The Research and Market Analysis Group is pleased to introduce Research Update, a new publication designed to keep you informed about the Group's current work. A companion to Publications & Other Research, an annual brochure listing our publications and papers—Research Update will offer detailed summaries of selected studies. It will also contain a listing of all articles and papers that appeared in recent issues of our four research series—the Economic Policy Review, Current Issues in Economics and Finance, Staff Reports, and Research Papers. You can obtain many of the materials featured in Research Update directly from our publications page (www.ny.frb.org/rmaghome).

Research Update will keep you informed about our current work.

Research Update will also report on news within the Research and Market Analysis Group, beginning with the appointment of Stephen Cecchetti as the Group's new research director, effective in August.

We hope you'll find our publications and papers of interest; we also hope you'll enjoy Research Update.

Frederic S. Mishkin
Executive Vice President
and Director of Research

Paul B. Bennett
Senior Vice President
and Deputy Director of Research

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Using comprehensive data on primary government securities dealers' trading activity, Fleming examines trading volume, price volatility, and bid-ask spreads for the three major trading locations—New York, London, and Tokyo—and for each half-hour interval of the global trading day. He finds relatively little trading activity in the overseas locations, as well as less price discovery and higher bid-ask spreads. Nevertheless, the price changes in London and Tokyo can accurately predict overnight price changes in New York, he says. Specifically, the author's analysis reveals that although the U.S. Treasury market operates around the clock, more than 94 percent of trading occurs in New York, with less than 4 percent in London and less than 2 percent in Tokyo. Lower liquidity notwithstanding, the overseas trading locations provide important information on the path of U.S. Treasury security prices. Price volatility is also found to be highly concentrated in New York trading hours and to peak at the same times each day as trading activity. Although prices have at times moved significantly during the overseas hours, price volatility tends to be significantly lower overseas than in New York. Fleming also concludes that bid-ask spreads are higher overseas than in New York, and higher in Tokyo than in London. Fleming argues that his intraday analysis of trading volume and bid-ask spreads can be used to ascertain how market liquidity changes throughout the day. Such information is important to hedgers and other market participants who may need to trade at any moment and to investors who rely on a liquid Treasury market for the pricing of other instruments. The price volatility analysis, Fleming says, reveals when new information gets incorporated into prices and can lead to a better understanding of the determinants of Treasury prices.

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Publications and Papers
The Research and Market Analysis Group produces various publications and discussion papers: the Economic Policy Review—a policy-oriented research journal focusing on macroeconomic, banking, and financial market topics. Current Issues in Economics and Finance—a newsletter-style publication offering concise and timely analyses of economic, financial, and regional topics. Staff Reports—technical papers presenting research findings, designed to stimulate discussion and elicit comments. These papers meet rigorous academic standards and are intended for publication in leading economic and finance journals. Research Papers—discussion papers reporting preliminary research findings. A New Measure Incorporates Manufacturers' Use of
Imported Inputs. No single measure can capture the importance of international shocks—such as exchange rate changes and trade policy shifts—to a country's manufacturing industries. The growing internationalization of the production process and trade means that even small events abroad can affect producer profitability and output. Recognizing the need for broad assessment tools, "The Evolving External Orientation of Manufacturing: A Profile of Four Countries," by José Campa and Linda Goldberg (Economic Policy Review, vol. 3, no. 2), presents four measures of the "external orientation" of manufacturing industries in the United States, Canada, the United Kingdom, and Japan. For each major manufacturing industry, the authors provide histories of the share of total revenues earned in foreign markets, the role of imports in domestic consumption, and the costs of imported inputs in total production. In addition, they construct a measure of net external orientation, which is intended to capture how much an industry's use of imported inputs (a cost factor) can potentially offset exposure to the international economy through exports (a revenue factor). The authors show that in Canada, the United Kingdom, and the United States all four external orientation measures have increased considerably in the past two decades, although the United States trails the other countries in the degree of its industries' external orientation. In Japan, only export share has increased significantly. Four industries—electrical machinery, nonelectrical machinery, transportation equipment, and instruments and related products—rely heavily on export markets in all the countries. By contrast, the importance of imports and imported inputs by industry varies widely across countries. The authors suggest that such measures can help clarify how particular international shocks will influence industry movements in revenues and costs within countries.

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New Director of Research Named
In August, Stephen G. Cecchetti, a professor of economics at Ohio State University, will succeed Frederic S. Mishkin as director of research at the Federal Reserve Bank of New York. Mr. Cecchetti has been a professor of economics at Ohio State since 1992 and a member of the economics faculty since 1987. From 1982 to 1987, he was on the faculty of New York University's Graduate School of Business. Mr. Cecchetti has also served as a visiting professor of economics at such institutions as the University of Melbourne, Boston College, and Princeton University. In addition to publishing extensively, Mr. Cecchetti has been editor of the Journal of Money, Credit, and Banking and on the editorial boards of the American Economic Review, the Journal of Economic Literature, and Ohio State University Press.

Mr. Mishkin, who served as director of research for three years, will return in September to Columbia University's Graduate School of Business, where he is the A. Barton Hepburn Professor of Economics.

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Increasing Demand for Credit Is Forcing up Debt Burdens and Credit Card Charge-offs

Two demand factors—rising net worth and an increasing share of heavy borrowers in the population—can explain the rise in debt burdens and credit card charge-offs since the early 1980s, according to Donald Morgan and Ian Toll in "Bad Debt Rising" (Current Issues in Economics and Finance, vol. 3, no. 4).

The rise in credit card charge-offs—the loans that banks write off as uncollectible—has paralleled the trend in households' overall debt burden, Morgan and Toll report. These two parallel trends are no mere coincidence; a mounting debt burden causes higher charge-offs because heavily indebted borrowers are more exposed to income shocks.

The authors look at both supply and demand explanations for the rise in the debt burden and bad debt. Most analysts, they report, tend to blame lenders, arguing that banks are granting credit cards to riskier borrowers without raising rates to compensate. Their review of credit card pricing and the rate of charge-offs on other loans, however, turns up no evidence that a supply shift is the cause.

Morgan and Toll then look for changes in two demand factors that drive household borrowing: wealth, measured as net worth per capita, and the share of the population at peak borrowing age, measured as borrowers between the ages of twenty-five and fifty-four. They find that these two factors generally moved in opposite directions before the early 1980s, which helped to keep demand stable. Since the early 1980s, however, both net worth and the share of the population at peak borrowing age have risen together. This convergence has caused debt burdens to grow, making borrowers riskier and forcing up charge-offs across the board.

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Recently Published


Despite U.S. Gains, U.S.-China Trade Gap Is Expected to Widen

In 1987, the United States benefited from a small trade surplus with China. Today, the U.S.-China merchandise trade deficit is about $40 billion, and it is likely to expand further, according to "The Growing Trade Imbalance with China," by Thomas Klitgaard and Karen Schiele (Current Issues in Economics and Finance, vol. 3, no. 7).

Not surprisingly, China's high trade barriers have played a major role in the growth of the trade imbalance. Despite recent efforts at liberalization, China's average tariff rate on foreign goods remains high at 23 percent, and quota systems, licensing requirements, and other regulations still apply to many products.

Nevertheless, the United States has made some headway in penetrating the huge Chinese market. Even with a pause in growth last year, U.S. exports to China grew at an average annual rate of 16 percent from 1991 to 1996. This modest success, however, is no match for China's striking gains in U.S. markets in the 1980s. From 1985 to 1990, imports from China jumped 32 percent per year. Low wages, a relatively skilled labor force, heavy government subsidies, and economies of scale created by focusing on less expensive consumer goods have driven China's advances in world markets, report Klitgaard and Schiele.

What is the outlook for the U.S.-China trade imbalance in the near term? U.S. exports should continue to grow rapidly. Although sales to China stalled in 1996, growth in the range of 15 to 20 percent is plausible over the rest of the decade. As for U.S. imports, growth in demand for Chinese goods should hold its recent pace of about 10 to 15 percent, down from the near 30 percent rate recorded in the 1980s and early 1990s.

This shift, however, will not be enough to reverse the trade imbalance. To reduce the deficit, U.S. exports to China would need to grow at an extraordinary rate. Despite recent U.S. gains and China's efforts at trade liberalization, the trade gap can be expected to widen in the near term.

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In Economic Forecasting, Accuracy May Not Be the Sole Concern

Economic forecasters may not always strive to be as accurate as possible, according to "Rational Bias in Economic Forecasts," by David Laster, Paul Bennett, and In Sun Geoum (Staff Reports, no. 21). The paper argues that another factor appears to play a role in economic forecasting—the desire for publicity.

Independent forecasters, who stand to benefit most from favorable publicity, tend to produce outlying forecasts.

Laster, Bennett, and Geoum develop a model in which forecasters are paid according to two criteria: long-term accuracy and the ability to generate publicity for their firms. Accuracy is defined in the usual sense of minimizing average forecast error; publicity is the media coverage that a forecaster attracts by being more accurate than everyone else in a given year. Ultimately, the authors say, the two goals can conflict.

Because forecasters have access to similar information, the pure pursuit of accuracy would lead most of them to similar conclusions. A forecaster seeking publicity, however, is likely to predict an outcome that has a good chance of occurring but that is distinct from what others are predicting. Thus, forecasters will express a variety of views even though their expectations are in fact quite similar. Laster, Bennett, and Geoum present evidence supporting their model from a twenty-year panel of real GDP predictions from Blue Chip Economic Indicators.

How forecasters position their projections depends on the weight individual employers give to publicity and accuracy when setting the pay of forecasters. Laster, Bennett, and Geoum hypothesize that nonfinancial corporations—which use forecasts mainly for internal planning purposes—are likely to emphasize accuracy. Consulting firms and advisory services, by contrast, are more likely to seek recognition and therefore reward their forecasters for generating publicity.

Consistent with these hypotheses and the model, nonfinancial corporations as a group deviate the least from the consensus, while independent forecasters deviate the most. The contrast is striking: nonfinancial corporations make GDP forecasts that deviate from the consensus by an average of 0.4 percent; independent forecasts deviate by twice as much.

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Bank Performance Rises as Entry Restrictions Fall

Bank efficiency improves significantly after restrictions on expansion are lifted, contend Jith Jayaratne and Philip Strahan in "Entry Restrictions, Industry Evolution, and Dynamic Efficiency: Evidence from Commercial Banking" (Staff Reports, no. 22).
Jayaratne and Strahan reach this conclusion by observing changes in the performance of states' banking systems after geographic restrictions were removed in the 1970s and 1980s. Bank operating costs decreased about 8 percent after deregulation of branching restrictions, and non-performing loans dropped at least 11 percent.

Earlier research had shown that geographic restrictions limit banks' ability to diversify portfolio risks and to increase their market power but had revealed little about the restrictions' effects on bank efficiency. Jayaratne and Strahan's study is the first to draw specific conclusions about these effects. Their findings are especially timely now that full interstate banking has gone into effect. Early in the industry's development, banks were subject to severe entry barriers in the form of branching restrictions. Over the last two decades, however, states have gradually lifted these restrictions.

Much of the efficiency improvement, note the authors, appears to have occurred because branching deregulation triggered a process of selection whereby better performing banks expanded at the expense of high-cost, low-profit banks. Although the better performers were found to grow faster than underachievers before intrastate branching was allowed, the differences in the growth rates of low- and high-cost banks rose significantly after branching restrictions were lifted. Once the restrictions were removed, the better-managed institutions grew at the expense of their poorly managed rivals, thereby improving the efficiency of the average bank asset.

In addition, most of the reduced banking costs after branch deregulation appear to have been passed along to customers in the form of lower loan rates. As a result, the authors find only small, generally statistically insignificant increases in bank profitability after deregulation. Borrowers, however, saved approximately $6 billion in 1992 as a result of lower loan rates.

Order Staff Report, no. 22.

Understanding Open Market Operations
by M. A. Akhtar

The formulation and conduct of monetary policy have undergone significant changes in the past two decades. In assessing the state of the economy, the Federal Reserve has shifted its focus from the monetary aggregates to a much wider array of economic indicators. Similarly, in implementing policy, the Fed has changed its strategy from targeting a particular quantity of reserves to achieving reserve and money market conditions that are conducive to price stability and other broad policy goals.

In Understanding Open Market Operations, M. A. Akhtar reviews the changes in formulating monetary policy and describes the Federal Reserve's approaches to implementation in the 1990s. Focusing on open market operations, he provides a detailed overview of how monetary policy is carried out and a sense of the uncertainties and challenges involved in the process. More broadly, the book offers a well-informed perspective on the linkages between monetary policy and the economy.

View contents.
Also Available: January - June 1997

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**Economic Policy Review**

Volume 3, Number 1

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