

**Materials Prepared for the Reviewers**  
**November 2005**

## **Issues for the Review**

## Suggested Issues for the External Review of Economic Research

For several years, Michael Moskow and the Bank's management team have evaluated the Research Department as "outstanding." This is reported annually to our Board of Directors. We also receive input from staff at the Board of Governors in Washington. As a check on these internal evaluations, we would like the external review team to evaluate the effectiveness of our Research Department relative to our mission and goals (included below). The specific areas to be reviewed are the six teams (macroeconomic policy; applied microeconomics; banking, financial markets, and regulation; payments studies; and consumer issues research) and their professional interactions with the research, policy, and business communities.

The following are suggested issues to be addressed:

1. How effective is our Department at:
  - a. Producing high-quality research for publication in academic journals?
  - b. Providing high-quality monetary and regulatory policy advice that is informed by recent advances in the economics and finance professions?
  - c. Providing high-quality conferences that inform policymakers, researchers, experts, and the public about important issues relating to our region, the national economy, and financial markets?
  - d. In each of these cases, a discussion of strengths, weaknesses, opportunities, and disparities across teams would be welcome.
2. Bank publications: In addition to working papers and policy briefs, the research economists contribute articles for our Bank publications, *Economic Perspectives* (quarterly) and the *Chicago Fed Letter* (monthly and occasional). These articles are often distilled versions of academic-quality publications and policy briefs that are intended to be accessible to a broader audience. Given the size of our research staff and co-authored articles, economists contribute about one *EP* article and one *CFL* every 18 months. Is this an effective way to expose our research and policy contributions to a wider audience? Discussions of strengths, weaknesses, and opportunities would be welcome.
3. Organizational structure: We have six teams of economists in the Research Department who are engaged in academic-quality research. During the course of both our regular policy assignments and in numerous on-site research seminars, there are many opportunities for the exchange of ideas and collaboration among the research economists across teams. Also, when our renovation is complete, all economists will be on the 11<sup>th</sup> floor, and this will again facilitate professional interactions. After meeting with members from each of the teams, do you think that we take sufficient advantage of potential complementarities within and across teams? Do you see any opportunities to increase interactions by improving this organizational structure?
4. Chicago advantage: The Chicago Fed is located in a city with two world-class academic research institutions, The University of Chicago and Northwestern University, with other strong academic institutions nearby. The Research Department has consciously tried to build on these positive fundamentals by establishing strong research relationships with

local academics. By enlarging the intellectual community, the Bank becomes a more attractive location for high-quality researchers. It is well-understood that attracting high-quality consultants and visiting scholars to the Bank requires a strong staff of researchers to interact with. These complementarities weren't active before the late 1980s; but the complementarities have grown steadily over the last 15 years.

- a. The teams have had different experiences over the years with this strategy and resource constraints on the number of consultants. Are we taking full advantage of these local fundamentals? Are there missed opportunities?
  - b. Are we overloading on local assets? Is there balance or is balance over-rated?
5. Staff resources: After reviewing the materials and talking with the economists, do you think that the staff has adequate resources to do their job? Relative to universities with comparable researchers and performance expectations, does the staff have sufficient research assistance, access to consultants and visiting scholars, computer support, travel resources, and time to do research? Are existing resources allocated to maximum effect? Other resource issues?
6. Personnel issues
- a. Research staff
    - i. From the perspective of our mission and basic research, discuss our staff's strengths and weaknesses.
    - ii. Comment on the composition of our economist staff
      - Junior versus experienced economist mix
      - Racial/ethnic/gender composition. From your experience in academia, do you have suggestions on how to deal with under-representation of various groups?
  - b. Recruiting and retaining staff
    - i. Without access to an up-or-out academic-type tenure process, the potential cost to us of hiring future underperformers is higher than at universities. Although weak performance can and must be managed at all levels, this cost is reduced when we consider experienced economists. By focusing more on experienced candidates, we have more information about the match characteristics between the candidate's research agenda and our policy needs. Do you think we overemphasize this?
    - ii. Has our turnover been healthy, too much, or too little?
    - iii. How can we successfully compete to hire high-quality banking and finance economists on a regular basis?
    - iv. What types of career paths do you think we should offer economists in order to retain strong performers for an extended period?
  - c. Salaries and benefits: Based upon your discussions with management, do you think our current salaries and salary structure are competitive?
7. Sustainability of the Department's success to date: By many performance measures, the Research Department has been successful for some time. Is this success based upon strong fundamentals and sound strategies, or is this a transitory positive deviation awaiting mean-reversion to a lower steady-state? We think we are on a sustainable path

for some of the reasons listed below, but your thoughts and suggestions on this would be greatly appreciated.

- a. We have clearly built upon President Moskow's strong support for policy-relevant research that comes in part from his experiences in senior positions at the Council of Economic Advisors, Labor Department, HUD, USTR, and the National Bureau of Economic Research. Although the next Chicago Fed President could be cut from a very different cloth, there is reason to believe that there will be continued support for a strong research environment. Every Reserve Bank has improved over the past 15 years, and moved in this direction.
- b. We have good bench-strength among the team leaders and senior professionals; so, good succession possibilities exist in the event of key leadership departures.
- c. Our experience-to-date in leveraging the Chicago intellectual community provides credibility for future recruiting.

## **Department Mission**

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The Federal Reserve Bank of Chicago Research Department's mission is to support the public policy mandates of the Federal Reserve System to foster a sound economy and a stable financial system. This work requires a team of highly qualified economists who contribute to economic research at the highest level. It also requires a bi-directional relationship that: 1) uses the insights from current economic research to provide a rigorous foundation for policy analysis, and; 2) uses the issues arising in the policy process to motivate original research. In this way, we seek to bridge the worlds of positive economic research and applied policy formulation in a mutually reinforcing, creative, and effective manner.

## **Team Listing**

**ECONOMIC RESEARCH DEPARTMENT**

Charles Evans

Senior Vice President

Macroeconomic Policy	Applied Microeconomics	Banking, Financial Markets, and Regulation	Regional Programs	Payments Studies	Consumer Issues Research
<p><b>D. Marshall</b> (VP &amp; EA)</p> <p>M. Bassetto (SE) J. Campbell (SE) M. Crowley (E) J. Fisher (EA &amp; SP) M. Kouparitsas (E) W. Strauss (EA &amp; SP) P. Teles+ (SE) F. Velde (SE) M. Veracierto (SE)</p>	<p><b>D. Sullivan</b> (VP &amp; EA)</p> <p>D. Aaronson (EA &amp; SP) G. Barlevy (EA &amp; SP) L. Barrow (SE) K. Butcher (SE) C. De Nardi (SE) E. French (SE) B. Mazumder (E) E. Rissman (E)</p>	<p><b>D. Evanoff</b> (VP &amp; EA)</p> <p>R. DeYoung (EA &amp; SP) C. Furfine (EA &amp; SP) H. Genay (SE) R. Rosen (EA &amp; SP) Vacancy Vacancy</p>	<p><b>W. Testa</b> (VP &amp; EA)</p> <p>T. Klier (SE) R. Mattoon (SE) Y. Ono (E)</p>	<p><b>R. Porter</b> (VP &amp; EA)</p> <p>G. Amromin (E) S. Chakravorti (SE) T. Rice (E)</p>	<p><b>A. Williams</b> (VP)</p> <p>A. Paulson (SE &amp; Mgr) L. McGranahan (E) M. Toussaint-Comeau (E) Vacancy</p>
<p>Business Economist (0)</p> <p>Associate Economist (6)</p>	<p>Business Economist (1)</p> <p>Associate Economist (6)</p>	<p>Business Economist (0)</p> <p>Associate Economist (3)</p>	<p>Business Economist (1)</p> <p>Associate Economist (3)</p>	<p>Business Economist (0)</p> <p>Associate Economist (2)</p>	<p>Business Economist (1)</p> <p>Associate Economist (3)</p>
<b>FOMC Coordination</b>	S. Krane (VP & EA)				

+on leave

**All but two economists have a Ph.D.**

**VP**=Vice President

**EA**=Economic Advisor

**SP**=Senior Professional

**SE**=Senior Economist

**E**=Economist

**Mgr**=Manager

## **Department's Role in Policy Work**

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The Department plays an integral role in the Federal Reserve Bank of Chicago's monetary, regulatory, and payments systems policy functions.

Regarding monetary policy, the Department conducts extensive briefings for the Bank President prior to each FOMC meeting. These provide a review of current economic conditions, forecasts of output and inflation, explorations of special policy topics, reviews of System documents on the FOMC's agenda, and analyses of policy options. In addition, the staff regularly briefs the Board of Directors prior to their discount rate decisions. It also organizes meetings of our Academic Advisory Council, in which academics and business economists from the District discuss policy issues and the economic outlook with the Bank President and Research staff.

In support of regulatory and payments policy, the Department prepares comment letters on proposed regulatory actions, advises System committees and the Bank's Supervision and Regulation Department on current public policy issues, and provides economic analyses and technical support for the Bank's regulatory responsibilities regarding access to credit and compliance with consumer banking regulations. The Department also supports the President's participation in the Payment System Development Committee and provides economic analyses of System-wide financial services issues.

Finally, the staff supports the Bank President in his public communications, such as speeches, press interviews, and articles in the popular media and policy journals. This work includes drafting and editing documents and conducting background briefings before the President's public appearances.

## **Department Structure**

The Department is organized into teams of economists with common research interests. There are five research teams in Economic Research and one research team in Consumer and Community Affairs. Each team in Research is managed by a vice president, while the team in Consumer and Community Affairs is managed by a senior economist. The Director of Research is responsible for oversight of both Economic Research and Consumer and Community Affairs.

Certain processes are managed in a matrix fashion across the Department. For example, the editor of Economic Perspectives is a member of the Banking, Financial Markets, and Regulation team, but manages the work of authors across the Department.

The research teams are:

- Macroeconomic Policy
- Applied Microeconomics
- Banking, Financial Markets, and Regulation
- Regional Programs
- Payments Studies

The research team in Consumer and Community Affairs is:

- Consumer Issues Research

A description of each team follows.

## Macroeconomic Policy

The core of our macro group is the Macroeconomic Policy Team, which consists of the following economists (listed along with principal areas of research):

	<u>Ph.D.</u>	<u>FRBC Service</u>
Marco Bassetto	University of Chicago, 1998 <i>Macro/Public Finance Theory</i>	July 2005
Jeff Campbell	Northwestern University, 1995 <i>Business Cycle Dynamics, Microfoundations</i>	2002
Meredith Crowley	University of Wisconsin, 2001 <i>International Trade</i>	2001
Jonas Fisher	Northwestern University, 1994 <i>Business Cycle Dynamics, Empirical Macro</i>	1998
Michael Kouparitsas	University of Rochester, 1996 <i>International Business Cycles</i>	1995
David Marshall	Carnegie-Mellon University, 1988 <i>Financial Economics, Empirical Macro</i>	1994
Pedro Teles	University of Chicago, 1993 <i>Monetary Theory</i> <b>(On leave, 2005)</b>	2001
François Velde	Stanford University, 1992 <i>Monetary History</i>	1997
Marcelo Veracierto	University of Minnesota, 1995 <i>DSGE Models, Labor Markets</i>	1998

The macro group also includes the Director of Research, Charlie Evans (Ph.D. Carnegie-Mellon University, 1989), Vice President Spence Krane (Ph.D. University of California, Berkeley, 1985) and two macroeconomists whose formal affiliation is with the Microeconomic Studies Team:

Gadi Barlevy	Harvard University, 1997 <i>Applied Macro Theory</i>	2003
Mariacristina De Nardi	University of Chicago, 1999 <i>Macro/Public Finance DSGE models</i>	1998-2000; July 2005

In addition, economic advisor William Strauss provides analysis of current macroeconomic and regional developments.

The macro group has two basic tasks: to carry out high-quality research; and to support the Bank's president in his monetary policy role by providing forecasts and analysis of economic conditions and policy options. The group's research focuses primarily on monetary economics, business cycle dynamics, and price level determination, issues that are key concerns of the Federal Reserve. This work ranges from pure monetary theory (Teles, Ruilin Zhou<sup>1</sup>) and calibrated DSGE models (Campbell, Fisher, Kouparitsas, Veracierto) to empirical time series analysis (Campbell, Evans, Fisher, Marshall, John Fernald,<sup>2</sup> Krane) and monetary history (Velde). A (somewhat arbitrary) selection of important publications written in the past five years by current members of the macro group would include the following:<sup>3</sup>

Barlevy, Gadi (*AER*, 2004), "The Cost of Business Cycles under Endogenous Growth."

Campbell, Jeff (*AER*, 2004), "Real Exchange Rate Fluctuations and the Dynamics of Retail Trade Industries on the U.S.-Canada Border" (with Beverly Lapham).

Campbell, Jeff, and Jonas Fisher (*AER*, 2000), "Aggregate Employment Fluctuations with Microeconomic Asymmetries."

Crowley, Meredith (*JIE*, 2005), "Do Antidumping Duties and Safeguard Tariffs Open or Close Technology Gaps?"

Fisher, Jonas (*JET*, 2004), "Fiscal Shocks and Their Consequences" (with Craig Burnside and Marty Eichenbaum).

Fisher, Jonas (*AER*, 2001), "Habit Persistence, Asset Returns, and the Business Cycle" (with Michele Boldrin and Larry Christiano).

Fisher, Jonas (*REStud*, 2000), "(S,s) Inventory Policies in General Equilibrium" (with Andreas Hornstein).

Kouparitsas, Michael (*JME*, 2005), "Determinants of Business Cycle Comovement: A Robust Analysis" (with Marianne Baxter).

Teles, Pedro (*REStud*, 2003), "Gaps and Triangles" (with Bernardino Adão and Isabel Correia).

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<sup>1</sup> Ruilin left the Bank in Summer 2004 to take a position at Penn State.

<sup>2</sup> John left the Bank in late 2004 to take a position at the Federal Reserve Bank of San Francisco.

<sup>3</sup> This list only includes papers written by staff during their tenure at the Bank. As a result, no papers by Marco Bassetto or Cristina De Nardi are listed because they've just joined our staff.

Velde, François (Princeton University Press, 2002), *The Big Problem of Small Change* (with Tom Sargent).

Velde, François (*JPE*, 2000), “A Model of Bimetallism” (with Warren Weber).

Veracierto, Marcelo (*JME* 2001), “Severance Payments in an Economy with Frictions” (with Fernando Alvarez).

Veracierto, Marcelo (*AER* 2002), “Plant Level Irreversible Investment and Equilibrium Business Cycles.”

Our macro group is fairly young. Unlike most comparable economics departments at universities, we lack older, more established scholars to provide guidance and perspective to these younger researchers. To help fill this void, we bring in a number of academic consultants from among the senior macroeconomists at Northwestern University and the University of Chicago. Currently, our macro consultants include Fernando Alvarez, Larry Christiano, Marty Eichenbaum, Lars Hansen, Anil Kashyap, and Rob Shimer.<sup>4</sup>

We see two major challenges going forward. First, our group’s responsibilities involve an unusual confluence of academic research and exposure to practical policy work. An important challenge is to exploit more effectively the synergies between these two areas. An initial effort in this direction is our Inflation Research Center, which was established early in 2005. This year, the IRC will

- provide support for academic research on price level determination and related issues;
- develop new measures of inflationary pressures;
- bring in visiting academic scholars with expertise in these topics; and
- hold a conference in November 2005 that will provide a forum for policymakers and academic researchers to share their insights on problems related to the issue of price stability.

A second challenge is to continue improving the quality of our work force, especially given the attrition that can be expected with a staff this young. Fortunately, our economists are unanimous in seeking to hire new researchers “better than we currently are.”

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<sup>4</sup> Tom Sargent had been a regular consultant when he was at the University of Chicago. Tom remains under contract with us for a limited amount of consulting time.

## Applied Microeconomics

The micro group's two main functions are to do original research on topics of potential policy importance and to support the Bank president in his role as monetary policymaker. In its latter role, the micro team provides analysis and forecasts of economic conditions, especially those in labor markets. It also provides input into appropriate monetary policy. The group does research in labor economics, public finance, education, health economics, and related fields. In addition, some members of the team do research that usually would be characterized as macroeconomics. Most of the team's research is empirical and designed to illuminate questions of importance to monetary policy and other public policy questions.

The Applied Microeconomics Team consists of the following research economists (listed along with principal areas of research):

	<u>Ph.D.</u>	<u>FRBC service</u>
Daniel Aaronson	Northwestern University, 1996 <i>Labor and Public Finance</i>	1996
Gadi Barlevy	Harvard University, 1997 <i>Macro, Labor, and Information</i>	2003
Lisa Barrow	Princeton University, 1999 <i>Labor and Public Finance</i>	1998
Kristin Butcher	Princeton University, 1993 <i>Labor and Public Finance</i>	2002
Eric French	University of Wisconsin, 1999 <i>Labor and Consumption</i>	1999
Bhashkar Mazumder	University of California, 2001 <i>Labor</i>	2001
Mariacristina De Nardi	University of Chicago, 1999 <i>Macro/Public Finance DSGE models</i>	1998–2000, 2005
Ellen Rissman	Northwestern University, 1988 <i>Labor</i>	1985
Daniel Sullivan	Princeton University, 1987 <i>Labor and IO</i>	1992

In addition, business economist David Oppedahl provides analysis of agricultural and other current developments. The micro group also greatly benefits from interactions with micro-oriented economists on other department teams.

The micro team recently has begun to benefit from access to a number of consultants from nearby academic institutions. These have included Joe Altonji, Marianne Bertrand, Jim Heckman, John Kennan, Bob LaLonde, Bruce Meyer, Derek Neal, Chris Taber, and Dianne Whitmore. These consultants generally have been retained on a short-term, rotating basis, although several have been repeat visitors to the Chicago Fed. Their collective knowledge and insights have begun to have a significant impact on our research. Several collaborations between our staff and consultants are underway.

In addition to hosting frequent visits to the Chicago Fed by leading scholars, the micro group has recently begun to host an “All Chicago Labor Economics Workshop” that is jointly organized with Jim Heckman at the University of Chicago and Chris Taber at Northwestern University. We expect that this once-a-month event will bring many first-rate researchers to the Bank, both as speakers and attendees. In addition, the micro group recently organized a conference that brought together researchers, practitioners, and policymakers to discuss policy issues related to worker displacement. This conference could be a model for others intended to bridge the gap between research and policy.

The micro group was instrumental in organizing the consortium consisting of the University of Chicago, Northwestern University, the University of Illinois at Chicago, Argonne National Laboratories, and the Chicago Fed that led to the establishment of the Chicago Census Research Data Center. At the Center, which is located in our building, approved researchers can access confidential Census micro data on firms and individuals. Such access is vital in a number of research fields. Having relatively easy access to Census Center data is an advantage that the micro group and others in the Chicago Fed Research Department are beginning to exploit.

Following is a list of some recent notable publications and working papers of economists on the micro team.

Bhashkar Mazumder (*ReStat* 2005), “Revised Estimates of Intergenerational Income Mobility in the United States.”

*Bhash’s statistical reasoning explains why previous estimates of intergenerational income correlations were too low (even a five-year average of earnings is a noisy measure of fathers’ lifetime earnings) and his better data (long time series data on individual workers’ earnings derived from administrative data sources) confirm that the true correlation is quite high— about 0.6, which is basically the same as Galton found for height. Bhash’s work shows that it takes a long time for initial conditions to wear off. One implication is that we should not give up on policies just because we don’t see quick results. For example, in her opinion in the recent University of Michigan affirmative action case, Justice Sandra Day O’Connor expressed surprise that affirmative action is still an issue 25 years after the Baake decision. But, Bhash’s results say that even if there*

*were no racial discrimination other than that deriving from differences in parents' economic circumstances, 25 years is not enough time to make a significant dent in the income gap between blacks and whites. (Alan Krueger made this point, quoting Bhaskar's results, in his New York Times column.)*

Lisa Barrow with Cecilia Rouse (*Journal of Public Economics* 2004), "Using Market Valuation to Assess the Importance and Efficiency of Public School Spending."

*Lisa and Ceci ask what happens to residential property values when changes in state funding formulas give school districts a windfall of money. Generally, the answer is that property values go up in aggregate by something close to the amount of the windfall. This is consistent with spending levels being set at efficient levels. If districts were over-spending, one would expect them to waste some of each extra dollar, so property values would tend to go up by less than the amount of the windfall. Conversely, if they were under-spending due to the presence of some constraint, extra resources would relax that constraint and the impact on property values would be more than the windfall. In general, the results are close to the predictions of the efficiency hypothesis, or slightly in the direction of under-spending. But, school districts spend less efficiently when they face little or no competition from other public schools, in large districts and in areas in which residents are poor or less educated. One interpretation of these results is that increased competition has the potential to increase school efficiency.*

Daniel Aaronson and Lisa Barrow with William Sander (under review at the *Journal of Labor Economics*), "Teachers and Student Achievement in the Chicago Public Schools."

*Dan, Lisa, and their coauthor examine student-level data from the Chicago Public Schools System that contain information on teachers as well as test scores. (Previous research has used data at the school or school-grade level that did not identify individual teachers.) Thus, they can look at the average improvement in student test scores for each teacher. Even after allowing for measurement error due to finite and sometimes small class sizes, they find that teacher effects are very important, i.e., the students in the best teachers' classes see big improvements in test scores relative to the students in the worst teachers' classes. The available measures of teacher characteristics do not do a great job of predicting which teachers will be successful in raising test scores, but the authors do find that teachers with a degree in the field being taught (instead of just an education degree) are better at raising test scores. Another interesting (and somewhat reassuring) result is that the teachers that produce the lowest test score improvements tend to leave the sample. (It is not clear whether they quit or lose their positions.)*

Gadi Barlevy (*AER* 2004), "The Cost of Business Cycles Under Endogenous Growth."

*Gadi constructs a business cycle model in which economic fluctuations reduce average growth rates and thus gets very high estimates of the effects of reducing the size of fluctuations on economic welfare (in contrast to the well-known results of Lucas). The basic mechanism is diminishing returns to investment, combined with the tendency for investment to be higher during booms and lower during busts. In Gadi's model a*

*reduction in the variance of the shocks leading to economic fluctuations shifts some investment from times of high investment when the marginal product is low to times of low investment when the marginal product is high, and thus increases the average efficiency of investment. His results don't necessarily say that stabilization policy is welfare improving, but they do suggest the importance of better understanding the costs and sources of fluctuations.*

Eric French (*ReStud* 2005), "Effects of Health Insurance and Self Insurance on Retirement Behavior."

*Eric estimates a model of lifecycle labor supply and consumption that incorporates data on asset accumulation. The model allows for uncertainty in income and health status. Estimating this model was a difficult computational task that made use of some innovative econometrics involving quantiles and GMM. The model is set up to do interesting applied work on retirement, social security, and other policy issues. Eric is now pursuing these topics.*

Daniel Aaronson and Eric French with James MacDonald (under review at *AER*), "The Minimum Wage, Restaurant Prices, and Labor Market Structure."

*Dan, Eric, and their coauthor use both store-level and aggregated price data from the Consumer Price Index survey to show that restaurant prices rise in response to an increase in the minimum wage. These results hold up when using several different sources of variation in the data. They also show that within a model of employment determination, minimum wage increases cause prices to rise if labor markets are competitive, but potentially cause prices to fall if labor markets are monopsonistic. Furthermore, employment and prices always move in opposite directions. Thus, their empirical results appear to provide evidence against the hypothesis that monopsony power is important for understanding the relatively weak observed employment responses to minimum wage changes.*

Kristin Butcher with Patricia Anderson (Dartmouth College) and Phillip Levine (Wellesley College) (*Journal of Health Economics* 2003), "Maternal Employment and Overweight Children."

*The fraction of children who are overweight has risen very rapidly in recent years and is a major concern of public health officials. Kristin and her coauthors investigate the role that increased maternal employment might have played in this development. Using NLS data on mothers' employment and their children's height and weight, they utilize a number of fixed effect strategies as well as instrumental variables that shift mothers' labor market participation. Their finding is that the increase in maternal employment explains a small, but non-negligible portion of the increase in childhood weight problems. Interestingly, these effects are concentrated in families in the upper quartile of the income distribution.*

Daniel Sullivan with Robert LaLonde and Louis Jacobson (*Industrial and labor Relations Review*, 2005), “The Impact of Community College Retraining on Older Displaced Workers: Should We Teach Old Dogs New Tricks?”.

*This paper asks whether it makes sense for displaced workers to return to school to get further training. It is based on administrative data from Washington State’s unemployment insurance and community college systems that have been linked together to provide an unusually detailed picture of experienced workers’ labor force and education experiences. Results generally indicate that most of those workers who returned to school obtained significant benefits from doing so. But, in the case of some older workers, the net social benefits were relatively low once the full costs of community college education (which is heavily subsidized) were recognized. Economic returns to more technical education were estimated to be much higher than for non-technical training. (We have heard reports that this paper had some impact in convincing the Bush administration to continue to fund federal programs that support community colleges.)*

Mariacristina De Nardi with Marco Cagetti (initial resubmission at *Journal of Political Economy*), “Taxation, Entrepreneurship, and Wealth.”

*Cristina and her coauthor construct a model that successfully mimics the very skewed shape of the U.S. wealth distribution. The model gives a central role to entrepreneurs who have imperfect access to capital markets and thus must save to help finance the growth of their businesses. The model can be used to address a number of important policy questions, including the impact of income and inheritance taxes on capital formation.*

## Banking, Financial Markets, and Regulation

### Staff:

Information is provided below about current staff members and those that have left the Bank within the past year, where the positions have yet to be filled. This gives an indication of the research efforts/interests of the current staff, as well as of the Team when it is fully staffed.

<u>Economist</u>	<u>Ph.D.</u>	<u>At FRB since</u>
Robert (Bob) DeYoung	University of Wisconsin-Madison, 1989	1998
Douglas D. Evanoff	Southern Illinois University, 1980	1980
Craig H. Furfine	Stanford University, 1995	2002
Hesna Genay	University of Rochester, 1995	1989
Richard Rosen	Princeton University, 1987	2003
--Staff Members that have left the Bank in the past year--		
Robert R. Bliss	University of Chicago, 1991	1999-2005
Elijah Brewer III	MIT, 1985	1977-2004
Nicola Cetorelli	Brown University, 1996	1997- 2004

**Robert (Bob) DeYoung** is a senior financial economist and economic advisor and is co-chair of the Chicago Fed's annual Conference on Bank Structure and Competition. His research focuses on the evolution of domestic and international financial markets and the performance of the firms—in particular, commercial banking firms—that operate in those markets. His articles and commentaries on these issues have appeared in numerous academic, industry, and regulatory publications. In addition to his Federal Reserve duties, Mr. DeYoung is a Research Program Director at the Center for Financial Research at the Federal Deposit Insurance Corporation and is an associate editor of several academic journals, including the *Journal of Money, Credit, and Banking* and the *Journal of Financial Services Research*. Before joining the Federal Reserve in 1998, Mr. DeYoung was a senior financial economist at the Office of the Comptroller of the Currency (1992-98) and a Joyce Foundation Teaching Fellow at Beloit College (1988-92).

**Douglas D. Evanoff** is a senior financial economist and vice president. As Director of the Banking, Financial Markets, and Regulation Group, he oversees the research activities concerning financial institutions and regulation. He serves as an advisor to senior management of the Federal Reserve System on regulatory issues and is Chairman of the Federal Reserve Bank of Chicago's annual Conference on Bank Structure and Competition. Mr. Evanoff's current research interests include bank cost and merger analysis, financial regulation, payment system mechanisms, and credit accessibility. Prior to joining the Chicago Reserve Bank, Mr. Evanoff was an assistant professor at St.

Cloud State University and a lecturer in finance at Southern Illinois University. He currently is an adjunct faculty member in the Graduate School of Business at DePaul University, associate editor of the *Journal of Economics and Business* and the *Journal of Applied Banking and Finance*, and institutional director on the board of the Midwest Finance Association. His research has been published in a wide array of economic and financial journals and books.

**Craig H. Furfine** is a senior financial economist and economic advisor. His research has involved the study of market microstructure, interbank markets, payment systems, monetary policy implementation, and bank capital regulation. Among current issues being studied are (a) how liquidity of Treasury markets is affected by perceptions of financial stress among market participants, (b) explaining how the relationship between liquidity and trading intensity varies across stocks, (c) exploring how public news arrival affects the information conveyed by trading, (d) characterizing the importance of news about industry bellwethers, (e) discovering whether equity market participants change behavior in light of potential window dressing, and (f) studying the predictive content of credit default spreads. Prior to joining the Chicago Fed, Mr. Furfine was a senior economist at the Bank for International Settlements and an economist at the Board of Governors of the Federal Reserve System. His research has been published in scholarly journals, including the *Journal of Business*, the *Journal of Monetary Economics*, and the *Journal of Money, Credit, and Banking*.

**Hesna Genay** is an economist. She provides economic analysis and policy support to the President and the Board of Directors of the Bank. She also conducts research and provides policy advice on international financial systems, the Japanese banking system, corporate finance and governance, small business financing, and international macroeconomics. Her current research includes issues related to capital requirements for operational risk at banking institutions and the information content of financial market indicators for banks' financial condition.

**Richard Rosen** is a senior financial economist and economic advisor. His research interests concentrate on issues related to financial intermediation, mergers, and agency problems. His work in financial intermediation examines two interrelated areas: First, the response of banks to changes in their environment. By examining the effects of these changes, the goal is to shed light on what is unique about banks. The second area is to evaluate how banks take advantage of their unique position in the economy. Mr. Rosen has used the recent merger waves in banking and elsewhere to evaluate why firms merge. Specifically, in a number of papers he has examined the use of mergers as a strategic tool to preserve managerial benefits. He has also examined whether industry consolidation has affected how banks compete (e.g., portfolio shifts and changes in pricing behavior). Additional research interests include whether bank loans are special, the IPO market, and the structure of the financial regulatory network. His research has been published in a number of economic and finance journals, including the *Journal of Finance*, the *Journal of Financial Economics*, *The Rand Journal*, the *Journal of Money, Credit, and Banking*, and the *Journal of Banking and Finance*.

---Staff Members that have left the Bank in the past year---

**Robert R. Bliss** (*Team member from 1999 until June 2005*) is the F.M. Kirby Chair in Business Excellence at the Calloway School of Business and Accountancy at Wake Forest University where he teaches finance. He previously served as a senior financial economist and economic advisor in the Research Department at the Federal Reserve Bank of Chicago. Before joining the Bank in January 1999 he was at the Bank of England, the Federal Reserve Bank of Atlanta and Indiana University. His research interests include the term structure of interest rates, interest rate derivatives, risk management, bank regulation, and the law and economics of insolvency. His research has been published in a number of scholarly journals including the *Journal of Finance*, the *American Economic Review*, the *Journal of Money, Credit and Banking*, the *Journal of Business* and the *Journal of Banking and Finance*. He received his PhD in finance from the University of Chicago.

[VITA: <http://www.wfu.edu/calloway/faculty/blissrr.htm>]

**Elijah Brewer III** (*Team member from 1977 until December 2004*) is currently an associate professor of finance at DePaul University of Chicago. Formerly, he was a senior economist and assistant vice president at the Bank, where he was responsible for overseeing antitrust analyses of bank holding company applications in the Seventh Federal Reserve district. His current research includes bank merger activity, deregulation, and governance structure; derivatives activity, bank risk-taking propensity, and portfolio choice; executive compensation, expanded powers, and performance in the banking industry; the wealth effects of financial institutions' bankruptcy announcements; mutual-to-stock conversions of financial services firms; and the role of small business investment companies in financing the activities of small businesses. Mr. Brewer has written on deposit insurance and bank stability, risk management, expanding banks' permissible non-banking activities, the trade-off between risk and return, the relationship between risk and capital, and the effects of derivative usage on the performance of depository institutions. Mr. Brewer was an associate professor of finance at the University of Illinois at Urbana-Champaign. He has also been a visiting lecturer at Murdoch University in Perth, Western Australia. His previous research has appeared or is forthcoming in the *Journal of Money, Credit, and Banking*, the *Journal of Banking and Finance*, the *Journal of Financial Services Research*, the *Journal of Risk and Insurance*, *Contemporary Policy Issues*, the *Journal of the Japanese and International Economies*, and the *Journal of Economics and Business*.

**Nicola Cetorelli** (*Team member from 1997 until July 2004*) is a senior economist in the Banking Studies Function at the Federal Reserve Bank of New York. He is also a Fellow of the Wharton Financial Institutions Center. Prior to joining the New York Fed, he was a senior financial economist at the Federal Reserve Bank of Chicago. His research focuses on the industrial organization and the corporate finance characteristics of the banking industry and the relationships with real economic activity. He has published or has articles forthcoming in the *Journal of Finance*, the *Journal of Money, Credit, and Banking*, the *Journal of Economics Dynamics and Control*, and various policy journals.

[VITA [http://www.ny.frb.org/research/economists/cetorelli/cetorelli\\_cv.pdf](http://www.ny.frb.org/research/economists/cetorelli/cetorelli_cv.pdf)]

**Description of Banking, Financial Markets, and Regulation Team Activities:**

The “Banking Team” is recognized within the profession for being on the cutting edge in policy-related research on issues affecting the financial services industry and financial regulation. That involvement takes on three interrelated forms: (1) high-quality research addressing various policy-oriented issues; (2) input into public policy via involvement in System Task forces and public comments in response to the request of various regulatory/legislative agencies; and (3) outreach efforts aimed at bringing together representatives from industry, regulatory agencies, and academia to critically evaluate financial policy issues.

The Team’s current research efforts can be broadly categorized into issues addressing (1) the evolving nature of the financial services industry—including the role of regulation, (2) market microstructure and risk management (including risk management tools, e.g., derivatives, risk management systems, and clearing and settlement arrangements), and (3) credit access and availability. That agenda has emphasized basic and applied research, and the research has been used to critically address policy-related issues. Specific topics recently covered include the causes and impacts of bank mergers; the effect of changing industry structure on portfolio decisions, the bank production process, intermediation, bank business models, and managerial compensation schemes; optimal regulation addressing capital requirements and access to credit, contagion in bank markets, and bank performance.

The Bank wants staff to take an active role in influencing public policy. This includes the FOMC process, where the Team provides input. Another form this can take is participation on Federal Reserve System Task Forces that evaluate future regulatory changes. Examples of Task Forces that staff has participated in include a critical evaluation of the role of mandatory subordinated debt in bank capital requirements, the potential for enhanced use of market information in the bank supervisory process, and an evaluation of monetary policy instruments in an environment of declining public sector debt. Another, more common form of public policy input, however, is through the Bank’s ‘Public Comment Process.’ The various regulatory agencies (FRS, CFTC, SEC, BIS, etc.) frequently request input on specific reform proposals. The Bank has found value in taking a position on these requests when it feels it has research or operational expertise. From the research perspective, the goal is to bring rigor to the table and base policy recommendations on the best available research on the specific topic.

[Examples of recent comment letters are included in the appendix]

Finally, there has been a conscious effort to reach out to bring industry, academic and regulatory representatives together to critically debate policy issues. The most well-known forum for this is our annual Bank Structure Conference. Originally, it was a conference that was attended each year by some 25 academics to discuss bank antitrust

policy, but had relatively little actual impact on policy changes. In recent years it has evolved into what has been termed “the most influential conference concerning public policy issues affecting the financial services sector in the world” (Greenspan, 1999, Conference Keynote address). It is recognized as the forum that originated much, and debated most, of the financial reform legislation of the 1990s. We also hold a fall conference on global finance issues. The ‘Global’ conference also concentrates on public policy issues, emphasizing an international perspective. Finally, we hold occasional ad hoc conferences on topics perceived to be timely and important. For example, in 2004 the Bank held a Conference on “Five Years of the Euro: Successes and Challenges,” cosponsored with the European Commission and the George J. Stigler Center. In spring 2006, the Bank will cosponsor a conference on central counterparty clearing issues; a topic deemed important for the Bank given the importance of the Chicago derivatives markets. [Programs from past conferences are included in the appendix.]

These three forms of policy involvement are perceived to be closely related. Research output builds credibility and enables staff to ‘get a seat at the table’ for the policy debate. Outreach efforts enable the staff to highlight that research and gain support for policy positions from a broader audience. The outreach efforts also enable staff to build relationships with other researchers, which often leads to additional joint research efforts and can aid in the recruiting process. The outreach efforts also allow the Bank to maintain a constant presence in the public policy debate.

We draw upon a number of consultants from local universities to help in both the research and outreach efforts. The consultants have been very helpful in serving as sounding-boards, in organizing outreach efforts, and in recruiting. The consultants include:

Randall Kroszner, University of Chicago

Mitchell Petersen, Northwestern University

George Kaufman, Loyola University of Chicago

Greg Udell, Indiana University

John McPartland, CFTC Technical Advisory Committee & Past Deputy Manager, CME Clearinghouse

Christian Johnson, Loyola University of Chicago School of Law

**Select Publications of the Banking, Financial Markets, and Regulation Team:**

The following are recent publications by the Banking, Financial Markets, and Regulation Team economists. The Vitae of the Team Members provide additional details.

Robert DeYoung, "Learning by Observing: Information Spillovers in the Execution and Valuation of Commercial Bank M&As," *Journal of Finance*, forthcoming, 2006 (with DeLong).

Robert DeYoung, "The Performance of Internet-based Business Models: Evidence from the Banking Industry," *Journal of Business*, forthcoming, 2005.

Robert DeYoung, "Product Mix and Earnings Volatility at Commercial Banks: Evidence from a Degree of Leverage Model," *Journal of Financial Intermediation* 10, January 2001.

Douglas Evanoff, "The Timing and Persistence of CRA Compliance Ratings," *Journal of Financial Services Research*, 23, April 2003 (with Dahl & Spivey).

Douglas Evanoff, "Measures of the Riskiness of Banking Organizations: Subordinated Debt Yields, Risk-Based Capital, and Examination Ratings," *Journal of Banking and Finance* 26, May 2002 (with Wall).

Craig Furfine, "The Costs and Benefits of Moral Suasion: Evidence from the Creditors of Long-Term Capital Management," *Journal of Business*, forthcoming.

Craig Furfine, "Interbank Exposures: Quantifying the Risk of Contagion," *Journal of Money, Credit, and Banking*, February 2003, vol. 35 no. 1, pp. 111-128.

Hesna Genay, "Does the Japanese Stock Market Price Bank Risk? Evidence from Financial Firm Failures," (with William Curt Hunter, and George G. Kaufman), 2003 v 35 (4) *Journal of Money, Credit, and Banking*.

Rosen, Richard, "Is Three a Crowd? Competition Among Regulators in Banking," *Journal of Money, Credit, and Banking*, 35 (6), 2003.

Richard Rosen, "CEO Compensation and Bank Mergers," *Journal of Financial Economics*, 61 (1), 2001, 107-138 (with R. Bliss).

Robert Bliss, "Option-Implied Risk Aversion Estimates," *Journal of Finance*, Vol. 59, No. 1, February 2004 (with Panigirtzoglou).

Nicola Cetorelli, "Banking Market Structure, Financial Dependence and Growth: International Evidence from Industry Data," *Journal of Finance*, Vol. 56, No. 2, April 2001 (with Gambera).

Nicola Cetorelli, "Finance as a Barrier to Entry: Bank Competition and Industry Structure in Local U.S. Markets," *The Journal of Finance*, forthcoming, 2006 (with Philip Strahan).

## Regional Programs

The Regional Team consists of the following economists (listed along with principal areas of research):

	<u>Ph.D.</u>	<u>At FRBC since</u>
William Testa	The Ohio State University, 1981 <i>Economics</i>	1981
Thomas Klier	Michigan State University, 1992 <i>Economics</i>	1993
Yukako Ono	Brown University, 2001 <i>Economics</i>	2001

In addition, Rick Mattoon is a senior economist with a graduate degree in public policy and extensive experience in government and industry and Mike Munley is a senior business economist focused on current Midwest conditions.

### Regional Team

Mission statement and mode of operation: The Regional Team (RT) informs public policy decisions, especially those issues that are most prominent for residents of the Midwest. These may include issues of economic growth and development, state and local finance, and industry structure, outlook, prospects, and regulation.

The RT conducts original research in areas related to these policy issues. Information is disseminated to regional residents and policymakers through outside publications, Bank publications, public speaking, and by service on public commissions and investigative initiatives. Such issues are also discussed and debated, and current research is synthesized, at Bank-sponsored research and public policy conferences involving leading scholars, policymakers, and the business community. The RT works cooperatively with other FRB research teams as appropriate.

Through these vehicles, RT staff typically research issues for one to two year periods under the auspices of a declared project area. During a project, research by Bank staff will be accompanied by thematic conferences and perhaps by participation by Bank staff on public-private investigations or commissions. Over the past five to ten years, for example, the RT has researched:

(1) A broad inquiry and assessment of Midwest economic growth, prospects, and policy directions.

(2) State-local financial issues in the Midwest, including “how state-local governments tax and should be taxing business activity” and the “general behavior of state government budgets over the business cycle.”

(3) The behavior, performance, and prospects of the region’s automotive industry.

(4) The condition of Midwest public infrastructure and related policy issues, including border access/crossing between Michigan and Ontario and electricity deregulation.

(5) The geography, structure, and behavior of corporate headquarters.

(6) The ongoing revival of central city population and economic activity.

(7) How recessions affect the Midwest manufacturing sector, the long term trends, prospects and policies for the sector.

### **Future direction and ongoing projects**

#### **Current and ongoing RT project areas include:**

- The changing structure of public higher education and its relation to the region’s human capital formation and economic growth (Rick Mattoon) (a conference is planned for this initiative on November 2, 2005, The Future of Higher Education),
- The structure, prospects, and impact of the Midwest automotive industry (Thomas Klier),
- Corporate headquarters location research (special journal collection of articles), and ongoing research into industrial organization and its geographic implications (Thomas Klier and Yukako Ono),
- Technology industries and Midwest growth (Bill Testa),
- Analysis of Midwest economic behavior over the business cycle in relation to the U.S., and construction of regional indicators and/or activity indices (Mike Munley), and
- Initiation of a dedicated webpage by which the public and practitioners can access completed research and conference proceedings. To bring more timely information and discussion of policy issues to Midwest policymakers, a “blog” discussion of current events and recently available research and statistics will be included on the website (Rick Mattoon and Bill Testa).

Selected publications:

Yukako Ono, "Outsourcing Business Services and the Role of Central Administrative Offices," *Journal of Urban Economics*, Vol. 53, May 2003, No. 3, pp. 377-395.

Robert DeYoung, Dan McMillen, and Thomas Klier, "The changing geography of the U.S. banking industry," *The Industrial Geographer*, Vol 2, No 1, pp.29-48, 2004.

William H. Oakland and William A. Testa, "The Benefit Principle as a Preferred Approach to Taxing Business in the Midwest," *Economic Development Quarterly*, Vol. 14, No. 2, May 2000, pp. 154-164.

William A. Testa, Thomas H. Klier, and Richard H. Mattoon, *Assessing the Midwest Economy: Looking Back for the Future*, Federal Reserve Bank of Chicago, 1996.

Richard H. Mattoon, "The electricity system at the crossroads—Policy choices and pitfalls," *Economic Perspectives*, Federal Reserve Bank of Chicago, First Quarter, 2002, vol XXVI, issue 1, pp 2-18, reprinted in *Society*, Transaction Publications, Rutgers University, Vol. 40, number 1, November/December 2002, pp. 64-79.

Richard H. Mattoon, "Creating a national rainy day fund for the states," *State Tax Notes*, Volume 31, number 4, January 26, 2004, pp. 271-283, and in *Proceedings, Ninety-Sixth Annual Conference*, National Tax Association, Washington, D.C., 2004, pp. 118-124.

William A. Testa and Alexei Zelenev, "Estimating U.S. metropolitan area export and import competition," *Economic Perspectives*, Federal Reserve Bank of Chicago, vol. 27, 2003, pp. 13-29.

Thomas Klier and Dan McMillen, "Clustering of auto supplier plants in the U.S.: GMM spatial logit for large samples," May 2005, submitted to the *Journal of Economics and Business Statistics*.

## Payments Studies

Economist	<u>Ph.D.</u>	<u>At FRBC since</u>
Gene Amromin	University of Chicago, 2002 <i>Public Finance and Finance</i>	June 2005
Sujit Chakravorti	Brown University, 1994 <i>Payments and Monetary &amp; IO Theory</i>	1999
Richard D. Porter	University of Wisconsin, 1971 <i>Empirical Monetary Economics and Payments</i>	May 2004
Tara Rice	Boston College (Finance), 2002 <i>Empirical Banking and Payments</i>	2002

### Mission and Background

The Payments Studies Group conducts timely, high-quality, and policy-relevant research with an eye towards payments issues targeted for academic and industry audiences. In addition, the group provides support for various Bank and System initiatives regarding payments policy. The group also provides a forum for dialogue among payment system participants.

As background, Payment Studies began in 1999 as a separate unit, Emerging Payments, which was organized outside of the Research Department at the Bank. It was created to develop an understanding of private sector emerging payment developments, to foster dialog between FRB payments professionals and industry professionals, to understand barriers preventing more efficient payments mechanisms, and to advocate migration to more efficient payments solutions. The group put on an industry-oriented conference, developed a bibliography of payments articles, put out a weekly newsletter on payments for System staff, and conducted research oriented to industry developments. The group was organized along a cross disciplinary platform consisting of both economists and analysts with prior payments experience in the System; it stayed outside of the Research Department until May, 2004, when Richard D. Porter took over the

leadership of the group from Edward Green, who left the Bank to join the Penn State economics faculty.

The current group retains some of the initial impetus of its emerging payments predecessor by still continuing to host an annual industry-oriented payments conference, a weekly payments newsletter, and an ongoing research agenda on new payments systems developments. But in its current embodiment, the group places significantly more emphasis on mainline economic research and policy analysis with an economic staff that, apart from one senior economist, is relatively new to the Chicago FRB Research Department. (See the list of research projects starting below). Beyond the members of the team, there are some alliances with other Research economists and staff with payments interests, specifically Robert De Young, Craig Furfine, and Robert Steigerwald in Banking, Financial Markets, and Regulation. Also, the team continues to stay connected with two former members with ongoing payments interests, Professors Victor Stango and Edward Green of Dartmouth and Penn State, respectively, both of whom are visiting the group in the summer and early fall of 2005.

Payments economics is a highly specialized subject area combining aspects of microeconomics and macroeconomics, including industrial organization and monetary economics. Apart from Toulouse University, which has two distinguished payments economists, Jean-Charles Rochet and Jean Tirole, we are hard pressed to think of an economics department with more than one economist specializing in payments. Within the System there are payments concentrations at five Banks: Boston, Chicago, Kansas City, New York, and Philadelphia. Three other central banks have payments groups: the Bank of England, which has placed a renewed emphasis on payments economics recently under the leadership of Andrew Haldane; the Reserve Bank of Australia; and the European Central Bank (ECB). We have made connections with these groups, and our strategy is to determine useful ways of cooperating with each of them, as makes sense, and with the relatively few academics working in the payments arena. In the local area, this had led one member of our team, Tara Rice, to undertake joint research with Christian Johnson, a professor of law at Loyola University and an expert on the legal aspects of settlement systems and derivative products.

## Stakeholders for Payments Studies

### **System-Level Projects (Product Offices, Committee of Presidents (COP), Payment System Development Committee (PSDC), Financial Services Policy Committee (FSPC), Committee of First Vice Presidents (COFVP), and other System groups)**

1. There are three special System working groups looking at payments issues currently.

One project involves domestic currency usage and trends, led by the Cash Office (SF FRB). The cash office has just begun work on the study, which they plan to update every few years. A staff member is participating in that study and doing a related study of currency distribution by fine endpoints and immigration in the Seventh District. The hypothesis is that the recent unexplained increases in domestic currency holdings are a result of increased immigration, particularly from Latin America, because the immigrants tend not to have checking accounts. The Seventh District is ideal in that it has a large immigrant (Mexican) population but no borders or direct international currency activity. (Alberro (intern) and Porter)

A second effort provides economic analysis to an advisory group of economists for the Federal Reserve's Electronic Payments (FREPS) initiative, which seeks to position the Federal Reserve on a modern, integrated computing platform for payments. (Porter)

In the third project, the System's Customer Relationship and Support Office (CRSO) has asked the group to provide technical assistance regarding the impact of offering the FRB's Computer Interface (CI) customers the option of accessing Fedwire funds, securities and FedACH services through SWIFT's Internet Protocol (IP) network,

2. There has been some limited work done on the private sector adjustment factor (PSAF). In lieu of a comment letter, we coordinated and drafted a response to Gov. Donald Kohn directly. (Porter and Rice)
3. The group provides support to the Bank President in his role as member of the Payment System Development Committee (PSDC), which holds quarterly meetings. (Porter)
4. The group circulates a weekly newsletter to approximately 275 System staff interested in current developments in the payment industry. The newsletter

5. provides a brief summary of payment stories with links to the original article. (Davis (payments analyst))

### **Academic Community (research projects, conferences, journals, visiting scholars)**

1. The group is studying the determinants of consumer payment mode choice using data provided by the Illinois Tollway Authority, which has been introducing electronic toll payment systems over the past several years. The Authority introduced a substantial (half-price) discount for electronic payment at the beginning of this year to reduce congestion on the tollways. Our research focuses on the identification of underlying mechanisms for changes in toll payment choices on the basis of time-series and cross-sectional variation in opportunity costs of time, transaction, and commuting patterns of Illinois drivers. The latter are estimated by applying a gravity model (based on distance from work, population, and employment levels) to Census survey data to produce the distribution of commutes from one ZIP code to another. Much of this apparatus can be carried over in theory to the System level to analyze concentration points for check or cash processing. (Amromin, Jankowski (associate economist), and Porter)
2. The group is investigating the adoption and pricing of network payment services under different market structures and regulatory regimes. Recently, pricing of payment network services has come under regulatory scrutiny in several jurisdictions around the world. These investigations question the competitive nature of these markets and its impact on the welfare of consumers and merchants. This work has been extensively cited by academic researchers, industry experts, and regulatory agencies. (Chakravorti)
3. The group is researching the substitution of electronic payment methods for cash. An empirical study currently underway is investigating the substitution of cash based on different classes of note denominations. The hypothesis that this study puts forth is that electronic payments have not, for the most part, affected real holdings of large and small currency denominations in most industrialized countries. (Amromin and Chakravorti)
4. The group is researching financial contagion across borders focusing on behavior of different classes of fund managers. A theoretical model is constructed to study financial contagion when dedicated index and opportunistic hedge fund managers, along with local noise traders can invest in three different countries, of which two are emerging market countries and the third is a mature market country. The traders affect prices in the emerging market but are price takers in the mature market. We find that the magnitude of contagion when present is dependent on the ratio of the types of investors. Depending on market conditions, either an

- increase in index-fund managers or hedge fund managers may increase contagion. (Chakravorti and Lall (IMF))
5. The group is working on a project to study the impact of Payment System Risk Policies on intraday liquidity. Initial interviews with settlement banks for exchanges and other clearing entities suggest that this policy constrains intraday liquidity, which sometimes results in payment delays. This study would be enhanced if more detailed Fedwire and CHIPS data were made available. (Clark (senior payments analyst))
  6. The group is working on a project that examines the relationship between bank strategy, performance, and risk. The study addresses the question of whether the resulting divergence in banking strategies has affected the financial performance of these companies in different ways, and considers among various strategies, transactions (or payments) as a primary strategy. (Rice)
  7. “Responsible fools? The tradeoff between mortgage prepayments and tax-deferred retirement savings.” This study considers the trade-off between two forms of household saving decisions: mortgage prepayments and contributions to tax-deferred accounts. Using data from the 2001 Survey of Consumer Finances, the researchers show that more than 80% of U.S. households are making the wrong choice in favoring mortgage prepayments over saving in tax-deferred accounts. The magnitude of the inefficiency is as large as \$40 billion in present value terms. (Amromin , Huang (UT-Austin), and Sialm (Michigan))
  8. “From the horse’s mouth: Gauging conditional expected stock returns from investor surveys.” This study uses data obtained from a sequence of surveys of consumer attitudes to study stock market beliefs and portfolio choices of individual investors. The findings indicate that a more optimistic assessment of macroeconomic conditions coincides with higher expected returns *and* lower expected volatility, implying strongly procyclical Sharpe ratios. Overall, the empirical results lend support to the hypothesis that equity valuations are lower during recessions – and subsequent returns are higher – because of undue pessimism about future returns, rather than high risk aversion. (Amromin and Sharpe (Federal Reserve Board))
  9. “Asset price effects of the 2003 dividend tax cut.” The dividend tax cut of 2003 was advertised as a shot in the arm to the stock market. This study investigates the empirical validity of this claim by contrasting returns on (a) different asset classes, (b) different capital markets, and (c) different time periods. In all three of these exercises, one group of assets (bonds, foreign equities, and U.S. equities prior to tax change) are subject to a different tax treatment than the control group of U.S. equities. (Amromin, Harrison (Federal Reserve Board), and Sharpe (Federal Reserve Board))
  10. Staff regularly present their research at academic venues. (Staff)

11. The group's research has appeared in refereed academic journals. (Staff)
12. The department regularly hosts visits by payment experts. This year Ed Green (Penn State), Yvan Lengwiler (University of Basel), Mark Manning (Bank of England), Victor Stango (Dartmouth), and Leo Van Hove (Free University of Brussels) have or are planning to visit the group.

### **Payment Industry Participants (outreach)**

1. The group hosts a payments conference every year that has been extremely well received by conference participants, senior management, and similar payment groups in the System. The conference addresses timely payment issues facing the payments industry in an extremely interactive environment. (Chakravorti, Lubasi (payments analyst), Porter, and Rice)
2. Check-21 project. The group has participated in various Check 21 activities with S&R staff, including a study and survey of risk issues associated with the check imaging. A *Chicago Fed letter* on this topic was published in August 2005. (Rice)
3. The group along with the Financial Services Group hosts two strategic payments breakfasts in the spring and fall with payments professionals at financial institutions in the Seventh District. The breakfasts highlight new developments in payments of broad interest and provide an opportunity for the CRSO to discuss new products and initiatives. (Porter, Rice, and Wiley (Check SVP, FRBC))
4. Staff members attend various industry conferences to monitor developments in the payments industry and are asked to speak during the year. Porter has been tapped to address the Midwest Region Workshop on Electronic Payment Systems in October, an electronic payment group for the transportation industry. The Illinois tollway has asked the group to participate in writing up the results of their tollway study for a tollway industry outlet. Chakravorti is speaking at the Bank Card forum in Memphis on interchange fees and has spoken at the UBS Electronic Payments Summit and BAI TransPay about payment system trends and innovations. Rice has spoken at BAI TransPay on banks payments driven revenues, before various community banking groups on Check 21 as part of S&R's community bank director training, at the Agricultural and Rural Finance Markets Conference at the Federal Reserve Bank of Chicago, before the American Bankers Association, the Iowa Division of Banking and the Indiana Department of Financial Institutions. Clark spoke at the Wachovia payments forum in December 2004 on global payments.
5. The group has assisted S&R with three reviews of BHC-owned payment providers. (Rice)

6. Staff members produce research in an accessible form to industry participants regarding current payment system issues. These studies investigate the adoption of various payment instruments in certain niches such as peer-to-peer payments, stored value cards, PIN versus signature-based debit cards, and the critical factors necessary for the adoption of new payment technologies.

### **Selected Papers from Payment Studies Staff**

1. "How Do Banks Make Money? The Fallacies of Fee Income," (Tara Rice and Robert DeYoung). The first article in a two-part series in *Economic Perspectives*, Federal Reserve Bank of Chicago (Quarter 4, 2004).
2. "How Do Banks Make Money? A Variety of Business Strategies," Tara Rice and Robert DeYoung. The second article in a two-part series in *Economic Perspectives*, Federal Reserve Bank of Chicago (Quarter 4, 2004).
3. "Theory of Credit Card Networks: A Survey of the Literature," (Robert Chakravorti) *Review of Network Economics*, 2 (2), June 2003, 50-68.
4. "Analysis of Systemic Risk in Multilateral Net Settlement Systems," (Robert Chakravorti) *Journal of International Financial Markets, Institutions and Money*, 10, February 2000, 9-30.
5. "Household Portfolio Choices in Taxable and Tax-Deferred Accounts: Another Puzzle?" (Gene Amromin), *European Finance Review (Review of Finance)*, volume 7(3), Fall 2003, 547-582.
6. "Hedging Employee Stock Options, Corporate Taxes, and Debt" (Gene Amromin and Nellie Liang), *National Tax Journal*, 56(3), September 2003, 513-533.
7. "Currency demand by Federal Reserve cash office: what do we know?" (Ruth A. Judson and Richard D. Porter), *Journal of Economics and Business*, Issue 4, 2004, vol. 56, pp. 273-285.
8. "P\* Revisited: Money-Based Inflation Forecasts with a Changing Equilibrium Velocity," (Richard D. Porter and Athanasios Orphanides), in the *Journal of Economics and Business*, January/April 2000, vol. 52, Numbers 1 and 2, pp. 87-100.
9. "The Economics of Standards Wars," (Victor Stango) *Review of Network Economics* 3(1), March 2004: pp 1-19. (former staff member, now at Dartmouth)
10. "Price Ceilings, Focal Points, and Tacit Collusion: Evidence from Credit Cards" (Victor Stango and Chris Knittel), *American Economic Review* 93(5), December 2003: 1703-1729. (former staff member, now at Dartmouth)

## Consumer Issues Research

The Consumer Issues Research (CIR) group consists of the following economists (listed along with principal areas of research):

	<u>Ph.D.</u>	<u>At FRBC since</u>
Leslie McGranahan ( <i>part-time, 60%</i> )	Northwestern University, 1998 <i>Public Economics, Economic History</i>	1998–2000 September 2004
Anna Paulson	University of Chicago, 1994 <i>Economic Development, Finance</i>	2001
Maude Toussaint-Comeau	University of Illinois-Chicago, 1998 <i>Labor Economics, Migration</i>	1998

CIR is part of the Consumer and Community Affairs (CCA) Division, which joined the Research Department in the fourth quarter of 2003. CIR economists provide policy analysis on issues related to community economic development and the economic well-being of vulnerable populations: the elderly, working poor, immigrants, and racial and ethnic minorities, for example. We also will begin to contribute to the FOMC government sector forecast. CIR economists have two primary goals: 1) To produce high-quality research on topics related to community development which is published in top notch journals; and 2) To provide timely, research-oriented information and analysis on Seventh District community development issues and similar information and analysis to support the Community Affairs agenda. The group’s research includes work on self-employment, housing markets, immigrant assimilation, financial development, bequests, and tax policy. Robert Townsend serves as a consultant to the group.

CIR economists have only had explicit expectations to publish in academic journals for the past year. Before that time the focus of the group was applied policy work that was not typically aimed at academic journals. That being said, here is a list of selected publications by members of the group over the past five years:<sup>5</sup>

McGranahan, Leslie (*JPE*, 2000) “Charity and the Bequest Motive: Evidence from Seventeenth Century Wills.”

McGranahan, Leslie (*National Tax Journal*, 2000) “The Effects of the Earned Income Credit on the Seasonality of Expenditures” (with Lisa Barrow).

Paulson, Anna (*Advances in Economic Analysis and Policy*, 2005), “Regulatory Incentives and Consolidation: The Case of Commercial Bank Mergers and the Community Reinvestment Act” (with Raphael Bostic, Hamid Mehran, and Marc

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<sup>5</sup> This list includes work by Leslie McGranahan when she was at FRBC in the Regional Team, 1998–2000.

Saidenberg).

Paulson, Anna (*Journal of Corporate Finance*, 2004), “Entrepreneurship and Financial Constraints in Thailand” (with Robert Townsend).

Toussaint-Comeau, Maude (*ReStat*, forthcoming), “Who Uses Check-Cashing Businesses? A Look at Racial/Ethnic Differences” (with William Greene and Sherrie Rhine).

Toussaint-Comeau, Maude (*International Migration Review*, forthcoming), “The Occupational Assimilation of Hispanics in the U.S.”

Over the past two years, CIR work has been focused on exploiting synergies with colleagues in Community Affairs. For example, CIR staff has made important contributions to the Bank’s Center for the Study of Financial Access for Immigrants. These efforts include key roles in organizing a national conference, presentations at the national as well as regional level, *Chicago Fed Letters*, *Economic Perspectives* articles, articles in *Profitwise/News and Views*, and several working papers and publications, as well as media interviews. A CIR economist (on loan from the Micro Team) was also responsible for the Chicago Fed’s November 2004 Job Loss Conference.

The CIR group is still in the process of integrating fully into the Research Department and transitioning to a more academic focus. This impacts our policy work and presents challenges for hiring and retaining appropriate staff. To better align policy work with the production of high-quality research, we are in the process of developing a new product, an Income Based Economic Index (IBEX). The IBEX will consist of a regular release of economic indicators – inflation, consumer sentiment and employment conditions – for particular socio-economic groups: the working poor, the elderly, and low-income households, for example. IBEX is one of The Inflation Research Center’s projects. Once this project is up and running (middle of 2006), CIR economists will have predictable blocks of time to devote to academic research and policy responsibilities that more closely resemble the work that economists in other groups do for FOMC.

While CIR is very committed to hiring and retaining researchers who are on par with our colleagues in the rest of the Research Department, we have faced some challenges in this area, and we are particularly interested in getting guidance from the external review committee on how to address this challenge.

In an effort to address our inability to credibly communicate to external candidates the work responsibilities within CIR, we have temporarily established a rotating position within CIR that is filled by an economist from another team. The thinking is that this individual can compare and communicate differences in the work environment for economists in other teams versus CIR. Kristin Butcher from the Micro team has just completed a one-year rotation, and we are in the process of assessing what we have learned from her visit and planning for a subsequent rotation by an economist from the Macro team.

## Curricula Vitae

This section has been omitted.

*All of the appendices are listed below, with accompanying text files where appropriate. Not all of the text files are provided for confidentiality and/or Bank policy reasons.*

Appendix A  
Job Descriptions and Salary Ranges for economists

## Appendix B

Information Technology Support for the Research Department

## Economic Research Information Technology

Information technology (IT) plays a critical role in the work product of the Economic Research (ER) Department at the Federal Reserve Bank of Chicago (FRBC). ER Economists and their assistants use a wide variety of IT tools and infrastructure. While some organizations realize benefits (mainly in cost reduction) in standardization, consolidation, and centralization of IT resources, ER leans in the other direction. This is essential since each economist brings to the Department a unique set of IT demands, which are almost always met. Over time, the Department has developed an IT philosophy that tries to eliminate any restrictions on IT resources for its economists, feeling that this will enable the economists to best meet the goals of the Department. A brief overview of ER IT systems and support follows.

Software is probably the area in which ER's IT philosophy plays out in the fullest. The Department currently has: over 10 different analytical software packages; over 5 word processing applications; and more than a dozen productivity-enhancing utilities (e.g., OCR software). This diversity mainly reflects the IT backgrounds of our economists. It also is a reflection of the changing needs of our staff. For example, we have had economists join the department and their need of a statistical analysis application was limited to one specific title. But, when taking on new projects or working with different colleagues, their needs increased to several packages. The obvious benefit to this is that our economists are spending their time doing economics, not developing workarounds to or accommodations of insufficient IT functionality.

For desktop hardware, which includes laptops/notebooks, we have a baseline hardware package that is "not-quite-top-of-the-line-but-still-comfortable," and then departures are easily made from this package whenever an economist needs more, or even for a particular project (such as giving a research assistant another PC for a project). Currently, ER has a couple of Linux servers attached to 1.5 Tb of disk that serves the entire Department. We are piloting the use of inexpensive (<\$10,000) 64-bit servers that are dedicated to just a few staff working on a single project/process. If the testing concludes as we believe it will (positively, that is), then we will install more of these servers for other workgroups, some of which are already identified. Also, we currently have a 10-node Beowulf cluster that allows for high-end parallel computing. Finally, we support a wide range of computer peripherals (printers, scanners, etc.).

Data purchases and subscriptions are not traditionally thought of as IT, but we will include them here. ER subscribes to a number of databases/information resources. This list will grow as the Department is making more of a commitment to have its approach to data mirror that of its approach to IT (i.e., provide a diverse data environment to allow for maximum quality output from staff).

Finally, we look at IT support. It is apparent that the non-standard nature of ER does not lend itself to support from a centralized IT organization. Realizing this, ER employs a

small IT support unit (roughly 3 members) that is housed within and reports to the Department. The fact that they are in-house, that they have been with ER for a long time, and that they work for/report to ER only, means that they are extremely attuned to the idiosyncrasies of economists and their multi-faceted needs and available in a way that a central IT function could never be. This group provides all levels of IT support up to the application level.

## Appendix C

Federal Reserve Bank of Chicago Performance in 2004

Appendix D

Federal Reserve Bank of Chicago 2005-2007 Strategic Direction

Appendix E

Organizational Charts for Senior Levels at the Federal Reserve Bank of Chicago  
and the Management of the Research Department

## Appendix F

For economists, a distribution of years since Ph.D. and years of experience at the  
Federal Reserve Bank of Chicago

Years since Ph.D. <sup>1</sup>	# of staff	Years of experience at FRBC <sup>2</sup>	# of staff
<b>Economists (including Financial Economists)</b>			
<1	0	<1	1
1 to <5	5	1 to <5	5
5 to <10	3	5 to <10	1
10 to <15	1	10 to <15	1
15 to <20	1 part-time	15 to <20	1
20 to <25	0	20 to <25	1 part-time
<b>Senior Economists (including Senior Financial Economists)</b>			
<1	0	<1	1
1 to <5	0	1 to <5	5
5 to <10	4	5 to <10	5
10 to <15	8	10 to <15	2
15 to <20	0	15 to <20	0
20 to <25	0	20 to <25	0
<b>Senior Professionals and Economic Advisors</b>			
<1	0	<1	0
1 to <5	0	1 to <5	3
5 to <10	2	5 to <10	3
10 to <15	2	10 to <15	0
15 to <20	2	15 to <20	0
20 to <25	0	20 to <25	1
<b>Vice Presidents</b>			
<1	0	<1	0
1 to <5	0	1 to <5	2
5 to <10	0	5 to <10	0
10 to <15	0	10 to <15	2
15 to <20	2	15 to <20	0
20 to <25	2	20 to <25	1
25 to <30	1	25 to <30	1
30 to <35	1	30 to <35	0
<b>Senior Vice President</b>			
1 to <5		1 to <5	
5 to <10		5 to <10	
10 to <15		10 to <15	1
15 to <20	1	15 to <20	
20 to <25		20 to <25	

<sup>1</sup>Includes only those economists with a Ph.D.

<sup>2</sup>Includes all economists

Appendix G  
Current Hiring Plan

Appendix H  
Visiting Scholar Program

## VISITING SCHOLARS

The Chicago Fed research department has an active visiting scholars program. Visitors come for as short as one day to as long as several months. The purpose is to facilitate interaction between our research staff and outside scholars. Visitors typically present a paper at a research seminar and discuss additional research topics with staff. Many of the visitors are research collaborators with members of our staff, so their visits are often designed to forward joint work with FRBC economists.

**Year 2005 (including those who have already visited, as well as those currently scheduled through year-end):**

<b>Name</b>	<b>Affiliation</b>
Abbring, Jakob	Tinbergen Institute- Amsterdam
Altonji, Joseph	Yale University
Amato, Jeffrey	Bank of International Settlements- Switzerland
Ashenfelter, Orley	Princeton University
Basu, Susanto	University of Michigan
Ben-David, Zahi	University of Chicago
Bentson, George	Emory University
Blundell, Richard	University College- London
Bonaccorsi di Patti	Bank of Italy- Italy
Broda, Christian	University of Chicago
Burstein, Ariel	University of California- Los Angeles
Chang, Yongsung	Seoul National University- Korea
Cole, Hal	University of California- Los Angeles
Collard-Wexler, Allan	Northwestern University
Craine, Roger	University of California-Berkeley
Curcu, Stephanie	University of Chicago
Dai, Qiang	University of North Carolina
dePaula, Aureo	Princeton University
Drucker, Steven	Stanford University
Elder, Todd	University of Illinois, Urbana- Champaign
Gervais, Martin	University of Western Ontario
Green, Edward	Pennsylvania State
Gron, Anne	Northwestern University
Guryan, Jon	University of Chicago
Gust, Christopher	Board of Governors
Hall, George	Yale University
Heim, Brad	Duke University
Hercowitz, Zvi	Tel Aviv University- Israel
House, Christopher	University of Michigan
Hoynes, Hilary	University of California- Davis

Hubbard, Thomas  
Ivanov, Lubomira  
Kaestner, Robert  
Kimball, Miles  
Knoteck II, Edward S.  
Krueger, Alan  
Leahy, John  
Lee, Jinkook  
Lengwiler, Yvan  
Lookman, Aziz  
Lubotsky, Darren

Ludvigson, Sydney  
Luttmer, Erzo  
Lynn, Joshua  
Manning, Mark  
Manuell, Rody  
Marquez, Robert  
Matsuyama, Kiminori  
Mazzocco, Maurizio  
Mescheryakova, Yuliya  
Morris, Stephen  
Mortensen, Dale  
Ors, Evren  
Pavan, Alessandro  
Puri, Maju  
Ramey, Valerie  
Rey, Helene  
Rios-Rull, Victor  
Rothstein, Jesse  
Schorfheide, Frank  
Stango, Victor  
Tarhan, Vefa  
Tucker, Catherine  
Van Hove, Leo  
Vinay, Fabien Postel

Waggoner, Abigail  
Wachter, Till von  
Winton, Andy  
Wright, Mark  
Wright, Randall

University of Chicago  
Northwestern University  
University of Illinois at Chicago  
University of Michigan  
University of Michigan  
Princeton University  
New York University  
Ohio State  
University of Basel- Switzerland  
Carnegie Mellon University  
University of Illinois, Urbana-  
Champaign  
New York University  
University of Minnesota  
University of Illinois at Chicago  
Bank of England- England  
University of Wisconsin  
Maryland University  
Northwestern University  
University of Wisconsin  
Northwestern University  
Yale University  
Northwestern University  
HEC School of Management- France  
Northwestern University  
Duke University  
University of California- San Diego  
Princeton University  
University of Pennsylvania  
Princeton University  
University of Pennsylvania  
Dartmouth College  
Loyola University  
Stanford University  
Free University of Brussels  
Parisjourdan Sciences Economiques  
and University of Bristol- United  
Kingdom  
Harvard University  
Columbia University  
University of Minnesota  
Stanford University  
University of Pennsylvania

**Year 2004:**

<b>Name</b>	<b>Affiliation</b>
Abbring, Jaap (Jakob)	Free University
Adao, Bernadina	Banco De Portugal
Akresh, Richard	Yale University
Albanesi, Stefania	Duke University
Alexopoulos, Michelle	University of Toronto
Arcidiacono, Peter	Duke University
Autor, David	Massachusetts Institute of Technology
Barseghyan, Levon	Cornell University
Basu, Susanto	Harvard University
Benston, George	Emory University
Bernal, Raquel	Northwestern University
Bouwman, Christa	University of Michigan
Brown, Meta	University of Wisconsin (Madison)
Burstein, Ariel	University of California- Los Angeles
Carvalho, Isabel	Banco De Portugal- Portugal
Chad, Bown	Brandeis University
Chay, Key	University of California-Berkeley
Chari, V.V.	Federal Reserve Bank of Minneapolis
DeLeire, Tom	Harvard University
Eckstein, Zvi	University of Minnesota
Eden, Ben	Vanderbilt University
Ferrall, Christophe	Queens University
Gali, Jordi	University of Pomreu Fabra-Spain
Hall, George	Yale University
Harrison, Sharon	Barnard College
Hopenhayn, Hugo	University of California- Los Angeles
Hu, Luoia	Northwestern University
Humphrey, David	Florida State
Jaimovich, Nir	University of California-San Diego
Jones, John	University of Albany
Kearney, Melissa	The Brookings Institute
Kehoe, Patrick	Federal Reserve Bank of Minneapolis
Klenow, Peter	Stanford University
Kortum, Samuel	University of Minnesota
Krusell, Per	University of Rochester
Lagos, Richard	Federal Reserve Bank of Minneapolis
Liu, Zheng	Emory University
Lusardi, Anna Maria	Dartmouth College
Martin, Antoine	Federal Reserve Bank of Kansas City
McCrary, Justin	University of Michigan
Mitnik, Oscar	University of California- Los Angeles

Molinari, Francesca  
Montgomery, Mark  
Nagypal, Eva  
Osili, Una Okonkwo  
Pager, Devah  
Perri, Fabrizio  
Piehl, Anne  
Pinho de Mello, Joao  
Puri, Manju  
Remolona, Eli

Ritchken, Peter  
Rochet, Jean-Charles  
Rogerson, Richard  
Sargent, Thomas  
Sbordone, Argia  
Schenone, Carola

Cornell University  
Grinnell College  
Northwestern University  
Indiana University-Purdue University  
Northwestern University  
Federal Reserve Bank of Minneapolis  
Harvard University  
Stanford University  
Duke University  
Bank of International Settlements-  
Switzerland  
Case Western Reserve  
University of Toulouse- France  
Arizona State University  
New York University  
Rutgers University  
Virginia

Appendix I  
Consultant Program  
and  
Academic Advisory Council

The Department leverages its relationships with leading local universities through the consultant program. Consultants are hired from academia usually for weekly visits for a period of one quarter up to any number of years. Visits may be used for the consultants' presentation of their own work to staff, to provide feedback to staff on current research, or to participate in planning of a conference. The Department's relationships with its consultants also provide contacts for hiring.

**2005:**

<b>NAME</b>	<b>AFFILIATION</b>
Alvarez, Fernando	University of Chicago
Bertrand, Marianne	University of Chicago
Christiano, Larry	Northwestern University
Eichenbaum, Martin	Northwestern University
Hallock, Kevin	University of Illinois at Urbana-Champaign
Hansen, Lars	University of Chicago
Heckman, James	University of Chicago
Johnson, Christian	Loyola University Chicago
Kashyap, Anil	University of Chicago
Kaufman, George	Loyola University of Chicago
Kennan, John	University of Wisconsin
Kroszner, Randall	University of Chicago
LaLonde, Robert	University of Chicago
McMillen, Daniel	University of Illinois at Chicago
McPartland, John	private contractor
Meyer, Bruce	University of Chicago
Neal, Derek	University of Chicago
Petersen, Mitchell	Northwestern University
Rubenstein, James	Miami University of Ohio
Sargent, Thomas	New York University
Shimer, Robert	University of Chicago
Taber, Christopher	Northwestern University
Townsend, Robert	University of Chicago
Udell, Greg	Indiana University
Whitmore, Diane	University of Chicago

**2004:**

<b>NAME</b>	<b>AFFILIATION</b>
Christiano, Larry	Northwestern University
Eichenbaum, Martin	Northwestern University
Hallock, Kevin	University of Illinois at Urbana-Champaign
Hansen, Lars	University of Chicago
Johnson, Christian	Loyola University Chicago

Jovanovic, Boyan  
Kashyap, Anil  
Kaufman, George  
Kroszner, Randall  
LaLonde, Robert  
McMillen, Daniel  
McPartland, John  
Neal, Derek  
Petersen, Mitchell  
Sargent, Thomas  
Taber, Christopher  
Townsend, Robert  
Udell, Greg

New York University  
University of Chicago  
Loyola University of Chicago  
University of Chicago  
University of Chicago  
University of Illinois at Chicago  
private contractor  
University of Chicago  
Northwestern University  
New York University  
Northwestern University  
University of Chicago  
Indiana University

## Academic Advisory Council

Prior to the January and June FOMC cycles, we meet with a group academic and business economists to hear their views on current and prospective economic conditions and monetary policy. The meetings generally are attended by four to six academics from universities in our District, six to eight economists from the Chicago business community, the Bank President, the eight FRBC economists who work most closely with the President in the FOMC policy analysis process, and two or three other FRBC staffers.

A FRBC vice president opens the meeting with a brief overview of current conditions and the economic outlook. In addition, we generally have a special topic on the agenda; the VP opens its discussion with some introductory remarks, and then one to three academics present their views and insights. The presentations are followed by a roundtable discussion. We conclude with a working lunch, at which time all participants are asked for their views on the economic outlook and monetary policy.

Recent participants in the Academic Advisory Council:

Academic:

Susanto Basu	University of Michigan
Minzie Chinn	University of Wisconsin
Larry Christiano	Northwestern University
Jan Eberly	Northwestern University
Marty Eichenbaum	Northwestern University
Charles Engel	University of Wisconsin
Robert Gordon	Northwestern University
Erik Hurst	University of Chicago
Anil Kashyap	University of Chicago
Randy Kroszner	University of Chicago
Debbie Lucas	Northwestern University
Annamaria Lusardi	University of Chicago and Dartmouth College
Robert McDonald	Northwestern University
Casey Mulligan	University of Chicago
Don Nichols	University of Wisconsin
Sergio Rebelo	Northwestern University
Karl Scholz	University of Wisconsin
Matthew Shapiro	University of Michigan
Rob Shimer	University of Chicago
Linda Tesar	University of Michigan
Bob Topel	University of Chicago
Ken West	University of Wisconsin

Business:

Bob Dederick

David Hale

Michael Lewis

Tim O'Neill

Diane Swonk

Carl Tannenbaum

Brian Wesbury

RGD Economics

Hale Advisors LLC

Free Market, Inc.

Bank of Montreal

Mesirow Financial

LaSalle National Bank / ABM AMRO N.A.

Claymore Advisors

## Appendix J

The *Chicago Fed Letter* is a monthly newsletter published by the Research Department. It features an essay on economic policy issues of regional or national interest. Special issues are also published as appropriate.

## Appendix K

*Economic Perspectives* is a quarterly journal of in-depth articles reporting on the Bank's economic research.

## Appendix L

*Profitwise News & Views* is a magazine of articles covering community and economic development news, consumer regulatory topics, and consumer issues research. The publication is issued at least four times a year.

## Appendix M

*Ag Letter* is a newsletter published by the Research Department four times each year on agricultural land values and credit conditions using data from our quarterly survey.

## Appendix N

### Indexes Published by the Research Department

The Chicago Fed National Activity Index (CFNAI) is a monthly index designed to better gauge overall economic activity and inflationary pressure. The Index is a weighted average of 85 indicators of national economic activity drawn from four broad categories of data: 1) production and income; 2) employment, unemployment, and hours; 3) personal consumption and housing; and 4) sales, orders, and inventories.

The Chicago Fed Midwest Manufacturing Index (CFMMI) is a monthly estimate by major industry of manufacturing output in the Seventh Federal Reserve District states of Illinois, Indiana, Iowa, Michigan, and Wisconsin. It is a composite index of 15 manufacturing industries that uses electrical power and hours worked data to measure monthly changes in regional activity.

Examples of recent releases are included.

## Appendix O

Brochures or Agendas of Some Recent and Upcoming Conferences

Appendix P  
Sample Comment Letters

Appendix Q  
Sample Briefing Memos

## Appendix R

### External Review Reports from Other Central Banks