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INVICTUS

Bank Insights

Special Report: An M&A Analytical Primer

How to Solve Community Bank Problems When Organic Growth is Not the Answer

Part One: Picking the Right Target

*Last month's **Bank Insights** revealed unsettling balance sheet trends that indicate trouble on the horizon for community banks. This article is part of a series that will detail why M&A is the best solution—as long as banks use proper M&A analytics in their deliberations.*

By Kamal Mustafa, Invictus Chairman

Continued low loan interest rates combined with rock-bottom cost of funds have created major challenges for community banks going forward. Those banks that continue to pursue aggressive organic growth in an effort to increase earnings will sink further into the upcoming morass of declining Net Interest Margins and profits. Earnings compression will aggravate issues such as rising loan-to-deposit ratios, loan concentrations and increasing regulatory capital requirements.

Unfortunately, organic growth aggravates all these problems. And that means the only practical solution lies in properly targeted, identified, analyzed, priced and executed acquisitions. But that is easier said than done. Most community banks rely on traditional M&A analytics based on historical data that fail to take into consideration the very economic and regulatory factors causing distress. As a result, these legacy analytics and their underlying logic fail in identifying and pricing the best targets a bank should pursue.

This series will focus on the proper methodology and analytics that are required to identify, price and consummate transactions that will help community banks mitigate the negative pressures created by current economic conditions and monetary policy. This article will review pre-due diligence target identification and pro forma analytics.

Inside this issue:

- What's Next in the M&A Primer *(p. 3)*
- Regulatory Burden Higher for Smallest Banks *(p. 4)*

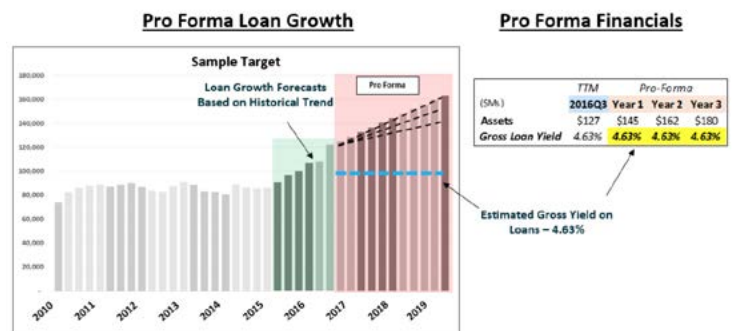
Why We Wrote This Series

Invictus is sharing its internally developed analytics with the community bank marketplace to help it cope with upcoming challenges. The charts in this series are based on analytics that use public data, supported by Invictus' proprietary database. Community banks can adapt their internal loan data to perform similar analyses for strategic planning and forecasting.

Pro forma statements generated using traditional methodologies often provide misleading results. We will highlight the difference in results between traditional reports and those that use vintage analytics, taking into account when a loan was originated.

The methodology of generating a target's pro forma is generally the same as it was in the 1970s. Yet so much has changed since then in banking. Using these outdated techniques completely ignores the recession of 2008, the post-recession economic gyrations that affected probabilities-of-default and loss-given-default, and most importantly, the continuing, unprecedented monetary policy that has artificially lowered interest rates.

The following chart of outstanding quarterly loans is a simplistic yet realistic depiction of the prevailing methodology in use by analysts, investment bankers and accountants in the community banking market. As the chart shows, in an effort to focus on "expected performance," there is an undue emphasis on more current loan yields and trends. As a result, the target bank's performance in "older" years is completely ignored. This is unfortunate as the resulting performance metrics are not only inaccurate but also grossly misleading.



For practical purposes, the chart above seems logical. It shows projected growth trends consistent with recent history and an estimated gross yield based on the most current financial data. This gross yield is then extrapolated for the balance of the projected period. In reality, this approach serves only to mislead acquiring management's

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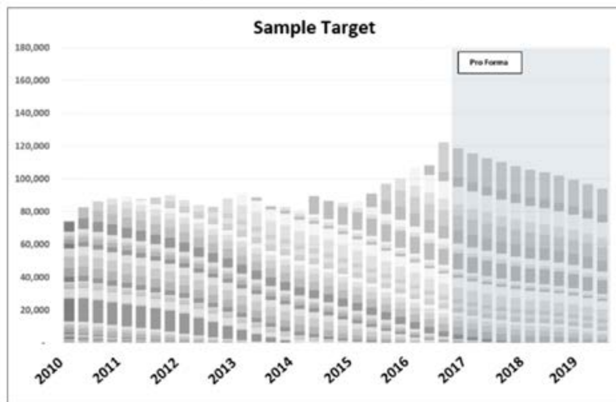
focus and direction. The flaws become evident when "vintage analytics" are utilized in analyzing potential targets.

In the following chart, Invictus uses its proprietary methodology to segment out the vintage layers that constitute the successive quarterly loan balances as the portfolios age. This allows an appropriate focus on the new/refinanced loans underwritten each quarter and, equally importantly, their progression since they were originated.

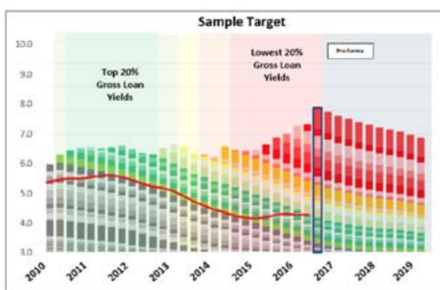
Loans by Vintage

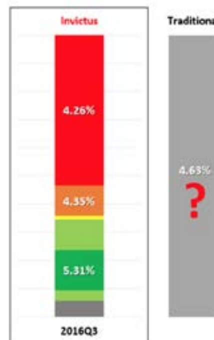


As can be seen from the chart above, the latest outstanding loan balance will cascade down over time based on the inherent maturities/repayments built into the loan portfolios. The slope of this "net loan outstanding" level is different for different banks and has a critical impact on that bank's future performance, profitability and loan level sustainability.

Now examine the next chart. The "vintage analytics" start to incorporate gross yield rates into each of the vintage segments based on prevailing interest rates at the point of origination. This process accurately estimates the gross yield distribution across each quarterly total loan portfolio, in segment and in total. The amortization built into the segments allows an extrapolation of these portfolios into the future, with each pro forma quarter reflecting its unique yield distribution and resulting net total gross yield.

Incorporating Vintage Characteristics

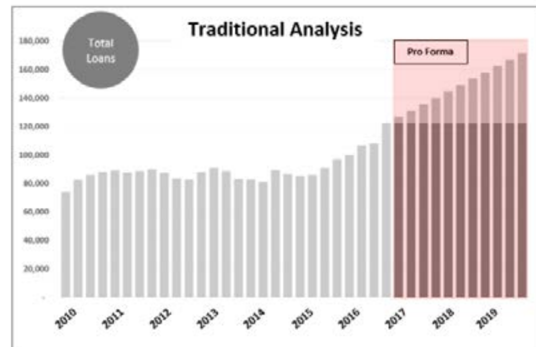


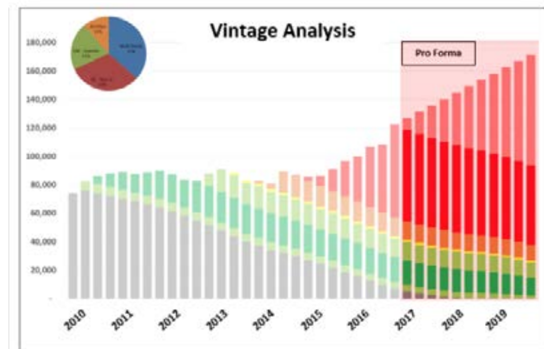


Interest rates on loans are determined by competition in the market at the time of origination. Invictus estimates the prevailing rates in each historical period to quantify the yield contribution of each loan in the portfolio. The bands are colored to indicate periods when rates were relatively high (green) or low (red).

The previous chart creates the foundation for a pro forma system that is not only far more realistic and accurate, but as will be evident from the following charts, produces radically different results than the prevalent legacy analytics.

Traditional Versus Vintage Analytics

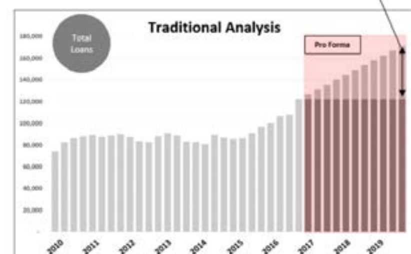




The yield, risk, and amortization schedule of loans differs by loan type. Each portfolio should be assessed individually and then aggregated together to forecast total loans.

As is evident from the following two charts, implied growth rates in the traditional analysis ignore the amortizations built into the target's portfolio. Given the wide variances between different target banks, this portfolio runoff is critical when evaluating what is truly being purchased in an M&A transaction. (Question to ask your investment banker: Is this data being captured?)

10% **Net Growth**
(Ignores Portfolio Amortization)



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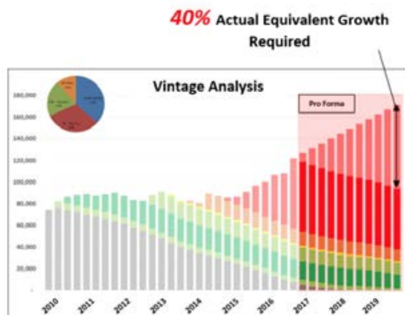
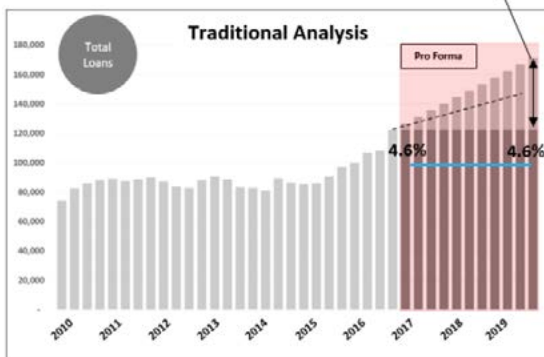


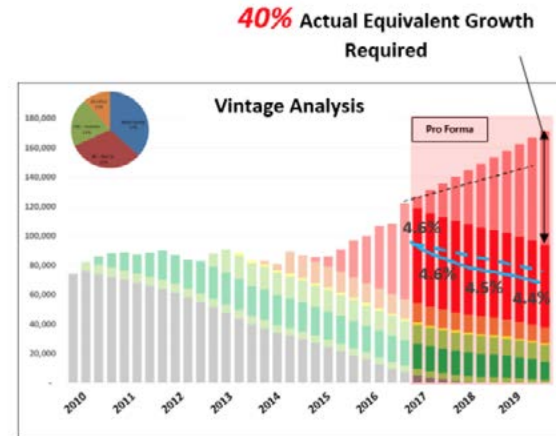
Look closely at the next vintage analysis chart. It highlights and quantifies the reality built into every single bank's portfolio. Loans have been color-coded in 20 percentile bands that reflect their gross yield based on prevailing interest rates at point of origination. An examination of the vintage analysis chart during the pro forma period shows that higher-rate loans originated during the 2009-2013 periods are running off rapidly. These higher, gross yielding loans continue to be replaced with "red" loans done at prevailing/expected low rates. The refinanced loans coupled with organic growth at these low rates continue to further drive down gross yields.

The bottom line: A very different pattern in pro forma gross yields emerges when comparing the traditional analytics and those that use vintage.

Legacy analytics have no basis or logic for adjusting pro forma gross yields, so they tend to project a constant based on the target's current assets. This produces misleading results. The vintage analytics consider this critical factor, allowing the acquirer to truly evaluate the potential value of the assets under consideration.

Our advice: Know what you are buying.





These differences in simple pro forma projections barely scratch the surface of the value in using vintage M&A analytics over the legacy analytics that have permeated the market. Subsequent articles will examine in more detail how vintage analytics, using only public data, can allow acquirers a far greater and more accurate assessment of their targets. They can also help quantify their value proposition, solving or mitigating the acquirer's limitations and constraints. ■

The rest of the M&A Analytical Primer series will address:

- ✓ Quantifying the contribution to book value multiple of the target's loan portfolio.
- ✓ Quantifying the contribution to book value multiple of the target's deposit base and composition.
- ✓ Quantifying the contribution to book value multiple of the target's commercial real estate concentrations.
- ✓ Quantifying the contribution to book value multiple of the target's existing capitalization structure and level.

Want to Know More? Join Our M&A Webinar

*Bank Insights is hosting a free webinar that will explain how and why M&A is the ultimate community bank weapon to solve organic growth issues. The hour-long webinar, **"The Evolving Role of M&A as the Ultimate Community Bank Weapon"**, begins at 11 a.m. EST on Oct. 20.*

Invictus Chairman Kamal Mustafa, the former head of global M&A at Citibank, will explain what role M&A can play in helping banks -- and why issues such as earnings compression and concentration risk are just the tip of the iceberg facing the community bank market.

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Read Between the Lines

Each month *Bank Insights* reviews news from regulators and others to give perspective on regulatory challenges.

Study: Compliance Spending Doesn't Lead to Better Ratings

A new **study** has found that small banks have a greater compliance burden than larger banks – but the extra expenditure isn't leading to higher ratings from regulators. The study, conducted by three members of the Federal Reserve Bank of St. Louis' bank supervision division, found that total compliance expenses for banks with assets of less than $100 million averaged 8.7 percent of non-interest expenses, while banks with assets of $1 billion to $10 billion spent 2.9 percent of non-interest expenses on compliance. The study was based on the results of a survey of 469 banks. It asked how much they spend for data processing, accounting and auditing, consulting, legal and personnel expense. "Total compliance expense ratios are lower for highly rated banks than for other banks in the less than $100 million asset size group and roughly the same across other size groups," the paper noted.

OCC Outlines 2017 Supervisory Plan

Expect OCC examiners to continue their focus on credit underwriting practices, particularly in portfolios with concentrations, according to the Comptroller's Fiscal 2017 Bank Supervision **Operating Plan**. Regulators will evaluate whether banks are easing standards, "in structure and terms, increased risk layering, and potential fair lending implications. Reviews will focus on new products, areas of highest growth, or portfolios that represent concentrations, such as commercial and industrial, commercial real estate, and auto loans." Other supervisory priorities include stress testing practices, strategic risk, including strategies focused on M&A, operational risks, interest rate risk, ALLL documentation and support, and cybersecurity. "Examiners will continue to use the Cybersecurity Assessment Tool at banks not examined in FY 2016 and follow up on any gaps," the OCC reported.

Why are the Small Community Banks Disappearing?

The number of banks with less than $100 million in assets has declined by more than two-thirds since 1995, Federal Reserve Governor Jerome Powell **told** the "Community Banking in the 21st Century" fourth annual Community Banking Research and Policy Conference. Reasons for the decline include organic growth, mergers or acquisitions, failures after the financial crisis, and the lack of de novos in recent years. Powell pointed out that profits have declined since 2015 at banks with assets from $100 million to $300 million. "Time will tell whether this is an anomaly or the beginning of a pattern," he said. He said "the key question for policymakers" is whether the acceleration in the rate of decline for small banks is a structural change—or if efforts by the FDIC to encourage more de novos, combined with higher interest rates, will reverse it.

Get Ready for the Next Crisis Before it Hits

Bankers – and regulators – need to "prepare for the next storm clouds," warns the Federal Reserve Bank of Philadelphia's Bill Spaniel in ***Community Banking Connections***. Rising pressure on bank balance sheets, increased operational risk, and volatile capital market trends are troubling signs. Low interest rates, competition and increased compliance costs have led banks to consider mergers and acquisitions, and some are questioning the viability of the community bank business model. "Preparation is the key to being ready for the next negative turn in the credit cycle," he wrote. "The steps we take now will determine how well we weather the conditions ahead.... It's important to pay attention to the fundamentals, such as capital planning, strong underwriting standards, and appropriate provisioning, especially as the banking industry looks to continue rebuilding capital and earnings."

Even Unbanked Want Online Banking

Underbanked households have smart phones and are more likely to use them for banking than fully banked households, FDIC Chairman Martin J. Gruenberg told the FDIC's 16th Annual Bank Research **Conference**. More than 60 percent of bank customers are using online banking, while about 32 percent are using mobile banking, he said. "Although we know that mobile services are being rapidly adopted by a wide variety of consumers and institutions, it is not clear if the technology's full potential is being leveraged to expand inclusion in the banking system," he said. ▪

About Invictus

*Invictus Consulting Group's bank analytics, strategic consulting, M&A and capital adequacy planning services are used by banks, regulators, investors and D&O insurers. For past issues of Bank Insights, please go to the **Invictus website**.*

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