

March 2005

Can Mutual Fund Managers Pick Stocks?

Can mutual fund managers pick stocks that “beat the market”? This question has long interested economists because of its practical importance to millions of investors, who currently hold over \$3 trillion in U.S. corporate equities through mutual funds, as well as for the light it sheds on the efficiency of securities markets. But despite many attempts to answer the question, no consensus has emerged. One problem is statistical power: a large fraction of the return on any fund manager’s portfolio reflects luck, not skill. Isolating the component of returns that reflects skill is difficult. A second problem is defining risk-adjusted returns: portfolio performance must be adjusted for risk and, to date, the proper adjustment has eluded researchers. These problems cloud the interpretation of most studies of fund manager performance and have led to prolonged debate about whether fund managers can truly discern among winning and losing stocks.

In *Can Mutual Fund Managers Pick Stocks? Evidence from the Trades Prior to Earnings Announcements* (NBER Working Paper No. 10685), authors **Malcolm Baker, Lubomir Litov, Jessica Wachter, and Jeffrey Wurgler** introduce a new method to measure the stock-selection ability of fund managers based on returns around the time of earnings announcements. Their basic idea is to determine whether skill is associated with the tendency to hold stocks that are about to enjoy high earnings announcements and likewise to avoid stocks that are about to suffer low earnings announcements. Their approach uses the segment of returns data — returns at earnings announcements — that contains the most concentrated information about whether a man-

ager held a correct view on the stock’s fundamentals. The dataset merges mutual funds’ portfolio holdings with the respective returns that each holding realized at its next quarterly earnings announcement. The portfolio holdings are drawn from mandatory, periodic SEC filings that have been tabulated by Thompson Financial. For each fund-date-holding observation, the authors merge in the return that that stock earned in the 3-day window around its next earnings announcement. The sample covers 1980 through 2002 and contains 6.3 million fund report date-holding observations with associated earnings announcement returns.

For each fund in this dataset, the authors track the subsequent earnings announcement returns for the stocks on which the fund increases portfolio weight over the prior period and the stocks on which it decreases portfolio weight. They find that the average mutual fund managers show stock-picking skill, in the sense that the subsequent earnings announcement returns on their weight-increasing stocks are sig-

nificantly higher than those on their weight-decreasing stocks. The difference is about 12 basis points over the three-day period around the quarterly announcement or, multiplying by four, about 47 “annualized” basis points. The contrast between buys that initiate a fund’s position in a stock, and sells that close out a position, is even larger. While these numbers are not large in absolute terms, they apply to only a small fraction of the trading year. More important, they constitute unusually clean evidence of trading skill.

IN THIS ISSUE

- Can Mutual Fund Managers Pick Stocks?
- Do Real Estate Agents Exploit their Information Advantage?
- Does Prekindergarten Improve School Preparation and Performance?
- Is Segregation in Southern Schools Increasing?
- Corporate Governance, Economic Entrenchment, and Growth
- Does International Food Aid Harm the Poor?

The results do not reflect a pattern in which fund managers move toward categories of stocks (size, book-to market, and prior announcement returns) that are about to earn higher announcement returns. Instead, the bulk of the effect comes from picking stocks within these categories.

The authors also find significant differences in skill in the cross-section of funds. Funds that do better are more likely to have a growth than an income style, a finding that is consistent with other long-horizon studies. In addition, the authors find that larger funds, higher turnover funds, and those that use incentive fees show better performance, lending support to earlier studies that follow fund manager performance using long-horizon returns. However, the methodology allows these differences in performance to be linked more convincingly to information-based trading.

The methodology used in the paper largely avoids the problem associated with evaluating performance with risk-adjusted returns. Just as stock returns around earnings announce-

“Average mutual fund managers show stock-picking skill, in the sense that the subsequent earnings announcement returns on their weight-increasing stocks are significantly higher than those on their weight-decreasing stocks.”

ments are mostly abnormal, regardless of the risk adjustment, a mutual fund’s returns from holding that stock are also mostly abnormal. In particular, by comparing the subsequent earnings announcement returns on stocks that a given fund has been buying to those on the stocks that it has been selling, the authors address even a strict version of the critique which argues that required returns are systematically different around earnings announcement dates. A related advantage of this approach is that it makes intensive use

of the segment of returns data — returns around earnings announcements — that contain the most concentrated information about a firm's fundamentals and hence about a fund manager's skill at fundamental analysis. As a result, the authors' "earnings announcement alpha" methodology allows for sharp new tests for information-based trading.

Although the authors find new evidence that mutual fund managers have some stock-picking skill, their approach, because it uses only a subset of total returns data and a particular, well-defined notion of skill, may not be suited to measuring the total returns earned by fund managers. They also do not address whether active mutual fund managers earn

abnormal returns that are large enough to exceed the fees they charge. Their measures of skill are designed to establish a lower bound on the abnormal performance attributable to stock-selection ability. To that end, the "earnings announcement alpha" methodology offers a useful complement to the standard, long-horizon measures of fund performance.

Do Real Estate Agents Exploit their Information Advantage?

Like physicians, automobile mechanics, and attorneys, realtors know more about their area of expertise than the people paying them for advice. In the absence of properly structured incentives, experts can use their specialized knowledge to further their own interests at the expense of those who hire them. Car mechanics can recommend more expensive repairs than are really necessary, attorneys can charge high fees for services that reasonably intelligent consumers could perform themselves, and realtors can give sales advice that maximizes their profit rather than that of the homeowner.

Real-estate agents bear substantial marketing costs when selling a typical home. They are paid on commission, usually 6 percent of the sale price, split equally between the agent representing the buyer and the agent representing the seller. Each agent pays about half of the 3 percent fee to his firm. The selling agent keeps just 1.5 percent of the final sale price.

In **Market Distortions When Agents are Better Informed: The Value of Information in Real Estate Transactions** (NBER Working Paper No. 11053), authors **Steven Levitt** and **Chad Syverson** examine data on 98,000 suburban Chicago home sales from the Multiple Listing Service of Northern Illinois — roughly 3,300 of the homes were owned by real-estate agents. The authors find that agents selling their own homes behave differently. After controlling for location, characteristics, and condition, the agent-owned houses stay on the market almost 10 days longer and sell for about 3.7 percent more than com-

parable houses owned by the people who hire real-estate agents to represent them.

A 3.7 percent price increase on a \$300,000 house generates an additional \$11,100. If a higher priced offer were certain to materialize by waiting an extra week, then the homeowner would realize an additional \$10,434 at standard commission rates, while the real-estate agent representing the seller would only net an additional \$167. Unless the costs for an additional week of listing the home are less than \$167, the agent has an incentive to urge the homeowner to

hoods with nearly identical houses, past home sales are good indicators of likely selling prices. Heterogeneous neighborhoods had a 4.3 percent agent-owned premium. In homogeneous neighborhoods where sellers presumably had more information, the premium on agent-owned homes was 2.3 percent.

In recent years, the Internet has made it easier for sellers to track house prices. In theory, this would decrease the value of the real-estate agent's specialized knowledge. Indeed, the authors find that when the public was beginning to use the

"The finding that agent-owned homes are on the market longer and sell for more suggests that agents do deploy their specialized knowledge to maximize their profits rather than those of the homeowners they represent."

forgo waiting for what could be a substantially higher offer for a quick sale at a lower price. Agents selling their own homes capture both their commission and the homeowner's share. Given the commission structure, the finding that agent-owned homes are on the market longer and sell for more suggests that agents do deploy their specialized knowledge to maximize their profits rather than those of the homeowners they represent. Levitt and Syverson also show that the gaps in sales outcomes are too large to be caused by different discount rates across agents and non-agents.

Further evidence for such profit maximization comes from the fact that the sales price difference between agent-owned homes and other homes was highest in areas with heterogeneous housing. In neighbor-

Internet, from 1992 to 1995, the premium on agent-owned homes was 4.9 percent. By 1996 to 1999, as Internet usage was becoming widespread, the premium dropped to 3.2 percent.

Given that their results suggest that real-estate agents exploit their informational advantage at the expense of their clients, Levitt and Syverson ask why "a contractual form that so badly misaligns agent and home-seller incentives arose and persists." They examine alternative contracting methods, finding flaws in each of them. They caution that it may be the case that agents "provide a bundle of services besides just valuation information, and that these services are worth the commission cost despite the distortions highlighted" in their report.

— Linda Gorman

Does Prekindergarten Improve School Preparation and Performance?

The share of children attending early education programs in the United States has risen dramatically in recent years. Some 66 percent of four-year olds were enrolled in a pre-kindergarten center or a school-based preschool program in 2001. That's up from 23 percent thirty years earlier. Particularly striking, early education programs sponsored by school districts now serve one in seven four-year-olds. One frequent motivation for this early education is to insure that disadvantaged children with academic skill deficits are better prepared when they start school. But is it worth all the money and effort being spent in advancing children's school readiness?

Using a new rich source of data, researchers **Katherine Magnuson, Christopher Ruhm, and Jane Waldfogel** conclude in **Does Prekindergarten Improve School Preparation and Performance?** (NBER Working Paper No. 10452) that early education does increase reading and mathematics skills at school entry, but it also boosts children's classroom behavioral problems and reduces their self-control. Further, for most children the positive effects of pre-kindergarten on skills largely dissipate by the spring of first grade, although the negative behavioral effects continue. In the study, the authors take account of many factors affecting a child, including family background and neighborhood characteristics. These factors include race/ethnicity, age, health status at birth, height, weight, and gender, family income related to need, language spoken in the home, and so on.

Some details of their findings are significant. For example, disadvantaged children and those attending schools with "low levels of academic instruction" get the largest and most lasting academic gains from early education. On average, disadvantaged children (defined to include those from poor families or whose mother or father had not completed high school) scored in the 33rd percentile

in reading, while those who attended pre-kindergarten had a score in the 44th percentile.

The behavior of disadvantaged children who attended pre-kindergarten was similar to that of the general population of children at school entry. But by spring of the first year, it got somewhat worse. They were in the 69th percentile in terms of problem behaviors. Attending pre-kindergarten, however, does not appear to increase the probability that a disadvantaged child will repeat kindergarten or be held back in first grade. Also, the behavioral effects may differ depending on whether or not the child continues on in kindergarten in the same school as the pre-kindergarten program.

From these findings, the authors conclude that for maximum effectiveness, further expansions of pre-kindergarten should be mainly

In referring to the negative effects of early learning on behavior, the authors offer two important qualifications. First, classroom behavior is not necessarily indicative of behavior in other settings, say, being more aggressive at home. Second, the absolute levels of aggressive behavior found in this study were typically quite low, even for children who attended pre-kindergarten. Similarly, the levels of self-control were quite high, even for children who attended pre-kindergarten.

Nor does the federal Department of Education data used in the study — a newly available, large, nationally representative sample of children who entered kindergarten in the fall of 1998 — provide information on the long-term educational outcomes of children, for example whether low levels of problem behaviors do any damage to their

"Early education does increase reading and mathematics skills at school entry, but it also boosts children's classroom behavioral problems and reduces their self-control. Further, for most children the positive effects of pre-kindergarten on skills largely dissipate by the spring of first grade, although the negative behavioral effects continue."

focused on children who are disadvantaged or who will go on to attend low instruction schools. In 1990, governmental leaders endorsed as the first of eight national educational goals that: "By the year 2000, all children should enter school ready to learn." Nonetheless, the enrollment of disadvantaged children in early education programs remains relatively low - despite an increase in overall state spending on pre-kindergarten of 250 percent to \$1.9 billion by the turn of the century.

Currently, the authors write, most state funding initiatives do target at-risk children, but funding falls far short of providing all eligible children with entry into these programs. Extra money to give these children an early education experience is likely to improve their early academic skills, they add.

level of achievement in later years. The behavior of the children was measured by how frequently a child fights, argues, gets angry, acts impulsively, or disturbs ongoing activities. Self-control was measured by how frequently the child respects the property of others, controls his or her temper, accepts peer ideas for group activities, and appropriately responds to peer pressure.

As a possible explanation for the behavioral effect, the authors note that pre-kindergarten programs usually have relatively high quality, as indicated by teacher education and pay, and probably are more academically oriented. This emphasis on basic skills, such as reading and math, may lead to a less positive social climate, with children receiving less individual attention and more punitive discipline.

— David R. Francis

Is Segregation in Southern Schools Increasing?

Are Southern public schools resegregating as judicial oversight wanes? Some people claim this is the case, pointing to the fact that the percentage of black students enrolled in schools with 90-100 percent non-white enrollment has been creeping upwards since 1990.

In **Local Control and the Specter of “Resegregation” in Southern Schools** (NBER Working Paper No. 11086), authors **Charles Clotfelter, Helen Ladd, and Jacob Vigdor** calculate several measures of racial isolation and imbalance using enrollment data from 1993/4 to 2003/4 for the largest 100 public school districts in the South. Together, these districts represent 15 percent of total K-12 enrollment in the eleven states of the former Confederacy, the six states bordering them, and the District of Columbia. Because the authors use data at the district level, they caution that their results do not consider disparities between schools in districts or disparities between districts, both of which can be quite important sources of segregation.

Understanding racial patterns in school enrollments requires understanding the effect that the post-1970 immigration surge has had on the racial composition of the U.S. population. Although the percentage of black students enrolled in schools with 90-100 percent nonwhite enrollment in the sampled districts did increase between 1993/4 and 2003/4,

its increase appears to be attributable to the growth in the proportion of Hispanic and other non-white non-black students, rather than to any changes in enrollment patterns by black or white students.

All races, including whites, experienced a proportionate decline in the proportion of non-Hispanic white students in their school. The authors find that the reduction in the white student share was compensated for by an increase in the proportion of Hispanic and other nonwhite students. The average share of black students in a school attended by whites, Hispanics, and students of other

School districts with high levels of segregation were more likely to decrease racial imbalance than increase it. As a whole, the data support the conclusion that “the average level of segregation in large Southern school districts has not changed much over the last decade.” The authors caution that there are a number of ways to measure segregation, that claims of a “systematic increase in the segregation of white students” are supported by only by one of them, and that “participants in these debates need to be wary of the evidence they cite.”

A question of pressing importance is whether the accelerating ten-

“Segregation in schools might have declined had it not been for the actions of federal courts.”

ances was about 25 percent in both 1993/4 and 2003/4. In contrast, the average share of white students in the typical white students’ school, one measure of racial isolation, fell from about 60 percent in 1993/4 to about 53 percent in 2003/4. In short, the percentage of black students in non-white schools is increasing because immigration has increased the number of students who are considered nonwhite under current systems of racial categorization.

Overall, the school districts for which segregation measures increased were primarily those that had low levels of segregation to begin with.

density for federal courts to end court-ordered desegregation in Southern districts, combined with persistently high rates of residential segregation, might lead to increases in school segregation. In a statistical analysis of schools in the sample districts, the authors find an association between judicial declarations and racial imbalance. They conclude that there is some justification for the belief that “segregation in schools might have declined had it not been for the actions of federal courts.”

— Linda Gorman

Corporate Governance, Economic Entrenchment, and Growth

In **Corporate Governance, Economic Entrenchment, and Growth** (NBER Working Paper No. 10692), **Randall Morck, Daniel Wolfenzon, and Bernard Yeung** analyze the common phenomenon around the world of small numbers of controlling shareholders, usually wealthy families, governing vast groups of listed corporations. They review the growing literature on the impact of control by these elites on corporate

and economic performance. The researchers are especially interested in what they term “economic entrenchment”, as manifested in the tiny elites’ political influence on public policy, such as property rights protection, and on institutions like capital markets. The researchers then consider the problems that arise from such entrenchment.

Analysis of data from dozens of countries leads Morck, Wolfenzon,

and Yeung to conclude that economic growth is evidently related to the distribution of control over an economy’s corporate assets. In the United States and Britain, the researchers note, a family may well control a sizeable portion of an individual firm’s shares. Elsewhere, however, it is common for a family to control numerous corporations. Indeed, most large corporations in these countries — many are in Asia but many are in Europe, as

well — have controlling family owners who use pyramidal structures, cross shareholding, and super voting rights to maintain command over many listed companies. These control pyramids drive a wedge between the families' dominant control rights and the often-small amount of actual wealth invested in the companies they control.

This division can lead to two simultaneous governance problems: a divergence of the interests of the controlling shareholder from that of the public shareholders, and the entrenchment of the controlling shareholder. The controlling shareholders are in a position to exploit corporate resources they do not own for private use via the pyramidal structures. This results in inefficient resource allocation at the firm level. In these instances, the controlling powers are not just elites, the researchers assert, but are properly deemed oligarchs.

In many countries, the researchers note, large pyramidal groups effectively entrust the governance of substantial parts of their corporate sectors to a few extremely wealthy families. But poor or short-sighted governance of a few family patriarchs may well yield inefficient economy-wide capital allocations, reduced investment in innovation, and retarded economic growth. Additional problems include the limits that may be placed on access to information, allocation of resources, monitoring of managers, and borrowing and investing practices. Moreover, to preserve the status quo, these elite families evidently can influence public policies so as to curtail the advancement of private property rights, of capital markets, and of economic openness. In order to maintain their advantageous posi-

tions, the elites also likely use their political connections to hold back the institutional development of capital markets and to erect a variety of entry barriers. Such a situation is especially harmful, the researchers say, in countries where public shareholders have inadequate legal rights in seeking redress from inept or corrupt corporate insiders.

Such economic entrenchment is a significant factor in many of the world's economies. But Morck, Wolfenzon, and Yeung see economic entrenchment as a phenomenon beyond the realm of wealthy controlling families or oligarchies. Tiny elites of professional managers in Japan, for example, or

ed control over corporate assets can encourage distortions in a number of markets, most notably in capital markets. Such concentrated control may also curtail investment in innovation and enhance rent seeking. All of these effects naturally enough discourage economic growth.

The researchers note that globalization poses a special challenge for entrenched elites, especially those based on inherited positions. Openness to global capital flows and to international trade generally raises productivity and should boost a nation's overall economic performance. But evidence suggests that embracing globalization raises expect-

“Control pyramids drive a wedge between the families’ dominant control rights and the often-small amount of actual wealth invested in the companies they control.”

bureaucrats running state-controlled pyramids in France, might be considered similarly entrenched. The essential issue, say the analysts, is the negative consequences for growth arising from entrusting an economy's capital allocation to a small elite that cannot be removed from the levers of power.

Morck, Wolfenzon, and Yeung further assert that the typical corporate governance conflict in the U.S. economy — that is, between individual shareholders and a corporation's professional managers — is of lesser importance in most other countries. Because in most other countries the large firms are controlled by a few wealthy families, any corporate governance conflicts are generally between the controlling shareholder of the pyramidal group and the public shareholders. Equally important, it can be argued that highly concentrat-

tations and demands among local investors for better corporate governance, information, and the like — just the sort of expectations and demands a country's entrenched economic elite is likely to oppose.

Finally, the researchers note that public policy on issues like property rights, the development of financial markets and institutions, and economic openness, is usually thought of as an outcome of political economy. In this light, public policy in many countries cannot be thought of as a discretionary variable that can be tuned to cure economic problems. Rather, Morck, Wolfenzon, and Yeung theorize, it seems important to try to identify those factors that are adjustable and that might lead to a transition to a better balanced and more open political economy.

— Matt Nesvisky

Does International Food Aid Harm the Poor?

The delivery of food aid to developing countries seems like an uncontroversial policy — a straightforward effort that helps the poor and underscores the generosity of donor nations. Yet, economists have long debated the merits of food aid. By increasing the local supply of food,

such aid may depress prices and thus undercut the income of rural farmers in the recipient nations, for example; it also may discourage local production. And, since the poor often are concentrated in rural areas, food aid in fact may disproportionately hurt the poor.

NBER researchers **James Levinsohn** and **Margaret McMillan** tackle this debate in **Does Food Aid Harm the Poor? Household Evidence from Ethiopia** (NBER Working Paper No. 11048). The impact of lower food prices on the poor, they reason, hinges on whether

poor households tend to be net buyers or net sellers of food. The authors seek to answer this question by examining consumption and expenditure survey data from both urban and rural households in Ethiopia. They focus on Ethiopia because it receives more food aid than almost any other nation in the world, but also because it is widely recognized that raising the productivity and profitability of small-scale Ethiopian farmers is essential to reducing poverty in the country.

Food aid can take several forms, but some portion of all types of food aid (including emergency relief aid) is eventually sold in local markets and thus competes with domestic producers. Therefore, food aid will benefit Ethiopia's net food buyers and hurt its net food sellers. To carry out their study, Levinsohn and McMillan merge data from two nationally representative surveys and create a dataset of 8,212 urban and 8,308 rural Ethiopian households.

They find that households tend to earn income from only one or two different cereal grains, and that rural households rely more heavily on such income than urban households. Indeed, 21 percent of rural households report positive income from teff, 12 percent from wheat, 10 percent from barley, 24 percent from maize, 11 percent from sorghum, and 12 percent from coffee. Meanwhile, urban households report figures of less than 3 percent for each of these products. The authors also find that

households spend a large fraction of their income on cereal grains, ranging from 26 percent to 12 percent for rural households and from 16 percent to 5 percent for urban households. Since wheat is the only cereal imported in the form of food aid, it is the 12 percent of rural households that report income from wheat who stand to gain most from price increases and lose most from price declines.

The authors classify households as either net buyers of wheat (if they buy more than they sell) or as net sellers. To determine the poverty impact of food aid, they also classify the households by expenditure per capita and assess whether the poor households are net buyers or sellers of food. Finally, they estimate the mag-

that at all levels of living standards, more households benefit from food aid (and a subsequent reduction in wheat prices) than are hurt by it. Third, the proportion of net sellers is increasing in living standards, and fourth, poorer households (in rural and in urban areas) benefit proportionately more from a drop in the price of wheat. "In light of this evidence," the authors conclude, "it appears that households at all levels of income benefit from food aid and that — somewhat surprisingly — the benefits go disproportionately to the poorest households."

Levinsohn and McMillan estimate that, in the absence of food aid, the price of wheat in Ethiopia would be \$295 per metric ton, compared to

"There are more buyers of wheat in Ethiopia than sellers of wheat at all levels of income — an important result because it means that at all levels of living standards, more households benefit from food aid (and a subsequent reduction in wheat prices) than are hurt by it."

nitude of the price changes caused by food aid and hence the welfare effects of an increase in the price of food.

Levinsohn and McMillan offer several conclusions. First, net buyers of wheat are poorer than net sellers of wheat in Ethiopia. Indeed, roughly 85 percent of the poorest households are net buyers of wheat. Second, there are more buyers of wheat in Ethiopia than sellers of wheat at all levels of income — an important result because it means

an actual price of \$193 per metric ton in 1999. On average, the authors conclude, "the loss in consumer surplus works out to roughly 37 US dollars per household per year for households that consume wheat and the gain in producer surplus works out to roughly 157 US dollars per household per year for households that sell wheat." In a nation such as Ethiopia, where the poverty line is about \$132 per year, the impact is therefore substantial.

— Carlos Lozada

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

Michael H. Moskow — Chairman

Elizabeth E. Bailey — 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 simi-

lar 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 700 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 \$2525; for academic libraries and faculty members, \$1475. Higher rates apply for foreign orders. The on-line standard rate for a full subscription is \$1750 and the on-line academic rate is \$725.

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.