Experiential Learning with Student Created Cases: Using Financial Autopsies

Fred H. Hays, University of Missouri-Kansas City
Sidne Gail Ward, University of Missouri-Kansas City

ABSTRACT

This paper discusses an approach to experiential learning that requires students to create their own cases for a bank management class. Using a procedure for conducting a financial autopsy, students are guided through the process of determining the "cause of death" for a recently failed commercial bank during the period following the Financial Crisis of 2008. Students use freely available data from the Federal Deposit Insurance Corporation (FDIC) and the Federal Financial Institutions Examination Council (FFIEC). Students develop analytical, critical thinking and presentation skills. This project is especially appealing to Millennial learners who are generally team-oriented, achieving and confident among other characteristics.

Introduction

Financial education at the university level has always been challenging. Rapidly changing technology, the sheer rate of accumulation of new knowledge and a population of predominately "Millennial Learners" has increased the challenges in recent years. When the effects of a lingering financial crisis are added to the mix, the task is daunting.

This paper presents a stimulating experiential learning exercise that challenges students by requiring them to create their own case as a team, examining a recently failed commercial bank, conducting a financial autopsy to determine the cause(s) of failure and presenting their results at the financial equivalent of a coroner's inquest. The project exposes students to "real world" data, technology, tools of financial analysis and the application of critical thinking skills while honing their presentation and communication skills. It is both fun and educationally rewarding.

Background

The lingering effects of the Financial Crisis of 2008 are still being felt with sluggish economic growth, high unemployment, expanding budget deficits and a declining dollar. While the origins of the crisis are the subject of continuing debate, it is clear that the banking industry has suffered through numerous bank failures. ((Kolb, 2010); (Acharya & Richardson, 2009); (Acharya V. , 2011))

According to the Federal Deposit Insurance Corporation (FDIC) there were no bank failures in 2005 or 2006, only 3 in 2007, 25 in 2008, 140 in 2009 and 157 in 2010. (Federal Deposit Insurance Corp., 2011) Through September 2, 2011 there have been 70 failures for this year. Included in this total is the First National Bank of Olathe, Kansas which recently failed on August 12, 2011. (FDIC, 2011) This bank is used as an illustration of the principles of financial autopsy in this paper.

Students are often curious about why banks fail especially when banks have engaged in securitization of loans that they have originated and have presumably transferred risk from the bank's balance sheet to investors. While it is true that much of the credit and interest rate risk was shifted off the balance sheet, many banks engaged in making commercial real estate loans that were not easily transferable. This is especially true for construction and land development loans. (Hays & Ward, 2010)

The Challenges of Millennial Learners

The Millennial Generation (variously known as Gen Y, the Boomerang Generation and the Peter Pan Generation among others) includes approximately 76 million individuals born from 1981 to 2001. (Black, Winter 2010) Howe and Strauss who originated this label in *Generations* in 1990 are the leading authorities on inter-generational differences. (Howe). For a detailed discussion of the history and content of Strauss-Howe generational theory see Wikipedia (a favorite source of Millennials everywhere). (Strauss-Howe generational theory)

Some members of the Millennial Generation were born to parents from Gen X (generally born in the 1960's and 1970's). Other Millennials, sometimes referred to as "Echo Boomers", are largely the children of Baby Boomers. *Time* magazine in a 1982 cover story described this as "a floodtide of thirty something Boomers choosing at long last to become moms and dads". (Denny, 2004)

The distinguishing traits of Millennials as described by Howe and Strauss in *Millennials Rising: The Next Great Generation* are: special; sheltered; confident; team-oriented; achieving; pressured and conventional. (Denny, 2004) (Howe & Strauss, Millennials Rising: The Next Great Generation, 2000). This generation is
technologically oriented. The IBM personal computer was first introduced in August, 1981 making the Millennials the first generation raised entirely in the PC era. They were nurtured and raised on educational software and entertained by video games. They communicate in real time around the globe via cell phones and across social networking sites like Facebook and Twitter. They watch videos on YouTube and Netflix using their computers or mobile phones. They are instantly connected to the latest information of all varieties via the Internet. Pew Foundation reports in 2009 and 2010 provide additional insights (Pew Foundation, 2009) (Pew Foundation, 2010)regarding Millennials:

> They are the first generation in human history who regard behaviors like tweeting and texting, along with websites like Facebook, YouTube, Google and Wikipedia, not as astonishing innovations of the digital era, but as everyday parts of their social lives and their search for understanding.

The term “digital natives” is increasingly used to describe the technologically savvy Millennials. Coombes raises the concern that rather than being “digital natives”, the Millennials have become instead “digital refugees”, using search engines like Google almost exclusively and rarely going past the initial results. (Coombes, 2009)

Providing relevant educational learning opportunities is challenging for Baby Boomer professors who must transcend generations. (Black, Winter 2010) A recent study concluded “Effective educators realize the need to adapt assignments, delivery, and methods to the expectations, preferences, needs and characteristics of each new generation that enters the classrooms”. (Bracy, Bevill, & Roach, 2010) Fortunately, such opportunities abound, many of them created by the financial crisis. This paper focuses on the possibility of harnessing the energy, enthusiasm and technological prowess of the Millennials to provide their own self-created learning applications. In the remainder of the paper we describe an exercise in which groups of undergraduate Finance students in a commercial bank management class are assigned the task of performing a financial autopsy on a recently failed bank. The assignment requires that they obtain and analyze financial performance data from the Federal Deposit Insurance Corporation (FDIC) and the Federal Financial Institutions Examination Council (FFIEC). They must determine the cause(s) of death and report and defend their findings in an oral presentation at a coroner’s inquest.

Bank Autopsy Project

The Bank Autopsy Project was developed and used in FIN 428 Commercial Bank Management, an undergraduate course with about 30 students per semester. It has also been used successfully in the equivalent graduate course, Management of Financial Intermediaries.

The project has the following learning objectives:
---acquaint students with bank financial statements and performance metrics
---utilize FDIC and FFIEC data to critically evaluate bank performance
---understand the interrelationships between performance variables
---develop critical thinking and presentation skills

This project is used early in the course in a section titles "Understanding Bank Performance" which immediately follows an introductory overview of the environment of commercial bank management. In this section students are exposed to bank balance sheets and income statements with a discussion of the key differences between corporate and financial institution financial statements.

Six teams of approximately five persons per team are selected by the students. Each team must then select a US commercial bank that has failed since January 1, 2008. A current list can be found on the FDIC website at: http://www.fdic.gov/bank/individual/failed/banklist.html

The instructor can set selection parameters on size of bank, location and other variables and can assure that teams avoid selecting the same bank. Each team is guided in performing a financial autopsy by reading "What Killed This Bank? Financial Autopsy as an Experiential Learning Tool" (Hays & De Lurgio, *Journal of Instructional Pedagogies*) which outlines a five step process: 1) gathering the essential data 2) a preliminary screening analysis 3) the "drill-down" 4) reconciling the findings and 5) the "cause of death".

An Illustration: The First National Bank of Olathe, Kansas

As an application of the bank autopsy study assume that the student team selects the First National Bank of Olathe, Kansas which failed on Friday, August 12, 2011. (FDIC, http://www.fdic.gov/bank/individual/failed/fnbo.html) The bank was closed by the Office of the Comptroller of the Currency with the FDIC appointed as receiver. The bank reopened the following Monday under the ownership of Enterprise Bank & Trust Company of Clayton, Missouri.

The bank as recently as the end of 2008 held average assets in excess of $1 billion. As of the most recent Call Report of June 30, 2011, bank assets had fallen to just over $500 million. The bank is located in Olathe, an area of Johnson County, Kansas, an affluent suburb within the Kansas City Metropolitan Statistical Area (MSA). Johnson County, Kansas was the 19th highest income county in the US based on the 2000 Census.
http://en.wikipedia.org/wiki/Highest-income_counties_in_the_United_States

First National Bank of Olathe was originally formed in 1887 as the first nationally chartered bank in Johnson County, Kansas. (https://www.fnbolathe.com/default.aspx?v=a787176e-98d1-4d65-8065-4a5a3f4d34e4). It had a reputation as an innovative community bank with stable leadership as evidenced by having only eleven CEOs in 120 years.

Step 1: Gathering the essential data

Students begin by learning to use the Statistical Data Interchange feature of the FDIC website (http://www2.fdic.gov/sdi/). This site provides students with current and historical financial performance data for every bank and bank holding company in the US back to the early 1990's. It also provides the ability to select peer data in either standardized or customized format. The Internet-based data is virtually error-free (there are substantial fines for reporting inaccurate data), in a common reporting format for all banks, timely (available just over two months after the end of the reporting period) and best of all—free. There is an on-line tutorial to assist in accessing the data.

The SDI system provides a simple data retrieval system utilizing convenient drop-down menus. Banks can be found using individual institution names or by specifying location (state, city, county, etc.) Once the initial bank data is found, the system reports an FDIC certificate number which can be used to easily retrieve that bank's data for alternate time periods. Users are permitted to view four columns of data at a time. This permits comparisons between time periods (again using drop-down menus to select the time periods) or comparisons between the bank and its peers. Peer data is available for several different size categories and charter types. Data is available in both total dollar amounts by asset, liability and capital categories as well as in pre-calculated ratio format. In the drop-down menu there is a category for Performance and Condition Ratios that is quite handy for doing preliminary screening. (See Table 1 for a sample report for First National Bank of Olathe with comparative ratio data for the bank and a standard peer group for 2011.3 and 2008.4) Using this simple one page summary with approximately 25 financial ratios students can quickly begin to see the changes in a bank's performance over time and comparisons with peer institutions.

Step 2: Preliminary Screening Analysis

Table 2 "Financial Autopsy: Preliminary Screening Analysis" contains a summary of the performance of First National Bank of Olathe for four time periods: 1) 2007.4 (before the financial crisis hits), 2) 2008.4 (the depth of the crisis), 3) 2009.4 (the crisis wanes), and 4) 2011.2 (the last report prior to the bank failure).

As part of the classroom discussion about bank financial performance students are introduced to the CAMEL rating system using by state and national financial institution regulators and bank analysts. The system has gained almost universal acceptance as a method for assessing the key dimensions of bank performance. Regulators evaluate each bank on a scale of 1-5 with 1 being outstanding performance and 5 being in danger of imminent failure. Banks rated

4 or 5 are categorized as "problem banks". As of June 30, 2011 there are 865 such banks, down from 888 in the previous quarter. See Table ? for data on problem banks since year-end 2003. (FDIC…) Banks are not legally permitted to disclose their CAMEL ratings to the public nor are banking regulators allowed to reveal them for fear of creating a panic.

CAMEL is an acronym for **C**apital adequacy, **A**sset quality, **M**anagement, **E**arnings, **L**iquidity. Proxy measures are included for each in Table 1. Students examining the data for the first time should immediately recognize several serious problems:
---**bank capital has seriously eroded over time and in comparison with peers;** by 2011.2 capital was almost non-existent with both capital measures at less than 2%.
---**non-current loans to loans rose to almost 27% in 2011.2; charge-offs exceeded 5%;** At year-end 2007 the bank's non-current loans were less than 1%, lower than the peer average. Charge-offs in 2007 were 0.22%, again lower than their peers.
---**the efficiency ratio soared to 208% from about 54%**. This is a proxy for management's control of overhead expenses. Lower numbers are preferable.
---**return on assets and return on equity plummeted as losses mounted.** ROA fell from around the industry average of 1% in 2007 to -3.87% at 2011.2; ROE went from 14.32% (above the peer average of 10.9% in 2007) to -186.78% in 2011.2.
---**liquidity (as approximated by the loan to deposit ratio) was on a roller coaster ride**. It rose from 58.34% in 2007 to a peak of 90.48% in 2009 back to 52.36% in 2011.2. The higher the loan to deposit ratio, the higher is loan demand and the less available liquidity.

Step 3: The "Drill-down"

Obviously from the initial inspection this bank performed well through the end of 2007. Spring 2008 is normally associated with the beginning of the Financial Crisis of 2008 with the first clear indicator being problems with Bear Stearns. As the year progressed further problems arose in the form of the conservatorship of Fannie Mae and Freddie Mac, the collapse of Lehman Brothers, the rescue of AIG, the freezing of credit markets, Congressional action in the form of the Troubled Asset Relief Program (TARP), capital infusions into the largest banks, conversion of investment banks such as Goldman Sachs into regulated bank holding companies, and the problems in the auto industry. The Federal Reserve was active with numerous programs to provide liquidity to the financial system through "quantitative easing" measures.

Against this backdrop, the First National Bank of Olathe saw its performance erode. Asset quality problems emerged, efficiency dropped, liquidity shrank and earnings were cut in half by year-end 2008. But what was happening? The answer lies in closer inspection of the numbers. To examine the numbers in greater detail, students are introduced to the Uniform Bank Performance Reports (UBPR) available on the website of the Federal Financial Institutions Examination Council (FFIEC) (http://www.ffiec.gov/ubpr.htm) The UBPR provides detailed data across categories. Although the basic information is compiled from the same reports of condition and income as the FDIC website, there is more detail in the UBPR reports especially in lending categories and in areas such as liquidity and interest rate risk. (See Tables 3 A and 3 B for "drill down" detailed data).

Clearly there is a developing asset quality problem in this bank. Students quickly find the source---construction and land development loans that are past due or on a non-accrural basis have climbed from less than 1% in 2007 to almost 45% in 2011.2. Similarly “other construction and land development loans” have an even higher past due experience. These are loans made to commercial real estate developers for the purchase of land and the initial construction. In the past these loans have permitted rapid growth in cities such as Olathe. They represented a source of solid profits because revenues from the projects allowed timely repayment of the loans. During a sharp economic downturn however, demand for these commercial properties evaporated.

To make matters worse, commercial and land development loans because of their heterogeneous properties are not good candidates for securitization. They therefore remain on the bank balance sheet and become a source of potential credit and interest rate risk. This problem is not unique to the First National Bank of Olathe. Indeed, as shown in Exhibit 3, the delinquencies of commercial and land development loans has become a national problem and lies at the heart of the rapid rise in bank failures. For a further discussion of commercial and land development lending problems see (Hays & Ward, "Fantasyland Revisited?: Bank Construction and Land Development Lending in the Financial Crisis", 2010).

Step 4: Reconciling the findings

So, what is the story to be told about the demise of the First National Bank of Olathe? Here we have a bank founded 124 years ago, with stable management, a history of earnings growth, an anchor institution in a growing and affluent suburb of a major metropolitan area. And now it is gone. But why?

It appears the bank made decisions based on faulty assumptions. Management and directors assumed, as did so many, that real estate was a safe bet and that real estate prices only went in one direction. They forgot the Banking and S&L Crisis of the late 1980’s and early 1990’s. They forgot the repeated warnings from banking regulators about avoiding undue concentrations of credit, especially in areas such as commercial real estate.

The storyline is too many loans in one basket, a declining economy, global market exposure to securitized assets backstopped by unregulated over-the-counter derivatives, especially credit default swaps and questionable credit ratings that led to a global financial crisis. The consequence has been an economic downdraft characterized by stagnant growth and persistent unemployment of lengthy duration.

The bank became involved in a downward death spiral. Deteriorating credit quality forced increases in the Provision for Loan and Lease Losses which depleted earnings and the replenishment of capital. Declining loan demand reduced loan volume while decreasing interest rates reduced yield on loans. Decreases in overhead expenses did not keep pace with declining volume so the efficiency ratio rose. Even with declining cost of funds, the loss in volume led to shrinking profits. Dividends were eliminated to preserve capital. The decline in performance led to regulatory enforcement actions and increased restrictions by the regulators on permissible

bank activities. Depositors reacted by withdrawing funds. Eventually the size of the bank was cut in half.

Step 5: Cause of Death

The apparent cause of death for the First National Bank of Olathe was massive losses associated with non-performing construction and land development loans. Could this failure have been avoided? Possibly if management and the board had followed prudent lending practices by limiting exposure to specific types of loans.

Benefits of the Bank Autopsy Project for Millennial Students

The bank autopsy project was designed to challenge Millennial students. Available bank management cases tend to be out-dated in a rapidly changing world. Students become passive learners, reacting to cases that others have created. When available, many cases are focused on single topics like making a loan to an individual company. Some cases contain volumes of data, some of which is largely irrelevant. By contrast, student created autopsy projects are current with active participation of students in the learning process. These students are engaged throughout the process and take ownership of their analysis and conclusions. As a result there are a number of advantages for Millennial learners. In short, the student created bank autopsy project:

---is an effective method for analyzing bank performance

Although no systematic analysis has been done to assess learning outcomes from this project, students have general indicated that the project is effective in learning techniques for analyzing bank performance. They realize that although the focus is on failed banks, it is applicable for analyzing banks in general. Since they know where to find bank financial data and how to analyze it, they are equipped to examine banks today or ten years from now.

---appeals to the technological orientation of Millennial students

Since the FDIC and FFIEC data are available on the regulatory websites, students can pull it up from virtually anywhere there is Internet access on a variety of devices including cell phones, tablets, netbooks, laptops, desktops and other devices and at any time of the day or night. It becomes essentially virtual knowledge. Data can be imported into Excel or other software for further analysis. Macro data in the form of predefined graphs are available quarterly from the Graph Book at the FDIC website.

---promotes teamwork

As noted earlier Howe and Strauss found Millennials to be team-oriented. The bank autopsy project permits students to engage in interactive problem solving. They can discuss,

debate and interpret data as they reach conclusions related to the demise of their project bank. They can challenge opposing views and develop their skills at compromise.

---builds confidence

The project not only requires skillful analysis of large quantities of financial data but also requires critical thinking and a well-designed presentation. At the end of the presentation students engage in an extensive question and answer period with tough questioning from the course instructor and class participants. This is a learning opportunity in which a thoughtful dialogue clarifies, extends and applies key concepts.

Some additional pedagogical observations

Financial autopsy projects provide rich experiential learning opportunities to challenge Millennial learners. There are many directions that individual instructors might wish to take the classroom discussion. One possibility could be a "Back to the Future" exercise in which the students go through the autopsy process doing the required analysis then enter the magical time machine that allows them to travel back in time to when the bank was prosperous. With the benefit of hindsight, what would they do differently? What limits on concentrations would they set? What regulatory guidance would they heed? What risks would they accept? This can and has provided meaningful dialogue, critical thought and valuable managerial insights.

This is especially fruitful when the project is used in a graduate Finance course where MBA/MSF students, often with banking industry or bank regulatory experience have the opportunity to engage in discussion. This might also be a possible exercise for EMBA or other executive level classroom discussions.

Some instructors may wish to require that students provide more background information about the board of directors and senior management of the bank selected for analysis. This may also include discussion of the relevant bank market, competition, demographics (including the Census and the FFIEC Geocoding websites) along with relevant economic data. Students sometimes search local media archives for articles related to the bank, especially those related to regulatory enforcement actions against the bank.

The FDIC, in an effort to reduce resolution costs associated with bank failures and to avoid being the bank liquidation business (a lesson learned from the 1980's Banking and S&L Crisis), often enters loss share arrangements with acquiring banks. It is potentially interesting to follow the post-acquisition performance of banks that have acquired failed institutions to determine whether the result long-term has been positive or negative.

Finally, in the bank management courses in which the autopsy project is used, it is a prelude to students participating in an on-line computer simulation called ProBanker, developed by Bank of America Professor Mark Flannery at the University of Florida and his associate, Mark Flood. (Flannery & Flood) While the autopsy project uses discrete static data at various points in time, Pro Banker provides a fast-paced interactive challenge where students

simultaneously make a wide variety of bank management decisions. The two learning opportunities are complementary. Both provide challenges, even for those in the Millennial Generation.

Exhibit 1

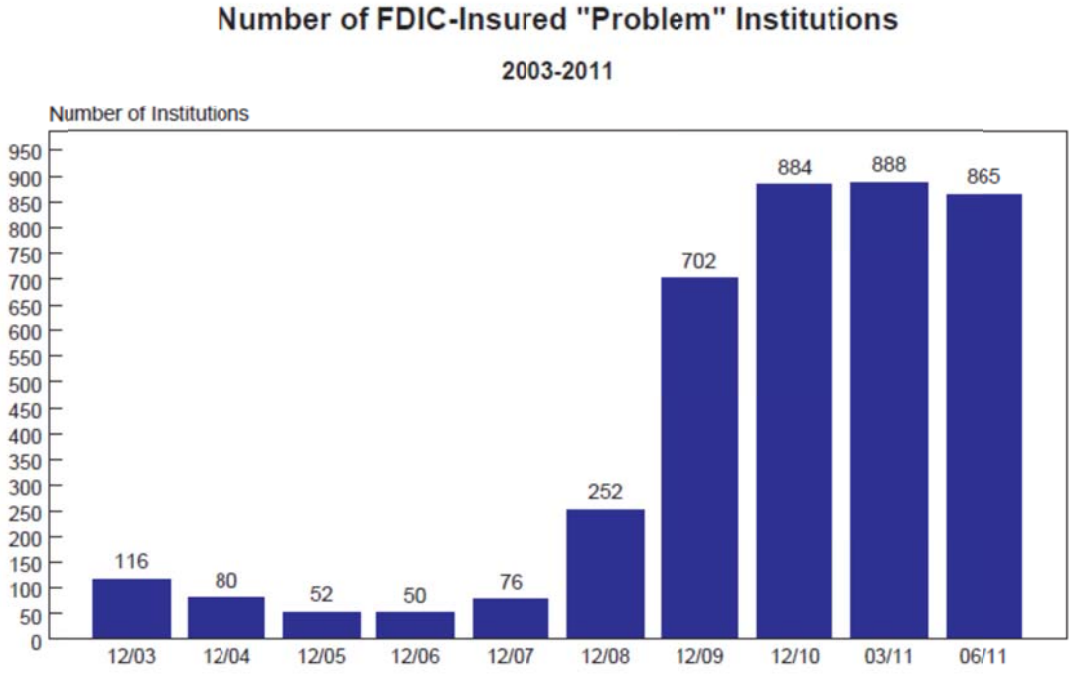

Number of FDIC-Insured "Problem" Institutions
2003-2011
Number of Institutions
950
900
850
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
116
80
52
50
76
252
702
884
888
865
12/03
12/04
12/05
12/06
12/07
12/08
12/09
12/10
03/11
06/11

Exhibit 2

FIN 428
Commercial Bank Management
Bank Autopsy Project
The following is a group assignment:

1. **Your team must to conduct a bank autopsy to determine the cause of failure for a U.S. commercial bank. Select an individual bank from the FDIC Failed Bank List at: (http://www.fdic.gov/bank/individual/failed/banklist.html)**
2. **Consult the Hays & De Lurgio paper "What Killed This Bank?: Financial Autopsy as an Experiential Learning Tool" in the *Journal of Instructional Pedagogies* (http://www.aabri.com/manuscripts/09358.pdf) There is a description of a model process to follow in doing your analysis.**
3. **It will be simpler if you focus on individual banks while avoiding bank holding companies. We will discuss the complexities of bank holding company analysis separately. Also, using the FDIC website (http://www4.fdic.gov/SDI/index.asp), select a standardized peer group for comparison that is similar in size. Data should be collected for the most recent period prior to failure. In addition, you will need data for earlier periods far enough back to identify the incipient problems.**
4. **Using the same FDIC website, download the Report of Condition (balance sheet) and Income (income statement) data from the Institution Directory (use the Advanced Features Statistical Data Interchange [SDI] component); you can obtain Uniform Bank Performance Report [UBPR] data from the FFIEC web site) (www.ffiec.org. You should download and/or calculate key performance ratios, analyze the balance sheet and income statement and evaluate appropriate supplementary schedules again following the Hays & De Lurgio procedure. There is a step by step explanation of the process. You will need to "drill down" into the data to find answers.**
5. **The key focus is the "Cause of Death"…what went wrong, when and why? What might management and the board have done differently to prevent failure? You will be asked some tough questions so be prepared to respond with thorough and defensible answers.**

In your PowerPoint presentation strive to present the most important information in a clear, understandable manner. Avoid exceedingly complex charts and graphs. Make sure all slides are readable. Provide me with a handout in class. (2 slides per page) Send a copy of your presentation to me at least 24 hours in advance to haysf@umkc.edu. I can post this to BlackBoard.

Practice the presentation. Relax and be conversational yet professional.
Strive to impress your audience with the quality of your presentation.

You have a maximum of 45 minutes for the presentation including Q&A. Plan on about 25 minutes of prepared remarks and 20 minutes for Q&A. Practice the presentation. Going over the allotted time will be penalized.

Table 1

Sample Performance and Condition Ratios—First National Bank of Olathe, Kansas
Statistical Data Interchange (SDI) FDIC Website

Number of institutions reporting	1	533	1	554	
Performance and Condition Ratios		***(Year-to-date)***	***(Year-to-date)***	***(Year-to-date)***	***(Year-to-date)***
2	% of unprofitable institutions	N/A	15.01%	N/A	19.49%
3	% of institutions with earnings gains	N/A	61.73%	N/A	27.62%
Performance Ratios (%, annualized)		***(Year-to-date)***	***(Year-to-date)***	***(Year-to-date)***	***(Year-to-date)***
4	Yield on earning assets	3.86%	4.93%	6.52%	6.42%
5	Cost of funding earning assets	2.24%	1.07%	3.01%	2.58%
6	Net interest margin	1.62%	3.86%	3.51%	3.85%
7	Noninterest income to earning assets	0.87%	1.04%	0.47%	1.32%
8	Noninterest expense to earning assets	5.17%	3.37%	2.42%	3.62%
9	Net operating income to assets	-3.89%	0.51%	0.43%	0.38%
10	Return on assets (ROA)	-3.87%	0.54%	0.47%	0.27%
11	Pretax return on assets	-3.87%	0.71%	0.64%	0.38%
12	Return on equity (ROE)	-186.28%	5.36%	6.46%	2.74%
13	Retained earnings to average equity (YTD only)	-186.28%	2.33%	5.73%	-2.88%
14	Net charge-offs to loans	5.09%	1.12%	0.40%	0.82%
15	Credit loss provision to net charge-offs	58.66%	99.30%	270.96%	149.18%
16	Earnings coverage of net loan charge-offs (x)	-0.70	1.91	4.56	2.39
17	Efficiency ratio	207.77%	68.30%	60.89%	66.61%
18	Assets per employee ($ millions)	5.03	4.21	6.46	4.01
19	Cash dividends to net income (YTD only)	0.00%	56.66%	11.32%	205.18%
Condition Ratios (%)					
20	Loss allowance to loans	7.29%	2.18%	1.81%	1.55%
21	Loss allowance to noncurrent loans	27.03%	53.70%	43.75%	60.13%
22	Noncurrent assets plus other real estate owned to assets	33.51%	3.80%	3.66%	2.32%
23	Noncurrent loans to loans	26.98%	4.05%	4.14%	2.58%
24	Net loans and leases to deposits	52.36%	76.98%	90.48%	89.43%
25	Net loans and leases to core deposits	57.51%	87.18%	104.99%	112.80%
26	Equity capital to assets	1.30%	10.18%	8.58%	9.51%
27	Core capital (leverage) ratio	1.34%	9.40%	8.63%	8.88%
28	Tier 1 risk-based capital ratio	1.84%	13.37%	9.82%	11.24%
29	Total risk-based capital ratio	3.14%	14.64%	11.07%	12.47%

Table 2

Financial Autopsy: Preliminary Screening Analysis

Category	Variable	2007.4	2008.4	2009.4	2011.2
Capital	Equity capital to total assets FNBO	6.99	8.58	4.03	1.30
	Equity capital to total assets Peers	9.92	9.51	9.41	10.18
	Tier 1 Risk based capital ratio FNBO	7.45	9.82	4.94	1.84
	Tier 1 Risk based capital ratio Peers	11.41	11.24	11.72	13.37
Asset quality	Non-current loans to loans FNBO	0.93	4.14	19.80	26.98
	Non-current loans to loans Peers	1.29	2.32	4.10	4.05
	Net charge-off ratio FNBO	0.22	0.40	5.15	5.09
	Net charge-off ratio Peers	0.28	0.82	1.58	1.12
Management	Efficiency ratio FNBO	53.82	60.89	104.89	207.77
	Efficiency ratio Peers	61.84	66.61	70.41	68.30
Earnings	Return on assets FNBO	1.05	0.47	-5.60	-3.87
	Return on assets Peers	1.08	0.27	-0.27	0.54
	Return on equity FNBO	14.32	6.46	-79.84	-186.78
	Return on equity Peers	10.9	2.74	-2.80	5.36
Liquidity	Loan to deposit ratio FNBO	58.34	81.04	90.48	52.36
	Loan to deposit ratio Peers	90.23	89.43	83.02	76.98

Table 3 A
Drill Down: Asset Quality

Financial Metric	2007.4	2008.4	2009.4	2011.2
Construction and Land Development Loans past due and non-accrural as % of past due and non-accrural	Bank 0.98 Peer 1.73	Bank 6.28 Peer 6.76	Bank 31.65 Peer 8.58	Bank 44.92 Peer 8.94
Other Construction and Land Development Loans past due and non-accrural as % of past due and non-accrural	Bank 1.01 Peer 1.30	Bank 4.55 Peer 6.25	Bank 31.96 Peer 8.35	Bank 47.88 Peer 9.04
Other real estate owned	Bank 0.38 Peer 0.10	Bank 0.53 Peer 0.23	Bank 1.77 Peer 0.52	Bank 15.88 Peer 0.87
Provision for Loan and Lease Loss	$4,372	$8,760	$65,220	$5,000

Source: Uniform Bank Performance Report (FFIEC)

Table 3 B
Drill Down: Other Financial Data

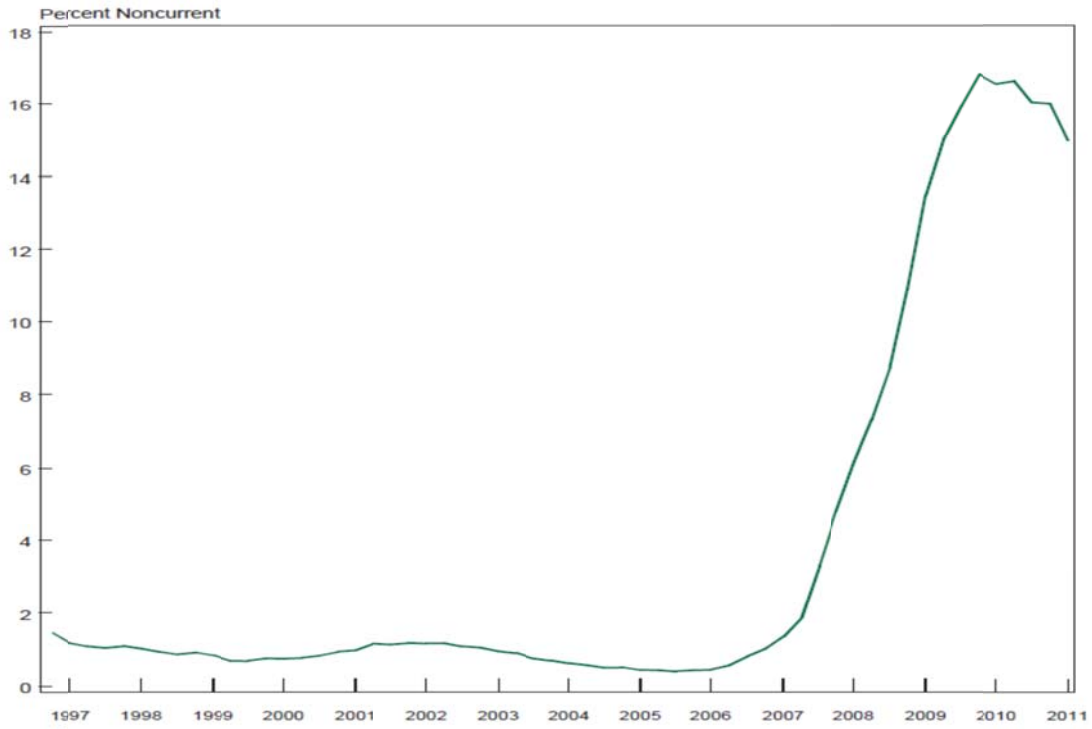
Financial Metric	2007.4	2008.4	2009.4	2011.2
Interest and Fees on Loans (000)	$57,998	$53,934	$41,599	$7,455
Income from Mortgage Backed Securities (000)	$5,387	$5,783	$2,118	$511
Total Investment Interest Income (TE) (000)	$8,545	$8,311	$3,445	$979
Non-interest Income (000)	$4,436	$4,441	$6,003	$1,924

Source: Uniform Bank Performance Report (FFIEC)

Exhibit 3

Noncurrent Rate on Real Estate Construction and Development Loans

1997-2011



Source: FDIC Graph Book, 2011

References

Pew Foundation. (2009). Retrieved from http:/pewresearch.org/pubs/1437/millennials-profile

Pew Foundation. (2010). Retrieved from http://pewsocialtrends.org/files/2010/10/millennials-confident-connected-open-to-change.pdf

(2011, September 11). Retrieved September 11, 2011, from Federal Deposit Insurance Corp.: http://www2.fdic.gov/qbp/2011jun/grbook/QBPGR.pdf

FDIC. (2011, August 12). Retrieved September 11, 2011, from FDIC: http://www.fdic.gov/bank/individual/failed/fnbo.html

Acharya, V. (2011). *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance.* Hoboken, N.J.: John Wiley & Sons.

Acharya, V. V., & Richardson, M. (2009). *Restoring Financial Stability: How to Repair a Failed System.* Hoboken, N.J.: John Wiley & Sons.

Black, A. (Winter 2010). Gen Y: Who They Are and How They Learn. *Educational Horizons*, 92-101.

Bracy, C., Bevill, S., & Roach, T. (2010). "The Millennial Generation: Recommendations for Overcoming Teaching Challenges". *Proceedings of the Academy of Educational Leadership* (pp. 21-25). Las Vegas: Allied Academies International.

Coombes, B. (2009). Generation Y: Are they really digital natives or more like digital refugees?". *Synergy*, 31-40.

Denny, J. (2004, October). *Book Review: "Millennials Rising: The Next Great Generation" by Howe and Strauss.* Retrieved from http://club.form.ru/books/Millennials_Rising_bkreview.pdf

Flannery, M., & Flood, M. (n.d.). *ProBanker*. Retrieved from http://www.probanker.com

Hays, F., & De Lurgio, S. (n.d.). *Journal of Instructional Pedagogies.* Retrieved from Academic and Business Research Institute: http://www.aabri.com/manuscripts/09358.pdf

Hays, F., & Ward, S. G. (2010, September). *"Fantasyland Revisited?: Bank Construction and Land Development Lending in the Financial Crisis".* Retrieved from Academic and Business Research Institute: http://www.aabri.com/manuscripts/10699.pdf

Howe, N. (n.d.). *Life Course*. Retrieved September 2011, from http://www.lifecourse.com/insight/timelines/generations.html

Howe, N., & Strauss, W. (2000). *Millennials Rising: The Next Great Generation.* New York: Vintage (Random House).

Kolb, R. W. (2010). *Lessons from the Financial Crisis.* Hoboken, N.J.: John Wiley & Sons.

Strauss-Howe generational theory. (n.d.). Retrieved September 2011, from Wikipedia: http://en.wikipedia.org/wiki/Strauss-Howe_generational_theory