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Research Update

Research and Market Analysis Group www.newyorkfed.org/research

Surge in Employee Stock Options Exercised Helps Explain Downward Revisions to Corporate Profit Estimates

Recently revised estimates of U.S. corporate profits show that the nation's corporations were much less profitable in the late 1990s than initially reported. As of July 2002, profits for the years 1998, 1999, and 2000 had been revised downward 11.0 percent, 9.3 percent, and 8.9 percent, respectively, in the Bureau of Economic Analysis' National Income and Product Accounts.

A new study in ***Current Issues in Economics and Finance*** (vol. 10, no. 3, "Recent Revisions to Corporate Profits: What We Know and When We Knew It") investigates the reasons for the substantial downward revisions. The authors—Charles Himmelberg, James Mahoney, April Bang, and Brian Chernoff—conclude that the BEA's early estimates of corporate profitability were high because they did not capture the expense associated with the increased exercise of employee stock options. Firms' inflated reports of earnings, the authors suggest, may also have contributed to the initial overstatement of profits in some industries.

In exploring the role of stock options in the corporate profit revisions of the late 1990s, the authors determine that the aggregate value of options exercised by corporate employees rose from $69 billion in 1997 to $197 billion in 2000—roughly a threefold increase. Although the BEA treats stock options as an employee compensation expense in its annual accounting of corporate profits, the agency's initial profit estimates for 1998, 1999, and 2000 were unlikely to reflect the full magnitude of the sharp increase in this expense. The reason, according to the authors, is that the agency can only approximate the expense—based, in part, on the previous year's

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figure—when it formulates its first profit estimate for the most recent calendar year. In the two years following, however, the BEA gains access to the comprehensive data in firms' tax filings and can correct its initial profit estimate to reflect the realized value of the stock options exercised. Thus, the BEA revised its estimates of profits for 1998, 1999, and 2000 sharply downward once more conclusive data on stock options were available.

While the surge in stock options exercised can explain most of the revision to aggregate corporate profits, the authors conclude that other factors were at work in some industries. Most notably, the authors find evidence that an increase in "aggressive accounting"—accounting choices designed to inflate profits artificially—may have played a partial role in the overstatement of profits in industries such as communications.

The authors conclude their analysis with the observation that the early estimates of corporate profits in the National Income and Product Accounts may have encouraged an overly optimistic view of the corporate sector's health in the late 1990s. As a result, investors, corporate managers, and others who base decisions about expenditures and investment on the reported profitability of corporations may have been led to misallocate funds over the period.

Publications and Papers

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

- *The Economic Policy Review*—a policy-oriented journal focusing on economic and financial market issues.
- *EPR Executive Summaries*—online versions of selected *Economic Policy Review* articles, in abridged form.
- *Current Issues in Economics and Finance*—concise studies of topical economic and financial issues.
- *Second District Highlights*—a regional supplement to *Current Issues*.
- *Staff Reports*—technical papers intended for publication in leading economic and finance journals, available only online.
- *Publications and Other Research*—an annual catalogue of the Group's research output.

New Titles in the *Staff Reports* Series

The following new ***Staff Reports*** are available at **www.newyorkfed.org/research/staff_reports**.

Macroeconomics and Growth

No. 177, February 2004
Do Stock Price Bubbles Influence Corporate Investment?
Simon Gilchrist, Charles P. Himmelberg, and Gur Huberman

This study develops a model in which an increase in the dispersion of investor beliefs under short-selling constraints predicts a "bubble," or a rise in a stock's price above its fundamental value. The model predicts that managers respond to bubbles by issuing new equity and increasing capital expenditures. The authors test these predictions using the variance of analysts' earnings forecasts to identify the bubble component in Tobin's Q. When comparing firms traded on the New York Stock Exchange with those traded on NASDAQ, they find that the model captures key features of the 1990s technology boom. Using a panel-data vector autoregression framework, the authors also find that orthogonalized shocks to dispersion have positive and statistically significant effects on Tobin's Q, net equity issuance, and real investment—results consistent with the model's predictions.

International

No. 179, February 2004
Who Bears the Cost of a Change in the Exchange Rate? The Case of Imported Beer
Rebecca Hellerstein

The author quantifies the welfare effects of a change in the nominal exchange rate using the example of the beer market. She estimates a structural econometric model that makes it possible to compute manufacturers' and retailers' pass-through of a nominal exchange rate change, without observing wholesale prices or firms' marginal costs. She conducts counterfactual experiments to quantify how the change affects domestic and foreign firms' profits and domestic consumer welfare. The counterfactual experiments show that foreign manufacturers bear more of the cost of an exchange rate change than do domestic consumers, domestic manufacturers, or a domestic retailer. The model can be applied to other markets and can serve as a tool to assess the welfare effects of various exchange rate policies.

No. 180, March 2004
Globalization and the Gains from Variety
Christian Broda and David Weinstein

This paper shows that the unmeasured growth in product variety from U.S. imports has been an important source of gains from trade over the past three decades. Using extremely disaggregated data, the authors demonstrate that the number of imported product varieties has increased by a factor of four. They also estimate the elasticities of substitution for each available category at the same level of aggregation and describe their behavior across time and SITC-5 industries. The authors then develop an exact price index and find that the upward bias in the conventional import price index is approximately 1.2 percent per year. The magnitude of this bias suggests that the welfare gains from variety growth in imports alone are 2.8 percent of GDP.

Banking and Finance

No. 178, February 2004
Trading Risk and Volatility in Interest Rate Swap Spreads
John Kambhu

This study examines how trading activity risk can affect asset price volatility. It looks for this relationship in the behavior of interest rate swap spreads and in the volume and interest rates of repurchase contracts. The author focuses on convergence trading, in which speculators take positions on a bet that asset prices will converge to normal levels. He investigates how the risks in convergence trading can affect price volatility in a form of positive feedback that can amplify shocks in asset prices. He finds empirical evidence of stabilizing and destabilizing forces in the behavior of interest rate swap spreads attributable to speculative trading activity. The swap spread tends to converge to a long-run level, although trading risk can sometimes cause it to diverge from that level.

Call for Papers on Conflicts of Interest in Financial Intermediaries

On December 3-4, 2004, the Federal Reserve Bank of New York, the *Journal of Financial Economics*, and Ohio State University's Dice Center for Research in Financial Economics will cosponsor the conference "Agency Problems and Conflicts of Interest in Financial Intermediaries." The conference will be held at Ohio State's Fisher College of Business in Columbus, Ohio.

The conference aims to promote a better understanding of the economic relevance of conflicts of interest in financial markets by examining such topics as:

- whether conflicts of interest were particularly severe at the end of the 1990s,
- how financial institutions manage conflicts,
- how contracting, legal, and reputation mechanisms affect conflicts, and
- what role regulatory authorities and regulations play in overseeing conflicts.

Interested authors should submit papers relating to all aspects of agency problems and conflicts of interest in financial markets by August 1, 2004. Submissions, or any questions, should be addressed to **hamid.mehran@ny.frb.org**.

More detailed information can be found at **www.newyorkfed.org/research/conference/2004/agency_problems_call_papers.html**.

Other New Publications

- ***Publications and Other Research***. The 2003 edition of our catalogue lists all of the papers published in our research series as well as many papers published by our economists in economic and finance journals, conference volumes, and scholarly books. Available only in pdf.

  www.newyorkfed.org/research/publication_annuals/por2003.pdf

- ***The Regional Economy of Upstate New York***. This quarterly newsletter, produced by the New York Fed's Buffalo Branch, focuses on issues of importance to upstate New York. The winter 2004 issue—"Restructuring in the Manufacturing Workforce: New York State and the Nation"—identifies important regional differences in the nature and degree of the occupational restructuring in manufacturing over the past two decades. It emphasizes New York State's experience in relation to that of other states in the Northeast.

  www.newyorkfed.org/research/regional_economy/upstatenews.html

Recently Published

Andrew Haughwout. 2004. "Institutions, Tax Structure, and State-Local Fiscal Stress," with Jesse Edgerton and Rae Rosen. ***National Tax Journal*** 57, no. 1 (March): 147-58.

Beverly Hirtle. 2004. "Stock Repurchases and Bank Holding Company Performance." ***Journal of Financial Intermediation*** 13, no. 1 (January): 28-57.

Bart Hobijn. 2004. "Cross-Country Technology Adoption: Making the Theories Face the Facts," with Diego Comin. ***Journal of Monetary Economics*** 51, no. 1 (January): 39-83.

Hamid Mehran. 2004. "Corporate Governance in the Banking and Financial Services Industries." ***Journal of Financial Intermediation*** 13, no. 1 (January): 1-5.

João Santos. 2004. "Allocating Lending of Last Resort and Supervision in the Euro Area," with Charles Kahn. In Volbert Alexander, Jacques Mélitz, and George M. von Furstenberg, eds., ***Monetary Union: Why, How, and What Follows?*** 505-27. London: Oxford University Press.

Kevin Stiroh. 2004. Review of ***Productivity, Inequality, and the Digital Economy: A Transatlantic Perspective***, edited by Nathalie Greenan, Yannick L'Horty, and Jacques Mairesse. ***Journal of Economic Literature*** 42, no. 1 (March): 48-9.

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- information on upcoming conferences and calls for papers.

Simply visit www.newyorkfed.org/alertservices and select "Research Alert."

Papers Presented by Economists in the Research and Market Analysis Group

"Are Banks Really Special? New Evidence from the FDIC-Induced Failure of Healthy Banks," *Adam Ashcraft*. Dartmouth College, Tuck School of Business Winter Finance Workshop, Revelstoke, British Columbia, Canada, March 6.

"Illiquidity in the Financial System following Wide-Scale Disruptions," *Morten Bech*. University of California at Santa Barbara Department of Economics seminar, Santa Barbara, California, January 14. With Rod Garratt. Also presented at the Danmarks Nationalbank, Copenhagen, Denmark, March 8.

"Financial Foreign Direct Investment and Host Countries: New and Old Lessons," *Linda Goldberg*. Micro and Macro Perspectives on Foreign Direct Investment, Institute for International Integration Studies conference, Trinity College, Dublin, Ireland, February 14.

"Has Structural Change Contributed to a Jobless Recovery?" *Erica Groshen and Simon Potter*. Eastern Economic Association Annual Conference, Washington, D.C., February 22. Also presented at a National Association of Workforce Boards conference, Washington, D.C., March 15.

"September 11 and the Long-Run Prospects for New York City," *Andrew Haughwout*. Russell Sage Foundation, New York City, March 2.

"Regulation, Subordinated Debt, and Incentive Features of CEO Compensation in the Banking Industry," *Hamid Mehran*. Association of Financial Economists Annual Meeting, San Diego, California, January 3. With Kose John and Yiming Qian.

"Welfare-Based Monetary Policy Rules in an Estimated Model of the U.S. Economy," *Paolo Pesenti*. American Economic Association Annual Meeting, San Diego, California, January 5. With Michel Juillard, Philippe Karam, and Douglas Laxton.

"Monetary Policy Coordination under Complete Markets," *Paolo Pesenti and Cédric Tille*. International Monetary Fund Institute seminar, Washington, D.C., February 10.

"Macroeconomics and Credit Risk: A Global Perspective," *Til Schuermann*. Rutgers University Financial Intermediation Workshop, New Brunswick, New Jersey, February 4. With M. H. Pesaran, B. J. Treutler, and S. M. Weiner.

"Regulation, Capital, and Organizational Form in U.S. Life Insurance," *George Zanjani*. American Finance Association Annual Meeting, San Diego, California, January 3.

"The Rise and Fall of the Fraternal Life Insurer: Law and Finance in U.S. Life Insurance, 1870-1920," *George Zanjani*. NBER Insurance Project Workshop, Cambridge, Massachusetts, February 6.

"Mutuality and the Underwriting Cycle: Theory with Evidence from the Pennsylvania Fire Insurance Market, 1873-1909," *George Zanjani*. Wharton Business School seminar, Philadelphia, Pennsylvania, March 18.

Research and Market Analysis Group Publications and Papers: January-March 2004

Publications are available at **www.newyorkfed.org/research/publication_annuals/index.html**.

Current Issues in Economics and Finance, vol. 10

No. 1, January 2004
Why Were Banks Better Off in the 2001 Recession?
Til Schuermann

No. 2, February 2004
Pre-IPO Financial Performance and Aftermarket Survival
Stavros Peristiani and Gijoon Hong

No. 3, March 2004
Recent Revisions to Corporate Profits: What We Know and When We Knew It
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