

IN THIS ISSUE

- Who Underreacts to Cash Flow News?
- Higher Alcohol Prices and Student Drinking
- A Rehabilitation of Monetary Policy in the 1950s
- The Retirement Effects of Canada's Income Security Programs

Who Underreacts to Cash Flow News?

The extent to which stock prices in organized markets reflect all available information is of perennial interest to those who buy and sell stocks, those who regulate their sale, and those with a general interest in detailing the functioning of market systems. If buyers or sellers know something that the market fails to include in a particular stock's price, they stand to make tidy profits by exploiting their informational advantage. Past studies of the reaction of firm-level stock prices to changes in a firm's expected cash flows generally have concluded that the stock price "underreacts." When news suggests that expected future cash flows will increase, stock prices typically go up, but by less than the expected future gains.

The existence of irrational individual investors who buy and sell stocks in booms and busts without paying sufficient attention to news about changes in cash flow fundamentals could explain such underreactions. In **Who Underreacts to Cash-Flow News? Evidence from Trading Between Individuals and Institutions** (NBER Working Paper No. 8793), authors **Randolph Cohen, Paul Gompers, and Tuomo Vuolteenaho** review the evidence that stock prices underreact, show that underreaction is larger for the stock of smaller firms, and discuss the fact that prices react

more rapidly when the cash flow news is good.

Covering 1983 to 1998, their data include all stocks on the NYSE, AMEX, and NASDAQ. They define institutional investors as those who must file a form 13F with the Securities and Exchange Commission, generally all entities with more than \$100 million of securities under discretionary management. The authors estimate that a \$1.00 increase in cash flow news increased an average share price by just 41 cents during that period.

percent of outstanding shares.

On average, banks appear to have done a better job of exploiting cash flow news than insurance companies, mutual funds, investment advisors, and other institutions. In general, the authors conclude, institutional investors do a better job than individuals of discriminating "between stock price movements that are justified and those that are unjustified by cash flow fundamentals."

While institutional activity reduces the amount of underreac-

"When news about expected cash flows is good, institutional investors buy stock from individuals. When it is bad, they sell to individuals."

Underreaction implies that savvy investors can make profits by buying undervalued stocks, and the authors find that institutions do exploit the profit opportunities implicit in market underreaction. When news about expected cash flows is good, institutional investors buy stock from individuals. When it is bad, they sell to individuals. On average, institutions hold about 36 percent of a typical stock; a one standard deviation improvement in cash flow news causes the average institution to buy an additional 4

tion, it does not eliminate it. Although institutional trades do reduce under-reaction, institutional deviations from the value-weighted market index are relatively small. As a group, institutions outperform individuals by only 1.4 percent per year before transactions and other costs. The authors attribute this conservative performance to a number of factors, including the written and unwritten rules that limit the actions of institutional investment managers.

— Linda Gorman

Higher Alcohol Prices and Student Drinking

Raise the price of alcohol substantially and some college students will not drink or will drink less. That conclusion in a paper by **Jenny Williams, Frank Chaloupka, and Henry Wechsler** may not surprise economists raised on the premise that higher prices reduce demand. But it may be helpful to administrators of colleges and universities and their neighboring communities who are troubled by binge drinking with its too often grim consequences of deaths, property damage, injuries arising from fights, unwanted sexual encounters, and encounters with the police. Sometimes such heavy episodic drinking interrupts the studying of other students or forces them to “babysit” for a drunken student. A survey by the American Medical Association found that college binge drinking is among the top concerns of parents with college-aged children.

In **Are There Differential Effects of Price and Policy on College Students’ Drinking Intensity?** (NBER Working Paper No. 8702), the three authors use data from the Harvard School of Public Health’s College Alcohol Study, which surveyed students at 130 representative colleges and universities in 1997 and 128 schools in 1999. These produced 22,831 responses from undergraduates under the age of 25. One key finding is that students faced with a \$1 increase above the \$2.17 average price for a drink will be 33 percent

less likely to make the transition from being an abstainer to a moderate drinker, or from being a moderate drinker to a heavy drinker. So, raising the price of alcohol is “an effective policy instrument for reducing excessive drinking by young adults,” the authors report. An increase in the price of alcohol, the authors note, could be achieved by eliminating price specials and promotions offered by bars and other

the authors find. They caution that they had no way of measuring how well schools enforced such tough policy measures.

This study defines an abstainer as someone who reports not having drunk any alcohol in the past 30 days. By one measure, a moderate drinker consumed less than five drinks during a typical drinking occasion in that time span if male and less than four if female. A heavy

“Raising the price of alcohol is an effective policy instrument for reducing excessive drinking by young adults.”

alcohol-serving establishments near schools, raising excise taxes on alcoholic beverages, and eliminating the feature of some parties where students pay a fixed fee to enter and then can drink as much as they like.

The authors also compare the impact on student drinking habits of the bans that some schools place on alcohol consumption on campus — by both students and staff, or students alone, regardless of age — with the outcome at schools that do not ban alcohol except for those under 21. The students attending colleges and universities with a complete ban are 26 percent less likely to shift from being an abstainer to a moderate drinker. But the bans have no effect on the transition from moderate drinker to heavy drinker,

drinker, again depending on gender, has had more than five or four drinks during a typical drinking occasion in 30 days. On this basis, 32 percent of students were abstainers, 37 percent were moderate drinkers, and 31 percent were heavy drinkers.

The second measure defines a moderate drinker as one drinking but not getting drunk, or getting drunk three or fewer times, in the previous 30 days. A heavy drinker is described as getting drunk more than three times in the same 30 days. (Drunk is defined as being unsteady, dizzy, or sick to the stomach.) By this measure, 32 percent were abstainers, 47 percent were moderate drinkers, and 21 percent were heavy drinkers.

— David R. Francis

A Rehabilitation of Monetary Policy in the 1950s

Would William McChesney Martin, who was chairman of the Federal Reserve Open Market Committee (FOMC) during the 1950s, feel at home at a modern day FOMC meeting? If Alan Greenspan, or his predecessor Paul Volcker, were transported back to the 1950s' Federal Reserve, would they fit in? Based on the evidence presented by NBER Research Associates **Christina Romer** and **David Romer**, the answer is they probably would. In **A Rehabilitation of Monetary Policy in the 1950s** (NBER Working Paper No. 8800), Romer and Romer show that the FOMC of the 1950s had similar priorities and a similar approach to setting interest rates as the FOMC of the last twenty years.

These findings contrast with the standard characterization of monetary policymakers in the 1950s as unsophisticated, inept, or both. Economists tend to portray the 1950s' Fed in uncomplimentary terms, or to ignore it, in studies of post-war monetary policy. The starting point of Romer and Romer's analysis is the macroeconomic evidence: between 1952 and 1960, average annual inflation was less than 2 percent, the U.S. economy expanded at an average annual rate of 2.9 percent, and unemployment averaged 4.7 percent. Such good macroeconomic performance is not proof that macroeconomic policymaking was similarly good, but it certainly suggests that the conventional wisdom should be revisited.

Romer and Romer proceed along two paths. First, they examine the Federal Reserve records from the 1950s, chiefly FOMC minutes and Federal Reserve officials' Congressional testimony. They show that FOMC deliberations were actually quite sophisticated. According to Romer and Romer, many statements by FOMC members from the

1950s could be inserted into the narrative record of the 1980s and 1990s without anyone noticing. Second, they conduct statistical analysis of the 1950s data. Estimates of the Taylor rule, which relates changes in interest rates to changes in output and inflation, confirm the similarities between Fed policymaking under chairman Martin and under chairmen Volcker and Greenspan.

The narrative evidence suggests that policymakers in the 1950s can be best characterized as having a deep-seated dislike of inflation, which they preemptively acted to control. They emphasized the costs of inflation and the absence of a

worrying about inflation in the spring, as soon as it thought the recession had reached its trough. By September 1958 rates were back to their peak level of the previous year. Chairman Martin summed up the attitude at one FOMC meeting: "Inflation is a thief in the night and if we don't act promptly and decisively we will always be behind."

In the statistical analysis, Romer and Romer look at how the Federal funds rate responded to developments in the macroeconomy in the 1950s, and compare that relationship with later periods. They show that policymakers in the 1950s raised nominal interest rates more than one-for-one with increases in

"Policymakers in the 1950s raised nominal interest rates more than one-for-one with increases in expected inflation, meaning that the FOMC increased the real federal funds rate. That is similar to the 1980s and 1990s."

long-run trade-off between output and inflation. This is very similar to the rhetoric of the 1980s and 1990s. It is the 1960s and 1970s, by contrast, when the FOMC's framework looks old-fashioned, first in its use of a naïve Keynesian model with an exploitable trade-off between output and inflation, and subsequently with a natural rate model with an unrealistically low estimate of the natural rate. The result was the high inflation of the late 1960s and 1970s.

The FOMC of the 1950s was not exclusively concerned with inflation — it also frequently expressed concern about unemployment and growth — but its deliberations suggest it was prepared to overlook these concerns if it thought that inflation was about to rise. For example, the records show that following a mild recession in 1958 the FOMC started

expected inflation, meaning that the FOMC increased the real federal funds rate. That is similar to the 1980s and 1990s. During the 1960s and 1970s, by contrast, policymakers responded less aggressively to rising inflation expectations. Then the coefficient was less than one, indicating that the real federal funds rate fell as inflation rose.

Policymakers in the 1950s acted similarly to their modern day counterparts, based on the researchers' Taylor rule estimates. The main difference is that the members of the FOMC of the 1950s thought that the negative effects of rising inflation were felt very quickly. Few modern day economists take such an approach. Yet, unlike their successors in the 1960s and 1970s, policymakers did not believe in a long-run positive trade-off between output and inflation.

— Andrew Balls

The Retirement Effects of Canada's Income Security Programs

Like many other developed nations, Canada has a large income security system for retirement. However, a variety of policy and demographic factors have created crises for both the Canadian and Quebec Pension Plans. As a result, Canada's Income Security (IS) programs for seniors face an uncertain future.

In particular, the substantial reduction in the work participation of older Canadians is a trend that is creating fiscal concern. From the beginning of the 1960s through the end of the 1990s the labor force participation rate of 55-64 year old men fell from 87 percent to 61 percent. For men over 65, it fell from 30 percent to under 10 percent. This creates a dual financial burden for the IS system: lower tax revenues and higher benefits.

In **The Retirement Incentive Effects of Canada's Income Security Programs** (NBER Working Paper No. 8658), authors **Michael Baker, Jonathan Gruber, and Kevin Milligan** find that the work disincentives inherent in the Canadian IS system have large and statistically significant effects on workers' retirement decisions. The Canadian IS system consists of a complicated web of programs that provide both incentives and disincentives to work at various ages.

Overall, however, starting at the early retirement age of 60, there are large disincentives to continued work inherent in this system, the authors find. These disincentives largely arise from means-tested benefits programs that reduce retirement income as earnings and

The authors' analysis reveals that these IS programs have an important retirement effect: decreasing the incentive to work through IS programs significantly increases retirement among older Canadians. Moreover, this effect is strongest when the authors consider

“From the beginning of the 1960s through the end of the 1990s the labor force participation rate of 55-64 year old men fell from 87 percent to 61 percent.”

other income increase. By age 64, Canadian males face a net reduction in the present value of their retirement income of over \$4400 if they work another year.

The authors study the impact of these program incentives and disincentives on retirement using a unique administrative dataset for Canada. Their data combines earnings records over a long time period with information on employment patterns and the characteristics of workplaces. Moreover, these data are linked across spouses, providing a full characterization of the earnings of both spouses. These rich data allow the authors to carefully compute both workers' retirement patterns and the financial incentives to retire that are inherent in the IS system.

not only the incentive to work one more year, but also the entire path of future incentives to work. Workers appear to understand, and respond to, incentives that might affect the value of work in several years, not simply in the current year.

These findings have important policy implications. They suggest that the disincentives to work put in place by income security programs can cause significant increases in retirement. And, they suggest that reforms that increase the incentive to work at older ages can reduce retirement. For example, policy changes to further increase benefits for those who stay in the workforce at older ages would significantly raise the share of older workers who stay in their jobs and do not retire.

— Les Picker

NBER

The National Bureau of Economic Research is a private nonprofit research organization founded in 1920 and devoted to objective quantitative analysis of the American economy. Its officers are:

*Martin Feldstein — President and
Chief Executive Officer*

*Susan Colligan — Vice President for
Administration and Budget*

Carl F. Christ — Chairman

Michael H. Moskow — Vice Chairman

Contributions to the National Bureau are tax deductible. Inquiries concerning the contributions may be addressed to Martin Feldstein, President, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138-5398.

The NBER Digest summarizes selected Working Papers recently produced as part of the Bureau's program of research. Working Papers are intended to make preliminary research results available to economists in the hope of encouraging discussion

and suggestions for revision. The Digest is issued for similar informational purposes and to stimulate discussion of Working Papers before their final publication. Neither the Working Papers nor the Digest has been reviewed by the Board of Directors of the NBER.

The Digest is not copyrighted and may be reproduced freely with appropriate attribution of source. Please provide the NBER's Public Information Department with copies of anything reproduced.

Preparation of the Digest is under the editorial supervision of Donna Zerwitz, Director of Public Information.

Individual copies of the NBER Working Papers summarized here (and others) are available free of charge to Corporate Associates. For all others, there is a charge of \$5.00 per downloaded paper or \$10.00 per hard copy paper. Outside of the United States, add \$10.00 per order for postage and handling. Advance payment is required on all

orders. To order, call the Publications Department at (617) 868-3900 or visit www.nber.org/papers. Please have the Working Paper Number(s) ready.

Subscriptions to the full NBER Working Paper series include all 500 or more papers published each year. Subscriptions are free to Corporate Associates. For others within the United States, the standard rate for a full subscription is \$1850; for academic libraries and faculty members, \$1070. Higher rates apply for foreign orders.

Partial Working Paper subscriptions, delineated by program, are also available. For further information, see our Web site, or please write: National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138-5398.

Requests for Digest subscriptions, changes of address, and cancellations should be sent to Digest, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138-5398. Please include the current mailing label.