Community Bank Research Conference Looks at the Changing Nature of Competition

by Julie L. Stackhouse, Senior Vice President, Banking Supervision, Credit, Community Development and the Center for Learning Innovation, Federal Reserve Bank of St. Louis

The Community Banking in the 21st Century research and policy conference marked its third consecutive year in October 2015, with Federal Reserve Chair Janet Yellen hailing the 2015 event as a milestone. The conference, cosponsored since its inception by the Federal Reserve System and the Conference of State Bank Supervisors, is an invitation-only event. This year more than 175 academics, bankers, and regulators attended, with hundreds more participating via webcast.

The academic proceedings of the conference supported views often voiced by community bankers and, in particular, discussed how the relationship lending model of community banks is still indispensable for communities and businesses across the country. Current realities, however, pose continued challenges to the community bank business model. Among other factors, some of these realities include the impact of new and existing regulations, the lack of new community bank entrants since the peak of the financial crisis, and the impact of the extended low interest rate environment on bank profitability. Data suggest that industry consolidation could continue and could lead to a fundamentally different community banking landscape in the next 20 years.

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1 To access the conference agenda, presenter biographies, videos, and presentation materials, visit www.communitybanking.org.

The U.S. EMV Chip Card Migration: Considerations for Card Issuers

by Mary J. Hughes, Senior Payments Information Consultant, Payments Information and Outreach Office, Federal Reserve Bank of Minneapolis

The United States is the last developed country to migrate to Europay–MasterCard–Visa (EMV) integrated chip cards based on technology described in EMVCo’s proprietary global standard. The migration from magnetic stripe transactions is now underway, as the major U.S. card brands (Visa, MasterCard, Discover, and American Express) are encouraging retailers and issuers to move to chip-based transactions.

This article is intended to give community bankers an overview of what the EMV migration means for card issuers. It provides a brief explanation of the characteristics of chip technology and the impact that the EMV migration may have on U.S. payment fraud losses. It looks at the status of the migration in terms of both card issuance and merchant acceptance. The article concludes with a discussion of factors community banks should consider when deciding when and how to transition their card portfolios.

Characteristics of Chip Technology

“Chip” refers to the microprocessor embedded in credit, debit, and prepaid cards. Compared with a traditional magnetic stripe transaction, chip technology is designed to offer enhanced functionality in cardholder verification and transaction authorization. A chip card’s microprocessor stores information securely and performs cryptographic processing during payment transactions. If someone steals the static data in the magnetic stripe of a card, the thief can embed the stolen data in a different magnetic stripe, apply it to the back of another card, and use the counterfeit card to make purchases. Unlike the static data in a magnetic stripe transaction, a chip card transaction creates a dynamic code that is unique to that particular transaction, thus diminishing the value of stolen card data.

A chip is encoded with complex security credentials that make it difficult to counterfeit. This has resulted in lower fraud losses associated with card-present counterfeit cards in countries that have implemented EMV technology. For example, in the United Kingdom, there was a reduction of about 27 percent in card-present fraud after chip cards were implemented.1

1 Card-present refers to in-store transactions in which a card is physically present and available for inspection by the merchant.

1 EMVCo’s owner members are Visa, MasterCard, UnionPay, American Express, JCB, and Discover.

Counterfeit card fraud represents almost half of the total global card fraud losses. U.S. card issuers and merchants are particularly hard hit, sharing card fraud losses of 12.75 cents out of every $100 in value spent.  

Although migrating to chip cards may produce important benefits, it may also result in unintended consequences, particularly for card-not-present (CNP) transactions. CNP refers to e-commerce transactions, mail order, or telephone sales in which the merchants are not able to inspect the cards. Chip card technology does nothing to protect CNP transactions. For example, several countries had a spike in CNP fraud when chip cards were introduced because fraud perpetrators turned their attention from card-present counterfeit fraud to the more vulnerable CNP channel. The experience in the U.S. will likely be the same. The 2013 Federal Reserve Payments Study found that CNP signature debit and credit card transactions are three times more likely to be unauthorized than card-present transactions. Issuers, merchants, card brands, cardholders, and others may consider implementing a variety of potential solutions to help mitigate or prevent CNP fraud. A discussion of these solutions is outside the scope of this article.

Status of the U.S. Migration to Chip Cards

The four major card brands are leading the U.S. migration to chip cards in order to reap perceived benefits, including reduced counterfeit and lost or stolen card fraud, global interoperability of chip cards, and preparation for near field communication (NFC) mobile contactless payments. They have announced rule changes that are intended to spur EMV adoption. Their road maps (summarized in the table on page 11) use a carrot-and-stick approach designed to accelerate adoption through merchant incentives such as Payment Card Industry Security Standards Council audit relief; upgrading of processing infrastructure to support EMV transactions; and fraud liability shifts affecting merchants, acquirers, ATM operators, and issuers.

Organizations that operate automated fuel dispensers (AFDs) have been granted extra time (until October 2017) to equip for chip card transactions because converting card readers at the pumps is complex and costly. For similar reasons, extra time is also being given to adapt ATM machines for chip card acceptance (until October 2016 for MasterCard and October 2017 for Visa).

Forecasts vary, but it is estimated that about half of the 1.2 billion U.S. payment cards included EMV chips at the end of 2015, and most of them were credit cards. Several payment industry commentators have predicted that by 2020 more than 90 percent of U.S. cardholders will have an EMV card.
The Financial Accounting Standards Board (FASB) is expected to issue the current expected credit loss (CECL) model in the first half of 2016. The CECL model, which will apply to all depository institutions without exclusions, is expected to take effect January 2019 for public companies and one to two years later for nonpublic entities.

What Changes Are Expected?

With the CECL model, the FASB is striving to remove the probable and incurred criteria under current guidelines and replace them with a lifetime expected credit loss concept. The CECL model will extend the time frame covered by the estimate of credit losses by including forward-looking information, such as “reasonable and supportable” forecasts, in the assessment of the collectability of financial assets. In addition, the CECL model will institute a single credit loss model for all financial assets, both loans and securities, that are carried at amortized cost. This means that the CECL model will change the accounting for the allowance for loan and lease losses (ALLL) associated with held-for-investment loan and lease portfolios, as well as the other-than-temporary impairment (OTTI) of held-to-maturity securities.

Under the CECL model, the allowance will equate to the estimate of losses expected over the life of a financial asset. The allowance will be created upon origination or acquisition of the financial asset and updated at subsequent reporting dates. And since the CECL model eliminates the requirement to defer the recognition of credit losses until it is probable that a loss has occurred, applying this model will result in earlier loss recognition.

The Federal Reserve supports the transition to the CECL model and will work with other domestic supervisors to develop supervisory guidance once the FASB publishes the final rule. The Federal Reserve will not require depository institutions to follow a particular method when implementing the CECL model. As the FASB has noted, depository institutions can use their current methodologies to implement the CECL model; however, lifetime loss data and assumptions will now be required. The FASB has stated, and the Federal Reserve has worked to ensure, that the CECL model will be scalable to the size of a depository institution.

Why Is the Model for Impairment of Financial Assets Changing?

In response to the global economic crisis, various stakeholders, including the Federal Reserve, determined that the approach currently used for measuring impairment of financial assets — the “incurred loss model” — delays the recognition of credit losses and overstates assets. The incurred loss model does not permit a loss to be recognized until it is determined that a loss is both probable and estimable. This model limits the loss estimate to current, objective evidence and ignores future expected events. As a result, incurred loss estimates serve more as a lagging indicator of impairment losses rather than a leading indicator of expected asset performance.

The figure shows that the ALLL as a percentage of gross loans and leases (ALG) for community banks with assets between $100 million and $1 billion reached a low of 1.15 percent in the second quarter of 2007. At the end of the first quarter of 2008, the ALG was still relatively low, at 1.21 percent, while the noncurrent loans and leases as a percentage of gross loans and leases (NCL) had increased to 1.54 percent. By the first quarter of 2010, however, the NCL had risen dramatically to 3.66 percent, while the ALG did not reach its peak of 1.95 percent until the first quarter of 2011. The results were similar for the entire population of insured depository institutions in the U.S. The rapid deterioration in loan quality and the lagging nature of the increase in the ALLL indicated that delayed recognition of credit losses resulted in ALLLs that were inadequate and untimely. The

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2 The companies that need to comply include publicly traded depository institutions and institutions not publicly traded but subject to the Federal Deposit Insurance Corporation Improvement Act (FDICIA) Part 363 (institutions with total consolidated assets greater than $500 million).

FASB and the International Accounting Standards Board concluded that the accounting standards required changes to eliminate such delays in credit loss recognition.

**How Will the CECL Model Impact Community Banks?**

Earlier recognition of losses that will result from the implementation of the CECL model will most likely increase ALLLs, although the actual impact to individual depository institutions is dependent on the point in the credit cycle, future expected conditions, and portfolio credit risk attributes. In general, because a longer time horizon for measuring losses will be instituted, some increase is expected for all depository institutions. Thomas J. Curry, Comptroller of the Currency in the Office of the Comptroller of the Currency, believes the CECL model can increase an institution’s ALLL by 30 to 50 percent.4 Further, the extent of the impact for depository institutions could vary widely, as the provision amounts will depend primarily on the credit risk profile of each depository institution.

An increase in a depository institution’s ALLL will result in a decrease in its capital; however, many community banks currently have adequate amounts of capital to absorb the impact of higher reserves. Nonetheless, depository institutions should be proactive in estimating the potential impact to their regulatory capital ratios to assess whether they will have sufficient capital at the time that the CECL model goes into effect. Depository institutions with estimated capital ratios close to prompt correction action (PCA) limits will need to prepare for the implementation of the CECL model to avoid migrating to a lower PCA category.

The FASB expects to issue the final CECL model rule in the first half of 2016, and community banks need to consider the type of data that they will need to make a lifetime loss estimate. The Federal Reserve does intend for the CECL model to be scalable to all depository institutions, regardless of their asset sizes.

Nevertheless, many community banks may not have collected and stored the type of information that may be necessary to implement the CECL model. The FASB has provided a longer phase-in period to give nonpublic entities the time to collect the data. Community banks are encouraged to assess their data needs as soon as the final rule is issued, rather than waiting until the rule is implemented.

Finally, the CECL model will utilize certain qualitative and quantitative information used in the current incurred loss model. Unadjusted historical lifetime loss information, vintage data, past events and current conditions, and reasonable and supportable forecasts should still be considered when estimating expected credit losses.

**How Can Community Banks Prepare for the CECL Model Implementation?**

Since the CECL model has not yet been finalized, depository institutions should visit the FASB website5 to stay current with the FASB’s progress. The website provides updated and detailed information on the proposed accounting standard. Additionally, the Federal Reserve hosted an Ask the Fed

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5 See www.fasb.org.
The Community Depository Institutions Advisory Council’s Impact After Five Years

by Courtney M. Markovich, Supervision Manager, and Joe Ferrari, Assistant Examiner, Federal Reserve Bank of Chicago

The community banking landscape has changed significantly in the years following the financial crisis, and the Board of Governors of the Federal Reserve System (Board) remains committed to addressing the unique needs and concerns of community banks in this new financial landscape. A critical component of this commitment is soliciting and responding to the opinions of bankers. One of the most effective channels of communication between community bankers and the Board remains the Community Depository Institutions Advisory Council (CDIAC).1

The Evolution
The CDIAC was established in 2010 by the Board to gain insight into community depository institutions’ views on the economy, lending conditions, and other banking industry issues. Each of the 12 Federal Reserve Banks selects members from representatives of banks, thrift institutions, and credit unions to serve on local advisory councils. One member from each Reserve Bank council serves on the CDIAC, which meets twice a year with the Board in Washington, D.C.

During the five years since the meetings began, executives from 33 institutions across 21 states have served on the CDIAC. Although these institutions have ranged in total asset size from $48 million to $9 billion, the majority (18) of council members come from community banking organizations with assets ranging from $1 billion to $5 billion. There has also been a diverse mix of the types of institutions represented on the CDIAC: state member and nonmember banks (13), thrift organizations (10), credit unions (5), bank holding companies (4), and one national bank. As seen in the table, the 2016 CDIAC membership continues to reflect this diversity with respect to both asset size and institution type.

Conversations Transform into Results
Since its inception, the CDIAC has proven successful in providing perspective to and influencing the Board on a variety of regulatory and policy issues related to community banks.

According to S. Boyce Brown, president and chief executive officer of Extraco Corporation in Waco, TX, and chair of the Federal Reserve Bank of Dallas’ local advisory council, the CDIAC “enriches Fed research and the banking industry at the same time, including periodic off-site round tables and surveys to get close to the bankers and markets themselves for an enriching primary data perspective.”

“I consider it very important for the Federal Reserve to pay close attention to the issues and concerns facing community banks. That’s why we have so many different ways to engage with and hear from community bankers.”

–Chair Janet Yellen, from “Some Thoughts on Community Banking: A Conversation with Chair Janet Yellen,” Community Banking Connections, Second Quarter 2015.

Michael J. Castellana, president and chief executive officer of State Employees Federal Credit Union in Albany, NY, chairs the Federal Reserve Bank of New York’s local advisory council and is also the 2016 incoming chair of the CDIAC. Castellana says, “I have seen a number of issues that were explored at our CDIAC sessions and later as part of the national dialogue. One of the most significant issues has been the technological and system expansion of our payment systems and the central

1 For more information about the CDIAC, see www.federalreserve.gov/aboutthefed/cdiac.htm.
role of the Federal Reserve to ensure we will have a balance of innovation and system integrity.”

Jeffrey Plagge, president and chief executive officer of Northwest Financial Corp. in Arnolds Park, IA, and chair of the Federal Reserve Bank of Chicago’s local advisory council, concurs, stating that “the discussions are robust and interactive, and the Governors are truly interested in the results of our conversations. I’ve seen it directly with our discussions on the payments system in the United States and the Federal Reserve’s current activity and initiatives centered around faster and more secure payments.”

The Second Quarter 2015 issue of Community Banking Connections featured an interview with Chair Janet Yellen, in which she emphasized the Board’s use of the CDIA as a formal channel to hear the views of community bankers. When asked to share examples of how the Federal Reserve has modified supervisory policy to provide regulatory relief to community banks, Chair Yellen noted several items, including the following:

- Increasing the asset threshold of its Small Bank Holding Company Policy Statement from $500 million to $1 billion and applying the policy statement to savings and loan holding companies. The policy statement facilitates the transfer of ownership of small community banks and savings associations by allowing their holding companies to operate with higher levels of debt than would normally be permitted. Holding companies that qualify for the policy statement are also excluded from consolidated capital requirements, although their depository institution subsidiaries continue to be subject to minimum capital requirements. All qualifying firms still must meet certain qualitative requirements, including those pertaining to nonbanking activities, off-balance sheet activities, and publicly registered debt and equity.


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Research Sessions
Conference papers were presented in three panels: Small Business and Farm Lending, Community Bank Performance, and Community Banking: Pre- and Post-Crisis.

Small Business and Farm Lending
The Small Business and Farm Lending panel looked at the traditional strengths of community banks and assessed both the opportunities and challenges posed to their traditional lending lines. Among the panel’s findings:

• Community banks are seeing increasing competition from large banks for small business loans due to better information available on borrowers and new lending technologies. This increase in competition from large banks is prompting single market banks to increase their shares of intermediate-size small business loans, especially for borrowers that are seeking a more tailored loan product.

• Nonbank lenders are increasing their volumes of loans to consumers and small businesses — areas that have been traditional lines of business for community banks. Some of these alternative lenders, in turn, sell their loans to banks, providing opportunities for community banks to book loans in markets that might well be difficult for them to reach.

• The lack of financial statements and other documents necessary for effective loan underwriting limits the ability of community banks to serve the credit needs of some small business customers. However, mature and successful small businesses are better positioned to access community bank credit.

• Small banks have been able to provide liquidity insurance to their relationship borrowers during times of financial stress. Large banks, due to their reliance on transactional lending technologies, are less effective at alleviating financial constraints for their borrowers when economic conditions worsen.

• The current deposit-based measures of banking market concentration may be understating the true level of competition in agricultural communities where the Farm Credit System’s agricultural credit associations have a strong lending presence. When a lending-based measure of banking market concentration is used, competition increases.

Community Bank Performance
The second research session, Community Bank Performance, examined changes in banking industry structure, regulation, and types of lending to determine their relative impact on overall community bank performance. The panelists in this session highlighted several findings:

• In the event of a significant decline in agricultural land values, most agricultural banks today would not suffer significant loan losses.

• Despite some challenges in raising external capital, closely held and widely held banks demonstrate similar performance characteristics. However, closely held banks have more difficulty in finding and recruiting senior bank management.

• The Prompt Corrective Action provisions of the 1990s, combined with higher capital requirements, ultimately reduced the bank failure rate during the recent financial crisis. These factors were not, however, as effective at mitigating losses to the Federal Deposit Insurance Corporation’s Deposit Insurance Fund.

• From 2008 to 2013, default rates on residential construction loans and owner-occupied commercial real estate loans (generally perceived to have lower default risk) were in fact similar to the default rates for nonresidential and nonowner occupied loans.

Community Banking: Pre- and Post-Crisis
The final research session, Community Banking: Pre- and Post-Crisis, studied how community banking has changed since the beginning of the financial crisis until today. The
papers looked at changes in community banks’ market share, asset size distribution, compliance costs, and residential mortgage lending activity. Some of the findings from this session are as follows:

- Despite the Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd–Frank Act) changes to the supervision and regulation of mortgage lending and mortgage loan origination, community banks with significant exposure to this asset class generally have higher returns on assets and equity than do larger banks with similar mortgage exposures.

- On average, salary-to-asset ratios and average pay per employee increased at community banks following the passage of the Dodd–Frank Act. In the wake of the Dodd–Frank Act, the number of loans per employee also increased. This suggests that the higher-paid staff hired by the community banks, while more costly, were more productive.

Findings from the 2015 National Survey of Community Banks

The conference also presented the findings from the 2015 National Survey of Community Banks conducted by 39 state banking commissioners during the spring and summer of 2015. Twenty-seven state commissioners supplemented their survey findings with qualitative information obtained during town hall meetings and associated roundtable discussions held with community bankers in their respective states.

In response to concerns expressed during the 2014 research conference about the impact of new regulations on community banks, questions were included in the 2015 national survey to help understand the costs of regulatory compliance at community banks. In terms of these costs, community bankers...
reported that regulatory compliance, on average, accounted for 11 percent of their overall personnel costs, 16 percent of their data processing expenses, 20 percent of their legal expenses, 38 percent of their accounting and auditing expenses, and 48 percent of their consulting expenses. These data establish a baseline that will be helpful in understanding changes in compliance costs at community banks in future years.

One area in which community bankers reported a change between the 2014 and 2015 surveys is in mortgage lending. Sixty-nine percent of the respondents reported offering one-to four-family mortgages in 2015 compared with 75 percent in 2014. The respondents attributed the decline to fewer community banks offering nonqualified mortgages, which expose the bank to more legal risk than qualified mortgages.

Finally, this year’s survey showed that banks are continuing to embrace technology in order to expand their product offerings. More than 70 percent of the respondents reported offering mobile banking services, with another 20 percent stating that they plan to do so within the next three years.

Future Research: What’s Next for Community Bank Research?
This year’s attendees encouraged academics to consider research focused on technology. In particular, many bankers are interested in the future of the branch model in light of technology and changing consumer preferences, particularly in rural communities. Other participants expressed interest in learning more about the advantages and disadvantages of the relationship lending model and the extent to which technology could enable larger banks and nonbanks to overcome the current disadvantage they have compared with community banks in obtaining “soft” information on borrowers. These topics, as well as the impact of competition and regulation, are all items for which academic research could inform policy decisions affecting community banks.

Supervision & Regulation (SR) & Consumer Affairs (CA) Letters

The following SR and CA letters that have been published since the last issue (and are listed by most current) apply to community banking organizations. Letters that contain confidential supervisory information are not included. All SR letters are available by year at www.federalreserve.gov/bankinforeg/srletters/srletters.htm and by topic at www.federalreserve.gov/bankinforeg/topics/topics.htm. A complete list of CA letters can be found at www.federalreserve.gov/bankinforeg/caletters/caletters.htm.

SR Letter 15-17, “Interagency Statement on Prudent Risk Management for Commercial Real Estate Lending”

SR Letter 15-16, “Enhancements to the Federal Reserve System’s Surveillance Program”

SR Letter 15-15, “Supervisory Concerns Related to Shareholder Protection Arrangements”

SR Letter 15-14, “FFIEC Information Technology Examination Handbook”


Debit card issuance has increased significantly since the beginning of 2015 now that debit routing challenges have been resolved. According to the 2015 Pulse Debit Study, 90 percent of the surveyed financial institutions said that they planned to start issuing EMV debit cards by the fourth quarter of 2015 and will complete their transition by the end of 2017. Natural migration based on a three- to four-year expiration cycle is the most popular strategy.\(^{11}\)

Merchant acceptance of chip cards at point-of-sale terminals has been sluggish. The largest retailers are installing terminals capable of accepting EMV transactions. Smaller retailers are slower to equip for EMV acceptance, citing that upgrading terminals is not necessary or is too expensive or that they are not concerned about the fraud liability shift.\(^{12}\) One survey estimated that about 44 percent of U.S. merchants would be EMV ready by December 2015.\(^{13}\)

A major incentive for merchants to become EMV capable is the shift in liability that took effect in October 2015. Previously, under the card brands’ operating rules, the issuer was liable for financial losses due to counterfeit card fraud. With the liability shift, a merchant will bear the loss if the issuer has issued chip cards to its cardholders and if that


\(^{12}\) See the Wells Fargo/Gallup Small Business Index, July 2015, available at http://ow.ly/XhPCS.

A card issuer has many factors to assess before deciding whether to offer chip cards and, if so, how to implement the conversion.

Issues and Decisions Facing Card Issuers

Community banks that issue credit, debit, or prepaid cards have either started migrating their card portfolios to chip cards or are (or will soon be) determining whether and when to adopt this technology. Making sound business decisions regarding this transition involves complex analysis.

As illustrated in the discussion in this section, a card issuer has many factors to assess before deciding whether to offer chip cards and, if so, how to implement the conversion. A significant consideration in the decision process is the impact of potential savings to an issuer resulting from the upcoming fraud liability shift on the card program’s profitability and cost structure.

Determine which cardholder segments should receive chip cards. Some issuers have decided to offer chip cards to selective segments, such as international travelers (both business and personal); new customers; or customers with lost, stolen, damaged, or expired cards. Retail data breaches that required issuance of new cards have also resulted in greater awareness of, confidence in, and demand for chip cards among U.S. cardholders because of perceived enhanced security features. Some issuers have opted to focus on credit cards first, with debit card migration planned at a later time. Other issuers have chosen to replace their entire portfolios with chip cards.

Take debit cards into consideration. U.S. issuers that decide to issue chip debit cards will likely want to preserve the routing choices available today. Moreover, these issuers must comply with Regulation II, which mandates that U.S. issuers offer merchants a choice between two unaffiliated networks when routing debit transactions. One solution is to instruct the chip manufacturer to place two application identifiers (AIDs) on the debit card chip, one for a card brand-specific AID (also referred to as a global AID) and another for the U.S. common debit AID. When a U.S. common debit AID is selected for a transaction, the acquirer can route the transaction to any network that the issuer has enabled for that card that supports that AID.

Decide which features to order on the chip itself when it is manufactured. The issuer may consider the following questions when deciding on which features to order:

- Should the chip be programmed with contactless or “dual interface” capability? Contactless-only cards will not qualify for liability shift protection for certain card brands, and some merchant terminals accept only contact EMV transactions.
- Will offline PINs (which are available only for contact transactions) and online PINs be enabled for credit cards? Debit card issuers will want to enable online PINs in order to offer PIN debit and ATM capability to their cardholders.
- What is the optimal memory size for the chip?
- What design features and branding options should be selected for the new cards?

Some service providers offer simplified, turn-key chip card solutions for issuers that prefer not to wrestle with all these choices. Chip cards typically have long shelf lives, so these decisions have lasting consequences.

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14 The principle is that the party (issuer or merchant) that is the cause of a contact chip transaction not occurring (and thus falling back to a magnetic stripe transaction) will be financially liable for any resulting card-present counterfeit card losses.

15 Currently, Discover, MasterCard, and Visa provide U.S. common debit AIDs to be used on debit cards with their brands.

16 Contactless payment transactions (for example, using NFC) are popular in mass transit, parking, and ticketing applications.

17 Dual interface means an EMV card is set up for contactless and contact transactions.

18 With online PIN, the PIN is encrypted and verified online by the card issuer. When a chip card is manufactured, the offline PIN code is stored in the card’s microprocessor. During an offline PIN cardholder verification, the PIN entered into the terminal or PIN pad is sent to the card. The card’s microprocessor then returns one of two answers: (1) if the entered PIN matches the stored PIN, the card sends a confirmation signal to the terminal, and (2) if they are different, the card sends a failure signal. Offline transactions are used when terminals do not have connectivity (for example, at ticket kiosks) or in countries where telecommunications costs are high.
Select and prioritize cardholder verification methods (CVMs). Issuers generally specify cardholder verification methods and specify the hierarchy for merchants to follow on a particular transaction, as shown in the box.

**Cardholder Verification Methods**

- Issuer chooses among CVM options:
  - Online PIN
  - Offline PIN
  - Signature
  - No CVM
- Issuer chooses CVM priority list order
- Merchant terminal match needed
- ATMs’ CVM may be different than point of sale

To PIN or not to PIN? There is no mandate from the card brands regarding whether to use a signature or a PIN to verify that an individual is authorized to initiate a payment. Each issuing bank must decide whether it will issue a chip card as “chip and signature” or “chip and PIN.” Some issuers worry that cardholders will not use their cards if their PINs are required, believing that some Americans would rather sign their names than enter their PINs. The tradeoff is that “chip and signature” cardholder authentication is less secure than “chip and PIN” verification because “chip and signature” cards are generally more susceptible to lost or stolen card fraud. As noted earlier, some card brands are implementing a liability shift for lost or stolen fraud to incent adoption of PIN authorization.

Calculate costs and benefits. Issuers can expect to experience greater fixed and variable costs when implementing EMV cards, including costs associated with software, hardware, internal resources, and plastic. Chip cards are more expensive than magnetic stripe cards ($2 and more per chip card compared with a few cents for a magnetic stripe card). Issuers should weigh the cost of issuing cards against the financial impact of the fraud liability shifts by quantifying their current losses due to counterfeit and lost and stolen card fraud. They should also estimate lost revenue from cardholders who may demand chip cards and seek them elsewhere if their current issuers do not provide chip cards. Issuers should perform a comprehensive cost–benefit analysis to understand the business case associated with the move to chip cards.

Assess risk. Community banks should assess their risk tolerance in determining their response to the liability shift. Additionally, they should weigh the reputational risk of remaining with magnetic stripe cards in an environment prone to data breaches, given public perception that chip cards are more secure.

Schedule chip card migration with partners. The issuer has to coordinate the card migration with its card vendor, service bureau provider, transaction processor, core processing system provider, and card brand. Many other issuers may be attempting migration in the same tight time frame, so an issuer may face a queue and experience delays in obtaining its cards when wanted. Issuers should consider planning ahead and anticipate possible delays in the response time from the many service providers involved.

Provide training and education for staff and cardholders. Staff training is typically necessary to ensure customer inquiries are handled appropriately. Cardholder communication and education are also important to educate customers on how to use their new chip cards. Unlike magnetic stripe cards that are swiped, chip cards are inserted into a card reader and remain in the slot throughout the entire transaction. Savvy merchants wait to print a receipt until the card is removed so that the cardholder does not forget the card and leave it behind.

Card issuers should also consider the following questions:

- **What does the future hold as far as adoption of mobile and contactless technology in payments?** A Federal Reserve survey found that consumer adoption of mobile payments increased from 23 percent of smartphone users in 2011 to 28 percent in 2014. And how will chip technology integrate with mobile payments?

- **Should investments be made in more advanced cardholder authentication and security methods?** For example, biometric approaches strengthen cardholder authentication, and tokenization solutions devalue payment card data to fraudsters.

- **What is the risk of delaying?** Timing is another factor to

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20 For example, biometric authentication techniques may rely on fingerprints and facial and voice recognition.
consider. Migration to chip cards is a version of “musical chairs” for card issuers: No one wants to be the last one in a market to convert to chip cards because fraudsters tend to attack the easiest targets first. Because magnetic stripe cards are easier to counterfeit, they are generally attractive targets for thieves.

- When will most domestic merchants be equipped to accept chip-on-chip transactions at the point of sale so that cardholders can actually use their chip cards?
- How can the risks of CNP transactions be mitigated? Card issuers should consider exploring opportunities to address the increasing risk of CNP transactions as a result of EMV implementation, such as offering cardholders online PINs or one-day passwords or educating cardholders about the availability of tools such as e-mail alerts that flag CNP transactions.

What’s Next?
The migration of U.S. cards from magnetic stripe to chip technology, in terms of issuance of chip cards and merchant readiness to accept and process chip transactions, is expected to take some time for full acceptance by issuers, merchants, and cardholders. After more than two decades of chip cards based on the EMVCo standard, no country has achieved 100 percent issuance of chip cards or 100 percent acceptance of chip cards at the point of sale. It is expected that U.S. chip cards will continue to carry magnetic stripes for many years to come to ensure acceptance at merchants that are not EMV enabled.

Community bankers can prepare for the move to chip cards by learning more about the issues and arming themselves with facts to support informed business decisions. The cross-industry EMV Migration Forum’s website (www.emv-connection.com) has an excellent, informative Knowledge Center, and www.gochipcard.com is another website that provides useful information. Community bankers should seek out information from card brand representatives and card brand websites. Bankers can also rely on card manufacturers, core processing service providers, and other trusted partners to offer advice, estimate costs, evaluate risks, and help develop programs that are right for their financial institutions.

21 Tokenization replaces card data, such as the personal account number, with a surrogate value or “token” that has no value outside of a particular retailer or acceptance channel.

The Atlanta Fed Offers Two Web-Based Banking Resources — “ViewPoint” and ViewPoint Live!

“ViewPoint,” a web publication produced by the Atlanta Fed’s Supervision and Regulation Division, includes a quarterly “State of the District” review of community banking conditions. It also features articles on emerging issues and developments in supervision and regulation, as well as information on upcoming events. Articles on financial technology and the Truth in Lending Act–Real Estate Settlement Procedures Act Integrated Disclosure (TRID) rule will be published this quarter.

ViewPoint Live!, a webcast hosted by Michael Johnson, executive vice president of Supervision and Regulation, provides an overview of banking conditions and a discussion of supervisory topics. The most recent webcast focused on interest rate risk. Other topics have included consumer affairs and commercial real estate. For the webcasts, viewers can submit questions via e-mail.

Although “ViewPoint” and ViewPoint Live! are produced by the Federal Reserve Bank of Atlanta, the coverage of current supervisory developments and emerging issues appeals to a national audience. Visit www.frbatlanta.org/economy-matters/banking-and-finance.aspx for more information.
Adoption of the CECL model may require taking a more granular approach to the allowance methodology for estimating credit losses. Assistance may be necessary to capture and manage the data needed to accurately calculate an institution’s ALLL. Depository institutions should begin to form multidisciplinary teams to review the rule. Team members should include subject matter experts from credit, information technology, accounting, and financial reporting, all of whom will be important in the implementation of the CECL model. In addition, other business lines should be consulted. For example, a depository institution’s capital expert should assist in assessing the potential impact of the CECL model on the depository institution’s capital level.

In order to transition from today’s incurred loss model to the forward-looking CECL model, depository institutions should determine which methodologies they will utilize in their CECL estimation process and implement a scalable approach to collect the necessary data. Depending on the methodology selected, the financial asset data for the CECL model loan loss calculations may include origination/acquisition date and amount, maturity date, initial and subsequent charge-off dates/amounts, cumulative loss amounts, risk ratings and subsequent changes, risk rating date changes, and other variables. The information requirements and the methodology type will differ by asset portfolio. For example, for commercial loans, a methodology such as a migration analysis could be appropriate to estimate losses under the CECL model. A migration analysis would provide a reflection of the credit quality within each homogeneous pool of loans, resulting in a broader overview of the risk within each loan type and a more detailed loss estimate. This approach, however, is not necessarily the only approach that would comply with the requirements of the CECL model.

Adoption of the CECL model will not be required earlier than January 1, 2019. Therefore, depository institutions should have sufficient time to prepare and collect data before the model is put into practice. Additionally, depository institutions will not be permitted to build up allowance levels in anticipation of the CECL model and must continue using the current incurred loss model until the new model goes into effect. Since internal and external information will be used to estimate expected credit losses, bankers should begin now to prepare for an orderly transition to the CECL model. An institution may need to revise its current methods of collecting data. At present, there are numerous steps that bank management can take to prepare for the implementation of the CECL model:

- Discuss the proposed accounting changes with external auditors, industry peers, and regulators to prepare for the implementation.
- Review current ALLL, OTTI, and credit risk management practices to identify possible synergies with the CECL model.
- Identify the portfolio segmentation needed to implement the proposed CECL model, such as grouping assets with similar risk characteristics. The loan portfolios, whether commercial or retail, should be accounted for at the most granular level possible, as more granular segmenta-

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6 See www.askthefed.org.

7 See the FedPerspectives webinar titled “An Overview of the Current Expected Credit Loss Model (CECL) and Supervisory Expectations,” which was held on October 30, 2015, and is available at https://www.stlouisfed.org/perspectives/.
tion allows for better loss estimates.

- Consider the type of modeling methodologies that might be appropriate for different loan portfolio types as well as the data requirements for the different methodologies.
- Analyze the depository institution’s loan accounting and servicing systems to determine whether the institution is able to capture the necessary data for the CECL model’s implementation.
- Review credit losses and their correlation to historic economic data, such as rising interest rates, fluctuating real estate values, or other risks.
- Educate the depository institution’s board of directors about the new rule and the institution’s implementation plan for the CECL model.
- Develop a multidisciplinary team with subject matter experts to implement and maintain the CECL model.

Additionally, the Federal Reserve is not requiring depository institutions to engage consulting firms to implement the accounting change. However, while the timeline for implementation has been extended, depository institutions should start gathering additional historical data or, at a minimum, assess the sufficiency of the existing historical data.

The Federal Reserve recognizes that depository institutions will have to expend resources to implement the CECL model. However, the Federal Reserve does not expect depository institutions to create sophisticated models to comply with the new FASB rule, but rather expects institutions to enhance and update their allowance reporting to meet the new CECL model rule.

Robert Kiyosaki, American businessman and financial literacy activist, once said, “The best way to predict the future is to study the past, or prognosticate.” The CECL model will use similar concepts. It combines the study of historical loss experience with reasonable forecasts and should result in more timely recognition and adequate measurement of credit losses. The transition to the CECL model may be challenging, but with proper preparation and coordination among the bankers, accountants, and regulatory authorities, the transition should be orderly.

FedLinks: Connecting Policy with Practice is a single-topic bulletin prepared specifically for community banks and bank holding companies with total assets of $10 billion or less. Each bulletin provides an overview of a key supervisory topic; explains how supervisory staff members typically address that topic; highlights related policies and guidance, if applicable; and discusses examination expectations as appropriate at community banks. FedLinks is not intended to establish new supervisory expectations beyond what is already set forth in existing policies or guidance, but rather to connect policy with practice.

The most recently released bulletin is:

“Bank Secrecy Act/Anti-Money Laundering Compliance,” December 2015. This bulletin offers ways in which data can be used to help quantify and analyze a bank’s inherent Bank Secrecy Act/Anti-Money Laundering (BSA/AML) risk and highlights tools to assist community banks in establishing controls commensurate with their specific BSA/AML risks.

This bulletin, and others like it, can be found online at www.cbcfrs.org/fedlinks.

By subscribing to FedLinks bulletins at www.cbcfrs.org/subscribe, you will receive an e-mail notification when new bulletins become available.
Community Depository Institutions Advisory Council’s Impact After Five Years continued from page 7

- Reducing the regulatory reporting burden for bank holding companies and savings and loan holding companies with less than $1 billion in total consolidated assets that meet the qualitative requirements of the policy statement. Before this change was made, companies subject to the policy statement reported 65 pages of data items quarterly. They now need to report only eight pages of data items semiannually.

A considerable number of institutions across the nation were positively impacted by these recent changes.

When asked for his perspective on the importance of the CDIAC, Thomas M. Petro, president and chief executive officer of Fox Chase Bank in Hatboro, PA, and chair of the Federal Reserve Bank of Philadelphia’s local advisory council, stated, “I am constantly amazed at the remarkable differences in the community banking ecosystem. It seems as though no two organizations are the same. Each is pursuing a different and unique strategy to serve diverse and varied market segments, even within the same District.”

This is true of all community banking organizations regardless of the District in which the institutions reside. And although community banks have a diverse set of strategies, their needs prove to be similar, making the CDIAC a fruitful venue for communicating through one voice.

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Janet Garufis, president and chief executive officer of Montecito Bank & Trust in Santa Barbara, CA, and the 2016 vice president of the CDIAC, stated, “I have developed great respect and appreciation for my fellow members. Collectively, I think it is not an overstatement to say that we each see our role on the CDIAC as a responsibility to represent the interests and needs of community banks as we articulate the current issues we specifically face.”

Recent Developments

The CDIAC met with the Board of Governors in Washington, D.C., on November 6, 2015. In addition to being prepared to discuss the standard agenda topics (current banking conditions, economic conditions and indicators, examination practices, and regulatory matters), members were asked to provide information on how technology is affecting (1) credit and financial services products and (2) access to those products in the communities they serve, including low- and moderate-income communities. They also discussed the effect of the changing landscape of branch banking and the increasing availability of digital banking channels, again including low- and moderate-income communities. CDIAC meeting summaries can be accessed via the Board’s website.

Community banking organizations interested in learning more about their local councils or contributing to the dialogue are encouraged to contact their local Reserve Bank or council members to share ideas or raise issues for discussion at future meetings. More information on the history, structure, and meeting frequency of the CDIAC can be found in the Third Quarter 2012 issue of Community Banking Connections.

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4 Specifically, the Board eliminated quarterly consolidated financial reporting requirements for these institutions (FR Y-9C) and instead now requires the less complex parent-only financial statements (FR Y-9SP) semiannually.


Agencies released annual Community Reinvestment Act (CRA) asset-size threshold adjustments for small and intermediate small institutions. The federal bank regulatory agencies announced the annual adjustment to the asset-size thresholds used to define small bank, small savings association, intermediate small bank, and intermediate small savings association under the CRA regulations. The annual adjustments are required by the CRA rules. Financial institutions are evaluated under different CRA examination procedures based upon their asset-size classification. Those institutions meeting the small and intermediate small institution asset-size thresholds are not subject to the reporting requirements applicable to large banks and savings associations. The press release, which was issued on December 22, 2015, is available at www.federalreserve.gov/newsevents/press/bcreg/20151222a.htm.

The federal bank regulatory agencies issued a statement to reinforce prudent risk-management practices related to commercial real estate (CRE) lending. The statement reinforces existing guidance for CRE risk management and contains a table that lists interagency regulations and guidance related to CRE lending activities. The press release, which was issued on December 18, 2015, is available at www.federalreserve.gov/newsevents/press/bcreg/20151218a.htm.

The federal bank regulatory agencies continue to seek comments on their efforts to reduce regulatory burden. The federal bank regulatory agencies issued a notice requesting comments on a fourth and final set of regulatory categories — rules of procedure, safety and soundness, and securities — as part of their review to identify outdated or unnecessary regulations applied to insured depository institutions. The Economic Growth and Regulatory Paperwork Reduction Act (EGRPRA) of 1996 requires the federal bank regulatory agencies, as well as the Federal Financial Institutions Examination Council, to conduct a review at least every 10 years to identify outdated or otherwise unnecessary regulations. The press release, which was issued on December 17, 2015, is available at www.federalreserve.gov/newsevents/press/bcreg/20151217a.htm. Comments will be accepted until March 22, 2016. All the requests for comments and links to the Federal Register notices are available at egrpra.ffiec.gov/federal-register-notices/fedreg-index.html.

The Federal Reserve Board announced the designation of the chairs and deputy chairs of the 12 Federal Reserve Banks for 2016. Each Reserve Bank has a nine-member board of directors. The Board of Governors in Washington appoints three of these directors. Each year, the Board designates one of its appointees as chair and a second as deputy chair. The press release, which was issued on December 4, 2015, is available at www.federalreserve.gov/newsevents/press/other/20151204a.htm.

Governor Daniel K. Tarullo gave opening remarks at the sixth and final EGRPRA Outreach Meeting. The meeting was the sixth and final in a series of outreach sessions that the federal bank regulatory agencies have held across the country. The final EGRPRA meeting was held in Arlington, VA, on December 2, 2015. Governor Tarullo’s opening remarks are available at www.federalreserve.gov/newsevents/speech/tarullo20151202a.htm.

Governor Lael Brainard spoke at the fifth EGRPRA Outreach Meeting. The meeting was held at the Federal Reserve Bank of Chicago on October 19, 2015. Brainard’s speech on “Identifying Opportunities for Reducing Regulatory Burdens on Community Banks” is available at www.federalreserve.gov/newsevents/speech/brainard20151019a.htm.

Agencies announced the threshold for smaller loan exemption from appraisal requirements for higher-priced mortgage loans. The Consumer Financial Protection Bureau, the Federal Reserve Board, and the Office of the Comptroller of the Currency announced that the threshold for exempting loans from special appraisal requirements for higher-priced mortgage loans during 2016 will remain at $25,500. The press release, which was issued on November 25, 2015, is available at www.federalreserve.gov/newsevents/press/bcreg/20151125b.htm.
Cybersecurity Assessment Tool

The Federal Financial Institutions Examination Council (FFIEC) has developed a voluntary Cybersecurity Assessment Tool to help financial institutions identify their cybersecurity risks and determine their preparedness. This tool provides a repeatable and measurable process for financial institutions to measure their cybersecurity preparedness over time.

The first part of the assessment tool is the inherent risk profile, which aims to help management determine an institution’s level of cybersecurity risk. The second part of the assessment tool is cybersecurity maturity, which is designed to help management assess whether their controls provide the desired level of preparedness. Upon completion of both parts of the assessment, management and the board of directors can evaluate whether the financial institution’s inherent risk and preparedness are aligned.

This tool is just one of several initiatives that the FFIEC is taking to raise the awareness of financial institutions and their critical third-party service providers with respect to cybersecurity risks and the need to identify, assess, and mitigate these risks in light of the increasing volume and sophistication of cyberthreats.

For more information, see www.ffiec.gov/cyberassessmenttool.htm.

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With each issue of Community Banking Connections, we aim to highlight the supervisory and regulatory matters that affect you and your banking institution the most, providing examples from the field, explanations of supervisory policies and guidance, and more. We encourage you to contact us with any ideas for articles so that we can continue to provide you with topical and valuable information.

Please direct any comments and suggestions to www.cbcfrs.org/feedback.cfm.