DATA DUO

In this double feature, Data Duo, FMS is exploring the connectivity between data analytics and CECL data. Below, you'll find a feature on data analytics and a feature on CECL data begins on Page 11.

DATA ANALYTICS
LISTEN TO THE NUMBERS

HOW DO COMMUNITY INSTITUTIONS MAKE THE HARD CHOICES? WHETHER CONTEMPLATING MARKETING, PRICING, RATES OR CUSTOMER RELATIONSHIPS, IF THEY'RE RELYING MORE ON INTUITION THAN DATA, THEY'RE PROBABLY MISSING THE BOAT.
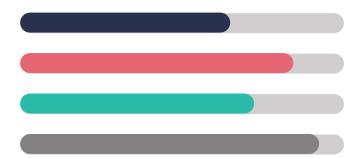
CECL DATA
THE STRAW THAT STIRS THE DRINK

WHEN IT COMES TO CECL, EVERYTHING REVOLVES AROUND THE DATA – WHAT AN INSTITUTION NEEDS, WHAT IT HAS AND WHAT IT CAN GET. DATA IS NOT ONLY THE FIRST HURDLE THAT MOST COMMUNITY INSTITUTIONS ARE LIKELY TO FACE, IN MANY CASES IT'S GOING TO BE THE MOST FORMIDABLE AS WELL, PROFOUNDLY IMPACTING HOW SMOOTHLY THE REST OF THEIR CECL STRATEGY AND PREPARATIONS ULTIMATELY PLAY OUT.

Are community institutions making the most of their data? When they choose to not prioritize data analytics, Joe Kennerson says they might be missing out on appropriate deposit pricing and positioning initiatives. For example, when confronted with the first rising rate cycle in over a decade, institution leaders have been faced with some tough calls on how aggressive they're going to be.

"The question really becomes if bankers are making pricing decisions based on their gut feeling of how their customers are going to react, or if they're making pricing decisions based on actual customer trends," the managing director of Darling Consulting Group says.

Institutions could also be missing an opportunity to accurately evaluate the effectiveness of their strategies. While they run CD specials in a rising rate environment, they may not know whether these tactics are connecting with customers. Kennerson says data analytics enable institutions to see the bigger picture so they can better understand customer behavior and its potential consequences.

"If you're seeing 40% of growth in a CD special just migrating out of existing accounts into that special, that's a lot of cannibalization that could really increase the marginal cost on the new funds," he explains. "If you're not looking at these types of customer data trends to be able to track migration and quantify the marginal costs of funds of these promotions, you really could be missing out on a big impact that would increase funding costs and therefore the bottom line."

Digging deeper into the data can help an institution not only understand customer behavior, but actually build better customer relationships.

"If they're skipping data analytics, they're missing out on new ways of connecting to their customers," says Jeff Deppen, CIO at

$1.5-billion Orrstown Bank in Shippensburg, Pennsylvania.

Orrstown uses metrics that record how quickly they handle a customer incident. For instance, if a customer calls with a change of address, how quickly is that change processed and completed? When the bank started tracking that process, the average time it took to change a customer's address went from two days to five minutes.

"If you can measure something, you can improve it," Deppen says. "The improvement might not be something the customer can see, but if nothing else we can improve the processes that help will improve their experience with us, and they'll get better service."

GETTING STARTED

The first step for an institution looking into data analytics is to set some goals, advises Bryan Easley, vice president at Haberfeld Associates. He recommends sitting down to determine which issues the institution wants to address, the internal goals it's looking to achieve and the inefficiencies it wants to eliminate before getting too deep in the process.

"Before randomly analyzing the data at your disposal, identify what you want to accomplish for your financial institution," Easley says. "Don't allow the sheer volume of available data to distract you from your larger purpose. Maintain your focus on appropriately using the analytics to obtain insights that will help you take directed action to materially improve your business."

Once an institution has set its goals, it can move on to collecting the data needed to achieve those goals — a task that might be easier than it seems.

"Most institutions already have access to the data they need," Kennerson notes. "The key data I'm thinking about is a relationship ID. In one way or another, institutions already have that, and if they don't they can create it and then start tracking it."

From there, data points such as relationship identifiers, customer age or preferred branch can be added to deepen the institution's understanding of the customer. By building and expanding upon its existing data, for example, Orrstown Bank uses analytics to measure customer profitability.

"We realized we didn't have a good way to judge if a customer was good or bad for the bank, or in a position to grow with us, so we built a metric to score them," Deppen explains.

The Orrstown experience (as detailed in the accompanying Case Study) is a good example of using analytics to get to the root of a specific issue, as opposed to simply gathering data and trying to see if it reveals anything worthwhile. Without working out goals in advance, an institution can create metrics that are statistically sound, but don't necessarily deliver coherent information.

"It's important to understand that analytics can't exist for their own

sake," says Reid Simon, a manager at RSM US LLP. "Focus on making sure that your analysis is structurally sound, specific to the area it is designed to address and, perhaps most importantly, that it's comprehensible to the right people."

To Simon's final point, Deppen stresses the importance of presenting your data findings in visual form. Even simple graphs and dashboards can go a long way to making data meaningful to leadership and other departments.

"A huge percentage of our brain is geared toward visual processing, so it makes sense to take advantage of that," he says. "We dashboard an awful lot of things, because it's amazing how much more people pay attention when something is presented in a graph as opposed to a report."

ANALYTICS IN ACTION

Case Study: Orrstown Bank

Orrstown Bank, a $1.5-billion community bank in Pennsylvania, has been committed to data analytics for around four years now. Orrstown CIO Jeff Deppen came to the bank from JP Morgan Chase, along with EVP of Operations and Technology, Ben Wallace.

"We quickly realized that it's difficult to differentiate at the community bank level," Deppen says. "You can't really differentiate your products or rates or even services, because there will always be someone out there offering a better price. So we realized where we could differentiate was by being very customer-focused and relationship-focused."

While terms like "relationship-focused" and "data analytics" may not seem like natural bedfellows, Deppen and Wallace saw a big opportunity to work toward the differentiation they believed Orrstown lacked.

"We figured there's gold in the data, that there's something in there that we can use to start inferring information about our customers, and maybe anticipate what they need," Deppen explains. "We knew there was magic in there."

Acting on that belief, they worked with a partner to create a system that builds customer relationships around data analytics. Using the data, they built talking points for each customer, so now when a customer contacts the Orrstown Customer Service Center, the representative can hit a button and receive three tailored talking points, ranging from things as specific as *their CD is about to mature next month, maybe they want to renew* to things as simple as *make sure you thank them, they are a highly valued customer*. Though these calls often generate sales, that's not really the focus. The overarching goal is to create a unified, personal customer experience no matter the medium.

"Our goal is to get a consistent message across the whole bank in terms of how we talk to our customers, whether they're contacting the call center or walking up to the teller line or talking to a technician deep in the back-office end like me," Deppen says. "We just want them to have a general conversation, and it's really interesting to see all of the referrals that come out of those conversations."

In doing so, Wallace stresses the importance of creating a framework for customer interactions — using data as a means to better personal connections and a more meaningful customer experience. Used correctly, data analytics can increase customer loyalty and change the institution's cultural tone.

"To me, what we're doing here has a much larger brand and culture meaning than simply using data to drive behavior," he explains. "That's a long way of saying let the experiences and the data inform you, then perhaps you may discover that the most appropriate action is calling a customer simply to say thank you. We thought we were going to do one thing with our customer data, and now we're doing something a little different."

Orrstown recently began using its talking points to drive outbound engagement calls, in addition to using them to open conversations on inbound calls. Even so, the bank works hard to walk that fine line between being good stewards of its customers' information and making sure it protects their privacy.

"I still feel that not enough people view their financial institutions as good advisors and stewards," he says. "It may be an industry problem and I don't think we've fully changed it yet, but Orrstown is working toward that,

Wallace has a story of his own on this point. When Orrstown was moving ahead with attempting outbound calls with personalized talking points, he wanted to see what a call under this strategy would be like. So he called a long time customer whose data showed she was about to pay off a loan.

"My intent was to thank her for her long term relationship, and to discover if she needed any assistance or options as she paid off a fairly sizable loan. But before I could really get into that line of conversation, she was so overwhelmed and pleased that her bank would actually call her and thank her for paying off this loan and for being a great customer for twenty years, she actually began a conversation about how Orrstown could help her in some longer-term financial planning."

The good news in all of this is that in addition to already having access to the data they need to start moving forward, many institutions already have access to the people they need as well.

"Every department already has a go-to person for analytics," says Michael Florea, the Chief Data Officer at $1.3-billion Columbia Credit Union. "Most departments have already fostered their own spreadsheet guy or their own database guy that they go to. A lot of the benefits come from just getting those people in the same room and letting them talk and compare notes and start digging."

Florea adds that tapping people who already have a deep understanding of the institution is a huge benefit in its own right, and Kennerson agrees that people with historical knowledge of the institution will be able to add a qualitative perspective to the quantitative approach.

"The quantitative approach is the simple part; as long as you have your data – it's running the regression and doing the math," Kennerson says. "The qualitative approach is being able to take a step back and see if these trends make sense to build into our models today. Having someone who knows the historical trends is absolutely critical."

START SMALL, START NOW
Reflecting on his own experience with data analytics at Orrstown, Deppen has a word of advice for other community institutions: don't be intimidated.

"I want to be really clear about this – community institutions can do a lot of the small data stuff, and they should focus on the data they have," says Deppen. "They should look at the little things they can do, like put some dashboards together and get people in the institution used to seeing those, then get the operational metrics going, and once they build some trust they can really start swinging for the fences."

"Avoid an overemphasis on sophistication," adds his Orrstown colleague Ben Wallace, EVP of Operations and Technology. "At the end of the day, you go from having nothing to having something, and maybe it's not perfect, but it's a meaningful change. Even if you start with a spreadsheet of some data that could help inform some behaviors, don't be afraid to start small and be incremental about it."

While starting small is fine, Easley says working to build and find the correct balance for your organization is essential.
"If you underspend, you risk implementing an effort that yields no measurable benefit," he says. "On the other hand, if you overspend, your costs could skyrocket and negate any positive benefit the analytics generate."

The important thing is to simply get started, because institutions that continue to put off data analytics run the risk of being outperformed by competitors that have already taken the plunge and are starting to see measurable benefits as a result.

"The impact of data analytics is best understood not as the emergence of a given tool or technology, but as a fundamental change in how business takes place, akin to large-scale electrification at the turn of the 20th century," Simon believes.

For community institutions, it's a fundamental change that will eventually touch every corner of the industry – no matter how big or small. The only institutions that should be eschewing data analytics at this point in time, Easley says, are those that don't care about growth and profitability. Kennerson agrees that there's no time like the present.

"I've been bringing this proverb up a lot – when is the best time to plant a tree?" he asks. "The best time to plant a tree was twenty years ago. By the same token, it would be great if you had twenty years' worth of beautiful data to parse out. But do you know the second-best time to plant a tree? Today." ▪

ANALYTICAL THINKING

64% of the 400 community institution executives surveyed in the **FMS research study Community Mindset: Bank and Credit Union Leadership Viewpoints 2017** were either **very or somewhat satisfied with their institutions' positioning on data analytics**.

68% of those who **weren't "very satisfied" considered it important to improve their data analytics processes**. However, over a quarter of all respondents reported not being completely satisfied with their data analytics, yet also didn't seem to prioritize improvement.

Source: Community Mindset: Bank and Credit Union Leadership Viewpoints 2017

FASB's Current Expected Credit Loss (CECL) standard is the kind of once-in-a-career shift in process and philosophy that has the distinction of having inspired not one but two major bouts of hand-wringing among community institution professionals.

The first came throughout the initial proposal phase, the ensuing long and heated debate and the eventual issuance of the final standard, which was ultimately approved in mid-2016. The second, meanwhile, came as those same professionals began to grapple with the reality of trying to get their institutions ready for the actual implementation of CECL – which, as the cosmic odometer flips to 2018, is as close as just two calendar years away for public filers. And when pinpointing the one aspect of those preparations that has them most concerned, the answer is almost uniformly the same.

"Data is pretty well at the top of the list of things to be addressed for CECL," says Chad Kellar, a partner with Crowe Horwath LLP. "The risk in the portfolio drives the data you need, the data then tells you what kind of methodology or models you can put into service and the models dictate how you incorporate current condition adjustments or forecasts – they're all kind of hinged on each other. So starting with understanding what the risk is in the portfolio and then verifying that you have the data to be able to adequately segment and analyze the portfolio is extremely important."

Indeed, the data an institution has or can get will ultimately determine not only the type of model it can use for CECL, but also how it confronts several other facets of the standard. For example, one of the components of CECL changes what type of historical information is required to compute the allowance, as it now goes from a historical loss concept to a historical lifetime loss concept, requiring an institution to have much more data that is accurate and complete from much further back in history than they have had to use before.

"Not only do they need to ensure their loan pools in the portfolio are appropriately grouped by risk or type, but they then have to determine the estimated life of each of those pools and determine what period in the past they need to harvest their data to build that historical lifetime loss rate," explains Debbie Scanlon, a partner at BKD,

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>
> Ed Bayer, Managing Director, KPMG LLP

LLP. "This is the first of the three prongs of the CECL calculation, so if an institution doesn't have a handle on the data accuracy and completeness and what data fields it does and doesn't have, it will not have an appropriate foundation on which to build the other two prongs, which are current conditions (economic factors) and the forecast of what will happen in the future." In other words, data needs to be the starting point for institutions as they begin delving into CECL preparations, lest they run the risk of having the tail wag the dog.

"A lot of institutions have immediately jumped on the idea of changing models, but it's very hard to complete the decisions around modeling without first understanding the data side of things," says Ed Bayer, a managing director at KPMG LLP.
Data Challenges
One of the first things many institutions have discovered as they've assessed their data situations with respect to CECL is that they can't necessarily go in the direction they had hoped, either due to a lack of good data, not enough good data or data that exists but is simply inaccessible.

"There's a difference between an institution thinking it has the data versus that data actually being available," Bayer points out. "It's important to recognize the difference between having the data and actually being able to get to it."

Some of the main challenges community institutions are likely to encounter will likely revolve around how far back they can go for data – an issue that in many cases is closely tied to their affiliations with third-party vendors. For example, with life-of-loan being the driving force of the CECL calculation, many institutions are going to be looking at a longer-term horizon than what's done today, going from aggregate Call Report-level information for the incurred-loss model to trying to gauge where a loan is in its life and the probability of losses under CECL.

"That longer period of time can be problematic for community institutions, largely because a lot of them use core service providers that essentially will only keep records for two or three years before putting the information into cold storage that's not readily retrievable or accessible," Kellar says. "We're seeing institutions that can only go back to 2012 or 2013 on their closed loans, and under CECL they're really focusing on the good performers – the good part of the portfolio is really the focus, the loans that are really going

to perform out over the course of their contractual life. That analysis tends to drag you further back in time, and in many cases the closed loans that performed out – those that you really want to be able to capture – are the hardest to get a good observation on if your history is truncated."

Even if the data goes back as far as it needs to, institutions will need to scrutinize the accuracy of that historical information as well.

"One thing we're finding as we talk with institutions is that many are not completely sure that all of their data fields have always had the focus to ensure they were accurate and complete at all times," Scanlon notes. "Thus, there is some concern as to how reliable some of that historical information may be."
To this last point, both Kellar and Bayer note that loan origination and charge-off dates, for example, are a couple of particularly significant data points that may not always be what they seem within an institution's archive. Considering their importance in many model types, these are exactly the kind of situations that will demand further scrutiny before forging ahead.

"It's important to understand what the fields in your system really mean, and how they're being processed," Kellar explains, offering origination date as an example. "Are there renewal date fields in the system that are equally or more important than that origination date field? At a lot of community institutions, there may be one loan record for a particular borrower, who has maybe renewed three, four or five times over the course of 15 or 20 years. So that origination date in the system is really depicting 15 years ago when the customer first came in, but then there's a renewal field that the institution file-maintains and updates for the most recent renewal. If that loan field, that renewal date, has just been continually overridden and you don't have a snapshot of the portfolio that goes back 15 years, it looks like that loan has only been outstanding since the last renewal, and you're missing the fact that it performed out under contractual terms maybe four or five times historically. So by using that same loan record with

the overriding pieces, it really paints a different picture than the reality of the performance of that loan."

MODELING CONSIDERATIONS
If there's one common theme that runs through most discussions about CECL, it is this – data and modeling go hand-in-hand. However, as they grapple with the chicken-and-egg question of which needs to come first – data gathering or model selection – institutions should be cognizant of the relationship between the two.

"When identifying data elements for model consideration, it's important to conduct a gap analysis to identify what models you may be considering, along with what data elements are available or could be generated at the same time – it can be a challenge for institutions to try to use one of those two categories to drive the other," says Mike Riechers, a director at KPMG LLP. "For example, if an institution selects a model first, out of desire for some particular characteristic, it may find itself challenged to build enough asset-level data at a granular enough level over a long enough history to allow that model to function properly. It goes the other way too. If an institution wants to have all kinds of data available so that it has a wide variety of models from which to choose, it may take unnecessary steps to backfill data that may never be used, creating more work than necessary. That's why those two things should be examined in parallel as part of a gap analysis."

Bayer adds that the kind and amount of data an institution can get its hands on is but one consideration that should go into the decision of which model to use for CECL. In some cases, an institution's CECL strategy may point in the direction of a specific type of model.

"Depending on how the key CECL stakeholders look at it, they may see CECL as an opportunity to limit volatility by the choices that they make, or see it as an opportunity to be as prudent as possible in maximizing their reserves, or they may be looking to mitigate the expected allowance increase as much as possible," he explains. "It may take a consideration like that to help limit the available inventory of models they want to look at. Once they see which models fit with their approach, they can start to look at the data they'll need to line

up with that approach. But this is just one possibility – there are many different ways to approach it."

In echoing this point and summarizing the data-model connection, Kellar adds "The overarching goal is to think about how to align business practices with the methodologies you deploy."

TAKING ACTION
While most community institutions have likely taken some steps in preparation for CECL – whether through data collection or model research or resource assessment – not every institution is probably sitting exactly where they'd like to be as 2018 approaches. As the implementation dates of 2020 (for public filers) and 2021 bear down, there are several areas related to data to which they should be paying particular attention:

Address Your Data Gaps
If an institution finds gaps in its data, Scanlon says it's time to start warehousing information on a monthly or quarterly basis in the format that aligns with its CECL model calculations. This is also the time to strengthen internal controls around the input of data so personnel in these roles understand the importance of what is considered

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> Chad Kellar, Partner, Crowe Horwath LLP

complete and accurate for each type of loan, as well as to update policies to include specifically what data collection will be required for each loan.

"In the meantime, while they are building current data, they can also use external data to help them fill in the gaps as they move through the process of selecting the models they will use for each pool," she adds.

Assess Your Risks
What are your credit metrics when you're originating a loan? What kind of information are you looking for to recreate or re-analyze the credit and monitor it going forward?

"Understand the risks in the portfolio and how those processes and business

practices define that risk," Kellar says. "Make those decisions first and then decide if you need the data for it. Let the risk drive the data that needs to be captured, and let the data dictate what kind of models you can use."

Define Your Process
Who in the institution owns the CECL process? If it's mostly finance and accounting or credit and risk personnel driving the bus, it may be time to stop and pick up a few more people.

"In many institutions, the data team and IT folks aren't entirely aware of what's happening with this process, and they need to be brought up to speed," Bayer says. "By the time a lot of these institutions

finally get everyone together and talk about what's going to be needed, it's kind of an 'aha' moment, and usually not a good one. So you have to get everyone on the same page to recognize the impact of CECL and the difficulty it's going to take to complete this transformation. Without that awareness and education, I don't think any other preparations can really take place."

It's certainly not too late to enact these steps and start working toward a robust CECL data initiative, but Bayer thinks it's getting there.

"If an institution is not having these conversations right now, they are likely behind their peers and are probably looking at a significant uphill battle to be ready for CECL." ▪

THE DATA DILEMMA

When the subject of CECL was considered among the 400 community institution executives surveyed for the recent FMS research study **Community Mindset: Bank and Credit Union Leadership Viewpoints 2017**, issues surrounding data requirements and availability topped the list of concerns.

57% of respondents are **very or somewhat concerned about finding the right variables** to help forecast expected losses

55% of respondents are **very or somewhat concerned about having enough of the right data**

Source: Community Mindset: Bank and Credit Union Leadership Viewpoints 2017

CECL CENTRAL

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