July 1999

Research UPDATE

from the Federal Reserve Bank of New York

RESEARCH AND MARKET ANALYSIS GROUP

www.ny.frb.org/rmaghome

Payments Services Make a Surprisingly Large Contribution to Bank Balance Sheets

Many people believe that banks' main activities are lending and deposit taking and that other types of services produce marginal amounts of income. But that perception is not true, according to a study of the twenty-five largest bank holding companies in the United States. Indeed, an often overlooked area of banking—payments services—generates a major share of total bank revenues.

In "Banks' Payments-Driven Revenues" (***Economic Policy Review***, vol. 5, no. 2), author Lawrence J. Radecki analyzes the importance of fee income to the top twenty-five U.S. bank holding companies. Using data from the companies' annual reports and Federal Reserve System regulatory reports, he builds estimates for three categories of payments-driven revenue: deposit accounts, credit cards, and securities handling and other processing services.

All told, he finds that payments services were responsible for as much as two-fifths of the total combined operating revenue of about $140 billion earned by the twenty-five largest bank holding companies in 1996. Among the categories, deposit accounts yielded the bulk of the revenues (roughly $40 billion), followed by credit card services (as much as $11.8 billion). Securities handling and other processing services generated about $6.5 billion.

"The very substantial amount of revenue derived from payments services indicates that the production and distribution of these services constitute one of the main business activities of commercial banks," Radecki concludes.

Get New Research Quickly via Electronic Alert

By subscribing to our free Electronic Alert Service, you can automatically receive e-mail notifications when new publications are posted at our web site. You can then go directly to the site and download the materials. Please visit the site for details.

www.ny.frb.org/rmaghome/subscribe/subscribe.html

Stocks Still Lag Far behind Housing as a Share of Most Households' Portfolios

The rapid growth of the stock market has encouraged the belief that corporate equities are becoming a key asset for most American families. A recent study in ***Current Issues in Economics and Finance*** (vol. 5, no. 5, "Are Stocks Overtaking Real Estate in Household Portfolios?") suggests, however, that only the wealthiest 10 percent of the population hold significant amounts of corporate equity.

According to authors Joseph Tracy, Henry Schneider, and Sewin Chan, the large majority of American households continue to invest primarily in real estate. "The importance of housing varies over the life cycle of the individual, but real estate remains the cornerstone of most household asset portfolios," they note.

Their findings counter the view of household wealth provided by the aggregate data in the Federal Reserve's Flow of Funds Accounts. This source shows that equities in 1998 constituted a larger share of total household assets than did real estate.

Noting that the flow of funds figures are computed in a way that gives additional weight to the equity shares of wealthy households, the authors turn to an alternative source of data on household wealth, the Federal Reserve's Survey of Consumer Finances. Using the information on individual households reported in the 1995 survey, Tracy, Schneider, and Chan are able to evaluate the asset portfolio of a *typical* household. They find that this typical household has almost two-thirds of its assets in real estate and no portion in corporate equity.

The study attributes the typical household's high real estate share to the current system of housing finance, which effectively rules out any limited investment in housing. The lack of alternative financing options means that households are compelled to commit a disproportionate amount of their funds to the purchase of a house, leaving little capital for other kinds of investment.

Publications and Papers

The Research and Market Analysis Group produces a wide range of publications:

- ***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 and financial topics.
- ***Second District Highlights***—a regional supplement to ***Current Issues*** covering financial and economic developments in the Federal Reserve System's Second District.
- ***Staff Reports***—technical papers presenting research findings, designed to stimulate discussion and elicit comments. These papers are intended for publication in leading economic and finance journals. ***Staff Reports*** are available only in electronic form.
- ***Publications & Other Research***—a brochure spotlighting the Group's research output.

www.ny.frb.org/rmaghome

Measurement Problems Fail to Explain Why Recent Growth Rates Have Not Matched Earlier Rates

Despite posting their strongest performance in many years, recent measures of real output (GDP) and productivity growth have fallen short of their 1960-73 averages. Specifically, although the recent trend in productivity growth points to an improved economy, the post-1996 average growth rate of almost 2 percent is still well below the nearly 3 percent average that prevailed between 1960 and 1973.

The post-1996 average productivity growth rate of almost 2 percent is well below the 1960-73 average of nearly 3 percent.

Why, then, has current growth not matched the rates of the past? In "The Impact of Reduced Inflation Estimates on Real Output and Productivity Growth," author Charles Steindel examines whether the answer lies in problems associated with the measurement of the rates (***Current Issues in Economics and Finance***, vol. 5, no. 9).

Steindel suggests that one can question the accuracy of the growth rates because the data-gathering systems often use survey samples that are small and somewhat out of date. He adds that an overstatement of inflation may be compounding the difficulties, because an increase in reported inflation decreases the rates of real GDP and productivity growth. Such an overstatement may be especially important in certain hard-to-measure services, such as medical care and financial services. These services are inherently hard to price, and their nature has changed dramatically with the introduction of new technologies.

The author shows that hard-to-measure services have indeed accounted for a greater share of GDP over the years, and that inflation has been higher in these services than in other sectors of the economy. Furthermore, reduced estimates of the rate of inflation in hard-to-measure services do raise recent GDP and productivity growth rates.

Nevertheless, Steindel finds that these rates would *still* have been lower in recent years than in the 1960-73 period—even if an especially strong upward bias in service-sector inflation estimates had begun after 1973. Accordingly, he concludes that "it is difficult to attribute the inability of recent output and productivity growth rates to regain their 1960-73 pace solely to the inexact pricing of hard-to-measure services."

Staff Reports Available Only in Electronic Form

Earlier this year, the Research and Market Analysis Group announced the full electronic presentation of its ***Staff Reports*** series.

With this announcement, we ceased distributing hard copies of individual papers in the series and directed all readers to our Internet site. From the site, readers can download the latest papers and many earlier issues in Adobe Acrobat format.

www.ny.frb.org/rmaghome

New Titles in the ***Staff Reports*** Series

The following new ***Staff Reports*** are available electronically at the Research and Market Analysis Group's web site.

www.ny.frb.org/rmaghome

Macroeconomics and Growth

Consumption, Aggregate Wealth, and Expected Stock Returns, by Martin Lettau and Sydney Ludvigson (Number 77)

Ludvigson and Lettau review the role of detrended wealth in predicting stock returns. They find that trend deviations in wealth are strong predictors of real stock returns and excess returns over a Treasury bill rate.

Explaining Inequality the World Round: Cohort Size, Kuznets Curves, and Openness, by Matthew Higgins and Jeffrey G. Williamson (Number 79)

Higgins and Williamson decompose the sources of inequality among countries into three central parts: the demographic or cohort size effect, the so-called Kuznets Curve or demand effects, and the commitment to globalization or policy effects. Their analysis suggests that cohort size is the most important force in determining inequality.

International

Purchasing Power Parity: Three Stakes through the Heart of the Unit Root Null, by Matthew Higgins and Egon Zakrajšek (Number 80)

Using three new tests, Higgins and Zakrajšek find overwhelming evidence in favor of real exchange rate stationarity during the post–Bretton Woods era among developed economies and among a larger group of "open" economies.

International Trade and Factor Mobility: An Empirical Investigation, by Linda S. Goldberg and Michael W. Klein (Number 81)

Does foreign direct investment serve as a complement to or a substitute for trade? The authors' investigation shows that U.S. foreign direct investment in Latin America has led to both increases and decreases in trade among countries and across manufacturing industries.

Microeconomics

Importing Equality? The Effects of Increased Competition on the Gender Wage Gap, by Sandra E. Black and Elizabeth Brainerd (Number 74)

How does increased product market competition affect the ability of firms to discriminate? Black and Brainerd find that increased competition resulting from globalization has forced companies to reduce costly discrimination against women.

Sunk Costs, Contestability, and the Latent Contract Market, by Chris Stefanadis (Number 75)

The idea that an industry with sunk costs may be contestable even in the absence of long-term contracts has received little attention in formal economic theory yet remains popular among monopolists facing antitrust suits. Stefanadis employs an infinitely repeated game to formally illustrate the argument.

Banking and Finance

The Term Structure of Announcement Effects, by Michael J. Fleming and Eli M. Remolona (Number 76)

How do U.S. Treasury yields of different maturities respond to macroeconomic announcements? Fleming and Remolona find that the announcements evoke the sharpest reactions from the intermediate-term maturities. The authors also find that different types of announcements generate different patterns of announcement effects.

Are There "Bank Effects" in Borrowers' Costs of Funds? Evidence from a Matched Sample of Borrowers and Banks, by R. Glenn Hubbard, Kenneth N. Kuttner, and Darius N. Palia (Number 78)

The authors use a large, matched sample of individual loans, borrowers, and banks to measure the effects of banks' financial conditions on loan interest rates while controlling for firm characteristics. They find that the cost of borrowing from low-capital banks tends to be higher than the cost of borrowing from well-capitalized banks, and that the difference is more pronounced for smaller firms.

Papers Presented by Economists in the Research and Market Analysis Group

Martin Lettau and Sydney Ludvigson. "Consumption, Aggregate Wealth, and Expected Stock Returns." National Bureau of Economic Research Asset Pricing Meeting, Cambridge, Massachusetts, May 13.

Lettau and Ludvigson show that a wide class of optimal models of consumer behavior implies that the log consumption to aggregate wealth ratio forecasts the return on aggregate wealth, or the market portfolio. Although human wealth is not observable, they argue that its important predictive components can be captured by labor income. Thus, movements in nonhuman wealth that produce a deviation from its shared trend with consumption and labor income drive changes in the ratio. Lettau and Ludvigson find that these deviations are strong predictors of real stock returns and excess returns over a Treasury bill rate.

Donald P. Morgan. "Judging the Risk of Banks: Why Can't Bond Raters Agree?" Seminar sponsored by the Bank of England, London, England, June 4.

Is bank risk hard to observe from the outside, as bank supervisors presume, or have banks become opaque because they are protected from market discipline? Morgan argues that banks are in fact opaque, and that the opaqueness is inherent to the business. The mostly financial assets of banks have risks that are harder to measure (such as loans) and/or easier to change (such as trading assets) than the more fixed assets of nonfinancial firms. Morgan finds that rating agencies disagree more over banks with more loans and trading assets relative to securities. Since banks on the whole have very few fixed assets, he concludes that banks are regulated and protected because they are opaque.

Carol Rapaport. "Medicare and Inequalities in Health Outcomes: The Case of Breast Cancer," with Sandra L. Decker. International Health Economics Association Conference, Rotterdam, the Netherlands, June 9.

Rapaport and Decker evaluate whether expanding Medicare to cover women aged fifty-five to sixty-four will improve various breast cancer outcomes in these individuals. Among their findings, they determine that expanding Medicare does not improve the probability that a black woman will have her cancer diagnosed sooner. However, if she is diagnosed early, the price effects of insurance will improve her chances of survival.

Kevin J. Stiroh. "Do Computers Make Output Harder to Measure?" with Robert H. McGuckin. Conference titled "Intangibles: Management, Measurement, and Organization," sponsored by New York University's Stern School of Business, New York City, May 27.

Stiroh and McGuckin explore the possibility that information technology is generating output that is increasingly hard to measure in nonmanufacturing industries, a factor that contributes to the divergence in industry productivity growth rates. Stiroh and McGuckin's results suggest that these escalating measurement problems are understating aggregate productivity growth in the 1990s, and that these problems play an important role in understanding recent industry-level productivity trends.

Cédric Tille and Paolo Pesenti. "Competitive Devaluations: A Welfare-Based Approach," with Giancarlo Corsetti and Nouriel Roubini. Seminar sponsored by INSEAD, Fontainebleau, France, April 16.

The authors describe a three-country, center-periphery model that examines the mechanism by which exchange rate shocks are transmitted across countries. They provide a choice-theoretic framework for the policy analysis and empirical assessment of competitive devaluations, and show that the optimality of undertaking a competitive devaluation depends on the trade pattern. The authors conclude that there can be an incentive to devalue when the two periphery countries' exports compete in the center market; however, the incentive is reduced in the presence of a direct trade link between the countries.

Recently Published

Sandra E. Black. 1999. "Do Better Schools Matter? Parental Valuation of Elementary Education." ***Quarterly Journal of Economics*** 114, no. 2 (May): 577-600.

Linda S. Goldberg. 1999. "Investment, Pass-Through, and Exchange Rates: A Cross-Country Comparison," with José Campa. ***International Economic Review*** 40, no. 2 (May): 287-314.

Linda S. Goldberg and Joseph Tracy. 1999. "Exchange Rates and Employment Instability: Evidence from Matched CPS Data," with Stephanie Aaronson. ***American Economic Review, Papers and Proceedings*** 89, no. 2 (May): 204-10.

Linda S. Goldberg and Joseph Tracy. 1999. "Exchange Rates and Local Labor Markets." **NBER Working Paper** no. 6985.

James Harrigan. 1999. "Estimation of Cross-Country Differences in Industry Production Functions." ***Journal of International Economics*** 47, no. 2 (April): 267-93.

Paolo Pesenti. 1999. "Paper Tigers? A Model of the Asian Crisis," with Giancarlo Corsetti and Nouriel Roubini. ***European Economic Review*** 43, no. 7: 1211-36.

Asani Sarkar. 1999. "Market Liquidity and Trader Welfare in Multiple Dealer Markets: Evidence from Dual Trading Restrictions," with Peter Locke and Lifan Wu. ***Journal of Financial and Quantitative Analysis*** 34, no. 1: 57-88.

Kevin J. Stiroh. 1999. "Information Technology and Growth," with Dale W. Jorgenson. ***American Economic Review, Papers and Proceedings*** 89, no. 2 (May): 109-15.

Kevin J. Stiroh. 1999. "Measuring Input Substitution in Thrifts: Morishima, Allen-Uzawa, and Cross-Price Elasticities." ***Journal of Economics and Business*** 51, no. 2 (March-April): 145-57.

Kei-Mu Yi. "The Nature and Growth of Vertical Specialization in World Trade," with David Hummels and Jun Ishii. Seminar sponsored by Brandeis University's Graduate School of International Economics and Finance, Waltham, Massachusetts, May 4.

The authors describe vertical specialization, a process that occurs when a country uses imported intermediate parts to create a good it later exports—that is, the country links sequentially with other countries to produce a final good. This process has become an increasingly important part of international trade. Yi, Hummels, and Ishii find that vertical specialization has grown by roughly 40 percent over the past twenty-five years, and that the process now accounts for approximately 30 percent of international exports.

Individual copies of these papers can be obtained by e-mailing the Research and Market Analysis Group authors at **firstname.lastname@ny.frb.org**.

Research Group Hosts Conference on Income Inequality

In May, some of the country's leading researchers, academics, and policy analysts met at the Federal Reserve Bank of New York to discuss the subject of income inequality in the United States. The conference—**"Unequal Incomes, Unequal Outcomes? Economic Inequality and Measures of Well-Being"**—drew more than seventy participants and featured remarks by New York Fed President William J. McDonough and Director of Research Stephen G. Cecchetti.

Over the past several decades, the United States has experienced an extraordinary rise in income inequality accompanied by declining real incomes among the poor. With this in mind, the Research Group economists who organized the conference asked presenters to focus on the less widely discussed fallout from income inequality: the impact on broad measures of economic well-being. In other words, has there been a similar deterioration in outcomes—in health, housing, education, crime, and the provision of local public services—particularly among the poor?

Among their findings, the participants concluded that the well-being of the poor did deteriorate according to some measures, such as mortality and health. Moreover, the quality of the housing stock has improved, but housing has become less affordable for the poor. On a more positive note, crime victimization rates have fallen nationwide, and there was little evidence that violent crime has become more concentrated in poor neighborhoods.

The conference proceedings will be published in a special issue of the ***Economic Policy Review*** later this year. For more information on the conference, please contact James Orr at **james.orr@ny.frb.org**.

RESEARCH AND MARKET ANALYSIS GROUP PUBLICATIONS AND PAPERS: APRIL–JUNE 1999

Economic Policy Review

Volume 5, Number 2

Recent Banking Sector Reforms in Japan, *by Hiroshi Nakaso*

Legal Structure, Financial Structure, and the Monetary Policy Transmission Mechanism, *by Stephen G. Cecchetti*

How Important Is the Stock Market Effect on Consumption? *by Sydney Ludvigson and Charles Steindel*

Banks' Payments-Driven Revenues, *by Lawrence J. Radecki*

Current Issues in Economics and Finance

Are Stocks Overtaking Real Estate in Household Portfolios? *by Joseph Tracy, Henry Schneider, and Sewin Chan*
Volume 5, Number 5 (April)

Is Upstate New York Showing Signs of a Turnaround? *by Richard Deitz and Mike De Mott*
Volume 5, Number 6 (May)
Second District Highlights

Mercosur: Implications for Growth in Member Countries, *by Michelle Connolly and Jenessa Gunther*
Volume 5, Number 7 (May)

The Future of Financial Intermediation and Regulation: An Overview, *by Stephen G. Cecchetti*
Volume 5, Number 8 (May)

The Impact of Reduced Inflation Estimates on Real Output and Productivity Growth, *by Charles Steindel*
Volume 5, Number 9 (June)

Business-to-Business Electronic Commerce, *by John Wenninger*
Volume 5, Number 10 (June)

Staff Reports

Available only at **www.ny.frb.org/rmaghome**.

Importing Equality? The Effects of Increased Competition on the Gender Wage Gap, *by Sandra E. Black and Elizabeth Brainerd*
Number 74 (April)

Sunk Costs, Contestability, and the Latent Contract Market, *by Chris Stefanadis*
Number 75 (April)

The Term Structure of Announcement Effects, *by Michael J. Fleming and Eli M. Remolona*
Number 76 (May)

Consumption, Aggregate Wealth, and Expected Stock Returns, *by Martin Lettau and Sydney Ludvigson*
Number 77 (June)

Are There "Bank Effects" in Borrowers' Costs of Funds? Evidence from a Matched Sample of Borrowers and Banks, *by R. Glenn Hubbard, Kenneth N. Kuttner, and Darius N. Palia*
Number 78 (June)

Explaining Inequality the World Round: Cohort Size, Kuznets Curves, and Openness, *by Matthew Higgins and Jeffrey G. Williamson*
Number 79 (June)

Purchasing Power Parity: Three Stakes through the Heart of the Unit Root Null, *by Matthew Higgins and Egon Zakrajšek*
Number 80 (June)

International Trade and Factor Mobility: An Empirical Investigation, *by Linda S. Goldberg and Michael W. Klein*
Number 81 (June)

The views expressed in the publications and papers summarized in Research Update *are those of the authors and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System.*