Using Disaggregated Return on Assets to Conduct a Financial Analysis of a Commercial Bank Using an Extension of the DuPont System of Financial Analysis

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Abstract

In this paper, we use an expanded version of the DuPont system of financial analysis to perform a financial analysis of a bank using disaggregated data to computer return on assets. The DuPont system of financial analysis is based on return on equity which is based on net profit margin, total asset turnover, and the equity multiplier. We further disaggregate net profit margin into three components: return on loans, return on securities, and return on other assets using supplementary data provided in the SEC filings of Monarch Bank. The analysis covers the period from 2003 to 2010. Our analysis demonstrates that return on assets for Monarch Bank derives primarily from return on loans. That is, 86% of the investment weighted return on assets for Monarch Bank derives from return on loans.

Keywords: Bank management, Financial analysis, DuPont system of financial analysis

1. Introduction

The goal of corporate managers is to maximize the value of the firm. This goal is true for financial institutions such as banks. The value of the firm is determined by the investment and financing decisions made by the managers of the firm. Investment decisions determine the assets bought by the firm and financing decisions determine the extent to which assets are financed with debt. The investment and financing decisions made by managers determine the expected value of future cash flows of the firm and the riskiness of those expected future cash flows. The probability distribution of expected future cash flows can be used to estimate the value of the firm. The market value is the expected future cash flow divided by the cost of capital for the firm. The analyst or manager can estimate the market value of the bank using the expanded DuPont model of financial analysis.

2. Monarch Bank

Monarch bank is the wholly-owned subsidiary of Monarch Financial Holdings, Inc. whose headquarters is located in Chesapeake, Virginia. The bank operates two subsidiaries, Monarch Investment, LLC and Monarch Capital, LLC and participates in other markets through joint ventures and the use of business partners. The bank incorporated in 1998 and opened its doors to business as a chartered member of the Federal Reserve Bank in the spring of 1999. The holding company was created mid-2006 as part of a reorganization plan for the financial institution. Currently, the bank operates nine banking offices, six residential mortgage offices, and a single investment services office in Chesapeake, Norfolk, and Virginia Beach, Virginia. The company's 2010 filings indicate that Monarch Bank employs 527 individuals, 514 of which are full-time. Real estate financing comprises Monarch's core business. The company currently serves the markets of southeastern Virginia and Northeastern North Carolina. As noted in company statements, although the institution has quickly expanded over the short period since its founding, the company aims "to do so profitably and without compromising (our) asset quality."

3. A Financial Analysis Model for Financial Institutions

As presented in Saunders (2000) and discussed in Collier, McGowan, and Sulong (2005) and Collier, Collier, McGowan, and Muhammad (2009), the DuPont system of financial analysis is one based on return on equity. According to the formula, the three elements of return on equity are net profit margin, total asset turnover, and the equity multiplier. Net profit margin alludes to a company's profitability in regards to their ability to control costs. A more profitable company with more control over costs would exhibit a profit margin higher than competitors. Total Asset Turnover is a measure of a company's efficiency in using assets to generate sales. The higher that this ratio the better. The equity multiplier is a measure of leverage. A higher equity multiplier ratio shows that an institution is relying more heavily on debt financing to obtain funds. As implied, these ratios can be useful tools in comparing a company to its competitors or overall industry. Return on equity, as computed from the other three ratios, is a measure of profitability, suggesting how much profit is being generated with investors' money. Through use of these ratios, we are able to construct *pro forma* financial statements.

Return on equity can be split into return on assets and the equity multiplier. Return on assets can be further disaggregated into net profit margin and total asset turnover:

ROE = (ROA)*(EM)

ROA= (NPM)*(TAT)

ROE = (NPM)*(TAT)*(EM)

Where,

ROE = Return on Equity

ROA = Return on Assets

EM = Equity Multiplier

NPM = Net Profit Margin

TAT = Total Asset Turnover

Net profit margin is calculated as net profit or loss divided by total revenue. Total asset turnover is calculated as total revenue divided by total assets. The equity multiplier is calculated as total assets divided by total stockholders' equity:

NPM = (NI) / (TR)

TAT = (TR) / (TA)

EM = (TA) / (TSE)

Where,

NPM = Net Profit Margin

NI = Net Income

TR = Total Revenue

TAT = Total Asset Turnover

TA = Total Assets

EM = Equity Multiplier

TSE = Total Stockholders' Equity

4. Further Disaggregation of DuPont as Applies to Financial Institutions

Banks differ significantly from other institutions to which the DuPont system of financial analysis is applied. Loans make up the vast majority of a bank's assets, and interest on these holdings comprise a large proportion of total income for the typical bank. Furthermore, owner's equity composes merely ten percent of the institutions liabilities. Consequently, the principal struggle in banking involves balancing the objectives of solvency and liquidity against that of profitability. To efficiently achieve these goals, a substantial amount of complex consideration goes into the management of a bank's portfolio, paying particular interest to risk management in regards to asset selection.

Monarch Bank's SEC filings are distinguished from some other financial institutions in that the bank explicitly lists the average annual balances of total loans, securities, and other assets, as well as the income derived from these asset categories. From this information, return from each category can be calculated in isolation. Assigning a weight to each category, we can then determine the individual weighted returns from loans, securities, and other assets. By doing so, we have essential demonstrated a model for the disaggregation of return on assets by asset type. The formula is illustrated as follows:

ROE = (ROA)*(EM)

ROE = $(R_L(W_L) + R_S(W_S) + R_O(W_O))$*(EM)

Where,

R_L = Return on Loans, calculated as income from loans divided by total loans.

R_S = Return on Securities, calculated as income from securities divided by total securities

R_O = Return on Other Assets, calculated as income from other assets divided by total other assets

W_L = Weight of Loans, calculated as total loans divided by total assets

W_S = Weight of Securities, calculated as total securities divided by total assets

W_O = Weight of Other Assets, calculated as total other assets divided by total assets

5. Financial Analysis of Monarch Bank - Balance Sheet Items

The financial statements are summarized in Table 1. Monarch has four major asset categories: cash and cash equivalents, investment securities, loans, and other assets. Cash and cash equivalents consist of federal funds sold, vault cash, and interest-bearing balances. Investment securities include both those securities held-to-maturity at cost and those securities available-for-sale at fair value. The loan account consist of an allowance of loans available for sale and loans issued, net of unearned income, net ofan allowance for loan losses. Other assets include property and equipment net of depreciation, restricted equity securities, and other assets not explicitly described. As stated in company filings, restricted equity securities are securities that do not have a readily determinable fair value and lack a market.Cash and cash equivalents have experienced considerable volatility over the period, increasing by nearly three-hundred percent between 2004 and 2005 from a low of \$5.2 million. Cash and cash equivalents would fall the years following 2006 until again experiencing rapid growth reaching an all time high of \$34.4 million in 2009. The average figure for the period in study is \$15.7 million. Over the period, investment securities have declined by an astounding amount. Valued at as much as \$50 million in 2006, securities holdings dropped as low as \$6.3 million in 2008 and have since rebounded to \$17.6 million. The average balance during the period is \$27.4 million. Loans have remained the most substantial asset category on the balance sheet and have increased every year during the seven year period with an average annual growth rate of roughly 28%. Lowest in 2003 at \$134.2 million, the value of loans has grown to approximately \$725.2 million in 2010. The average value of loans for the period is \$402.0 million. Other assets have also steadily grown in value during the period. The average annual growth rate exhibited in this category is approximately 40%. The average value of other assets during the period is \$25.4 million with a high of \$55.3 million in 2010 and a low of \$5.7 million in 2003.

The bank has three major liability accounts: customer deposits, borrowings, and other liabilities. Deposits include both interest-bearing and noninterest-bearing accounts. Borrowings include federal funds purchased, securities sold on repurchase agreements, federal home loan bank advances, and other short-term borrowings.Other liabilities are not explicitly described. Deposits have grown steadily throughout the period with an average annual growth rate of 26%. The average value of deposits is \$379.1 million with a low of \$143.1 million in 2003 and a high of \$705.6 million in 2010. Borrowings have exhibited volatility peaking first in 2007 and again in 2009, reaching a high of \$76.1 million in 2009 and being at the lowest value of \$20.6 million in 2003.Borrowings has since dropped from the seven year high to \$40.3 million in 2010. The average figure during the period is \$45.9 million. With the exception of the period from 2007 to 2008, other liabilities have also grown steadily during the 7 year period, sometimes doubling in one year. The average annual growth rate is 58%. Other liabilities were lowest in value in 2003 at \$552 thousand and highest in value at \$7.9 million in 2010. The average amount of other liabilities is \$2.9 million.

6. Financial Analysis of Monarch Bank - Income Statement Items

Monarch Bank receives income from two major channels: interest income and non-interest income. Interest income consists of interest on fees and loans, interest on investment securities, interest on federal funds sold, dividends on equity securities, and other interest income. Non-interest income includes income from mortgage banking, service charges and fees, gains or losses on the sale of investment securities, and other noninterest income.

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The primary expense categories are interest and noninterest expenses. Interest expenses include interest on deposits and interest on borrowings. Noninterest expenses include salaries and employee benefits, occupancy expense, furniture and equipment expense, data processing service charges, loan origination expenses, Virginia Franchise Tax, advertising and marketing expenses, and other noninterest expenses. Net income from minority interests is added and income taxes and a provision for loan losses are then expensed to arrive at net income.

7. Discussion of Financial Ratios

Financial ratios are in Table 2 and Graphs of the financial ratios are in Figures1-5. As a percent of total assets, cash and cash equivalents have fluctuated around an average of 3.3%, with a low of 1.4% in 2008 and a high of 5.0% in 2009. Investment securities exhibit a substantial decline with a high of 20.6% in 2003 and a low of 1.0% in 2009. Securities average 8.6% for the period in study. Loans fluctuate from a low of 73.0% in 2003 to a high of 92.3% in 2008, averaging 83.2% of total assets. Other assets average 4.9%, increasing over the period from a low of 3.1% in 2003 to a high of 6.7% in 2010.

As a percentage of total liabilities, deposits averaged 79.6%, borrowings averaged 10.7%, and other liabilities averaged .5%. Customer deposits were at their highest percentage in 2010 at 85.5% and lowest percentage in 2004 at 75.5%. Borrowings were at their highest percentage in 2007 at 14.6% and lowest percentage in 2010 at 4.9%. Other liabilities were at their highest percentage in 2010 at 1.0% and lowest percentage in 2003 at 0.1%.

As a percentage of total revenue, interest expense was at its highest in 2006 at 37.8% and lowest in 2010 at 9.5% with an average of 27.2% during the period. Noninterest expense was at its highest in 2010 at 70.7% and lowest in 2006 at 41.4% with an average of 56.3%. Provisions for loan losses were at their highest percentage of total revenue in 2008 at 9.9% and lowest in 2006 at 1.9%, averaging5.1%. Income tax expense was at its highest in 2006 at 6.2% and lowest in 2008 at 1.0% with an average of 3.7%.

8. DuPont Analysis of Monarch Bank

The DuPont Analysis is in Table 2. Based on the computations derived from the use of the consolidated statements, return on equity for Monarch Bank exhibits an average of 6.24%, but ranges from a high of 10.65% in 2006 to a low of 1.89% in 2008. Net profit margin averages 7.54% with a range from a high of 12.64% in 2006 to a low of 2.24% in 2008. Total asset turnover averages 0.075 times with a range from 0.048 times in 2003 to 0.112 times in 2010. The equity multiplier averages 11.04 with a range from 9.14 times in 2003 to 13.75 times in 2007.

Return on equity volatility stems from significant variability in component parts: net profit margin, total asset turnover, and the equity multiplier. Institutions in the financial industry tend to exercise a higher level of financial leverage and, consequently, exhibit high equity multipliers. Considering, by removing the equity multiplier we are able to determine exactly how much of the return on equity was derived from profit margin and revenue.In 2003, 0.29% of return on equity was derived from sales and profit margin where the bank’s financial leverage contributed 2.39%. In 2004, 0.33% of the return on equity was derived from sales and profit margin and financial leverage contributed 3.25%. In 2005, 0.63% of the return on equity was derived from sales and profit margin andfinancial leverage contributed 6.42%. In 2006, 0.89% of the return on equity was derived from sales and profit margin andfinancial leverage contributed 9.77%. In 2007, 0.633% ofthe return on equity was derived from sales and profit margin and financial leverage contributed 8.00%.In 2008, 0.19% of the return on equity was derived from sales and profit margin and financial leverage contributed 1.70%. In 2009, 0.70% of the return on equity was derived from sales and profit margin and financial leverage contributed 6.43%. In 2010, 0.72% of the return on equity was derived from sales and profit margin andfinancial leverage contributed 7.57%.

9. Discussion of Return on Assets Disaggregation

The Interest Income Analysis is in Table 3. Based on calculations derived from the use of supplementary data found in the bank's SEC filings entitled Interest Income Analysis, return on assets in 2003 was 4.86%. Weighted return on loans comprised 4.31% of this return while securities and other assets contributed 0.51% and 0.04%, respectively. Return on assets in 2004 was 4.88%. Return on loans comprised 4.48% of this return while securities and other assets contributed 0.34% and 0.06%, respectively. In 2005, Return on assets was 6.07%. Loans made up 5.71% of this return while securities and other assets contributed 0.24% and 0.12%, respectively. In2006, return on assets was 7.39%. Weighted return on loans comprised 6.86% of this return while securities and other assets contributed 0.23% and 0.30%, respectively. Total asset yield for 2007 was 7.56%. Weighted return on loans comprised 7.25% of this return while securities and other assets contributed 0.14% and 0.17%, respectively. In 2008, asset yield was 5.64%. Weighted return on loans comprised 5.43% of this return while securities and other assets contributed 0.09% and 0.12%, respectively. Return on assets in 2009 was 5.07%. Weighted return on loans comprised 4.95% of this return while securities and other assets contributed 0.04% and 0.08%, respectively. Finally, return on assets for 2010 was 5.10%. Weighted return on loans comprised 5.00% of this return while securities and other assets contributed 0.02% and 0.08%, respectively.Over the eight year period, average return on loans is 6.41% and comprises 86% of return, average return on securities is 3.47% and comprises 6% of return, and return on other assets is 1.4% and comprises 8% of return. Return is primarily driven by loans followed by other assets and then securities. Monarch Bank reduced investment in securities by 76%.

10. Summary and Conclusions

This paper applies a model for the financial analysis of a bank using the DuPont system of financial analysisas presented in Saunders (2000) and applied in Collier, McGowan, and Sulong (2005) and Collier, McGowan, and Muhammad (2009). Return on equity of the bank is disaggregated into three parts: net profit margin, total asset turnover, and the equity multiplier due to leverage. The DuPont system of financial analysis tracks the performance of Monarch Bank.From analysis of the ratios derived from consolidated statements, Monarch Bankuses deposits and debt tofinance the Bank. Monarch Bank derives most of its return from the loan portfolio followed by other assets and the securities portfolio. In reference to the disaggregation of return on assets, note that return on assets as calculated using the supplementary data listed under Interest Income Analysis differs from return on assets that as calculated using consolidated financial statements. This is attributed to disparity in net income and differences in the presentation of total assets. Nevertheless, the supplementary data serves well to demonstrate the application of the disaggregation of return on assets. Given our limited familiarity with the methods used to produce the supplementary data, the return on assets figures calculated using the consolidated statements are assumed to be correct. In reference to the banks portfolio composition, it appears that Monarch has reduced its holdings in marketable securities. Perhaps management has adopted this conservative approach because of the uncertainty created by the conditions exhibited in the financial and real estate markets during prior years. Yet, it does not appear that this has negatively affected management's ability to act on behalf of shareholders as measured by return on equity.

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Table 1. Monarch Bank Financial Statements

(Figures in U.S. Dollars)									
Income Statement - Income	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**Average**
Interest Bearing Income	7575619	9392139	15527006	25110447	30939106	30867332	32517659	39272833	23900268
Non-Interest Bearing Income	1175887	2396140	3149902	3585758	8192467	19804185	35634257	53503388	15930248
Total Revenue	**8751506**	**11788279**	**18676908**	**28696205**	**39131573**	**50671517**	**68151916**	**92776221**	**39830516**
Income Statement - Expenses	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**Average**
Interest Expense	2787794	3232142	5507068	10860686	14486625	14715983	10421158	8797554	8851126
Noninterest Expense	5049951	7112903	9087911	11869592	18812405	29022845	45034344	65582856	23946601
Provision for Loan Losses	205000	305042	915014	559344	976478	5014076	5183747	8639292	2724749
Income Tax Expense	158834	373685	1065084	1785706	1533309	504500	2452970	3544532	1427328
Total Expenses	**8201579**	**11023772**	**16575077**	**25075328**	**35808817**	**49257404**	**63092219**	**86564234**	**36949804**
Minority Interests in Subsidiary's Net Income	9165	7453	0	-5581	164582	281230	204025	262596	115434
Net Loss/Income	**540762**	**757054**	**2101831**	**3626458**	**3158174**	**1132883**	**4855672**	**5949391**	**2765278**
Balance Sheet - Assets	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**Average**
Cash and Cash Equivalents	6113441	5228798	15275674	18966342	9464550	8596342	34351240	27375747	15671517
Investment Securities	37906274	33041028	36398822	50028667	30958299	6346917	7189930	17601718	27433957
Loans	134269863	181298417	264834962	318634426	433969851	551035298	607397888	725218783	402082436
Other Assets	5746190	7289259	14664587	20090140	28771071	31219845	40629985	55386497	25474697
Total Assets	**184035768**	**226857502**	**331174045**	**407719575**	**503163771**	**597198402**	**689569043**	**825582745**	**470662606**
Balance Sheet - Liabilities	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**Average**
Customer Deposits	143103966	171376197	273073104	314113475	389704279	496085795	540038888	705661577	379144660
Borrowings	20615660	33812000	26976025	58075117	73531200	38060272	76158774	40282201	45938906
Other Liabilities	173869	552967	1323165	1494853	3322094	3163645	5356227	7905470	2911536
Total Liabilities	**163893495**	**205741164**	**301372294**	**373683445**	**466557573**	**537309712**	**621553889**	**753849248**	**427995103**
Minority Interest in Subsidiary	30716	0	0	27619	57702	111274	106857	165092	62408
Monarch Financial Holdings, Inc. Stockholder's Equity	20111557	21116338	29801751	34008511	36548496	59777416	67908297	71568405	42605096
Total Equity	**20142273**	**21116338**	**29801751**	**34036130**	**36606198**	**59888690**	**68015154**	**71733497**	**42667504**
Total Liabilities and Shareholders' Equity	**184035768**	**226857502**	**331174045**	**407719575**	**503163771**	**597198402**	**689569043**	**825582745**	**470662606**

Table 2. Monarch Bank Ratio Computations

Income Statement - Income	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**Average**
Interest Bearing Income	86.6%	79.7%	83.1%	87.5%	79.1%	60.9%	47.7%	42.3%	70.9%
Non-Interest Bearing Income	13.4%	20.3%	16.9%	12.5%	20.9%	39.1%	52.3%	57.7%	29.1%
Total Revenue	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Income Statement - Expenses	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**Average**
Interest Expense	31.9%	27.4%	29.5%	37.8%	37.0%	29.0%	15.3%	9.5%	27.2%
Non-interest Expense	57.7%	60.3%	48.7%	41.4%	48.1%	57.3%	66.1%	70.7%	56.3%
Provision for Loan Losses	2.3%	2.6%	4.9%	1.9%	2.5%	9.9%	7.6%	9.3%	5.1%
Income Tax Expense	1.8%	3.2%	5.7%	6.2%	3.9%	1.0%	3.6%	3.8%	3.7%
Profit Margin	6.2%	6.4%	11.3%	12.6%	8.1%	2.2%	7.1%	6.4%	7.5%
Total Revenue	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Balance Sheet - Assets	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**Average**
Cash and Cash Equivalents	3.3%	2.3%	4.6%	4.7%	1.9%	1.4%	5.0%	3.3%	3.3%
Investment Securities	20.6%	14.6%	11.0%	12.3%	6.2%	1.1%	1.0%	2.1%	8.6%
Loans	73.0%	79.9%	80.0%	78.2%	86.2%	92.3%	88.1%	87.8%	83.2%
Other Assets	3.1%	3.2%	4.4%	4.9%	5.7%	5.2%	5.9%	6.7%	4.9%
Total Assets	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Balance Sheet - Liabilities	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**Average**
Customer Deposits	77.8%	75.5%	82.5%	77.0%	77.5%	83.1%	78.3%	85.5%	79.6%
Borrowings	11.2%	14.9%	8.1%	14.2%	14.6%	6.4%	11.0%	4.9%	10.7%
Other Liabilities	0.1%	0.2%	0.4%	0.4%	0.7%	0.5%	0.8%	1.0%	0.5%
Total Equity	**10.9%**	**9.3%**	**9.0%**	**8.3%**	**7.3%**	**10.0%**	**9.9%**	**8.7%**	9.2%
Total Liabilities and Shareholders' Equity	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Dupont Ratios	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**Average**
Profit Margin (PM)	6.18%	6.42%	11.25%	12.64%	8.07%	2.24%	7.12%	6.41%	7.54%
Asset Utilization (TAT)	0.0476	0.0520	0.0564	0.0704	0.0778	0.0848	0.0988	0.1124	0.0750
Equity Multiplier (EM)	9.1368	10.7432	11.1126	11.9790	13.7453	9.9718	10.1385	11.5090	11.0420
Return on Equity = NI/OE	2.68%	3.59%	7.05%	10.65%	8.63%	1.89%	7.14%	8.29%	6.24%
Return on Assets (ROA)	0.29%	0.33%	0.63%	0.89%	0.63%	0.19%	0.70%	0.72%	0.55%
ROE = PM*TAT*EM	2.68%	3.59%	7.05%	10.65%	8.63%	1.89%	7.14%	8.29%	6.24%
ROE from EM = ROE-ROA	2.39%	3.25%	6.42%	9.77%	8.00%	1.70%	6.43%	7.57%	5.69%

Table 3. Monarch Bank Interest Income Analysis
(Average Balances as measured in thousands of U.S. Dollars)

	2003	2004	2005	2006	2007	2008	2009	2010	Average
Total Loans	119056	157126	218687	291669	368368	496822	588430	692744	366613
Loan Income/Expense	6760	8638	14685	23651	30057	30104	32161	38935	23124
Loan Yield	5.68%	5.50%	6.72%	8.11%	8.16%	6.06%	5.47%	5.62%	6.41%
Weight of Loans	75.96%	81.52%	85.07%	84.59%	88.90%	89.67%	90.62%	88.96%	85.66%
Weighted Return on Loans	4.31%	4.48%	5.71%	6.86%	7.25%	5.43%	4.95%	5.00%	5.50%
Total Securities	26301	21479	17750	18772	13514	12578	6363	8111	15609
Securities Income/Expense	792	655	624	778	571	484	235	186	541
Securities Yield	3.01%	3.05%	3.52%	4.14%	4.23%	3.85%	3.69%	2.29%	3.47%
Weight of Securities	16.78%	11.14%	6.91%	5.44%	3.26%	2.27%	0.98%	1.04%	5.98%
Weighted Return on Securities	0.51%	0.34%	0.24%	0.23%	0.14%	0.09%	0.04%	0.02%	0.20%
Other Assets	11369	14148	20622	34366	32498	44672	54563	77823	36258
Income/Expense on Other Assets	66	112	303	1046	684	649	518	585	495
Other Yield	0.58%	0.79%	1.47%	3.04%	2.10%	1.45%	0.95%	0.75%	1.39%
Weight of Other Assets	7.25%	7.34%	8.02%	9.97%	7.84%	8.06%	8.40%	9.99%	8.36%
Weighted Return on Other Assets	0.04%	0.06%	0.12%	0.30%	0.17%	0.12%	0.08%	0.08%	0.12%
Total Assets	156726	192753	257059	344807	414380	554072	649356	778678	418479
Net Income	7618	9405	15612	25475	31312	31237	32914	39706	24160
Owner's Equity	16258	20571	25910	31872	35641	42612	63678	69246	38224
Total Weighted Return on Assets: RL(WL) + RS(WS) + RO(WO)	4.86%	4.88%	6.07%	7.39%	7.56%	5.64%	5.07%	5.10%	5.82%
Return on Assets (ROA): NI/TA	4.86%	4.88%	6.07%	7.39%	7.56%	5.64%	5.07%	5.10%	5.82%

Figure 1. Monarch Bank Profit Margin

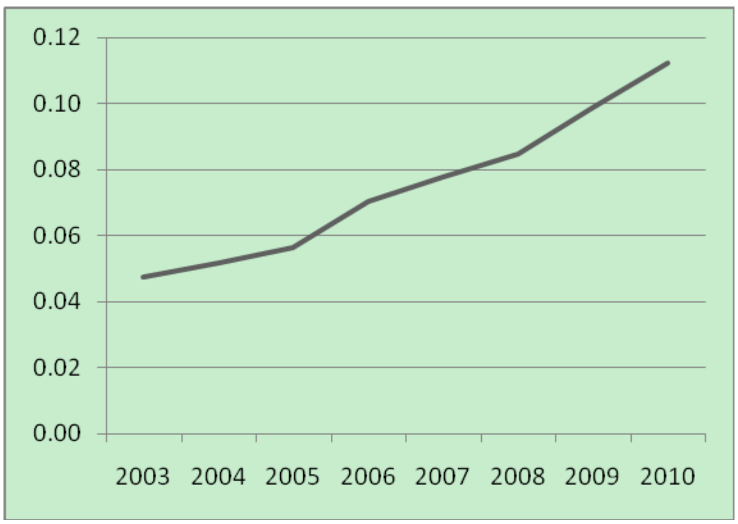

Figure 2. Monarch Bank Total Asset Turnover

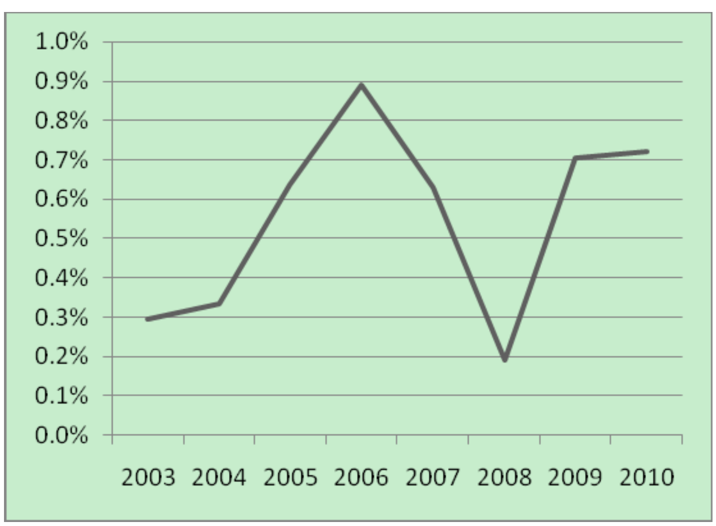

Figure 3. Monarch Bank Return on Assets

Figure 4. Monarch Bank Equity Multiplier

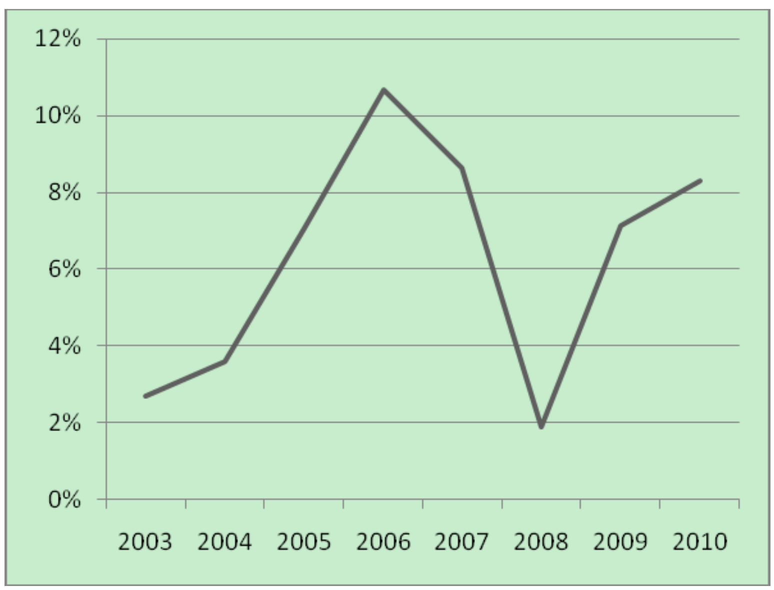

Figure 5. Monarch Bank Return on Equity