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## 2013 Community Banking Performance: A Year of Recovery

By Gary S. Corner and  
Michelle Clark Neely

Community banks, both nationally and in the Eighth Federal Reserve District, faced an improving economic climate in 2013, but continued to experience challenges in building on the gains they had made since the financial crisis.<sup>1</sup> The following is a more detailed look at 2013 performance over a few key metrics.

### Return on Assets

Although asset quality continued to improve, earnings growth stalled overall. Return on average assets (ROA) for District community banks averaged 1.01 percent at year-end 2013, unchanged from its third-quarter level and down just 1 basis point (bp) from year-end 2012. Nationally, community banks posted slightly better results, with ROA averaging 1.06 percent at year-end 2013, down 1 bp from the third quarter, but up 7 bps from year-end 2012. Within District states, ROA at year-end 2013 ranged from a low of 0.84 percent at Illinois banks to a high of 1.31 percent at Arkansas banks.

### Net Interest Margin

Net interest margin (NIM) compression—a challenge for most community banks these past few years—eased somewhat in the fourth quarter, with margins remaining unchanged or up slightly from their third-quarter levels.

While 2013 may have been a year to clean up the remaining problems from the financial crisis, it appears as though 2014 will be a year of planning and transition for many community banking organizations.

NIM at District community banks averaged 3.86 percent at year-end 2013, up 3 bps from the third quarter, but still down 11 bps from year-end 2012. The trend nationally among community banks was much the same, with average NIM rising 3 bps in the fourth quarter to 3.79 percent.

Rising interest income and declining interest expenses boosted margins at community banks both nationally and in the District in the fourth quarter. With most bankers still reporting tepid loan demand, it is doubtful margins will rise significantly anytime soon. Loans as a percentage of assets hovers close to 60 percent on average at District banks, which is about 10 percentage points below its precrisis level. Further, net noninterest expenses have crept up in recent quarters, putting added pressure on earnings.

### Noninterest Expense

The net noninterest expense ratio—noninterest expenses less noninter-

*continued on Page 5*

EDITOR

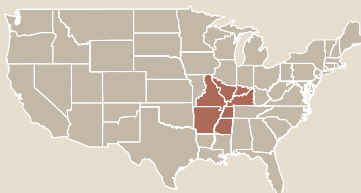
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The Eighth Federal Reserve District includes all of Arkansas, eastern Missouri, southern Illinois and Indiana, western Kentucky and Tennessee, and northern Mississippi. The Eighth District offices are in Little Rock, Louisville, Memphis and St. Louis.



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# Opportunities Are Present among Uncertainty

By Julie Stackhouse

I am often asked: "Is the banking crisis over? Has the performance of banks returned to 'normal'?"

While we have seen great progress, the news is still mixed. Earnings for community banks have rebounded; however, pressure on net interest margins remains a concern. In recent years, many banks have benefited from a high volume of mortgage refinancing activity and the associated fee income, but that activity has now fallen off. Overall, community banks report weak loan demand and fierce competition for high-quality small business loans and commercial and industrial loans.

Many of the aforementioned challenges are a result of an extended low interest rate environment. But other factors, including regulatory changes, are also having an impact. Often cited are the new Ability-to-Repay (ATR) rule, the Qualified Mortgage (QM) rule and enhanced emphasis on consumer protection.

With respect to the ATR rule, community banks are uncertain how regulators will interpret ATR requirements. Often cited are borrowers with disrupted income streams or those who are unwilling to fully disclose income information. Likewise, banks are uncertain about whether to extend credit for mortgages that do not meet the QM rules. Community banks tell me that some non-QM mortgages will be made, but they will be exceptions and not the norm. It remains unclear what effect these decisions will have on mortgage credit availability. I believe we'll need a few more quarters of data to really start assessing the impact of this rule.



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Hiring even one additional staff member to address compliance laws and regulations can be significant for smaller community banks.

Community banks also cite the Affordable Care Act as creating uncertainty for businesses. The delay in implementing the act's mandates, while granting a temporary reprieve for many businesses, has also resulted in some confusion over the true impact of the act's costs. Community banks are trying to understand the effect on small business balance sheets and, ultimately, the impact on demand for credit.

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# Earnings, Asset Quality and Capital: Community Banks and Thrifts

	2012: Q4	2013: Q3	2013: Q4
<b>RETURN ON AVERAGE ASSETS</b>			
All U.S. Banks	0.99%	1.07%	1.06%
All Eighth District States	1.02	1.01	1.01
Arkansas Banks	1.28	1.30	1.31
Illinois Banks	0.52	0.85	0.84
Indiana Banks	1.06	1.03	1.04
Kentucky Banks	0.99	0.89	0.88
Mississippi Banks	0.92	0.87	0.85
Missouri Banks	0.93	0.98	0.95
Tennessee Banks	0.77	0.89	0.91
<b>NET INTEREST MARGIN</b>			
All U.S. Banks	3.83%	3.76%	3.79%
All Eighth District States	3.97	3.83	3.86
Arkansas Banks	4.44	4.38	4.53
Illinois Banks	3.58	3.43	3.43
Indiana Banks	3.88	3.72	3.74
Kentucky Banks	3.97	3.82	3.83
Mississippi Banks	4.12	4.02	4.05
Missouri Banks	3.82	3.63	3.65
Tennessee Banks	3.86	3.85	3.87
<b>NET NONINTEREST EXPENSE RATIO</b>			
All U.S. Banks	1.85%	1.88%	1.94%
All Eighth District States	1.89	1.92	1.97
Arkansas Banks	1.82	1.82	1.93
Illinois Banks	1.92	1.83	1.87
Indiana Banks	1.81	1.82	1.83
Kentucky Banks	1.94	2.11	2.15
Mississippi Banks	2.16	2.21	2.27
Missouri Banks	1.82	1.84	1.91
Tennessee Banks	2.16	2.13	2.17
<b>LOAN LOSS PROVISION RATIO</b>			
All U.S. Banks	0.37%	0.18%	0.17%
All Eighth District States	0.36	0.19	0.18
Arkansas Banks	0.31	0.22	0.21
Illinois Banks	0.60	0.22	0.20
Indiana Banks	0.25	0.12	0.11
Kentucky Banks	0.40	0.23	0.21
Mississippi Banks	0.28	0.22	0.21
Missouri Banks	0.44	0.20	0.20
Tennessee Banks	0.40	0.18	0.17
<b>NONPERFORMING LOANS</b>			
All U.S. Banks	2.69%	2.15%	2.01%
All Eighth District States	2.12	1.79	1.65
Arkansas Banks	2.56	2.15	1.95
Illinois Banks	3.46	2.76	2.70
Indiana Banks	2.12	1.75	1.54
Kentucky Banks	2.32	2.16	2.06
Mississippi Banks	2.63	2.15	1.89
Missouri Banks	2.33	1.90	1.69
Tennessee Banks	2.57	2.01	1.82

	2012: Q4	2013: Q3	2013: Q4
<b>PROBLEM ASSETS</b>			
All U.S. Banks	3.77%	3.03%	2.83%
All Eighth District States	3.61	3.00	2.75
Arkansas Banks	4.79	4.01	3.60
Illinois Banks	4.99	4.05	3.90
Indiana Banks	2.71	2.29	1.96
Kentucky Banks	3.49	3.17	3.00
Mississippi Banks	4.19	3.45	3.13
Missouri Banks	3.93	3.23	2.90
Tennessee Banks	4.30	3.42	3.17
<b>RETURN ON EQUITY</b>			
All U.S. Banks	8.46%	9.19%	9.11%
All Eighth District States	9.37	9.39	9.41
Arkansas Banks	10.84	11.04	11.19
Illinois Banks	4.80	7.95	7.84
Indiana Banks	9.56	9.28	9.41
Kentucky Banks	8.95	8.08	8.04
Mississippi Banks	8.12	8.06	7.94
Missouri Banks	8.29	8.63	8.40
Tennessee Banks	6.86	7.99	8.14
<b>TIER 1 LEVERAGE RATIO</b>			
All U.S. Banks	10.51%	10.80%	10.77%
All Eighth District States	9.84	10.22	10.08
Arkansas Banks	10.45	11.04	10.79
Illinois Banks	9.52	9.90	9.88
Indiana Banks	9.75	10.01	9.97
Kentucky Banks	10.18	10.62	10.59
Mississippi Banks	10.08	10.10	9.81
Missouri Banks	10.53	10.96	10.59
Tennessee Banks	10.09	10.65	10.62

SOURCE: Reports of Condition and Income for Insured Commercial Banks

NOTES: Community banks and thrifts are those institutions with assets of less than \$10 billion. The All U.S., Eighth District and Missouri categories exclude Missouri-based institutions which had large and unusual noncore earnings to avoid significantly skewing the 2013 category results.

# CDIAC Welcomes New Members

The Federal Reserve Bank of St. Louis hosted its 2013 Community Depository Institutions Advisory Council (CDIAC) on Oct. 7-8. The 12-member council meets twice a year to advise St. Louis Fed President James Bullard and senior Bank management on the credit, banking and economic conditions facing their institutions and communities. Continuing to serve as the group's chairman is Glenn D. Barks, president and CEO of First Community Credit Union in Chesterfield, Mo. Council members serve staggered terms and are senior executives of banks, thrift institutions and credit unions from across the Eighth District.

Barks is currently serving a four-year term as chairman, which began during CDIAC's first 2013 meeting. In this role, he represents the Eighth District at the Federal Reserve Board of Governors' CDIAC meetings, held twice each year in Washington, D.C. The Board established CDIAC in 2010 as a mechanism for community banks, thrift institutions and credit unions with assets of \$10 billion or less to provide the Board with input on the economy, lending conditions and other issues. Each of the Fed's 12 Reserve banks established an advisory council, with one representative to serve on the Board's CDIAC.

## Outgoing and Incoming Council Members

For 2014, the three outgoing members of the St. Louis Fed's CDIAC will be Gary E. Metzger, president of Liberty Bank in Springfield, Mo.; Vance Witt, chairman of BNA Bank in New Albany, Miss.; and Gordon Waller, president and CEO of First State Bank and Trust in Caruthersville, Mo. The new council members taking their places will be John Haynes, president and CEO of Farmers and Merchants Bank in Baldwyn, Miss.; Dennis McIntosh, chairman, president and CEO of Ozarks Federal Savings and Loan Association in Farmington, Mo.; and Gregory Ikemire, president and CEO of Peoples State Bank in Newton, Ill. The new members will begin their terms when the council meets in March.

For more information, see the St. Louis Fed's CDIAC web site. For more information and background about all the Federal Reserve CDIACs, see the Board's web site or "Community Banks, Fed Connect Through the Community Depository Institutions Advisory Council" on the Fed's Community Banking Connections web site.

## Central View

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Community banks also express concern over escalating costs associated with consumer compliance expectations. Hiring even one additional staff member to address compliance laws and regulations can be significant for smaller community banks. Larger banks point to the opportunity costs of adding resources to address growing consumer compliance expectations.

This uncertainty, combined with the fact that more than 450 community banks are still on the Federal Deposit Insurance Corp.'s problem bank list, has some bankers expecting an uptick

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There is a role for well-managed banks in our communities. Those banks planning for the challenges will be best positioned to survive them.

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in merger and acquisition activity. Indeed, the data suggest that merger and acquisition activity is returning to precrisis levels. However, acquisition prices are much lower. It's also important to note that the conveniences created by widening technology have, in some instances, diminished the value of traditional full-service brick-and-mortar branches. As customers embrace the conveniences of technology, the industry has evolved, resulting in some branch consolidation.

We clearly see challenges for community banks. Regardless, I remain optimistic. There is a role for well-managed banks in our communities. Those banks planning for the challenges will be best positioned to survive them.

## Community Banking Performance

*continued from Page 1*

est income divided by average earning assets—ticked up 5 bps year over year in the District to 1.97 percent. A combination of declining noninterest income and rising noninterest expenses—a trend mirrored in most District states—caused the increase. Nationally, the noninterest expense ratio for community banks was up 6 bps year over year in the fourth quarter; a slight increase in noninterest income was more than offset by a 7-basis-point increase in the ratio of noninterest expenses to average earning assets.

### Loan Loss Provisions

Falling loan loss provisions continued to boost earnings, though the effect lessens with each passing quarter. The ratio of loan loss provisions to average assets declined 1 bp between the third and fourth quarters in both the District and the U.S. Compared with one year ago, the loan loss provision ratio is down 18 bps at District banks and 20 bps at community banks across the nation. Most analysts believe loan loss provisions have bottomed out, and a number of institutions have recorded negative provisions in recent quarters.

### Nonperforming Assets

The worst of asset quality turbulence appears to have subsided for community banks. The problem assets ratio—defined as the ratio of nonperforming loans and other real estate owned to total loans and other real estate owned—declined 86 bps year over year and 25 bps in the past quarter at District community banks. National peers, by comparison, experienced a slightly larger year-over-year improvement of 94 bps in the average problem assets ratio, but the measure remains 8 bps higher than that of the District average. With the problem assets ratio reduced to 2.75 percent, District community banks are now near the percentage found at the end of 2008, early in the financial crisis. While still not at a pre-crisis benchmark, the level is more than 200 bps under its peak in early 2011.

Similarly, nonperforming loans as a percentage of total loans declined 47 bps at District community banks over the past year and 14 bps in the past quarter. This improvement places the

nonperforming loan ratio at a much more manageable 1.65 percent. While community banks nationally experienced a larger decline of 68 bps during the year, their average nonperforming loan ratio remains nearly 36 bps higher than that found at District institutions. The pace of improvement has slowed both in the District and nationally, as nonperforming loans and problem assets revert to their more normalized percentages.

### Capital Levels

With a range of 9.8 percent to 10.8 percent, tier 1 leverage ratios are relatively strong at community banks across the United States. Generally high levels of investor participation in the Treasury's Troubled Asset Relief Program auctions provided a signal that confidence in the community banking sector has rebounded.

Despite the improvements in earnings and asset quality since the end of the financial crisis, significant challenges remain. One important long-term challenge for community banks is to achieve a satisfactory return for their investors. Though return on equity has rebounded from its depressed level at the peak of the financial crisis at most community banks, it may remain below that of an attractive long-term rate. Most community banks have seen their credit-related costs return to a precrisis level and have trimmed operating expenses where possible. However, generating additional revenue, whether found in the expertise to achieve profitable loan growth or the skill to generate new sources of noninterest income, is a challenge.

Today, we find most community banking organizations moving from crisis management to planning for the challenges ahead. While 2013 may have been a year to clean up the remaining problems from the financial crisis, it appears as though 2014 will be a year of planning and transition for many community banking organizations. Those that plan well and appropriately manage risk will be in stronger competitive positions than their peers.

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*Gary S. Corner is a senior examiner and Michelle C. Neely is an economist, both with the Federal Reserve Bank of St. Louis.*

### ENDNOTES

- 1 Community banks are defined here as institutions with total assets of less than \$10 billion.

# Bank Regulators Detail New Liquidity Standard for SIFIs

By Michelle Clark Neely

In the wake of the financial crisis, international banking regulators have sought tools to better evaluate and manage risks in the banking sector. One of those tools—the liquidity coverage ratio (LCR)—was designed to ensure that systemically important financial institutions (SIFIs) have a 30-day supply of high-quality assets that can be quickly converted into cash in the event of a liquidity crunch.<sup>1</sup>

In October, the Board of Governors put out for comment a joint proposal to implement the LCR. (Comments closed Jan. 31.) To be compliant with the rule, banks will need to hold enough high-quality liquid assets (HQLA) to cover the difference between their projected cash outflows and inflows during a specified number of days. The size of the LCR varies by bank size and institution type. The LCR is calculated by dividing an institution’s HQLA by its projected net cash outflows.

The largest domestic banks and non-bank SIFIs—those with total assets of more than \$250 billion—are called covered companies, and they need enough

HQLA on hand to survive a 30-day stress period. The stress period for institutions with assets of \$50 billion to \$250 billion—the so-called “modified” LCR companies—is 21 days. Under the Board’s proposal, banks with assets of less than \$50 billion are exempt from the rule, as are depository institution holding companies, designated companies with substantial insurance operations, and savings and loan holding companies with substantial commercial operations.

Assets that can be designated HQLA must be liquid and readily marketable, a reliable source of funding in repo or sales markets and not an obligation of a financial company. The Board has divided HQLA—the numerator of the LCR—into three categories, and limits are placed on how much each asset type and category can contribute to the total.

For the denominator—the difference between an institution’s total stressed cash outflow and inflow amounts, or net cash outflows—the technical definition is designed to distinguish between stable funding sources, like core deposits, and more volatile ones, like brokered deposits. Liabilities are assigned to one of five outflow categories: secured retail funding, unsecured wholesale funding, secured short-term funding, commitments and Federal Reserve Bank borrowings. Outflow rates are assigned to each category to capture the likelihood that these liabilities won’t stick. For secured retail funding, for example, stable retail deposits that are fully insured by the Federal Deposit Insurance Corp. are assigned an outflow rate of 3 percent, while uninsured retail-brokered sweep deposits are assigned a 40 percent outflow rate. At the extreme end, commercial paper and short-term secured funding not backed by HQLA receive outflow rates of 100 percent.

An institution with an LCR of 100 percent or more complies with the rule, with a few caveats. First, cash inflows are capped at 75 percent of cash outflows to ensure that a portion of an institution’s liquidity needs are

TABLE 1  
Composition of and Limits on High-Quality Liquid Assets in LCR

HQLA Category	Permitted Assets	Haircut and Limits
Level 1	<ul style="list-style-type: none"><li>Excess reserves held at Fed</li><li>Withdrawable reserves held at foreign central banks</li><li>Securities issued by/guaranteed by U.S. government</li><li>Certain securities that are claims on/guaranteed by a sovereign entity, a central bank and other international entities that are assigned 0 weight in Basel capital rules</li></ul>	No haircut, no limits
Level 2A	<ul style="list-style-type: none"><li>Claims on/guaranteed by a U.S. government sponsored enterprise (Freddie Mac, Fannie Mae, Farm Credit System and Home Loan Banks)</li><li>Claims on/guaranteed by sovereign entity or multilateral development bank that are assigned a 20 percent weight in Basel capital rules</li></ul>	15 percent haircut, up to 40 percent of HQLA when combined with Level 2B assets
Level 2B	<ul style="list-style-type: none"><li>Investment-grade, publicly traded corporate debt securities</li><li>Publicly traded stocks that are included in the S&amp;P 500 Index or equivalent (that meets supervisory approval)</li></ul>	50 percent haircut, up to 15 percent of HQLA

met by HQLA. Second, an institution's primary federal banking regulator can require it to hold more HQLA than the U.S. minimum or take other actions to boost liquidity if deemed insufficient.

The U.S. LCR proposal is consistent with the Basel standard in most respects but is more restrictive in some areas. Under Basel III, bankers have until Jan. 1, 2019, to be in full compliance with the liquidity standards. Covered and modified LCR U.S. companies will be subject to a more accelerated schedule—beginning in 2015—and will need to be fully compliant by Jan. 1, 2017. Another difference between the Basel III standard and the U.S. LCR proposal is that covered U.S. companies need to hold HQLA against the largest net cumulative cash outflow during a 30-day period, rather than the outflow at the end of a 30-day period. Modified LCR companies use a 21-day period and measure net cumulative outflow at the end of that 21-day period.

In addition to concerns about the toughness of the U.S. proposal compared with its Basel III counterpart, commenters have noted problems reconciling the LCR with other regulatory changes. Officials from the nation's largest banks have complained that a proposal to implement a supplementary leverage ratio conflicts with the goal of having institutions hold more liquid assets. They argue that a higher leverage ratio would put pressure on banks to hold only the barest minimum of liquid assets on their books and to forgo activities that create liquid assets on balance sheets. Analysts have also wondered what will happen to the prices of very liquid assets when the Federal Reserve begins to unwind its balance sheet and competition heightens for what could be a dwindling supply of HQLA.

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#### ENDNOTES

- 1 Another tool—the net stable funding ratio (NSFR)—is under development but is not expected to take effect until 2018. The purpose of the NSFR benchmark is to ensure banks are not overly reliant on wholesale short-term funding.

# Troubled Debt Restructuring Supervisory Guidance Updated

*By David Benitez*

On Oct. 24, the Federal Reserve, the Federal Deposit Insurance Corp., the National Credit Union Administration and the Office of the Comptroller of the Currency issued supervisory guidance regarding troubled debt restructurings (TDRs).

TDRs are defined under generally accepted accounting principles (GAAP) as concessions that creditors would otherwise not consider granting to debtors due to economic or legal reasons related to the debtors' financial difficulties. Creditors restructure troubled debts to improve loan performance and reduce credit risk.

The guidance reiterates existing policy related to the accounting treatment and credit risk grading of loans that have undergone TDRs. The guidance also discusses the definition of collateral-dependent loans and the circumstances in which charge-offs are required for TDRs.

A loan modified as a TDR can be in either accrual or nonaccrual status when modified. If in nonaccrual status, the loan can be restored to accrual status while a TDR by performing a current and well-documented credit analysis. A loan already in accrual status can be maintained by performing a credit analysis while also ensuring that the debtor is able to maintain a sustained repayment period of at least six months.

The guidance describes credit risk classification and clarifies that while most TDR loans will have a classified risk rating (due to the requirement of having a documented financial difficulty on the part of the debtor), such a rating is not automatic, and the loan doesn't have to remain in an adverse risk rating forever. The guidance again states that a credit analysis should be done to determine the correct risk rating for the loan.

Finally, the guidance clarifies the existing policy regarding defining collateral-dependent loans. All TDR loans are considered impaired loans under GAAP, and all impaired loans must be judged to determine whether they are collateral-dependent to conclude the level of impairment. The guidance explains what must be evaluated to come to that determination.

For more information on TDRs, you can view the Federal Reserve Board of Governors' version of the inter-agency guidance here: <http://www.federalreserve.gov/bankinforeg/srletters/sr1317a1.pdf>.

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# Mapping the Global Shadow Banking System

By Amalia Estenssoro

The Financial Stability Board (FSB) has been estimating the size of the shadow banking industry for the past few years. However, the FSB has also been attempting to refine these estimates to filter out certain activities that do not imply direct credit intermediation and to avoid double-counting assets. The progress made by the FSB could change the perspective on potential regulation.

After the leading rich and developing (G-20) nations agreed to the Basel III standards in November 2010, regu-

latory attention shifted to the shadow banking sector, defined as “financial intermediaries that conduct maturity, credit and liquidity transformation without explicit access to central liquidity of public sector guarantees.”<sup>1</sup> In October 2011, the FSB issued its report “Shadow Banking: Strengthening Oversight and Regulation,” which is updated annually and included how to better understand, measure and regulate the shadow banking sector.<sup>2</sup>

The results have been presented to the G-20 annually since 2011, with the latest report issued in November 2013.<sup>3</sup> According to the FSB’s November 2013 monitoring report, the global shadow banking sector accounted for \$71.2 trillion of assets at the end of 2012, up from \$26.1 trillion in 2002. The assets account for 24 percent of total financial assets and 52 percent of regulated banking system assets in 20 global jurisdictions, plus the euro area (Figure 1).

The shadow banking system is concentrated in economically developed nations, which make up 85 percent of the total estimated global shadow sector. The U.S.’s \$26 trillion in assets in 2012 represents the largest share, followed by the euro area, the U.K. and Japan, with \$22 trillion, \$9 trillion and \$4 trillion in assets, respectively (Figure 2). The remaining jurisdictions account for a very small share of the total. However, from their relatively low base, 10 emerging market jurisdictions have been posting the fastest growth rates. In particular, China, Argentina, India and South Africa posted growth rates above 20 percent in 2012.

Shadow banking is composed of an extremely diversified subset of institutions, including broker-dealers, money market mutual funds, structured finance vehicles, financial companies and investment funds, among many others. The largest portion of the sector comprises investment fund companies, totaling \$21 trillion in assets, or 35 percent of the total. The November 2013 report contained a breakdown of investment fund companies into equity

FIGURE 1  
Total Assets of Financial Intermediaries  
(20 Jurisdictions and Euro Area)

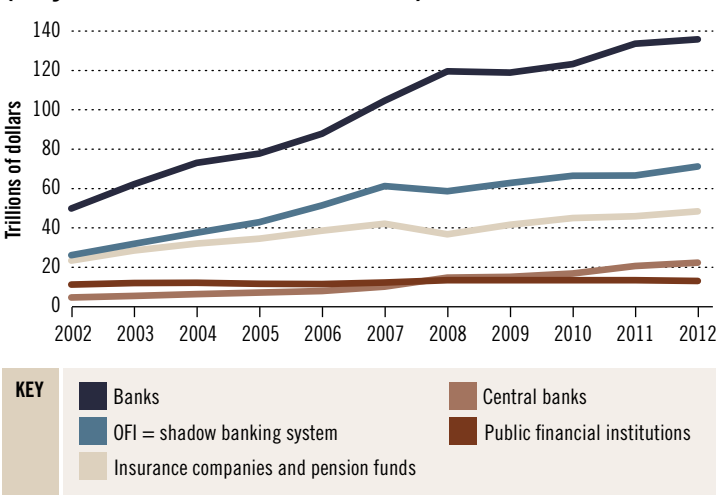


FIGURE 2  
Share of Assets from Nonbank Financial  
Intermediaries

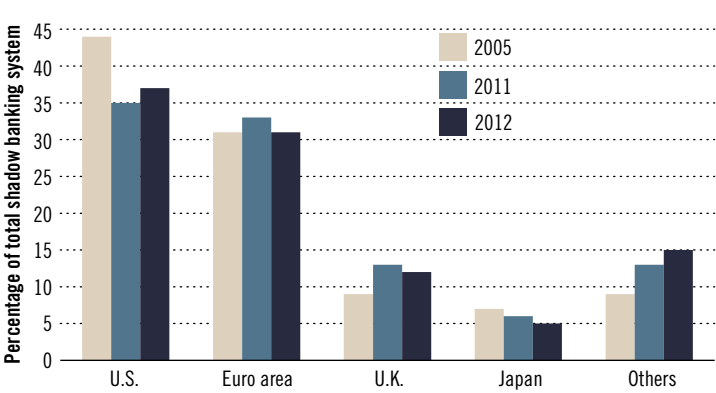
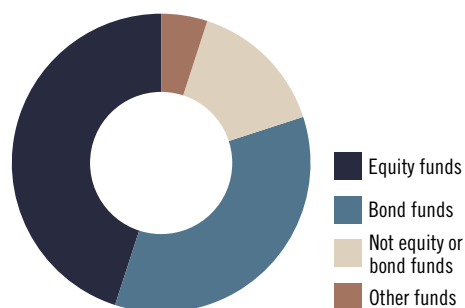


FIGURE 3

## Investment Funds Breakdown



funds, bond funds and others, with equity funds being by far the largest with \$9 trillion invested (Figure 3). Also according to the report, hedge funds comprise only 0.2 percent (\$0.1 trillion) of the total shadow banking sector. However, the International Organization of Securities Commissions has estimated that the global hedge fund industry, predominantly domiciled in offshore jurisdictions not included in the FSB report, accounted for \$1.9 trillion in net assets under management at the end of 2012. Adding the two estimates brings the hedge fund industry to 3 percent of total shadow banking sector assets.<sup>4</sup>

The FSB has attempted to refine estimates of the shadow banking sector by filtering activities that do not imply direct credit intermediation and avoiding double-counting assets already prudentially consolidated into the regulated banking sector. A narrower and more “risk-focused” shadow banking size estimate, presented for the first time in this November 2013 report, is only a preliminary result that does not yet include granular data from all jurisdictions. The FSB report more narrowly defines the shadow banking sector by excluding equity investment funds, which have no direct credit intermediation function.<sup>5</sup> This “risk-focused” estimate more accurately depicts the shadow banking sector and reduces its size estimate without increasing the regulated sector. The opposite was true during the financial crisis when many shadow banking institutions were consolidated into the regulated banking sector, including U.S. broker-dealers and many off-balance-sheet structured-finance vehicles.

Recognizing the diversity of the shadow banking sector can add perspective on how to regulate it. First, it

Recognizing the diversity of the shadow banking sector can add perspective on how to regulate it.

is counterproductive to regulate every existing financial intermediary as a bank, because other institutions will simply step into the market with innovative products to circumvent the regulation. Second, not all shadow banking activities are systemically important or carry contagion risk during a crisis. As seen in recent regulation of over-the-counter derivatives and repo markets, oversight by type of transaction and transparency in previously unregulated markets, where regulated banks and shadow banking institutions transact with each other, is far more important than tailor-made shadow regulation by institution.<sup>6</sup> The G-20 has instead concentrated efforts in markets that were channels of contagion during the crisis and suffered asset fire sales and runs. These include securities financing—such as the repo market—and over-the-counter derivative markets.

*Amalia Estenssoro is an economist at the Federal Reserve Bank of St. Louis.*

## ENDNOTES

- 1 Pozsar, Zoltan; Adrian, Tobias; Ashcraft, Adam; and Boesky, Hayley. “Shadow Banking.” Federal Reserve Bank of New York Staff Reports, July 2010.
- 2 “Shadow Banking: Strengthening Oversight and Regulation.” Financial Stability Board, Oct. 27, 2011.
- 3 “Global Shadow Banking Monitoring Report 2013.” Financial Stability Board, Nov. 14, 2013.
- 4 “Report on the Second IOSCO Hedge Fund Survey.” The Board of the International Organization of Securities Commissions, October 2013.
- 5 This report also nets out other assets already consolidated into the regulated banking sector and excludes self-securitization issues.
- 6 The exception being the tailor-made regulation of money market mutual funds (MMMFs), which should ensure that MMMF deposits do not act like bank deposits without deposit insurance, which are vulnerable to runs by investors.

# Agriculture Boom Continued in 2013

By Gary S. Corner

U.S. agriculture has been booming in recent years with record farm incomes and double-digit percentage increases in cropland prices. However, farm income projections suggest a flattening, if not a reversal, of these trends. 2013 may prove to be a peak year, as analysts expect the agriculture sector to experience lower commodity prices, normal crop production and lower farm income over the next several years. Volatile weather patterns and other competitive factors, however, impact the reliability of such forecasts.

## Farm Sector Income

Net farm income, as illustrated in Figure 1, has more than doubled since 2000 and is expected to reach a record \$131 billion in 2013. On a cash basis, income may fall slightly short of 2012 results, as farmers are storing signifi-

cant amounts of corn in anticipation of a recovery in corn prices. In the near-term, this may be good news for agriculture bankers, who may experience a pickup in loan demand as farm working capital contracts. Record-setting crop production has driven earnings results this year, despite the collapse in prices.

## Profit "Bubble" and Cropland Values

While the agricultural profit bubble observed in recent years shows early signs of deflating, the average gains in U.S. cropland continue. Further, with multiple years of double-digit percentage increases in cropland gains, dramatic increases in commodity prices and low interest rates, some economists and analysts are concerned that an asset bubble exists in certain U.S. cropland markets. The Northern Plains and Corn Belt regions continued to see persistent double-digit percentage increases in annual cropland price gains in 2013.<sup>1</sup>

Based on the U.S. Department of Agriculture's latest annual survey, the average value of all U.S. cropland was \$4,000 per acre, representing a 13.0 percent year-over-year increase and a 49.8 percent five-year increase, as shown in Figure 2. However, regional differences provide a more complete picture. Average cropland prices in the Northern Plains rose 25.0 percent year over year and 126.9 percent over the past five years. The Corn Belt averaged a 16.1 percent year-over-year price gain and a five-year increase of 78.5 percent. By contrast, the Southeast region experienced an average year-over-year decrease in cropland prices of 2.8 percent and a five-year decline of 13.8 percent. The highest nominal land price value was found in the Corn Belt, at an average price of \$6,980 per acre. Among Corn Belt states, Iowa has the highest average cropland price at \$8,660 per acre, followed by Illinois and Indiana at \$7,900 and \$7,100 per acre, respectively. The Missouri average is the lowest in the Corn Belt at \$3,800 per acre.

The expected decline in farm income over the next several years and a potential rise in long-term interest rates should put some downward

FIGURE 1  
Net Farm Income and Net Cash Income, 2000–2013

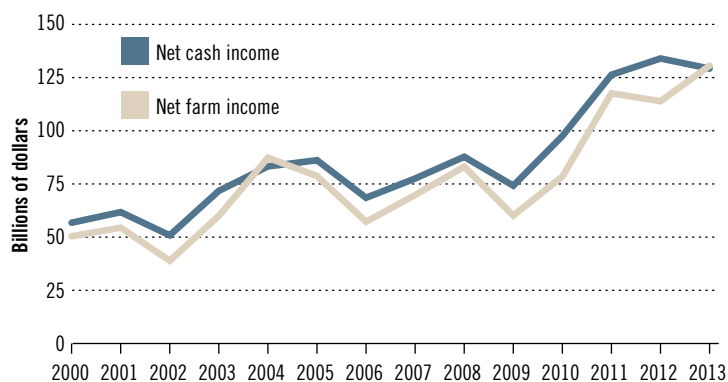
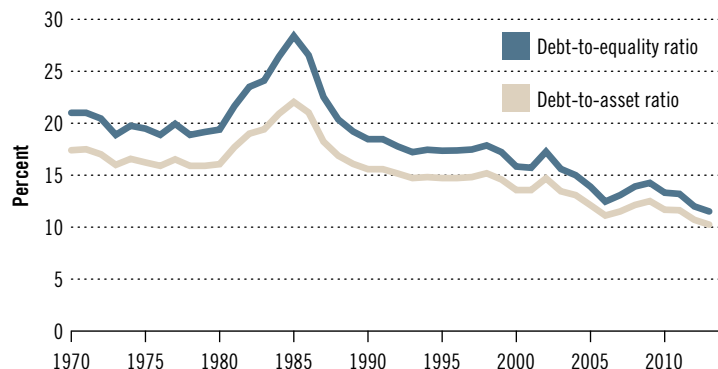


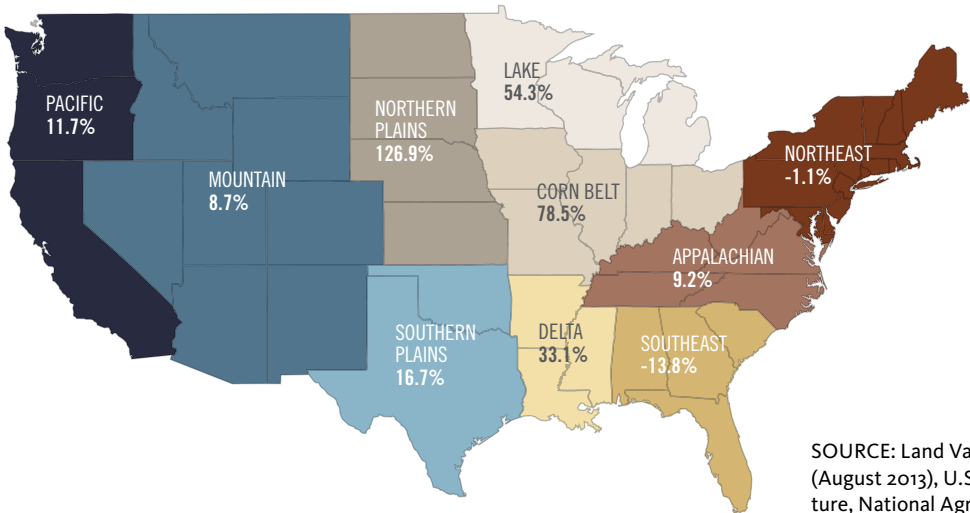
FIGURE 2  
Farm Sector Debt Ratios, 1970–2013



SOURCE: U.S. Department of Agriculture, Economic Research Service, Farm Income and Wealth Statistics. Data as of Nov. 26, 2013.

FIGURE 3

Five-Year Change in Cropland Prices by Region (2009–2013)



SOURCE: Land Values 2013 Summary (August 2013), U.S. Department of Agriculture, National Agricultural Statistics Service

pressure on land values. To that end, Reserve banks’ third-quarter agriculture surveys are indicating some mixed responses on future land price increases. Perhaps this mixed data is a first sign of a price softening that would rationally follow a somewhat dimmer outlook for crop producers. Given the current strength of the farm sector, however, as indicated by historically low debt-to-equity and debt-to-asset ratios, the agriculture industry appears poised to transition to more normalized conditions if and when they occur.

Farm Sector Balance Sheets

Unlike the boom/bust farmland cycle of the 1980s, a commensurate rise in farm leverage has not occurred during this period of rapid land price increases. Broadly, the sector’s debt-to-asset ratio has fallen during the price increase and stands at a historically low 10.3 percent according to the USDA. This debt-to-assets ratio is less than half of the 1980s farm crisis peak ratio of 22.2 percent.

The 1980s farm crisis followed a period of rapid farmland price increases similar to what has occurred since 2007. A 30 percent price decline today, similar to what occurred in the 1980s, would raise the sector’s debt-to-asset ratio modestly to 13.7 percent, well below the peak ratio from the 1980s. Although the stronger balance sheets of today’s farm sector may be better able to withstand a 1980s-type price correction, a 30 percent price decline would still destroy most of the land-centric wealth created since 2007.

TABLE 1

Eighth District States’ Five-Year Change in Cropland Values

	2009 Avg. Value	2013 Avg. Value	Five-Year Percentage Change
Illinois	\$4,670	\$7,900	+69.2%
Indiana	\$3,950	\$7,100	+79.8%
Missouri	\$2,540	\$3,800	+49.6%
Kentucky	\$3,150	\$3,750	+19.1%
Tennessee	\$3,270	\$3,550	+8.6%
Arkansas	\$1,860	\$2,560	+37.6%
Mississippi	\$1,810	\$2,300	+27.1%

SOURCE: Land Values 2013 Summary (August 2013), U.S. Department of Agriculture, National Agricultural Statistics Service

Conclusion

Overall, the U.S. farm sector has enjoyed an extended period of historically high income and land-centric wealth building. Farm real estate accounts for more than 80 percent of farm assets, so cropland values matter. Leverage associated with cropland value gains has remained prudent, which bodes well for the sector in an inevitable downturn. On the other hand, farm working capital may decline as more inventories are stored. This holdback may spur a higher demand for credit. Whether this credit demand materializes, however, is yet to be seen.

Gary S. Corner is a senior examiner with the Federal Reserve Bank of St. Louis.

ENDNOTES

- 1 Northern Plains states include Kansas, Nebraska, North Dakota and South Dakota. Corn Belt states include Illinois, Indiana, Iowa, Missouri and Ohio.



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The event features a reception at 6:15 p.m., with the presentation starting at 7 p.m. For more information or to register, visit [www.stlouisfed.org/dialogue-bitcoin](http://www.stlouisfed.org/dialogue-bitcoin). The event will also stream live via the [www.stlouisfed.org](http://www.stlouisfed.org) web site.

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