males and females, and smaller for blacks than whites. For the same reduction in unemployment, the estimate of an increase of 2.37 percent for 20-44 year olds is considerably larger than the 0.92 percent increase estimated for those 45–64, or the 1.41 percent increase estimated for those 65 and over. Although the increase in risk is largest for the 20–44 year old group, the majority of additional heart attacks are predicted to involve those over 64. Equally split between men and women, 2,220 out of the total of 2,525 additional heart attacks associated with a single percentage point drop in unemployment will affect those over 64.

"A single percentage point reduction in unemployment increases predicted deaths from heart attack by about 1.3 percent."

Ruhm considers several reasons why heart attack deaths might rise as unemployment falls. Longer working hours could make it more difficult for individuals to take the time to exercise or eat properly. Inadequate sleep is associated with a variety of health risks, and extra hours could reduce sleep. Job stress may rise during economic expansions and may be exacerbated by production speedups and inexperienced workers. These factors would affect people of prime working age and may account for the large increase in risk observed for the 20–44 year old age group. The high number of absolute heart attacks observed among the elderly may come about as economic growth increases air pollution and traffic congestion, both of which have been associated with higher rates of heart attack.

Ruhm cautions however that, "these results obviously do *not* justify contractionary economic policies." Instead, they suggest that the effects of growth are not uniformly beneficial, and that "clinicians may need to make efforts to identify patients at higher risk" when the economy strengthens.

— Linda Gorman

The Allies, Spain, And Oil In World War II

Do economic sanctions levied by one nation against another for political purposes work? In **An Elephant in the Garden: The Allies, Spain and Oil in World War II** (NBER Working Paper No. 12228), researchers **Leonard Caruana** and **Hugh Rockoff** study records documenting the Allies' control of Spain's oil imports during World War II and find instructive answers.

The United States and Britain imposed oil embargoes of various degrees against Spain for several reasons. Foremost among these was the Allies' desire that Spain remain neutral throughout the war. They also hoped that sanctions would discourage Spain from allowing German spies to operate in Spain, that Spain would withdraw its "volunteer" troops fighting alongside the Germans on the Eastern front, and that Spanish Dictator Francisco Franco would rein in his nation's virulently pro-Axis press. Not least, the Allies wanted Spain to halt its exports to Germany of crucial raw materials, particularly tungsten, which was used in armor-piercing shells. The Allies also feared Spain's re-exporting petroleum products, especially aviation fuel, to the Germans. By analyzing month-by-month and product-by-product shipping records in the Spanish Archives, Caruana and Rockoff track the Allied economic pressures on Spain throughout the war. In doing so, the researchers identify three phases of sanctions. They also determine that the effectiveness of each phase depended largely on the goals of the nations imposing the sanctions and on the degree of accord between those nations.

To begin with, fearful of a pro-Axis Spain possibly capturing Gibraltar and other strategic Mediterranean sites, Britain enacted a program at the outset of the war whereby shippers in every port around the world had to obtain clearance from the British consul for every shipment to Spain. Royal Navy inspectors who maintained a blockade around Spain enforced certification of cargo. The Americans, who at that time were still neutral in the war, protested the British action at first. But the United States eventually began to cooperate with it. With the fall of France in June 1940, the British asked the United States to halt its considerable oil exports to Spain, and the Americans complied.

Spain panicked, the researchers report, fearful for its transportation systems, fishing fleets, and industries. The country had no other access to oil, and appeals to Germany, which was concerned about fuelling its war machine and industries, were of no avail. Franco was forced to seek accommodation with the Allies, and in return for an allotment of oil that amounted to about 80 percent of Spain's consumption before the Spanish Civil War, Franco acceded to the Allied demands for neutrality.

This "First Embargo" held until the latter half of 1941, when Germany invaded Russia and Franco announced that Spanish "volunteers" were to fight alongside German forces. A second phase of sanctions, which the researchers called "the Squeeze," included a one-third reduction in Spain's allotment of oil, and American demands that its inspectors be allowed on Spanish soil to monitor the importation and consumption of oil. The Americans also wanted Spain to recall its troops from the Russian front. The British were less enthusiastic about these demands, worried that they might interfere with Britain's crucial imports of iron ore and potash from Spain. For its part, Spain swallowed the humiliating conditions imposed on it, but delayed withdrawing its troops from the east until October 1943 — and even then did not recall all of them.

In addition, Spain's press remained avidly pro-Axis, and Spain was allowing straying German planes to land and refuel on its territory, while Allied planes were impounded and their pilots interned. Most importantly, Spain was still supplying tungsten to both the Nazis and to the Allies. As a result, the Allies in January 1944 imposed a "Second Embargo." This phase, the researchers say, proved the least effective. On the one hand, Spain paid lip service to the demands placed on it — such as withholding tungsten from Germany — but turned a blind eye to the smuggling of the ore to the Nazis. On the other hand, the United States and Britain differed on how hard to press Spain, with the British deeply concerned about its investments in that country and about its post-war trade relations. Churchill and Roosevelt were soon at loggerheads over Spain, and at one point the British even threatened to "go their own way" on the oil issue. Churchill, in a clever turn of phrase, told Roosevelt that the Americans, with their lack of concern about long-term British interests, were acting like "an elephant in the garden." The Allies made efforts to smooth over their differences, but the Second Embargo, according to Caruana and Rockoff, at best achieved only part of the Allies' goal.

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Based on their study of "the Spanish Experiment," Caruana and Rockoff conclude that the outcomes of sanctions can be hard to predict, because the factors that influence outcomes are so diverse. The researchers also maintain that, "the choice of goals that can be monitored effectively is an important determinant of whether goals can be achieved." Finally, Caruana and Rockoff state emphatically: "Cooperation among the countries imposing sanctions is critical for success."

— Matt Nesvisky

Generous Benefits Raise Long-Term Unemployment

If you provide very generous unemployment insurance, you may end up with more long-term unemployment. That's what economists **Peter Kuhn** and **Chris Riddell** find when they compare the long-term impact of a highly generous unemployment insurance (UI) program in the Canadian province of New Brunswick with the more modest UI program in the neighboring state of Maine. In Maine's northernmost countries, about 6.1 percent of employed men worked fewer than 26 weeks (half a year) in 1990. Across the Saint Croix River in New Brunswick, the comparative figure was more than three times as high, 20.8 percent. The more-generous UI program in New Brunswick accounts for about two-thirds of this difference, the authors estimate.

In **The Long-Term Effects of a Generous Income Support Program: Unemployment Insurance in New Brunswick and Maine, 1940–1991** (NBER Working Paper No. 11932), Kuhn and Riddell use what they term a "dramatic natural income-support experiment" spanning fifty years. Both areas are similar, known for their coastal scenery, cold climate, rural character, and relatively low incomes. Both have relatively sparse populations — 1.2 million in Maine, 740,000 in New Brunswick — that have grown less rapidly than their national averages over the fifty years.

In Canada, though, UI is financed and administered by the federal government. This allows for generous payments that, the authors note, "would likely be unsustainable if UI was self-financing within the region." Personal per capita annual income in New Brunswick is 27 percent below the Canadian average. However, as a statement by the Canadian Construction Labor Relations Association cited by the authors notes, one consequence of the Canadian UI system is "...that many persons voluntarily make what amounts to a way of life out of working only long enough to establish benefits, then drawing them for the maximum period, and then repeating the cycle."

In 1950, Maine and New Brunswick had quite similar UI systems. Since then, New Brunswick's system, with two major expansions, has become much more generous. By 1980, ten weeks worked per year in New Brunswick on average provided an annual income, if UI benefits are included, equivalent to 33 weeks of earnings. This part-time work could be repeated year after year without penalty. In Maine, ten weeks of work plus UI benefits added up to only 13 weeks of pay. Maine's UI payments have remained roughly constant since the 1950s.

Over time, both workers *and* firms adjusted to the generous UI program in New Brunswick. Although the statistical analysis in their paper focuses only on the effects of UI on weeks worked, the authors suggest that UI might also have had an impact on "education decisions, occupational choices, fertility decisions, migration (workers with high tastes for leisure may be induced to remain in New Brunswick by UI policy), learning effects (it takes time and/or experience to understand the workings of the UI system), and the development of informal institutions." The latter point refers to the likelihood that some firms may re-label a worker who quits a job as a layoff to allow that person to be eligible for UI, or that firms may permit sequential job-sharing in a single job so that two employees can take advantage of the UI system. Indeed, because of its prevalence, the stigma of living off UI may have shrunk in New Brunswick, making it even more attractive, the authors note.

The authors also attribute even larger increases in the part-year work of women, and of less-educated men, in New Brunswick to the UI system. This took place especially in service jobs, which account for half of female employment, as well as in inherently seasonal activities such as primary industries. For example, forestry, fishing, and farming jobs decline considerably in the winter. "Thus, for women, it appears that UI has not just preserved an existing lifestyle, but actually *created* a new one based on chronic seasonal unemployment," the authors write. For women, 13.8 percent worked less than half the year in Northern Maine compared to 26.2 percent in New Brunswick.

Overall, the authors find that a 10 percent UI-induced increase in the income associated with working for less than half a year raises the number of persons working less than a half year by about 10 percent. In New Brunswick, UI payments account for 6 percent of the province's gross domestic product. That's six times the proportion of GDP representing UI in Maine.

"A 10 percent UI-induced increase in the income associated with working for less than half a year raises the number of persons working less than a half year by about 10 percent."

— David R. Francis

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