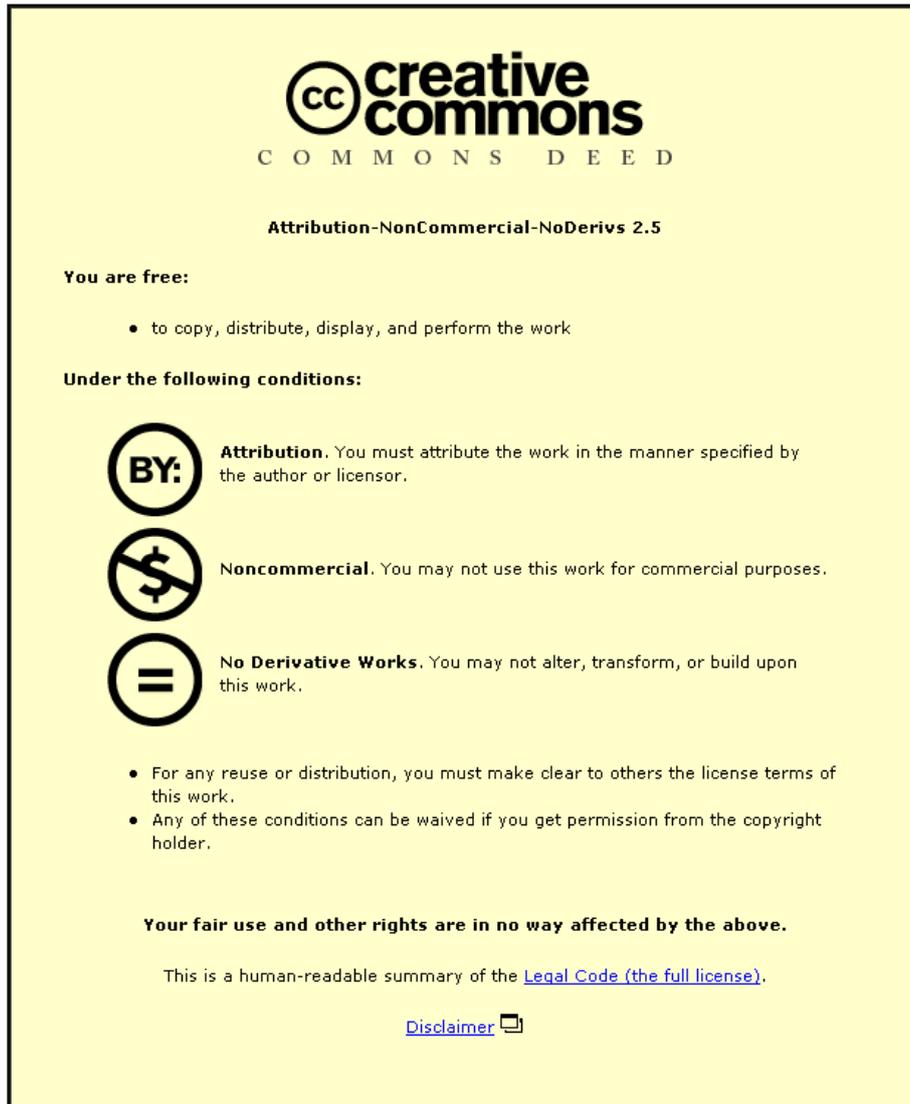


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Appendices to:

**The Classification Patterns of
Bank Financial Ratios**

**By
Rima Kordogly**

**A Doctoral Thesis
submitted in partial fulfilment of the
requirements for the award of**

**The Degree of Doctor of Philosophy of
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APPENDICES FOR CHAPTER 2

APPENDIX 2.1: A summary of studies conducted at a single industry level

Study	Purpose/s	Methodology	Sample	Main findings
Cleverly and Rohleder (1985) (Hospitals)	To group ratios of the Financial Analysis Service (FAS) developed by the Health Care Financial Management Association.	FA (exact method not specified) Deciding on the number of factors: N/A Rotation: N/A The groups of ratios were identified on a yearly basis, and the consistency of the results over years was examined.	<u>Size</u> : N/A <u>Years</u> : 1978-1980 <u>Ratios</u> : 25 ratios from the 29 FAS ratios. These represented the following categories: profitability, liquidity, capital structure, activity, and others.	10 factors: 1. Profitability, 2. Short-Term Cash Position, 3. Capital Structure, 4. Liquidity, 5. Age of Plant, 6. Debt Coverage, 7. Payment Mix, 8. Leverage, 9. Current Asset Efficiency and, 10. Fixed Asset Efficiency. A set of 13 ratios was chosen to represent these ten dimensions.
Counte et al. (1988) (Hospitals)	To identify the main dimensions of a hospital's financial performance.	FA (exact method not specified) Cattell's scree plot Oblique and orthogonal rotation methods; oblique rotation resulted in clearer solution.	<u>Size</u> : 114 Illinois not-for-profit hospitals <u>Year</u> : 1984 <u>Ratios</u> : 25, represented liquidity, profitability, capital structure and activity.	5 factors explaining nearly 77% of the total variance. 1. Liquidity 2. Debt Structure 3. Profitability 4. Cash Flow Management 5. Utilisation of Assets The authors addressed the importance of: replicating the study using different samples, exploring time stability of the identified factors, and defining the position of these factor-based measures in relation to other financial indicators.
Chu et al. (1991) (Hospitals)	1- To explore whether financial patterns for hospitals are different from those of industrial firms. 2- To investigate the stability of hospital patterns over a five-year period. 3- To explore whether there was a difference between the following hospital asset flow measures: cash flow, working	Natural log transformation to all ratios FA (exact method not specified) Eigenvalue >1 Varimax rotation Time stability of factors was investigated by conducting visual comparisons. Pearson correlation coefficients were calculated between the three hospital asset flow measures.	<u>Size</u> : 112 general, acute-care hospitals in Indiana in the first year, and 113 hospitals in each of the following years. <u>Years</u> : 1983-1987 <u>Ratios</u> : 31 hospital financial ratios	8 factors were generally extracted, the solutions accounted for 88.7% to 91.5% of the total variance over the years. 5 of these factors were identical to industrial factors: 1. Return on Investment 2. Cash Position 3. Debt Structure 4. Receivables Intensiveness 5. Short-Term Liquidity Other 3 factors are: 6. Working Capital Flow 7. Cash Flow 8. Return on Equity Factors 3, 4 and 6 were the only factors to be identified in

Study	Purpose/s	Methodology	Sample	Main findings
	capital from operation and net income plus depreciation.			<p>all five years of the study.</p> <p>Significant shift was noticed in the ratios patterns from 1984 until 1986.</p> <p>Unlike previous research (Gombola and Ketz, 1983a¹) Working Capital from Operation and Return on Equity formed two distinctive factors, also Cash Flow ratios did not differ consistently from Net Income Plus Depreciation ratios.</p>
<p>Zeller et al. (1996) (Hospitals)</p>	<p>1-To identify the consistent patterns of hospital financial ratios.</p> <p>2-To examine the correlations between ratios that represent the different characteristics of hospitals' performance.</p>	<p><u>For the first purpose:</u> -PCA -Direct-oblimin (oblique) rotation -3 criteria to decide on the number of factors: Eigenvalues >1, Cattell's scree plot, and an interpretable common factor (i.e. interpretability of factors)</p> <p>-The sample was divided by ownership type (5 categories), mission (teaching and non-teaching) and location (urban and rural). The analysis was carried out for every category for every year during the period. Loadings of ratios onto the factors, sample size, and percentages of variance explained were then averaged over the period.</p> <p><u>For the 2nd purpose:</u> For each of the three major hospital categories, for each factor, ratios that defined the like factors were correlated amongst the different sub-categories. The average correlations were then assessed to decide on the ratios that consistently represent the factor across all categories. When the results are compared for all three main categories of hospitals, the study was able to conclude that the identified factors for hospital ratios are consistent for all hospitals regardless of ownership, location or mission.</p>	<p><u>Size:</u> 2,189 U.S. volunteer non-profit hospitals <u>Years:</u> 1989-1992 (4-year period) <u>Ratios:</u> 28 industry-specific hospitals.</p>	<p>7 factors were consistently identified for all the categories of hospital, these accounted for 70% to 80% of total variance for each category. The factors were:</p> <ol style="list-style-type: none"> 1. Profitability 2. Fixed Asset Efficiency 3. Capital Structure 4. Fixed Asset Age 5. Working Capital Efficiency 6. Liquidity 7. Debt Structure [this factor was not present for all owner types hospitals; yet, Zeller et al. (1996) considered it amongst the consistent factors.] <p>Using average factor loadings over the period and comparing the average loadings using correlation coefficients across the different subgroups raised concern in Watkins (2000, p. 82). This is because there might be some inter-temporal instability over this period caused by some structural and economic trends within the hospital industry [Chu et al. (1991) observed some of these trends]. When average loadings over the years were used, these possible trends were not then taken into account.</p>

¹ Gombola and ketz (1983a) is reviewed in Subsection 2.4.6.

Study	Purpose/s	Methodology	Sample	Main findings
Zeller et al. (1997) (Hospitals)	Re-introduced the results of Zeller et al. (1996). In this study, however, Zeller et al. (1997) reported that hospital financial characteristics can be measured by six groups of ratios (they seemed to exclude the Debt Structure group, see the findings of Zeller et al., 1996). They also listed the ratios that can be used to measure each of the six characteristics of hospitals' performance.			
Watkins (2000) (Hospitals)	<p>This study used non-accounting information besides traditional hospital financial ratios.</p> <p>Purposes:</p> <p>1-To extend previous research by identifying the main characteristics that describe hospitals' performance.</p> <p>2-To test the relationship between the identified hospital patterns and one dimension of performance which is the Creditworthiness proxied by hospital bond ratings.</p>	<p>FA was performed on a yearly basis: Common factor analysis (similar results were produced when PCA was performed) Promax oblique rotation Eigenvalue > 1 (produced similar results to Cattell's scree plot)</p> <p>In order to construct the best hospital bond rating model the study used logistic regression; first using financial data, then by adding some non-financial variables in the model. The utilised variables were chosen based on the results of FA of first phase of the study.</p>	<p><u>Size:</u> 97-202 U.S. hospitals over the years. <u>Years:</u> 1990-1994 <u>Variables:</u> 31 (21 ratios plus 10 non-financial variables)</p>	<p>8 factors were identified in every year. These explained 73-81% of total variance over the 5-year period.</p> <p>4 financial factors were consistent over the years:</p> <ol style="list-style-type: none"> 1. Profitability 2. Capital Structure 3. Working Capital Efficiency 4. Fixed Asset Efficiency <p>4 inconsistent factors were:</p> <ol style="list-style-type: none"> 5. Fixed Asset Age 6. Liquidity 7. Return on Equity 8. Debt Coverage <p>More importantly, 3 consistent factors were identified formed of non-financial information labelled as follows: Measures of Outputs, Measures of Efficiency, and Measures of Productivity.</p> <p>This indicated that non-accounting information capture some dimensions of a hospital's performance that are not measured by accounting/financial information.</p> <p>When financial and non-financial information were utilised in a bond rating model, better results were obtained compared to a model that only employed financial data. Further more, two nonfinancial variables were found significant in explaining the cross-sectional differences in hospital bond ratings; in other words, in evaluating a hospital's creditworthiness.</p>
Emin Öcal et al. (2007) (Construction)	To identify the financial indicators which can be employed to study financial trends in the Turkish construction industry.	<p>FA (particular method N/A) Eigenvalue > 1 Varimax rotation</p> <p>After identifying the factors, the results were validated by showing the relationships between the factors and the economical state of Turkey during that period.</p>	<p><u>Size:</u> 28 construction companies traded on the Istanbul Stock Exchange <u>Years:</u> 1997-2001 (5-year period in which the economy moved from a boost in 1997 to a crisis in 2001)</p>	<p>5 factors explaining over 84% of the variance</p> <ol style="list-style-type: none"> 1. Liquidity 2. Capital Structure and Profitability 3. Activity Efficiency 4. Profit Margin and Growth 5. Asset Structure <p>These factors were sensitive to the changes occurred in the</p>

Study	Purpose/s	Methodology	Sample	Main findings
		This was carried out by calculating means and standard deviations for each factor using factor scores ² in each year and checking their trends over the period.	Ratios: 25 (14 used by the Central Bank of Turkey, and 11 ratios commonly used in previous research for construction industry), the list of ratios was then reduced to 16 ratios after excluding some variables that showed low correlation with other ratios.	Turkish economy. Focusing of these five factors would be sufficient enough to study the state of the industry over time, and also the relative position of a construction company compared to its competitors.
Ali and Charbaji (1994) (Airlines)	To group financial ratios for the international commercial airline sector. This sector differs in financial characteristics from manufacturing and retail companies which were heavily investigated by earlier studies.	Log transformation to all the ratios FA (particular method N/A) Deciding on the number of factors: N/A Rotation method: N/A After identifying the factors, comparative analysis was conducted between the results of the current study and those of previous literature and the theoretical groupings of ratios.	Size: 118 companies that represented all scheduled airlines which had their financial statements reported to the International Civil Aviation Organisation. Year: 1986 Ratios: 42	5 factors explained 72.2% of total variance <ol style="list-style-type: none"> 1. Net Worth Position 2. Profitability 3. Fixed Asset Management 4. Leverage Position 5. Working Capital Management <p>There are some differences in the way in which ratios are empirically grouped for manufacturing and retailing companies on one side, and the international commercial airline companies on the other side. Long-term capitalisation is emphasised for the commercial airline sector (factors 1, 3 and 4) compared to short-term capitalisation previously found for manufacturing and retail industries.</p> <p>Also, some differences were observed between empirical and <i>ad hoc</i> theoretical classifications of ratios.</p>
Moses (1995) (Defence industry)	1- To identify the fundamental dimensions of financial condition within the defence industry. 2- To identify the specific financial ratios that reflect the main dimensions of defence	Rank transformation to all ratios ³ : ratios were ranked ordinally, ordinal ranks were then normalised. FA Eigenvalue >1 Orthogonal rotation The analysis was performed using a sample that combined data for all the years.	Size: 50 large U.S. defence contractors operating in seven broad sectors of the defence industry. Ratios: 51 (drawn from a framework developed by Moses, this included three main categories: resources, claims	8 factors were identified as follows: 3 factors described the success of operations: <ol style="list-style-type: none"> 1. Turnover 2. Profitability 3. Cash flow 5 factors reflected aspects of financial condition: <ol style="list-style-type: none"> 4. Cash Position 5. Inventory

² For every case/company, factor score results from multiplying the loadings of the different variables onto a factor by the values of these variables for that company and adding up the results.

³ In rank transformation, ratio values are set in an ascending order and given scales starting by 1 for the smallest value. These scales then replace the original values of ratios.

Study	Purpose/s	Methodology	Sample	Main findings
	industry financial conditions	<p>To test the stability of solutions over years, two subsamples were used: the first subsample consisted of data in the first 4 years of the 10-year period, and the second sample consisted to data in the last 4 years of the period. Two years were allowed between the two subsamples. The two subsamples reflected distinct economical and political status, and industry financial conditions. Factor analysis was performed for each of these samples and the results were compared to those for the full sample.</p> <p>To test for the cross-sectional stability of the results, samples represents three segments of the defence industry (platform, electronics, and others) were used. FA was performed for each of these samples and results were compared to each other and to those of the full sample.</p> <p>To test whether changes in financial conditions of firms over time had an effect on the results, year-to-year differences in ratio values were calculated for all the ratios and firms in the 10 years. FA was carried out over this sample and the results were compared to those for the full samples.</p> <p>Visual comparisons and correlation analysis were used to compare between the results of the full sample and those for all the sub-samples.</p>	and; changes in resources and claims) <u>Years:</u> 1983-1992 (this period represented different economic conditions)	<ol style="list-style-type: none"> 6. Asset Composition 7. Liquidity 8. Leverage <p>Results proved to be consistent over time, over different economical and political circumstances, and across different segments of the industry. Also, possible changes in ratio values over time did not seem to affect the results.</p> <p>Given this, one ratio only from each of the 8 categories should be enough to capture the different financial dimensions of the defence industry.</p>
White (1994) (Defence industry)	<p>1-To identify the primary dimensions of the U.S. defence industry</p> <p>2-To check whether these dimensions are stable over time.</p>	<p>No transformation, but outliers were eliminated FA Eigenvalue > 1 Varimax rotation</p> <p>FA was performed on a yearly basis and also for a sample of all firms in all the years. The results were compared visually.</p>	<p><u>Size:</u> 50 firms <u>Years:</u> 1983-1992 <u>Ratios:</u> 32 (chosen based on their usefulness and popularity in classification research)</p>	<p>9 dimensions accounted for over 85% of the variance over the ten years. These are:</p> <ol style="list-style-type: none"> 1. Profitability, 2. Working Capital, 3. Cash Position, 4. Cash Flow, 5. Inventory, 6. Debt, 7. Liquidity, 8. Sales and, 9. Receivables. <p>These dimensions were stable over time. A small subset of ratios was offered; these ratios</p>

Study	Purpose/s	Methodology	Sample	Main findings
				consistently described the primary dimensions of performance for the industry.
Katz (1995) (Defence industry)	To investigate the primary dimensions of change in the financial conditions of firms within the defence industry.	<p>FA Orthogonal rotation Stopping rule: N/A</p> <p>The primary dimensions were identified using data for all firms in all years pooled together (pooled sample). To identify the primary dimensions of change in financial conditions, two measures of change in ratios were calculated: absolute change (the difference in ratio values between two adjacent year), and percentage change (absolute change as percentage to ratio value in the earlier year). Data resulted from applying each measure of change were then pooled together for all firms over the years. FA was then performed and the results were compared to each other and to those of the pooled sample.</p> <p>Stability of the dimensions of change was checked by conducting FA on the yearly changes separately (i.e. nine periods). Correlation coefficients were calculated and compared to assess the stability of the dimensions.</p> <p>Finally, data for first years of the period (economic growth period) were pooled together and data for late years (economic decline period) were also pooled together. FA was conducted using these two samples to check the possible impact of economic growth and decline on the dimensions of the industry.</p>	<p><u>Size</u>: 50 firms <u>Years</u>: 1983-1992 <u>Ratios</u>: 36 (represented the 7 categories identified in Pinches et al., 1973)</p>	<p>6 primary dimensions of change in financial conditions:</p> <ol style="list-style-type: none"> 1. Change in Income 2. Change in Leverage 3. Change in Cash Position 4. Change in Assets Turnover 5. Change in Cash Flow 6. Change in Capital Turnover <p>Detailed finding were reported for each of the questions investigated in the study.</p>
Bowden (1998) (Defence industry)	<p>1-To identify the primary dimensions of financial condition in the defence industry.</p> <p>2-To compare the results to previous studies.</p>	<p>Rank transformation FA Eigenvalue > 1</p> <p>Correlation coefficients were calculated between loadings of all factors found in this study with the loadings for the 8 factors identified by Moses (1995).</p>	<p><u>Size</u>: 50 large firms <u>Ratios</u>: 51 <u>Years</u>: firms with complete data in either 1996 or 1997.</p>	<p>9 dimensions were identified accounted for approximately 95% of the total variance in the data. These are:</p> <ol style="list-style-type: none"> 1. Profitability 2. Turnover 3. Cash Position 4. Cash Flow 5. Inventory 6. Leverage 7. Liquidity 8. Debt 9. Gross Profit

Study	Purpose/s	Methodology	Sample	Main findings
				<p>The first Six dimensions were also identified in Moses (1995). Gross Profit was not identified in Moses (1995), also Leverage was labelled as Debt in Moses (1995). Asset Composition in Moses (1995) was associated with Liquidity and Leverage factors in the current study. Liquidity factors in the two studies were weakly correlated.</p> <p>The two studies covered different periods, and also their data covered slightly different segments of the defence industry.</p>

APPENDIX 2.2: A summary of studies that used principal component analysis / factor analysis in finance (24 studies)

Study	Brief description	Data	PCA/FA: Application and Results
<p>Bankruptcy prediction:</p> <p>1. Libby (1975)</p>	<p>The purpose of the study was to evaluate the predictive power of ratio information and the ability of bank loan officers to predict business failure based on ratio information.</p> <p>PCA was applied as a means to reduce the number of ratios, eliminate redundancy and identify the main financial dimensions existed in the set of ratios (p. 153). One ratio was selected from each of the derived components.</p>	<p><u>Variables:</u> 14 ratios. These were used in previous studies.</p> <p><u>Years:</u> 1964 and 1970 (failed firms), 1962 to 1966 (non-failed firms)</p> <p><u>Size:</u> 60 firms (30 failed and 30 non-failed). Failed firms were drawn at random from the data set of a previous study which included firms that were experiencing failure between 1964 and 1970. Ten firms were chosen at random for each year out of the three years before failure which resulted in 30 firms. Non-failed firms were drawn at random from Moody's Industrial manuals from 1962 to 1966.</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> N/A</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 5 factors Labels: Profitability, Activity, Liquidity, Asset Balance, and Cash Position.</p>
<p>2. Taffler (1981)</p>	<p>The study derived a UK-based z-model for evaluating companies' financial viability using published accounting figures. For that it used Linear Discriminant Model (LDM). The derived model used four financial ratios as inputs. These were chosen after performing PCA that uncovered the underlying distinct dimensions in the data.</p>	<p><u>Variables:</u> 80 ratios</p> <p>Logarithmic or reciprocal transformation, whichever appropriate, were carried out over all ratios to enhance approximation to normality, also outliers were replaced by limiting values.</p> <p><u>Periods:</u> for failed firms: between the beginning of 1969 and end of 1976. For solvent firms: year ends in 1974 and 1975</p> <p><u>Size:</u> 92 UK quoted manufacturing firms (46 Failed matched in size and industry to 46 solvent firms).</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> N/A</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 8 components explaining 93.5% of the variance. Component 7 could not be labelled, however, it was insignificant as it accounted on less than 2% of the variance. The 7 components were labelled as follows: Profitability, Financial Risk, Working Capital Position, Liquidity, Level of Activity, Value Added Contribution, and Creditors' Position. These dimensions (p. 6) resembled those identified by earlier studies [Taffler and Sundarsanam (1980); Pinches et al. (1975); and Johnson (1979)].</p>
<p>3. Taffler (1982)</p>	<p>The study used discriminant analysis to develop a model that measured the risk of failure for UK firms.</p> <p>PCA was performed to identify the different dimensions exist in the data, to aid interpreting the developed models and to avoid the use of variables that measure similar aspects of a firm's performance (p. 354). One ratio from each dimension was chosen and used in the multivariate discriminant analysis carried out in the</p>	<p><u>Variables:</u> 50 ratios. These were conventional ratios (from profit and loss account and balance sheet items), 4-year trend measures, and ratios from the funds statement.</p> <p>Logarithmic or reciprocal transformation were applied wherever appropriate to improve normality</p> <p><u>Size:</u> 23 failed firms and 45 healthy firms (the number of healthy firms was not restricted to match the number of</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> Eigenvalue >1</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 7 components were extracted for the combined sample of failed and healthy firms. Also, similar results were</p>

Study	Brief description	Data	PCA/FA: Application and Results
	study.	<p>failed firms). Failed firms were UK industrial enterprises quoted on the London stock exchange. Healthy firms drawn from a leading London stock broker's firm.</p> <p><u>Years:</u> between 1968 and 1973 (for failed firms) Period was not specified for healthy firms.</p>	<p>obtained for the two samples. Only 6 components were interpretable: profitability, working capital position, financial leverage, ready assets positions, quick assets position and level of activity.</p>
<p>4. Taffler (1983)</p>	<p>The study developed a linear discriminant model to assess the financial viability of firms.</p> <p>FA was performed to gain a better understanding of the data, to reduce multicollinearity and to aim the development and interpretation of the derived model (p. 297).</p>	<p><u>Variables:</u> 80 ratios from profit and loss accounts and balance sheets. Ratios were chosen from literature and included those which were found useful in similar studies.</p> <p>Logarithmic or reciprocal transformation was applied to all ratios to improve normality and any underlying outliers were replaced by limiting values.</p> <p><u>Years:</u> between the beginning of 1969 and the end of 1976 (failed firms). Periods covered for non-failed firms were N/A.</p> <p><u>Size:</u> 92 firms (46 failed firms and matching 46 healthy firms). Failed firms quoted at the London Stock Exchange. Healthy firms drawn from Jordan Dataquest database.</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> N/A</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 7 components, 91.6% of the variance. These components (pp. 297-298) were similar to those identified in Pinches et al. (1975) and Johnson (1979) that used US data. The linear discriminant model that was the best to discriminate between the two groups of firms used four ratios. These ratios were found to represent the following four dimensions identified in Taffler (1981): Profitability, Working Capital, Financial Risk, and Liquidity. Though, the author seemed to perform PCA but not to rely on its results in selecting the ratios. Rather, he derived the discriminant model using some ratios, and then matched these ratios to the dimensions found in previous study.</p>
<p>5. Laitinen (1991)</p>	<p>The study generally aimed to improve the accuracy in failure prediction. One of the purposes was to identify the different failure processes in a sample of Finnish firms. This was carried out by performing FA over a number of financial ratios. Factor scores were then calculated for the failed firms.</p>	<p><u>Variables:</u> 6 ratios. These were selected based on a theoretical model that was developed to reflect the general dimensions that have an impact on ratios of failed companies.</p> <p><u>Periods:</u> 6th, 4th, and 2nd year before the failure.</p> <p><u>Size:</u> 40 randomly selected failed Finnish firms.</p> <p>The 6 ratios were calculated for each of the 40 failed firms in the 6th, 4th, and 2nd year before the failure. This turned a number of (6 ratios * 3 years) 18 variables for 40 firms. This made the sample which was used to identify the different failure processes.</p>	<p><u>Method of extraction:</u> FA</p> <p><u>Stopping rule:</u> Only factors that added significantly to the explanation power were kept.</p> <p><u>Rotation:</u> Varimax</p> <p><u>Results of FA:</u> 3 factors were extracted. These explained about 52% of the variance in the data. The characteristics of failure process were described by the loadings onto each of the three factors. Factor scores were then calculated and firms were then classified into three groups based on the factor for which they achieved the highest factor score. The percentiles of</p>

Study	Brief description	Data	PCA/FA: Application and Results
			the financial ratios for firms in each of these groups were used in the interpretation of the failure process by comparing it to the percentile of ratios in a sample of a similar size of non-failed firms. Based on this, the identified types of failure processes were called: 'a chronic failure firm', 'a revenue financing failure firm' and 'an acute failure firm'.
<p>6. Ganesalingam and Kumar (2001)</p>	<p>The study explored the usefulness of a group of multivariate techniques including PCA and FA in classifying firms into groups based on their distress levels. The study first used PCA to check in what sense this technique can be helpful in summarising the data without much loss of information. Four components accounted for 80% of the variance in the data were extracted; however, these components were difficult to be labelled. Thus, FA was then performed in a following step as a means to derive a few operational indexes. These indexes could then be utilised to study companies' financial behaviour in the future. The results of FA step are reported in the next columns.</p>	<p><u>Variables:</u> 10 ratios</p> <p><u>Periods:</u> between 1986 and 1991. It is fairly clear that the study did not perform the analysis on a yearly basis.</p> <p><u>Size:</u> 71 Australian companies (29 failed and 42 successful companies).</p>	<p><u>Method of extraction:</u> maximum likelihood FA</p> <p><u>Stopping rule:</u> based on the results of a previous step (PCA) in which the criterion eigenvalue > 1 was used.</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 4 factors were extracted. These were labelled as the measures of: Liquidity, Debt, Profitability, and Market Expectation.</p>
<p>7. Skogsvik (1990)</p>	<p>The general purpose was to test the ability of cost accounting financial ratios in predicting business failure. PCA was performed to find a set of ratios that represent all the important dimensions of current cost accounting (CCA) and historical cost accounting (HCA) ratios. Only these representative ratios were then used in the analysis of failure prediction that carried out in rest of the study.</p>	<p><u>Variables:</u> 79 CCA ratios, and 71 HCA ratios were analysed separately. These ratios were representative of profitability, cost structure, capital turnover, liquidity, asset structure, financial structure and growth.</p> <p><u>Periods:</u> data from the period between 1966 and 1979 were used. Data for failed firms were collected for 6 years before failure and for non-failed firms for every year over the period.</p> <p><u>Size:</u> 379 Swedish companies (51 failed and 328 non-failed).</p> <p>It was not clear whether PCA was carried out using sample that combined data from all years, or on a yearly basis.</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> eigenvalue > 1</p> <p><u>Rotation:</u> Oblimin</p> <p><u>Results of FA:</u> 20 components were found for CCA data, and 17 components found for HCA data. The components of HCA ratios were all common to both HCA and CCA data. Two components of CCA data were unique for this method of cost accounting. One ratio was selected to represent each of the identified components, and the selected ratios were then used in further analysis.</p>

Study	Brief description	Data	PCA/FA: Application and Results
<p>8. Gombola et al. (1987)</p>	<p>The main focus of the study is to check whether cash flow from operations is significant in bankruptcy prediction. A part of the study replicated Gombola and Ketz (1983a, 1983b) to check the time period after which a unique Cash Flow factor is identified, thus, it should be represented in bankruptcy models. After performing FA, ratios with the highest loadings were chosen to be included in the bankruptcy models. By selecting ratios in this sense, multicollinearity in the model would be eliminated.</p>	<p><u>Variables:</u> 24 ratios. These were chosen based on their popularity in bankruptcy prediction studies.</p> <p><u>Periods:</u> 1967-1981 (the analysis was run on a yearly basis)</p> <p><u>Size:</u> 442 companies, these represented were all the industrial firms on the COMPUSTAT tape. The number of firms on which the analysis was based in every year over the period was not specified. Also, it was not clear whether failed firms were included in the sample used in FA.</p>	<p><u>Method of extraction:</u> FA</p> <p><u>Stopping rule:</u> N/A</p> <p><u>Rotation:</u> N/A (the study mentioned that the factors were theoretically independent, this might indicate that no rotation was applied, thus, factors were left to be orthogonal to each other, p. 61)</p> <p><u>Results of FA:</u> for every year between 1967 and 1972 six factors were identified (cash position, current assets to sales or assets, current debts to total debts, debt position, return on assets and return on sales). For every year between 1973 and 1981 seven factors were found (cash position, current assets to sales or assets, current debts to total debts, debt position, return on assets, cash flow, and sales to total assets). Representative ratios from each of these components for the two distinctive periods were used in discriminant and probit models of bankruptcy prediction.</p>
<p>9. El Hennawy and Morris (1983)</p>	<p>The study aimed to develop models that predict bankruptcy by considering data for four years prior to failure. Also, the study included a number of economic and industry indicators to enhance the universal applicability of the models. PCA was applied as means to reduce multicollinearity and to reduce the number of variables to a manageable set. A few ratios that had high loadings onto the derived factors were chosen and included in the MD models built by the study.</p>	<p><u>Variables:</u> 48 ratios from 7 <i>a priori</i> classifications (96 ratios were initially calculated, the number was then dropped because of missing values and distributions of some of the ratios.)</p> <p>The study mentioned that transformation was carried out and some outliers were deleted to improve the approximation of ratio distributions to normality. Though, it is not clear whether PCA was performed over transformed or non-transformed ratios.</p> <p><u>Periods:</u> between 1960 and 1971.</p> <p><u>Size:</u> 106 British listed companies (53 failed and 53 sound counterparts). These were split into 2 samples of 44 companies for the analysis and cross-validation (1960-1968), and one sample of 18 firms for the inter-temporal validation (period 1969-1971). Half of firms in these samples were failed. However, it is not clear which of these samples were used to run PCA. However, the study</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> components that sufficiently accounted for most of the information in the data were kept (p. 212)</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 7 components were identified. These accounted for around 83.2% of the variance. Labels given: Profitability, Liquidity, Asset Position, Size, Capital Gearing, Growth and Pay-out. The study briefly (p. 212) discussed the results within the <i>a priori</i> categories of ratios and in light of previous studies.</p>

Study	Brief description	Data	PCA/FA: Application and Results
		mentioned (p. 212) that the analysis was run using samples of failed companies, non-failed companies and a combined sample of both firms. Also, the analysis was run on a yearly basis. This was done to check which factors are the most stable across different types of firms and over time.	
<p>10. Mensah (1983)</p>	<p>The study checked whether the use of specific price-level (SPL) adjusted data improve bankruptcy prediction. The main techniques used in this study are MDA and logit analysis.</p> <p>FA was performed over two ex post samples of bankrupt and non-bankrupt firms. Ratios that loaded highly onto factors common to the two groups of firms were excluded, and as a result, ratios loading onto factors that were unique to either group were included in the analysis. The unique factor approach was compared to the use of two approaches: factor scores of all identified factors and ratios that have the highest loadings onto the identified factors. Yet, the outcomes of the unique factor approach were superior. FA was performed using data in historical cost (HC) and in SPL adjusted form.</p>	<p><u>Variables:</u> 39 ratios, these were found useful in previous bankruptcy prediction studies. Means and standard deviations of these ratios were used in the analysis (p. 232). However, it is not clear whether the use of means and standard deviations had increased the number of variables that were subjected to FA.</p> <p><u>Periods:</u> January 1975 to December 1978 for the ex post sample, and between January 1979 to December 1980 for the ex ante sample. Means and standard deviations for ratios were calculated over a period between the fifth and second year before failure. (p. 232).</p> <p><u>Size:</u> 60 manufacturing firms for the ex post sample (30 failed paired with 30 non-failed), and 46 firms for the ex ante sample (11 failed and 35 randomly selected non-failed firms). Firms that formed the ex post sample were used in FA.</p>	<p><u>Method of extraction:</u> FA</p> <p><u>Stopping rule:</u> N/A</p> <p><u>Rotation:</u> orthogonal</p> <p><u>Results of FA:</u> Factors unique to HC data were different from the factors unique to SPL data (see p. 236 for table of the results).</p>
<p>11. Richardson and Davidson (1984)</p>	<p>The study investigated the biases that minimise the optimal use of linear discriminant model (LDM) in modelling accounting figures. A part of the study checked the statistical consequences caused by data instabilities over a period of time. This was done by assessing the time stability of ratio patterns for well and sick firms grouped into two samples. Ratios that are grouped under one factor are expected to have similar independent descriptive properties. If these ratios were grouped under different factors over time, then their statistical properties might have changed over time. In such cases, LDM would not be the best technique to model such ratios.</p>	<p><u>Variables:</u> 5 ratios (the study did not mention on which ground these ratios were selected)</p> <p><u>Periods:</u> 1974, 1975, and 1980 (these represented two years prior to bankruptcy of sick firms, i.e bankruptcy occurred in years 1976, 1977 and 1980, p. 518)</p> <p><u>Size:</u> well (non-failing) firms: 722, 765 and 624 for the three years, respectively. Sick (failing) firms: 20, 9 and 7, for the three years, respectively.</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> eigenvalue > 1</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 2 factors were identified for each group in each of the three years covered. The results of the sick group might have been influenced by the small sample size (p. 521). Yet, the instability was apparent for the ratios of the sick group as these ratios were either loading onto different factors, or they changed the sign of their loadings over the years, or both. Given that ratios for sick firms did not exhibit a satisfactory level of time stability, the use of a LDM to model them might not be the right procedure.</p>

Study	Brief description	Data	PCA/FA: Application and Results
<p><u>Firm's performance and characteristics:</u></p> <p>12. Taffler and Sudarsanam (1980)</p>	<p>The study proposed an approach that can aid the internal auditor in appraising his company's performance.</p> <p>PCA was used as a means to identify the underlying distinct dimensions in a set of published information. The internal auditor can then evaluate his company's position compared to its competitors in each of the identified dimensions of performance. Consequently, areas that need further attention and examinations can be highlighted.</p>	<p><u>Variables:</u> 80 ratios, these were drawn after a comprehensive review of ratio analysis literature. These ratios were the most commonly used ratios in UK and US and cover the variance dimensions of a firm's operations.</p> <p>A number of transformation techniques were applied to the ratios wherever necessary to improve normality and reduce heteroscedasticity. These methods included: logarithmic, reciprocal, square root or square root reciprocal transformations (p. 130).</p> <p><u>Periods:</u> PCA was performed for companies with financial year end between 1 May 1976 and 30 April 1977</p> <p><u>Size:</u> 525 of the largest manufacturing firms quoted on the London Stock Exchange.</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> eigenvalue > 1 (referred to here as Kaiser's rule, footnote 8, p. 130)</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 9 components were kept, these accounted for 93% of the variance. These components represented: Profitability, Financial Leverage, Working Capital Position, Asset Turnover, Liquidity, Value Added, Creditors' Position, Debt Positions, and Dividend Return. The last three dimensions were then ignored on the basis that they individually did not explain more than 7% of the variance. Ratios with the highest loadings onto the first six components were chosen as representatives of these dimensions. Company's performance in each of these areas can then be analysed over time.</p>
<p>13. Schatzberg and Weeks (2004)</p>	<p>The study used the method of FA to examine the marginal choice between debt and equity securities. FA was applied to select proxy variables of theoretical constructs. The relationship between the issuance choice and firm characteristics presented by factor scores investigated in the study used logit analysis.</p>	<p><u>Variables:</u> 30 variables and characteristics of interest to financial analysts and investors.</p> <p>Outliers were removed to minimise skewness (footnote 5, p. 1488).</p> <p><u>Periods:</u> the variables were measured over 2-year continues period starting 1 year prior to the announcement. The analysis was carried out for each of these years.</p> <p><u>Size:</u> not explicitly given. The study used 303 equity and 193 debt issuances; it probably combined these into one sample and performed PCA.</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> eigenvalue > 1</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> similar factor solutions were obtained over the two years of the analysis. 10 factor were derived these related to: Balance Sheet and Efficiency, market Risk, Profitability, Accounting Liquidity, Growth, Receivables, Inventory (and Inverse Inventory), Tax Carryforwards, Volume and Size, and Equity Valuation.</p>
<p>14. Meric and Meric (1994)</p>	<p>The study used MANOVA to compare the financial characteristics of U.S. and Japanese manufacturing firms. But first, it applied PCA to handle the problem of multi-collinearity amongst the ratios; also, the use of components would deal with the issue of non-normality in ratios as the derived principal components have asymptotic normal distributions that approximate to normality with a large number of variables (p. 208).</p>	<p><u>Variables:</u> 28 ratios calculated from financial statement data.</p> <p><u>Periods:</u> year-end of 1986</p> <p><u>Size:</u> 592 manufacturing firms (281 U.S. and 281 Japanese).</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> eigenvalue >1 (referred to as Kaiser's rule, p. 209)</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 8 components were identified, these</p>

Study	Brief description	Data	PCA/FA: Application and Results
	MANOVA first used the financial attributes represented by the derived components, and then used two sets of ratios with the highest and second highest loadings onto each of the derived components.		explained 77.5%. Labels given were: Liquidity position and book value debt ratios, total asset turnover and cash turnover, asset profitability and book value return on equity, inventory position and market value return on equity, fixed asset position, debt composition and interest cost, accounts receivable position, new capital expenditures and market value debt ratio.
15. Hutchinson et al. (1988)	The study aimed at studying the financial characteristics of small firms that achieve quotation in the UK unlisted securities market (USM). MANOVA was used to compare the financial characteristics of firms with UCM quotations and firms that did not. The inputs to MANOVA were chosen after performing PCA over a number of financial ratios. First the two groups of firms were compared using principal components as inputs to MANOVA. In a second step, a number of ratios were used as inputs to the analysis. These were the ratios with the highest loadings onto each of the identified components.	<p><u>Variables:</u> 15 ratios, represent: liquidity, leverage, activity, profitability and growth. Ratios were chosen based on their popularity and relevance to the subject of the study (achievement of stock market quotation)</p> <p><u>Periods:</u> between 1980 and 1983, within this period the study obtained annual data for firms in third year prior to quotation.</p> <p><u>Size:</u> 56 firms (28 small firms which received quotation and 28 small firms that did not achieve quotation)</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> eigenvalue >1 (referred to as Kaiser's rule, p. 13)</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 6 components accounted to 84.6% of the variance. Labels: Indebtedness and Liquidity, Profitability, Growth Rate, Asset Structure, Asset Turnover, Accounts Receivable Level.</p>
16. Ritchie and Kolodinsky (2003)	The study evaluated financial performance measures for non-profit organisations (NPO) and identified the distinct dimensions that existed in these performance measures. PCA was used to derive the patterns of these measures.	<p><u>Variables:</u> 16 ratios that measure performance collected from literature and after conducting some interviews with NPO constituencies.</p> <p><u>Periods:</u> Phase 1: 1995 for university and hospital foundations. Then on a yearly basis between 1990 and 1995 for university foundations. Phase 2: fiscal year 1998 to 1999 for universities.</p> <p><u>Size:</u> Phase 1: 112 university foundations, 101 hospital foundations. Phase 2: : 102 hospital foundations</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> eigenvalue >1, scree plot, total explained variance and factor loadings (p. 372)</p> <p><u>Rotation:</u> promax</p> <p><u>Results of FA:</u> The analysis was first run on a sample of university foundations and six patterns were identified. Then a sample of hospital foundations was factor analysed. Only four factors were common to both samples, these were kept and the other two with the ratios loading onto them were dropped from the analysis. The analysis was performed again over the university foundations the measures were forced to load onto four components. A yearly analysis was conducted for every year between 1990 and 1995, and also over a sample for fiscal year 1998 and 1999. This finally resulted in three factors that showed the highest stability level and thus considered to represent the major performance-related categories for NPO. These</p>

Study	Brief description	Data	PCA/FA: Application and Results
			are: Fundraising Efficiency, Public Support and Fiscal Performance.
Market risk: 17. Elgers (1980)	The aim of the study is to check whether the use of accounting-based risk measures results in better prediction of systematic risk equity security compared to security-market based models. To build the prediction model, stepwise regression analysis was used. PCA was performed as a data reduction method to find the input variables to the model. The study mentioned only little details about the application and results of PCA.	<u>Variables:</u> 28 ratios that represent determinants of equity best: leverage, size, variability, and covariability. <u>Periods:</u> N/A <u>Size:</u> 220 firms	<u>Method of extraction:</u> PCA <u>Stopping rule:</u> eigenvalue > 1 (referred to as Kaiser's rule). The study (p. 400, footnote 15), however, pointed out that this method has led to disregard some components one of them was found important in the stepwise regression carried out. <u>Rotation:</u> no rotation was applied (explanation p. 397) <u>Results of FA:</u> N/A
18. Melicher (1974)	The study investigated the relationships between market risk measured by beta and financial data for the electric utility industry. Multiple and stepwise multiple regressions were used. But first the study performed PCA to identify the financial characteristics of the investigated industry, then ratios with high loadings onto each of the factors were used in investigate the relationship between beta and accounting data.	<u>Variables:</u> 28 variables and ratios. Arithmetic averages and coefficients of variations over the period 1967-1971 were used for the majority of the variables were calculate over a period of <u>Periods:</u> 1967-1971 <u>Size:</u> 84 electric utility firms.	<u>Method of extraction:</u> PCA <u>Stopping rule:</u> eigenvalue > 1 <u>Rotation:</u> varimax <u>Results of FA:</u> 7 factors were identified, these accounted for 85% of the variation. Labels: Financial Leverage, Size, Earnings Trends and Stability, operating Efficiency, financing Policy, Return on Investment, and Market Activity.
Bond rating: 19. Pinches and Mingo (1973)	The studies aimed at developing a multiple discriminant model to predict industrial bond ratings. FA was used to gain a better understanding of the regularity and order in the dataset, also to uncover the different dimensions exist in the data (p. 4). One ratio was selected from each of the identified factors so that it was insured that the selected ratios have low correlations amongst each other. These ratios were then used as inputs the predictive model.	<u>Variables:</u> 35 variables related strictly to bonds, these included a number of ratios. These variables were from the following classes: one-year variables of financial characteristics, 5-year average variables, and coefficients of variation. <u>Period:</u> 1/1/1967 to 31/12/1968 <u>Size:</u> 180 industrial firms (132 firms in the original sample and 48 firms in a holdout sample). It is not clear whether the data used for PCA contained the combined or the original sample.	<u>Method of extraction:</u> PCA <u>Stopping rule:</u> Eigenvalue >1 and results were checked for discontinuity so that no factor slightly below a reported factor but with an eigenvalue slightly less than 1.00 was left out (footnote 2) <u>Rotation:</u> varimax <u>Results of FA:</u> 7 factors accounting for 63% of the variance. Labels: Size, Financial Leverage, Long-Term Capital Intensiveness, Return on Investment, Short-Term Capital Intensiveness, Earnings Stability, and Debt and Debt Coverage Stability.

Study	Brief description	Data	PCA/FA: Application and Results
<p>Credit scoring: 20. Emel et al. (2003)</p>	<p>The study used Data Envelopment Analysis (DEA) methodology to develop an efficiency score that can be used to judge the creditability of banks' company clients. PCA was used to uncover the interrelationships amongst a set of financial ratios and identify a small set of ratios that cover all the dimensions identified which can be used in the planned analysis. In the light of PCA results, expert opinions were also considered when selecting the final set of ratios to be used as inputs in the DEA.</p>	<p><u>Variables:</u> 46 ratios (4 of which were later discarded because of perfect correlation with other ratios). The ratios used in the study were broadly chosen from the following areas: liquidity, activity, financial structure profitability, growth and funds flow aspects.</p> <p><u>Periods:</u> N/A</p> <p><u>Size:</u> 82 industrial manufacturing firms.</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> eigenvalue >1</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 11 components were found, 7 of which represented firm-specific characters: Bank Loan, Fixed Assets, profitability, leverage, Liability Term Structure, Liquidity, and Sales and Costs. The other 4 factors represented miscellaneous financial characteristics.</p>
<p>Takeovers, mergers and acquisitions: 21. Barnes (1990)</p>	<p>The study discussed some methodological and statistical matters that relate to takeover prediction, and provided UK empirical evidence regarding the prediction of takeover targets using MDA.</p> <p>FA was applied to reduce multicollinearity between variables to be used in the MDA. Ratios with the highest loadings onto each of the identified factors were selected and used the discriminant models.</p>	<p><u>Variables:</u> 9 industry relative ratios.</p> <p><u>Periods:</u> mergers in the period 1986-1987. Relevant data were collected two years prior to the merger.</p> <p><u>Size:</u> 92 successful bids matched to 92 companies from the same industrial sector and close market capitalisation immediately before the merger. These were UK quoted companies from 19 industries.</p>	<p><u>Method of extraction:</u> p. 78 Similar to Pinches et al. (1973)</p> <p><u>Stopping rule:</u> p. 78 Similar to pinches et al. (1973)</p> <p><u>Rotation:</u> p. 78 Similar to pinches et al. (1973)</p> <p><u>Results of FA:</u> 5 factors accounted for 91.48% of the variance. No labels appeared to be given to these factors.</p>
<p>22. Zankis and Zopounidis (1997)</p>	<p>The study aimed at exploring the use of financial ratios in predicting takeovers in a developing country (Greece). The main techniques used for this purpose were MDA and logit analysis.</p> <p>FA was used to reduce collinearity amongst ratios. Ratios with the highest loadings onto each factor were selected and used the discriminate models and logit regressions.</p>	<p><u>Variables:</u> 16 ratios reported under Courtis' (1978) categorical framework: profitability, managerial performance, and solvency. They were selected based on availability, popularity and usefulness in previous literature.</p> <p><u>Period:</u> acquisitions in the period 1983-1990. Relevant data were collected three years prior to the acquisition.</p> <p><u>Size:</u> 80 firms in the calibration sample: 40 acquired and 40 non-acquired firms. Industrial /commercial sectors from many industries were included.</p>	<p><u>Method of extraction:</u> FA</p> <p><u>Stopping rule:</u> Eigenvalue >1</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 6 factors for year 1 before acquisition, explained 77.9% of the variance. In year 2, 6 factors explained 82.4% of the variance, and 7 for year 3 explained 90.3% of the variance. Also, solutions of 10 factors were also tested for every year, they accounted for at least 95% of the variance. When all ratios and years were combined, 14 factors were identified and explained 82.6% of the variance.</p>

Study	Brief description	Data	PCA/FA: Application and Results
<p>23. Sorensen (2000)</p>	<p>The study checked whether financial ratios can be useful in identifying merging firms. This was done using MANOVO, FA and logit analysis.</p> <p>The study commenced by performing a univariate ANOVA to compare the mean values of ratios across target, acquiring and non-merging firms. FA was then performed to confirm the results of ANOVA were factor scores were calculated and mean values of factor scores were then compared amongst the subsamples using ANOVA. Finally logit analysis was used to identify the ratios that can accurately identify nonmerging, acquiring and target firms.</p>	<p><u>Variables:</u> 22 ratios.</p> <p><u>Periods:</u> Merging companies in 1996, for which data for the end of 1995 fiscal year were collected.</p> <p><u>Size:</u> total: 735 companies divided into the following subsamples: Target firms: 286 Acquiring firms: 232 Non-merging firms: 217.</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> Eigenvalue >1</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 3 factors were extracted for the combined sample, these accounted for 53%. Labels: Profitability, Liquidity, and Leverage. 3 factors were extracted for each of the subsamples accounted for the majority of variance.</p>
<p>24. Stevens (1973)</p>	<p>The study aimed to distinguish between acquired and non-acquired firms based on financial characteristics. To achieve this, multivariate discriminant analysis was used to develop a linear discriminant model that can distinguish between acquired and non-acquired groups of firms.</p> <p>FA was performed to deal with the multicollinearity problem; one ratio was then selected from each of the identified factors and were used in the discriminant analysis phase of the study.</p>	<p><u>Variables:</u> 20 ratios chosen based on data availability and previous relevant research. These ratios came from the following groups: liquidity, profitability, leverage, activity and other.</p> <p><u>Periods:</u> the study used firms that were merged in 1966; thus, data used came from the end of previous year.</p> <p><u>Size:</u> 80 firms (40 acquired firms matched with 40 non-acquired firms).</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Stopping rule:</u> Only factors that accounted for substantial amount of variance were retained.</p> <p><u>Rotation:</u> varimax</p> <p><u>Results of FA:</u> 6 factors were extracted accounted for 82.49% of the variance. Labels: Leverage, Profitability, Activity, Liquidity, dividend Policy, and Price Earnings.</p>

APPENDIX 2.3: A summary of studies that used principal component analysis / factor analysis and bank financial ratios (15 studies)

Study	Brief description	Data	Factor Analysis: Application and Results
<p>1. Saunders (1969)</p>	<p>The study aimed to identify the basic dimensions of systematic cross-sectional variations amongst banks' operating and economic variables. These variables were used in regression models in previous banking studies that attempted to identify systematic variations amongst banks. The study used PCA to identify the sets of characteristics so that one variable from a particular set would act as a partial proxy for that set.</p> <p>To measure the extent of co-variability among variables that loaded highly onto one dimension, separate PCA's were carried for each of the four components.</p>	<p><u>Variables:</u> 21 variables relating to bank structure and economic activity in banks' locations. Data were collected from call reports and income statements.</p> <p><u>Years:</u> 1961 for bank structure variables. 1959-1969 for economic activity variables</p> <p><u>Size:</u> 198 banks (Fourth Federal Reserve District member banks)</p>	<p><u>Method of extraction :</u> PCA</p> <p><u>Rotation:</u> No rotation performed</p> <p><u>Stopping Rule:</u> N/A</p> <p><u>Results of FA:</u></p> <p>4 factors, explained 85% of variance. Labels:</p> <ol style="list-style-type: none"> 1. Size, Location, Branching 2. Operations Structure <p>Component three and four were difficult to interpret. Variables that loaded highly onto these two components, and had low loadings onto the first two components were subjected to PCA and this resulted in one component was labelled as:</p> <ol style="list-style-type: none"> 3. Exogenous Environment
<p>2. Jackson (1974)⁴</p>	<p>In the empirical part of the study, Jackson (1974) identified clusters of characteristics related to banking environment. The study used numerical proxies for the different influences in the banking industry and performed PCA over these variables.</p>	<p><u>Variables:</u> 53 variables and ratios selected based on previous literature to represent the following key theoretical or institutional banking characteristics: regulatory, structural, managerial, demand, and performance.</p> <p><u>Years:</u> 1969-1971</p> <p><u>Size:</u> 1,644 banks in 44 states</p>	<p><u>Method of extraction :</u> PCA</p> <p><u>Rotation:</u> varimax</p> <p><u>Stopping Rule:</u> Eigenvalue > 1</p> <p><u>Results of FA:</u></p> <p>13 factors, explained 64% of variance.</p> <p>Labels:</p> <ol style="list-style-type: none"> 1. State Structure Demand 2. State Concentration 3. Large Banks 4. Limited Branches vs. Units 5. Financial Ratios 6. Price and Cost 7. Economic Growth 8. Bank Legal Status and Liquidity 9. Time

⁴ The results of this study were used by Jackson (1975) to study the differences between the behaviour of multi-bank holding companies and other banks.

Study	Brief description	Data	Factor Analysis: Application and Results
			10. Banking Time Trends 11. Multibank Holding companies 12. Bank Output Proxies 13. State Deposit Size Variation
3. Whalen and Thomson (1988)	<p>The study used publicly available data to predict banks' examination rating.</p> <p>Also, the study explored the application of FA as a means to copy the approach followed by examiners to compute CAMEL ratings. Similar to West (1985), factor scores were computed and used as inputs in logit models</p>	<p><u>Variables</u>: 22 ratios calculated using publicly available data (quarterly call-reports), and preselected by regulators and examiners in non-statistical early warning models that predict the ratings of CAMEL for the same group of banks.</p> <p><u>Years</u>: 1983-1986</p> <p><u>Size</u>: 58 banks. These banks were examined under the supervision and examination department of the Federal Reserve Bank of Cleveland. Each of these banks was subjected at least once over the period 1983-1986 to an on-site examination.</p>	<p><u>Method of extraction</u> : Principal Axis Factor Analysis</p> <p>Rotation : varimax</p> <p><u>Stopping Rule</u>: N/A</p> <p><u>Results of FA</u>: Labels: N/A Solutions of two, three, and four factors were tested in the logit models. Finally 2-factor solutions were extracted.</p>
4. Ali et al. (1995)	<p>The study developed a model to classify a number of commercial banks into groups based on their financial characteristics (measured using financial ratios). The study applied a number of statistical techniques including factor, cluster and multi-discriminant analyses. FA was performed to (p. 23) reduce data, identify important ratios, and reduce multicollinearity. Factor scores were used as independent variables in the multi-discriminant model.</p>	<p><u>Variables</u>: 13 ratios. Ratios were calculated based on a previous publication which offered computation of 15 ratios. These ratios captured the different dimension of a bank's performance. Two ratios were then excluded given their low variances.</p> <p>A log transformation was preformed to improve normality.</p> <p><u>Year</u>: 1989</p> <p><u>Size</u>: 45 local commercial banks operating in the Gulf countries.</p>	<p><u>Method of extraction</u>: PCA</p> <p><u>Rotation</u>: oblique</p> <p><u>Stopping rule</u>: Eigenvalue >1</p> <p><u>Results of FA</u>: 4 factors, percentage of variance explained: N/A. Labels: 1. Capital Intensiveness 2. Risk Attitude 3. Profitability 4. Off-balance Sheet Activities.</p>
5. Charbaji (2001)	<p>A similar purpose and methodology to Ali et al. (1995) but for Lebanese commercial banks and with a guideline for potential mergers. Factor analysis, cluster analysis and multiple discriminant analysis were used.</p> <p>The results of FA pointed at (p. 30) ratios that represent 3 dimensions of bank performance. Six of these ratios were later used in the multi-discriminant model.</p>	<p><u>Variables</u>: 52 ratios. Ratios were selected based on previous publication to reflect the different dimensions on bank performance.</p> <p>A log transformation was preformed to improve normality.</p> <p><u>Year</u>: 1999</p> <p><u>Size</u>: 50 Lebanese commercial banks</p>	<p><u>Method of extraction</u>: PCA</p> <p><u>Rotation</u>: oblimin (oblique)</p> <p><u>Stopping rule</u>: N/A</p> <p><u>Results of FA</u>: 3 factors, explained 89.88% of the variance. Labels: 1. Profitability 2. Investment</p>

Study	Brief description	Data	Factor Analysis: Application and Results
			3. Liquidity
<p>6. Poon et al. (1999)</p>	<p>The study offered preliminary tests of Moody’s bank financial strength ratings (BFSRs). This was done through developing a logistic regression model to explain or predict BFSRs. PCA was used to identify the major dimensions of banks’ performance. Factor scores were then computed and used as independent variables in logit models.</p>	<p><u>Variables:</u> 100 variables and financial ratios represented: profitability, efficiency, asset composition, interest composition, interest coverage, leverage, and risk.</p> <p><u>Year:</u> 1996</p> <p><u>Size:</u> 130 banks from over 30 countries. All had BFSR, short-term- and long-term debt ratings (STDR and LTDR) provided by Moody’s, also for these banks the complete set of variables was available.</p>	<p><u>Method of extraction:</u> FA</p> <p><u>Rotation:</u> varimax</p> <p><u>Stopping rule:</u> Eigenvalue >1</p> <p><u>Results of FA:</u> 3 factors, explained over 50% of the variance. Labels:</p> <ol style="list-style-type: none"> 1. Risk 2. Loan Provision ratios 3. Profitability
<p>7. West (1985)</p>	<p>The study aimed to develop an early warning system for commercial banks which enables assigning each bank with a probability of being a distressed bank.</p> <p>This was done by using factor and logit analysis.</p> <p>Factor scores were used as inputs to the logit model. How well these factors explain banks’ conditions can be judged by how good factor scores are in identifying problem banks when used as inputs to the logit model.</p>	<p><u>Variables:</u> 19 variables, all ratios except for one (total assets). Sixteen of the variables came from Call and Income reports and have been used by bank regulators and many of them were used in previous research into early warning systems. Three variables came from reports filled by bank examiners.</p> <p><u>Year:</u> 1980-1982</p> <p><u>Size:</u> ranged between 1,242 and 1,418 banks over the period. Banks located in seven states and had been examined at least once in the three-year period covered by the study</p>	<p><u>Method of extraction:</u> Principal Axis Factor Analysis</p> <p><u>Rotation:</u> varimax and promax:</p> <p><u>Stopping rule:</u> Explaining high percentage of variability and interpretability of factors.</p> <p><u>Results of FA:</u> 8 factors in 1980 and 1981, 7 factors in 1982. (Percentage of variance explained: N/A)</p> <p>First four factors correspond to four of the five CAMEL ratings.</p> <ol style="list-style-type: none"> 1. Capital Adequacy 2. Asset Quality 3. Earnings 4. Liquidity <p>Factor 5-7 represented different loan categories.</p> <p>Factor 8 represents the source of bank deposits.</p> <p>Factors 2 and 3 merged into one factor in year 1982.</p>

Study	Brief description	Data	Factor Analysis: Application and Results
8. Zopounidis et al. (1995)	The study used PCA used to identify the key ratios that represent the behaviour of banks. These were then used in ordinal regression models to evaluate the performance of Greek banks.	<p><u>Variables:</u> 15 ratios. 28 ratios were initially considered, the number was then reduced to the ratios which were stable over the time. These ratios reflect bank's performance in areas like: development, liquidity, investment activity, management efficiency - capital structure, and earning quality (profitability).</p> <p><u>Year:</u> 1989-1992</p> <p><u>Size:</u> 21 Greek Commercial banks and specialised credit institutions</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Rotation:</u> N/A</p> <p><u>Stopping rule:</u> N/A</p> <p><u>Results of FA:</u> 4 factors, explained between 74.5-76.6% of the variance. Labels:</p> <ol style="list-style-type: none"> 1. Liquidity 2. Capital Structure 3. Investment Activity 4. Profitability
9. Shih et al. (2007)	<p>PCA used to derive measures of the ability of banks to perform as financial intermediators. These measures (factor scores) were then used to compare performance of China state banks, joint-stock and city commercial banks.</p> <p>By using PCA, the study referred to the methodology of Canbas et al. (2005)</p>	<p><u>Variables:</u> 10 ratios, selecting criteria: N/A</p> <p><u>Year:</u> 2002</p> <p><u>Size:</u> 4 state banks 11 joint-stock banks 112 city commercial banks (these figures appeared to be combined to form the sample that was used in PCA)</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Rotation:</u> varimax</p> <p><u>Stopping rule:</u> Eigenvalue > 1</p> <p><u>Results of FA:</u> 4 factors, explained 64% of the variance. Labels:</p> <ol style="list-style-type: none"> 1. Overall Solvency 2. Liquidity 3. Credit Risk 4. Capital Profitability
10. Cheng and Ariff (2007)	<p>The purpose of the study is to check which risk factor, besides standardised unexpected earnings, is significant in estimating abnormal returns. The study was based on a banking sample.</p> <p>PCA was performed to identify risk factors. Factor scores were then calculated and used as independent variables in regression models built to answer the research question.</p>	<p><u>Variables:</u> 15 ratios calculated using balance sheets information. 21 ratios were initially factor analysed. Five of them were then omitted from the analysis because of their poor factorability results. Selection criteria: N/A</p> <p><u>Years:</u> 2000-2004</p> <p><u>Size:</u> 10 banks which were all the banks listed in the Kuala Lumpur Stock Exchange. Data for these banks were combined over the years.</p>	<p><u>Method of extraction:</u> PCA: Anti-image correlations, Bartlett's test of sphericity and KMO⁵ were used to check the suitability of data to PCA</p> <p><u>Rotation:</u> varimax</p> <p><u>Stopping rule:</u> Eigenvalue >1</p> <p><u>Results of FA:</u> 4 factors, explained 80.34% of the variance. labels:</p>

⁵ Anti-image correlation matrix, Bartlett's test and KMO are explained in Chapter 3 (Subsection 3.3.1).

Study	Brief description	Data	Factor Analysis: Application and Results
			<ol style="list-style-type: none"> 1. Interest Risk 2. Liquidity Risk 3. Credit Risk 4. Solvency Risk
<p>11. Canbas et al. (2005)</p>	<p>The purpose was to develop an integrated early warning system (IEWS) to identify distressed banks. PCA was used to determine the main financial characteristics of banks. Discriminant, logit and probit models were used in constructing the IEWS. Univariate analysis of variance were first performed for the 49 ratios in the first year prior to failure to identify the ratios that considered as the early warning indicators as they were able to discriminate between failed and healthy banks. Twelve ratios were found and subjected to PCA also in the first year prior to failure to determine the factors that explained the changes in banks' conditions. Factor scores were then computed and used as independent variables in early warning models.</p>	<p><u>Variables:</u> 12 ratios provided by the Banks Association of Turkey.</p> <p><u>Years:</u> 1994-2001</p> <p><u>Size:</u> 40 privately-owned Turkish commercial banks. Amongst which, 18 banks failed during the period.</p>	<p><u>Method of extraction:</u> PCA: Bartlett's test of sphericity (BTS) was performed to check the suitability of data to PCA.</p> <p><u>Rotation:</u> varimax</p> <p><u>Stopping rule:</u> Eigenvalue > 1</p> <p><u>Results of FA:</u> 3 factors, explained 78.83% of the variance. Labels:</p> <ol style="list-style-type: none"> 1. Capital Adequacy 2. Income-Expenditure Structure 3. Liquidity <p>These factors did not correspond to CAMELS developed in the united states. This could be due to the differences in bank supervisory and examination activities between Turkey and the US.</p>
<p>12. Meric et al. (1991)</p>	<p>The paper investigated the financial characteristics of banks involved in interstate acquisition. The methodology used hoped to avoid the non-normality and collinearity in the data. First PCA was performed and factor scores were then used in MANOVA to compare the overall characteristics of banks (acquired, acquiring and match banks).</p>	<p><u>Variables:</u> 21 variables (all ratios except for 2). 20 variables were used in PCA. Data were drawn from Call and Income Report tapes of the FDIC (Federal Deposit Insurance Corporation). Ratios were selected as measures of various financial characteristics of banks included in the sample.</p> <p><u>Years:</u> the year preceded the acquisition. Generally covered the period between 1983 and 1987.</p> <p><u>Size:</u> 3 samples were used for PCA, each was consisted of 90 banks: First consisted of 45 acquiring banks and 45 matching banks) (20 variables) Second also 90 banks (45 acquired banks and 45 matching banks) (20 Variables)</p>	<p><u>Method of extraction:</u> Uncorrelated PCA</p> <p><u>Rotation:</u> Uncorrelated PCA but the exact rotation is not specified.</p> <p><u>Stopping rule:</u> Eigenvalue > 1</p> <p><u>Results of FA:</u> For the acquiring banks (and their matching bank): 6 factors, explained 78.5% of the variance. Labels: Interest Spread</p> <ol style="list-style-type: none"> 1. Interest Spread 2. Personnel Expenses 3. Net Income 4. Total Amount of Loans

Study	Brief description	Data	Factor Analysis: Application and Results
		Third sample consisted of 90 banks (45 acquired and 45 acquiring) (21 variables)	5. Loans Secured by Real Estate 6. Consumer Loans For the acquired banks (and their matching banks): 6 factors, explained 79.4% of the variance. Labels: 1. Personnel Expenses 2. Total Amount of Loans 3. Net Income 4. Operating Income 5. Loans Secured by Real Estate 6. Consumer Loans For the acquiring and acquired sample: 7 factors, explained 84.0% of the variance. Labels: 1. Personnel Expenses 2. Operating Income 3. Total Amount of Loans 4. Net Income 5. Cash Assets 6. Consumer loans 7. Agricultural Loans.
<p>13. Haslem et al. (1986)</p>	<p>The study tested the hypothesis that international banking activities are less profitable than domestic banking activities.</p> <p>The study was carried out by performing PCA given the large number of variables involved. PCA was used to help in exploring the interrelationships among the variables, and also to help identifying the relationship between the clusters of international activities and the relative bank profitability.</p> <p>By performing the analysis for three successive years, it was possible to check for the consistency of the results.</p>	<p><u>Variables:</u> 52 ratios obtained from the Statement of Condition and Report of Income. These ratios included a particular foreign banking activity in the numerator, and its counterpart international plus domestic banking activity in the denominator. The categories of these ratios were as follows: loan, other, deposit liability, miscellaneous asset or liability, income or expense, income or income tax ratios, in addition to one profitability performance ratio.</p> <p><u>Years:</u> 1978-1980</p> <p><u>Size:</u> 97-98 federally-regulated banks</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Rotation:</u> varimax</p> <p><u>Stopping rule:</u> Eigenvalue > 1</p> <p><u>Results of FA:</u> 13 factors, explained over 78% of variance in 1980) The first six factors had at least three variables significantly loading onto them (loading over .70 were considered significant in this study). The study did not focus on factors 7-13.</p> <p>Factor 1 was of a loan-assets ratios, factor 2 consisted of cash-assets ratios, Variables in factors 3-6 were loan-assets, cash-assets and net income variables.</p>

Study	Brief description	Data	Factor Analysis: Application and Results
			Similar results were obtained for years 1978 and 1979.
<p>14. Johnson and Meinster (1975)</p>	<p>The study used multivariate analysis to distinguish between acquired and non-acquired banks, and then testing the effects of bank holding companies on the performance of acquired banks in post-acquisition intervals.</p> <p>PCA was performed to help selecting performance measures that were used in MDA. Both factor scores and a small set of ratios were used in MDA..</p>	<p><u>Variables:</u> 20 ratios, selection criteria: N/A</p> <p><u>Years:</u>N/A</p> <p><u>Size:</u> 27 acquired and 36 non-acquired banks</p>	<p><u>Method of extraction:</u> PCA</p> <p><u>Rotation:</u> N/A</p> <p><u>Stopping rule:</u> N/A</p> <p><u>Results of FA:</u> Number of components extracted: N/A However, first component represented Profitability and the second was labelled as Operating Efficiency. No apparent meanings were found for the remaining components. Multivariate discriminant analysis (MDA) was performed using various numbers of components and also using selected performance measures for each of the identified components.</p>
<p>15. Yeh (1996)</p>	<p>The study used financial ratios in conjunction with Data Envelopment Analysis (DEA) to measure banks' efficiency and to compare the financial dimensions for banks grouped based in their DEA efficiency score.</p> <p>Factor analysis was used to identify the main financial dimensions, then factor scores were averaged and compared between banks in the different DEA efficiency groups.</p>	<p><u>Variables:</u> 12 ratios chosen after considering the ratios generally accepted by Taiwanese regulators and ratios accessible to the public.</p> <p><u>Years:</u> 1981-1989</p> <p><u>Size:</u> 6 Taiwanese banks.</p> <p>The observations for the 6 banks over 9 years made 54 bank/year observations. These were subjected to FA and factor scores were calculated and used for the analysis.</p>	<p><u>Method of extraction:</u> Principal Factor Analysis</p> <p><u>Rotation:</u> varimax</p> <p><u>Stopping rule:</u> N/A</p> <p><u>Results of FA:</u> 4 factors accounted for 88.61% of the variance. Cronbach alpha was used to measure the reliabilities of the factors and were in excess of .95. Labels given are:</p> <ol style="list-style-type: none"> 1. Capital Adequacy 2. Profitability 3. Asset Utilisation 4. Liquidity

APPENDICES FOR CHAPTER 3

APPENDIX 3.1: Methodological and data issues in previous literature

	Method of extraction	Criteria for number of components	Rotation method	Stability/similarity	Years covered	Factor comparison methods	Ratio selection	Number of ratios	Data transformation	Sample Size
<p>1. Pinches et al. (1973)</p> <p>Long-term stability (Subsection 2.4.2)</p>	FA	Eigenvalue and all results were checked for discontinuity	Orthogonal and oblique (biquartimin)	Long-term	4 years over period of 19 years 1951-57-63-69	<p>Visual comparison: yes ((magnitude of loadings of ratios onto factors over the years)</p> <p>Correlation analysis</p> <p>Notes: Differential-R factor analysis to assess the positional change between two years (see p. 21 in chapter2) t-test for differences in ratio means over time</p>	not reported	48 ratios	Transformation to all ratios	221 firms
<p>2. Pinches et al. (1975)</p> <p>Short-term stability (Subsection 2.4.2)</p>	FA	Eigenvalue >1 (p. 298)	Oblique (biquartimin)	Short-period	4 years 1966-67-68-69	<p>Visual comparison</p> <p>Correlation analysis: They Factor analysed the data matrix 1966-1968 and correlate the results with 1969 (p. 301) factor analysis of the average data matrix</p> <p>Notes: Higher order or hierarchical FA with orthogonal rotation to assess the similarity</p>	'...thorough review of prior studies involving financial ratios' p. 296	48 ratios	Transformation to all ratios	221 firms

	Method of extraction	Criteria for number of components	Rotation method	Stability/similarity	Years covered	Factor comparison methods	Ratio selection	Number of ratios	Data transformation	Sample Size
						between the derived factors				
3. Johnson (1979) Cross-sectional stability Subsection (2.4.3)	PCA	Eigenvalue Each component explains 5% or more of variance Results checked for discontinuity	Orthogonal (varimax)	Cross-sectional Time-series	2 years 1974-1979	Visual comparison Correlation analysis Notes: Canonical analysis	'...thorough review of studies involving financial ratios' p. 1036	61 ratios	Transformation to some ratios	465 firms (306 primary manufacturers- 159 retailers)
4. Laurent (1979) Ratio usefulness and efficiency (Subsection 2.4.1)	PCA	Interpretability (kept only components that could be assigned to meaningful labels)	N/A	-	N/A 'latest published annual Financial statement'	Notes: Visual comparisons with Courtis' (1978) categories Notes about factor scores and selecting surrogate ratios p. 16	other research and texts in the area of finance p. 402	45 ratios	No transformation	63 companies
5. Short (1980) Classification and other research areas (Subsection 2.4.6)	FA	Eigenvalue	Orthogonal and oblique: similar results	Cross-sectional	1972	Visual comparisons Notes: Residual matrix (Schonoemann and Carroll) very similar to transformation analysis (p. 58 in Ch. 2)	'...common' accounting ratios' p. 382	36 ratio	Transformed and untransformed data returned similar results	259 firms
6. Chen and Shimerda (1981) Ratio usefulness and efficiency (Subsection 2.4.1)	PCA	N/A	N/A	With other studies	1979	Visual comparison with results from previous studies selecting ratios from results p. 18	significant ratios in the prediction of firm failure p. 56	34 ratios	No transformation	1,053 firms
7. Cowen and Hoffer (1982) Industry level (Subsection 2.4.5)	PCA	N/A	Orthogonal (varimax)	Over time	10 years, 1966-1975	Visual comparison Correlation analysis (adjacent years)	Dunn & Bradstreet's key ratios	13 ratios	Transformed and untransformed data were used	72 companies

	Method of extraction	Criteria for number of components	Rotation method	Stability/similarity	Years covered	Factor comparison methods	Ratio selection	Number of ratios	Data transformation	Sample Size
8. Gombola and Ketz (1983b) Cross-sectional stability Subsection (2.4.3)	FA	Eigenvalue	Orthogonal (varimax)	Over time Across industries	10 years 1971-1980	Visual comparison Congruency coefficients	All 48 ratios of Pinches et al. (1975) and other ratios p.47	58 ratios	No transformation	871 firms Manufacturing: 783 Retail: 88
9. Mear and Firth (1986) Country level (Subsection 2.4.4)	FA and PCA similar results found Factorability tests reported	Not Clear	Orthogonal (varimax and quartimax) Oblique (promax) Similar results	-	the last accounting period appearing on the database used as on 1/11/1983	Visual comparison with previous studies (p. 51 in paper)	After a review of previous ratio classification literature and variables used in the New Zealand financial community (p. 49)	44 variables and ratios	Transformation to some ratios	114 firms
10. Ezzamel et al. (1987a) Country level (Subsection 2.4.4)	FA	Eigenvalue, Consistency with results of other years	Orthogonal (varimax and quartimax) Oblique (promax) Similar results	Over time	3 years 1973-77 and 81 over the period 1973-81	Visual comparison Correlation analysis Notes: Differential-R factor analysis (see p. 21 in Ch. 2) The % of absolute deviation between ratio loadings onto the factor in two years (p. 47 in Ch. 2)	'...usefulness and popularity as reflected in the literature...' p. 524	53 ratios	No transformation	1,115 1,429 and 1,434 firms for years 1973,1977 and 1981, respectively
11. Yli-Olli and Virtanen (1989) Cross-sectional stability-countries (Subsection 2.4.3)	PCA	Interpretability and <i>a priori</i> knowledge of the number of dimensions represented in the data	Varimax orthogonal	Over time	1947-75 for U.S. sample; 1974-84 for Finnish sample	Visual comparison Transformation analysis	four <i>a priori</i> measures p.41	12 ratios	No transformation	U.S: 1947: 450firms 1975:1,500 firms Finland: 42 firms

	Method of extraction	Criteria for number of components	Rotation method	Stability/similarity	Years covered	Factor comparison methods	Ratio selection	Number of ratios	Data transformation	Sample Size
<p>12. Ketz et al. (1990)</p> <p>Cross-sectional stability Subsection (2.4.3)</p>	<p>Tested the means Common factor analysis Also, other FA techniques were used</p>	<p>Eigenvalue, Cattell's scree plot Interpretability of factors All these yielded similar results.</p>	<p>Varimax, quartimax and equamax orthogonal Orthooblique and promax oblique Orthogonal results were fairly similar, oblique also, however oblique and orthogonal were slightly different</p>	<p>Cross-sectional Time-series</p>	<p>1978-1987</p>	<p>Visual comparison Congruency coefficients (all possible pairs of years)</p>	<p>Popularity and common use in previous literature</p>	<p>32 ratios</p>	<p>No transformation</p>	<p>33-97 firms</p>
<p>13. Devine and Seaton (1995)</p> <p>Short-term stability Subsection (2.4.2)</p>	<p>PCA</p>	<p>Eigenvalue, then the significance of components were checked and same number of factors were kept for all samples</p>	<p>Oblique (orthooblique)</p>	<p>Time-series</p>	<p>Quarterly for six years between 1985 and 1990</p>	<p>Visual comparison Congruency coefficients</p>	<p>the selected ratios were used in Pinches et al. (1973 and 1975)</p>	<p>44 ratios</p>	<p>Transformed and untransformed data were used</p>	<p>328 firms</p>
<p>14. Martikainen et a. (1994)</p> <p>Cross-sectional stability (Subsection 2.4.3)</p>	<p>PCA</p>	<p>Cattell's scree plot</p>	<p>Orthogonal (varimax)</p>	<p>Cross-sectional</p>	<p>Annually 3 years before failure</p>	<p>Visual comparison Transformation analysis</p>	<p>'...ratios used in earlier literature (Lev, 1974) and by creditors in their decision making' p.61</p>	<p>16 ratios</p>	<p>No transformation</p>	<p>148 small-and medium sized firms 74 failed and 74 non-failed firms(66-26-56)</p>
<p>15. Martikainen et al. (1995a)</p> <p>Classification and other research areas (Subsection (2.4.6))</p>	<p>PCA</p>	<p>Eigenvalue</p>	<p>Orthogonal (varimax)</p>	<p>Time-series</p>	<p>7 years (1981-1987)</p>	<p>Visual comparison Transformation analysis (time-series)</p>	<p>'...selected from five categories...' p.37</p>	<p>10 ratios</p>	<p>Transformed and untransformed data were used</p>	<p>34 firms</p>

	Method of extraction	Criteria for number of components	Rotation method	Stability/similarity	Years covered	Factor comparison methods	Ratio selection	Number of ratios	Data transformation	Sample Size
16. Martikainen (1995b) Short-term stability Subsection (2.4.2)	PCA	N/A	N/A	Time series	3 years before failure	Visual comparison Transformation analysis	ratios represented categories emphasised in Lev (1974) and in earlier literature p.1705	16 ratios	No transformation	148 small-and medium-sized firms (74 failed and 74 non-failed)
17. Zeller et al. (1996) Industry level (Subsection 2.4.5)	PCA	Eigenvalue Scree plot Interpretability of factors	Oblique (direct-oblimin)	Cross-sectional	4 years (1989-1992)	Visual comparison Correlation analysis (between loadings on the same ratio on the same factor in two samples)	Ratios used in previous hospital literature (p. 167)	28 ratios	No transformation	2,189 hospitals

APPENDICES FOR CHAPTER 4

APPENDIX 4.1: Ratios and their definitions*

Number	Ratio	Definition
X1	INT INC \ AVR AST	All income from earning assets plus tax benefit on tax-exempt loans, leases, and municipal securities, divided by average assets.
X2	INT EXP \ AVR AST	Total interest expenses divided by average assets.
X3	NET INT INC \ AVR AST	Total interest income, plus tax benefit on tax-exempt income, less total interest expenses, divided by average assets.
X4	NONINT INC \ AVR AST	Income derived from bank services and sources other than interest-bearing assets, divided by average assets.
X5	NONINT EXP \ AVR AST	Salaries and employee benefits, expenses of premises and fixed assets and other non-interest expenses divided by average assets.
X6	PROVISION LN&LS LOSSES \ AVR AST	Provision for loan and lease receivables losses divided by average assets.
X7	PRETAX OPER INC \ AVR AST	Net interest income on tax-equivalent basis plus non-interest income, less non-interest expenses, the provision for loan and lease-financing receivables losses and provision for allocated transfer risk, divided by average assets.
X8	PRETAX NET OPER INC \ AVR AST	Pre-tax operating income, plus securities gains or losses divided by average assets.
X9	NET OPER INC \ AVR AST	After tax net operating income, including securities gains or losses (which does not include extraordinary gains or losses), divided by average assets.
X10	NET INC \ AVR AST	Net income after securities gains or losses, extraordinary gains or losses, and applicable taxes divided by average assets.
X11	AVR EARN AST \ AVR AST	Year-to-date average of average total loans (net of unearned income) in domestic and foreign offices, lease-financing receivables, U.S Treasury, Agency and Corporation obligations, mortgage-backed securities, other securities, assets held in trading accounts, interest-bearing balances due from depository institutions, and federal funds sold and securities purchased under agreements to resell, plus five period average of Interest Only Strips (Mortgage loans and Other) and Equity Securities divided by average assets.
X12	AVR INT-BEARING FUNDS \ AVR AST	Average interest-bearing domestic and foreign office deposits, federal funds purchased and securities sold under agreements to repurchase, other borrowed money, and notes and debentures subordinated to deposits, divided by average assets.
X13	INT INC \ AVR EARN AST	Total interest income on tax-equivalent basis divided by average of respective asset accounts involved in generating that income.
X14	INT EXP \ AVR EARN AST	Total interest expenses divided by average of respective asset accounts involved in generating interest

Number	Ratio	Definition
		income.
X15	NET INT INC \ AVR EARN AST	Total interest income on tax-equivalent basis, less total interest expenses, divided by average of respective asset accounts involved in generating interest income.
X16	NET LOSS \ AVR TOT LN&LS	Gross loan and lease charge-off, less gross recoveries (includes allocated transfer risk reserve charge-off and recoveries), divided by average total loans and leases.
X17	EARN COV OF NET LOSS	Net operating income before taxes, securities gains or losses, and extraordinary items, plus provision for possible loan and lease-financing receivable losses divided by net loan and lease losses.
X18	LN&LS ALLOW \ NET LOSSES	Ending balance of allowance for possible loan and lease-financing receivable losses divided by net loan and lease losses.
X19	LN&LS ALLOW \ LN&LS NOT HFS	Ending balance of allowance for possible loan and lease losses divided by total loans and lease-financing receivables not held for sale.
X20	LN&LS ALLOW \ TOT LN&LS	Ending balance of allowance for possible loan and lease losses divided by total loans and lease-financing receivables.
X21	NON-CUR LN&LS \ GRS LN&LS	Sum of loans and lease-financing receivables past due at least 90 days, plus those in nonaccrual status, divided by gross loans and lease-financing receivables outstanding.
X22	NET N CORE FUND DEPENDENCE	Non-core liabilities ⁶ , less short-term investments ⁷ divided by long-term assets ⁸ .
X23	NET LN&LS \ TOT AST	Loans and lease-financing receivables net of unearned income and allowance for possible loans and lease financing receivable losses divided by total assets.

⁶ Non core liabilities: Sum of Total time deposits of \$100M or more + Other borrowed money (all maturities) + Foreign office deposits + Securities sold under agreements to repurchase and federal funds purchased + Insured brokered deposits issued in denominations of less than \$100,000 + Demand notes issued to the U.S Treasury (Not available from March 31, 2001 forward).

⁷ Short-term investments: Sum of Interest-bearing bank balances + Federal funds sold and securities purchased under agreements to resell + Debt securities with remaining maturity of one year or less + Acceptances of other banks (loans) prior to March 31, 2001.

⁸ Short-term assets: Sum of Short- term investments (defined above) + Loans and leases with remaining maturity of one year or less - Acceptances of other banks prior to March 31, 2001.

Number	Ratio	Definition
X24	TIER ONE LEVERAGE CAP	Tier one capital ⁹ divided by adjusted average assets ¹⁰ .
X25	CASH DIV \ NET INC	Total of all cash dividends declared year-to-date divided by net income year-to-date.
X26	RETAIN EARNNS \ AVR TOT EQ	Net income, less cash dividends declared, divided by average equity capital.
X27	RESTR+NONAC+RE ACQ \ EQCAP+ALLL	Sum of loans and leases which are on non-accrual, restructured but 30–89 days past due, restructured but over 90 days past due, restructured and in compliance with modified terms and non-investment other real estate owned divided by the sum of total equity capital plus allowance for possible loan and lease losses.
X28	G R AST	Growth rates are calculated for 12-month period. Percentage determined by subtracting account balance as of corresponding reporting period in previous year from current period account balance and dividing result by previous year balance.
X29	G R TIER ONE CAP	Growth rate ratio of Tier I Capital (see definition in footnote 9).
X30	G R NET LN&LS	Growth rate ratios for net loans and leases (net loans and leases: gross loans and leases, less allowance and reserve and unearned income).
X31	G R S T INV	Growth rate ratio of short-term investments (see footnote 7 for definition).
X32	G R S T NON CORE FUNDING	Growth rate ratio of Short-Term Non-Core Funding ¹¹
X33	EFFICIENCY RATIO	Total Overhead Expenses expressed as percentage of Net Interest Income (TE) plus Non-interest Income.
X34	AVR PERSONNEL EXP PER EMPL(\$000)	Average salary (including benefits) per employee expressed in thousands of dollars.

⁹ Tier 1 capital:

1. Total equity capital (from Schedule RC, item 28)
2. LESS: Net unrealised gains (losses) on available-for-sale securities¹ (if gain, report as positive value; if loss, report as negative value)
3. LESS: Net unrealised loss on available-for-sale EQUITY securities¹ (report loss as positive value)
4. LESS: Accumulated net gains (losses) on cash flow hedges¹ (if gain, report as positive value; if loss, report as negative value)
5. LESS: Non-qualifying perpetual preferred stock
6. Qualifying minority interests in consolidated subsidiaries.
7. LESS: Disallowed goodwill and other disallowed intangible assets
8. Subtotal (sum of items 1 and 6, less items 2, 3, 4, 5, and 7)
9. a. LESS: Disallowed servicing assets and purchased credit card relationships
- b. LESS: Disallowed deferred tax assets
10. Other additions to (deductions from) Tier 1 capital
11. Tier 1 capital (sum of items 8 and 10, less items 9.a and 9.b)

¹⁰ Adjusted Average Assets: Average assets adjusted for ineligible intangible assets and deferred tax assets as used in Tier 1 capital.

¹¹ Short-term non-core funding: Sum of Time deposits of \$100M or more with remaining maturity of one year or less + Brokered deposits issued in denominations of less than \$100M with remaining maturity of one year or less + Other borrowed money with remaining maturity one year or less + Time deposits with remaining maturity of one year or less in foreign offices + Securities sold under agreements to repurchase and federal funds purchased + Demand notes issued to U.S. Treasury (Not available from March 31, 2001 forward).

Number	Ratio	Definition
X35	AST PER EMPLOYEE (\$MILLION)	Average assets divided by number of full-time equivalent employees on payroll at end of period. Result shown in millions of dollars.
X36	YIELD ON TOT LN&LS (TE)	Interest and fees on loans and income on direct lease-financing receivables, plus tax benefit on tax-exempt loan and lease income, divided by average total loans and lease-financing receivables.
X37	YIELD ON TOT INV SEC (TE)	Income on securities not held in trading accounts, plus estimated tax benefit on tax-exempt municipal securities income, divided by average U.S Treasury and U.S government agency securities, state and political subdivisions, and other debt and equity securities.
X38	COST OF ALL INT-BEARING FUNDS	Interest on all interest-bearing deposits in domestic offices, interest-bearing foreign office deposits, demand notes (note balances) issued to the U.S Treasury, other borrowed money, subordinated notes and debentures, and expenses on federal funds purchased and securities sold under agreements to repurchase, interest expenses on mortgage and capitalised leases divided by average of liabilities or funds that generated those expenses.
X39	S T INV \ TOT AST	Temporary investments divided by total assets at end of the period (see footnote 7 for definition of Short-Term Investments)
X40	MARKETABLE EQ SEC \ TOT AST	Investments in mutual funds and other equity securities with readily determinable values divided by total assets.
X41	CORE DEP \ TOT AST	Core deposits ¹² divided by total assets.
X42	S T NCORE FUNDING \ TOT AST	Short-term non-core funding (footnote 11) divided by total assets.
X43	NET S T NCORE FUND DEPENDENCE	Short-term non-core funding (footnote 11) less short-term investments (footnote 7) divided by long-term assets ¹³ .
X44	BROK DEP \ DEP	Deposits acquired from brokers and dealers for account of others divided by total deposits.
X45	S T INV \ S T NCORE FUND	Short-term investments (footnote 7) divided by short-term non-core funding (footnote 11).
X46	S T AST \ S T LIABS	Short-term assets (footnote 8) divided by short-term liabilities ¹⁴ .
X47	NET S T LIAB \ TOT AST	Short-term liabilities (footnote 14) less short-term assets (footnote 8) divided by total assets.
X48	NET LN&LS \ DEP	Net loans, plus lease-financing receivables, divided by total deposits.
X49	NET LN&LS \ CORE DEP	Net loans, plus lease-financing receivables, divided by total core deposits (footnote 12).

¹² Core deposits: All demand and savings deposits including money market deposit accounts and NOW and ATS accounts, savings deposits, plus time deposits in amounts of less than \$100 thousand.

¹³ Long Term Assets: Net loans and leases -Acceptances of other banks (loans) prior to March 31, 2001 + Held to maturity securities + Available for sale securities -Debt securities with remaining maturity of one year or less + Other real estate owned (non-investment).

¹⁴ Short-Term Liability: Sum of Time deposits less than \$100,000 with remaining maturity of one year or less + Time deposits of \$100M or more with remaining maturity of one year or less + Other borrowed money with remaining maturity 1 year or less + Deposits in foreign offices with remaining maturity 1 year or less + Securities sold under agreements to repurchase and federal funds purchased + Demand notes issued to U.S. Treasury (Not available from March 31, 2001 forward).

Number	Ratio	Definition
X50	TOT HTM SEC \ TOT SEC	Sum of all securities classified as held-to-maturity as percentage of total securities
X51	TOT AFS SEC \ TOT SEC	Sum of all securities classified as available-for-sale as percentage of total securities.
X52	PLEDGED SEC \ TOT SEC	Book value of all securities as defined pledged to secure deposits, repurchase transactions, or other borrowing (regardless of balance of deposits or other liabilities against which securities are pledged), as performance bonds under futures or forward contracts, or for any other purpose, divided by total securities.
X53	NET INC \ AVR TOT EQ	Net income divided by average total equity capital.
X54	G R TOT EQCAP	Growth rate ratio of total equity capital ¹⁵ . Growth rate determined by subtracting account balance at end of corresponding period in prior year from current account balance and dividing result by account balance at end of corresponding period in prior year.
X55	TIER ONE RBC \ RISK-WGT AST	Bank reports financial subsidiaries then the Tier 1 risk-based capital ratio adjusted for financial subsidiaries is displayed from RC-R. Otherwise, unadjusted Tier 1 risk-based capital ratio is displayed from RC-R. For prior quarters, Tier 1 capital divided by risk-weighted assets.
X56	TOT RBC \ RISK-WGT AST	From March 31, 2001 forward, if bank reports financial subsidiaries then adjusted total risk-based capital ratio is displayed. Otherwise, unadjusted total risk-based capital ratio is displayed. For prior quarters, calculated by dividing total risk-based capital by risk-weighted assets.

* Average assets and liabilities used as denominators in the ratios included in this table are calculated by the UBPR using the cumulative or year-to-date average of the one-quarter averages reported in Schedule RC-K of the Report of Condition (FFIEC, 2006, PP. II-3 – II-4). That is, to calculate average assets for a bank at the end-of-year, assets for all quarters (i.e. quarters 1 to 4) are averaged (FFIEC, 2006, p. III-4).

¹⁵ Total equity capital: Sum of Perpetual preferred stock and related surplus + Common stock + Surplus (exclude all surplus related to preferred stock)+ Retained earnings + Accumulated other comprehensive income + Other equity capital components.

APPENDICES FOR CHAPTER 5

APPENDIX 5. 1: Parallel analysis outputs for commercial banks (transformed) (2001-2004)

2001				21.000000	.613370	1.039164	1.044985
Run MATRIX procedure:				22.000000	.611303	1.033256	1.038976
				23.000000	.580338	1.027563	1.032970
PARALLEL ANALYSIS:				24.000000	.555850	1.022051	1.027679
				25.000000	.471981	1.016424	1.022121
Principal Components & Raw Data Permutation				26.000000	.434473	1.010758	1.016286
				27.000000	.402943	1.005125	1.010566
Specifications for this Run:				28.000000	.346100	.999622	1.004877
Ncases 5568				29.000000	.322188	.994123	.998998
Nvars 56				30.000000	.276953	.988621	.993928
Ndatsets 1000				31.000000	.261081	.983166	.988563
Percent 95				32.000000	.237005	.977596	.982959
				33.000000	.176860	.972220	.977567
Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues				34.000000	.165022	.966888	.972491
Root	Raw Data	Means	Prcntyle	35.000000	.127166	.961373	.966966
1.000000	8.626058	1.194786	1.211275	36.000000	.116070	.955808	.961525
2.000000	8.242988	1.178763	1.190787	37.000000	.094156	.950280	.955776
3.000000	5.349954	1.166964	1.177084	38.000000	.090944	.944838	.950426
4.000000	3.691853	1.156659	1.166220	39.000000	.086634	.939378	.945228
5.000000	3.175638	1.147221	1.156360	40.000000	.068887	.933687	.939468
6.000000	2.534851	1.138534	1.147242	41.000000	.054388	.928266	.933994
7.000000	2.367374	1.130533	1.139033	42.000000	.052259	.922635	.928142
8.000000	2.077118	1.122403	1.130064	43.000000	.043759	.916816	.923013
9.000000	1.725877	1.115244	1.121933	44.000000	.034890	.911006	.916843
10.000000	1.516780	1.108165	1.115140	45.000000	.026394	.905100	.911245
11.000000	1.430423	1.101165	1.107839	46.000000	.012960	.899117	.905398
12.000000	1.359661	1.094426	1.101208	47.000000	.009448	.892994	.899388
13.000000	1.204012	1.087944	1.094595	48.000000	.005538	.886772	.893119
14.000000	1.106863	1.081512	1.087848	49.000000	.004394	.880548	.886989
15.000000	1.058015	1.075038	1.081591	50.000000	.003995	.873932	.880674
16.000000	.973402	1.068763	1.075278	51.000000	.000472	.866894	.873740
17.000000	.927985	1.062872	1.068556	52.000000	.000241	.859649	.867056
18.000000	.856992	1.056772	1.062571	53.000000	.000149	.851927	.859918
19.000000	.758381	1.050871	1.056706	54.000000	.000129	.843536	.852168
20.000000	.727394	1.044829	1.050584	55.000000	.000027	.833883	.842849

56.000000 .000014 .821521 .832318

----- END MATRIX -----

2002

Run MATRIX procedure:

PARALLEL ANALYSIS:

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 5732
 Nvars 56
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	8.652669	1.192229	1.207716
2.000000	7.979135	1.177398	1.189323
3.000000	5.202837	1.165636	1.176360
4.000000	4.086782	1.155354	1.164635
5.000000	3.324449	1.146000	1.154970
6.000000	2.418415	1.137351	1.145752
7.000000	2.339239	1.129290	1.136971
8.000000	2.020053	1.121599	1.129250
9.000000	1.752092	1.114240	1.122032
10.000000	1.492669	1.107006	1.114117
11.000000	1.414071	1.100222	1.107194
12.000000	1.366621	1.093411	1.099778
13.000000	1.242756	1.086725	1.093289
14.000000	1.062353	1.080389	1.086638
15.000000	1.051760	1.074050	1.080395
16.000000	.956703	1.067977	1.073669
17.000000	.902559	1.061906	1.068334
18.000000	.853835	1.056058	1.061875

19.000000	.803066	1.050219	1.055844
20.000000	.707908	1.044209	1.049817
21.000000	.649270	1.038678	1.044493
22.000000	.599770	1.032874	1.038652
23.000000	.577015	1.027118	1.032894
24.000000	.565141	1.021419	1.026792
25.000000	.472848	1.016062	1.021524
26.000000	.435478	1.010527	1.016177
27.000000	.414138	1.005212	1.010680
28.000000	.344028	.999584	1.005196
29.000000	.320685	.994179	.999786
30.000000	.277692	.988699	.994289
31.000000	.260628	.983219	.988623
32.000000	.230036	.977809	.983547
33.000000	.190743	.972582	.978090
34.000000	.145170	.967074	.972669
35.000000	.124741	.961772	.967278
36.000000	.112551	.956425	.962026
37.000000	.104560	.950941	.956343
38.000000	.089313	.945530	.951139
39.000000	.081801	.939991	.945652
40.000000	.073310	.934484	.940271
41.000000	.069573	.929001	.934640
42.000000	.062239	.923485	.929219
43.000000	.043339	.917559	.923351
44.000000	.038802	.911886	.917641
45.000000	.031783	.905997	.911797
46.000000	.018733	.899935	.905959
47.000000	.011248	.893971	.900180
48.000000	.009095	.887984	.894189
49.000000	.008304	.881644	.888051
50.000000	.004562	.875211	.881844
51.000000	.002349	.868486	.875411
52.000000	.000754	.861331	.868892
53.000000	.000189	.853524	.861141
54.000000	.000074	.845228	.853320
55.000000	.000056	.835707	.844722
56.000000	.000012	.823604	.834997

----- END MATRIX -----

2003

Run MATRIX procedure:

PARALLEL ANALYSIS:

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 5729
 Nvars 56
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcentyle
1.000000	9.248950	1.193564	1.208971
2.000000	7.439901	1.178026	1.190308
3.000000	5.274889	1.165858	1.175969
4.000000	4.049792	1.155606	1.165176
5.000000	3.262539	1.146341	1.155356
6.000000	2.614654	1.137957	1.146535
7.000000	2.308886	1.129740	1.137984
8.000000	1.867602	1.122169	1.130081
9.000000	1.697063	1.114559	1.121979
10.000000	1.601917	1.107589	1.114708
11.000000	1.459682	1.100679	1.107777
12.000000	1.359753	1.093945	1.100464
13.000000	1.210802	1.087125	1.093801
14.000000	1.065971	1.080686	1.087228
15.000000	1.014590	1.074311	1.080694
16.000000	.966973	1.068368	1.074352
17.000000	.899496	1.062073	1.067761
18.000000	.875652	1.056137	1.062155
19.000000	.813437	1.050272	1.056250
20.000000	.726519	1.044565	1.050404

21.000000	.640334	1.038648	1.044471
22.000000	.600894	1.033035	1.038393
23.000000	.576200	1.027426	1.032915
24.000000	.536820	1.021704	1.027211
25.000000	.469676	1.016118	1.021874
26.000000	.431516	1.010546	1.016045
27.000000	.413691	1.005027	1.010685
28.000000	.343253	.999624	1.005275
29.000000	.314818	.994065	.999512
30.000000	.292773	.988697	.993837
31.000000	.255388	.983221	.988380
32.000000	.218154	.977801	.982863
33.000000	.170248	.972311	.977781
34.000000	.144644	.966794	.972038
35.000000	.133112	.961462	.966733
36.000000	.111926	.956175	.961625
37.000000	.098131	.950693	.956052
38.000000	.094843	.945094	.950320
39.000000	.079105	.939740	.945324
40.000000	.070879	.934240	.939614
41.000000	.063902	.928695	.934565
42.000000	.045134	.922903	.928696
43.000000	.035032	.917376	.923260
44.000000	.032271	.911599	.917252
45.000000	.020551	.905777	.911735
46.000000	.016018	.899950	.906385
47.000000	.010891	.893803	.899959
48.000000	.006251	.887590	.893792
49.000000	.005356	.881313	.887608
50.000000	.004607	.874635	.881264
51.000000	.002190	.867884	.874633
52.000000	.001319	.860555	.867292
53.000000	.000808	.853164	.860963
54.000000	.000142	.844750	.853105
55.000000	.000040	.835362	.844633
56.000000	.000016	.822654	.834104

----- END MATRIX -----

2004

Run MATRIX procedure:

PARALLEL ANALYSIS:

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 5531

Nvars 56

Ndatsets 1000

Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	9.716959	1.196823	1.212461
2.000000	7.243821	1.181135	1.193558
3.000000	5.601813	1.168969	1.179225
4.000000	4.082892	1.158400	1.168784
5.000000	3.020452	1.148833	1.157945
6.000000	2.436759	1.140203	1.148423
7.000000	2.128688	1.132072	1.140046
8.000000	1.889728	1.124142	1.132062
9.000000	1.694863	1.116661	1.124490
10.000000	1.499189	1.109304	1.116859
11.000000	1.401152	1.102255	1.109804
12.000000	1.370236	1.095353	1.102011
13.000000	1.170690	1.088724	1.095658
14.000000	1.049719	1.082149	1.088842
15.000000	1.020347	1.075669	1.082171
16.000000	.978291	1.069393	1.075376
17.000000	.914786	1.063202	1.069382
18.000000	.874770	1.057179	1.062902
19.000000	.791993	1.051274	1.057477
20.000000	.719054	1.045368	1.051639
21.000000	.645463	1.039420	1.045599

22.000000	.625101	1.033657	1.039567
23.000000	.591337	1.027803	1.033948
24.000000	.537570	1.022138	1.028090
25.000000	.486288	1.016519	1.022408
26.000000	.463940	1.010871	1.016678
27.000000	.418202	1.005234	1.010829
28.000000	.333308	.999509	1.005289
29.000000	.312329	.994022	.999887
30.000000	.281089	.988430	.993874
31.000000	.274167	.982910	.988469
32.000000	.223696	.977509	.983039
33.000000	.187974	.971929	.977463
34.000000	.154582	.966486	.971838
35.000000	.145504	.960805	.966256
36.000000	.111228	.955359	.960638
37.000000	.098844	.949761	.955580
38.000000	.095792	.944178	.949519
39.000000	.084028	.938608	.944089
40.000000	.079199	.933066	.939094
41.000000	.063980	.927443	.933275
42.000000	.045620	.921617	.927591
43.000000	.041092	.915883	.921690
44.000000	.030503	.909873	.916115
45.000000	.016300	.903973	.909936
46.000000	.011673	.897816	.904178
47.000000	.010495	.891779	.898218
48.000000	.008435	.885568	.891688
49.000000	.005453	.879138	.885849
50.000000	.005324	.872521	.880019
51.000000	.003127	.865784	.872612
52.000000	.001736	.858431	.865224
53.000000	.000212	.850614	.858061
54.000000	.000170	.842166	.850040
55.000000	.000023	.832364	.841120
56.000000	.000013	.819706	.831015

----- END MATRIX -----

APPENDIX 5.2: Residual matrices for commercial banks over time (2001-2005)

Residual matrix (2001-2002)

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	Abnormal transformations (variables)
X1	-0.000	-0.001	-0.041	-0.001	-0.036	0.075	0.019	-0.037	0.038	-0.027	-0.001	-0.017	0.004	0.013
X2	-0.025	0.054	-0.088	-0.040	-0.072	0.023	-0.001	-0.005	0.013	-0.037	0.037	-0.004	-0.005	0.022
X3	0.032	-0.068	-0.064	-0.099	0.043	0.025	0.012	-0.010	0.022	0.024	-0.037	-0.033	0.013	0.026
X4	-0.020	0.050	0.027	-0.043	-0.049	-0.013	-0.002	-0.030	0.036	-0.047	0.045	-0.034	-0.045	0.018
X5	-0.029	0.005	-0.021	-0.051	0.011	0.020	-0.001	-0.004	0.008	-0.032	0.010	-0.036	-0.003	0.007
X6	-0.027	-0.002	0.059	0.037	0.008	-0.015	-0.002	0.016	0.013	0.036	-0.018	0.051	-0.019	0.011
X7	0.012	-0.029	0.020	0.002	-0.010	-0.038	-0.002	-0.010	0.023	0.014	0.012	0.011	-0.005	0.004
X8	0.009	-0.031	-0.017	-0.021	-0.013	-0.024	-0.009	-0.010	0.026	-0.009	0.002	-0.001	-0.005	0.003
X9	0.004	-0.027	-0.011	-0.025	-0.019	-0.027	0.001	-0.010	0.016	-0.016	0.002	-0.005	-0.004	0.003
X10	0.005	-0.028	-0.013	-0.027	-0.019	-0.029	-0.003	-0.008	0.015	-0.015	0.002	-0.002	-0.002	0.003
X11	0.024	0.003	-0.069	-0.007	0.058	-0.009	0.016	-0.063	0.066	-0.055	-0.084	-0.049	-0.001	0.030
X12	-0.013	-0.005	-0.035	0.010	-0.062	-0.021	-0.000	-0.021	0.033	-0.002	-0.073	-0.041	0.010	0.014
X13	-0.013	-0.005	-0.028	-0.008	-0.053	0.072	0.014	-0.023	0.016	0.016	0.023	-0.004	0.005	0.011
X14	-0.036	0.056	-0.079	-0.040	-0.084	0.022	-0.004	0.001	0.000	-0.010	0.051	0.004	-0.006	0.023
X15	0.031	-0.067	-0.060	-0.092	0.035	0.025	0.009	-0.002	0.015	0.021	-0.021	-0.019	0.013	0.021
X16	0.039	-0.017	0.009	-0.002	-0.035	-0.014	0.021	-0.009	0.022	-0.000	-0.033	0.008	-0.017	0.006
X17	0.074	-0.003	0.009	0.058	-0.030	0.007	0.004	-0.093	0.062	0.026	-0.033	0.009	-0.019	0.025
X18	-0.053	0.015	0.008	0.036	0.022	0.034	-0.015	-0.016	-0.006	0.019	0.003	0.005	0.000	0.007
X19	0.016	0.007	0.046	-0.017	-0.018	-0.048	0.030	0.038	-0.014	-0.018	0.038	0.020	-0.020	0.010
X20	0.013	0.008	0.040	-0.019	-0.016	-0.039	0.030	0.039	-0.013	-0.014	0.037	0.026	-0.019	0.009
X21	0.042	0.018	0.018	-0.047	0.051	-0.052	-0.006	0.215	-0.184	-0.065	0.210	0.093	-0.012	0.147
X22	-0.012	0.033	-0.013	0.006	0.023	-0.030	-0.021	-0.005	0.007	0.010	-0.032	-0.017	0.004	0.005
X23	-0.003	0.003	0.036	0.049	0.008	-0.031	-0.014	0.035	-0.047	-0.015	0.009	0.015	0.013	0.009
X24	-0.079	-0.001	-0.013	-0.050	0.005	-0.005	-0.027	0.035	-0.058	-0.023	0.034	0.034	0.000	0.017
X25	0.009	0.024	-0.009	-0.031	-0.002	-0.002	0.011	0.046	-0.031	-0.024	0.085	0.058	-0.013	0.016
X26	0.003	-0.022	0.004	-0.001	0.019	-0.014	-0.003	-0.013	0.002	0.028	-0.034	0.016	0.005	0.003
X27	0.031	0.032	0.033	-0.030	0.066	-0.079	-0.009	0.211	-0.205	-0.058	0.192	0.112	0.004	0.154
X28	-0.110	-0.029	0.065	-0.074	0.081	-0.048	-0.057	0.030	0.021	-0.028	0.088	-0.082	-0.057	0.055
X29	0.027	-0.006	0.022	0.006	-0.015	-0.022	-0.012	0.005	-0.002	-0.007	-0.020	0.005	-0.010	0.003
X30	-0.131	0.076	0.054	-0.014	-0.023	-0.087	-0.031	0.018	-0.000	-0.008	0.067	0.038	-0.033	0.043

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	Abnormal transformations (variables)
X31	0.057	-0.143	-0.022	0.042	0.066	0.058	-0.035	0.012	0.010	0.049	-0.247	-0.107	0.006	0.110
X32	-0.076	-0.052	0.071	-0.070	0.034	-0.085	0.031	-0.011	-0.054	-0.036	0.077	0.007	-0.030	0.039
X33	-0.089	0.014	-0.106	0.031	0.015	-0.035	-0.026	-0.016	0.001	-0.003	0.023	0.031	0.017	0.024
X34	0.039	-0.033	-0.049	-0.033	-0.002	0.056	-0.014	-0.058	0.031	-0.050	-0.051	-0.067	0.022	0.024
X35	0.025	-0.032	-0.014	0.012	-0.001	0.039	-0.038	-0.028	0.012	0.015	-0.012	-0.028	0.019	0.007
X36	0.020	0.023	0.011	-0.010	-0.051	0.065	0.011	-0.082	0.063	0.040	0.068	-0.043	0.015	0.027
X37	-0.074	0.035	-0.066	-0.015	-0.031	-0.079	0.006	0.154	-0.102	-0.004	-0.068	0.213	0.001	0.103
X38	-0.051	0.044	-0.058	-0.054	0.017	0.040	-0.008	0.003	-0.012	-0.014	0.091	0.021	-0.020	0.022
X39	0.046	-0.034	-0.031	0.002	-0.025	0.040	0.029	-0.037	0.039	0.019	-0.031	-0.044	0.038	0.015
X40	0.036	0.004	-0.034	-0.035	0.059	0.095	-0.022	-0.033	0.032	-0.035	-0.008	-0.177	0.030	0.052
X41	0.025	0.035	-0.011	0.024	-0.030	-0.065	0.010	0.040	-0.060	-0.032	0.059	0.044	0.001	0.019
X42	-0.000	-0.029	-0.004	0.109	-0.025	0.034	0.011	-0.043	0.016	0.043	-0.054	-0.006	0.040	0.023
X43	-0.022	0.001	-0.002	0.065	0.001	-0.016	-0.019	-0.012	-0.004	0.006	-0.031	0.000	0.019	0.007
X44	0.019	-0.018	0.041	0.046	0.020	-0.061	-0.021	0.068	0.004	0.027	-0.061	0.052	-0.036	0.022
X45	0.037	-0.004	-0.027	-0.041	-0.004	0.029	0.015	-0.012	0.031	0.003	0.010	-0.037	0.012	0.008
X46	0.038	0.029	0.055	0.030	0.022	-0.072	0.014	-0.014	-0.015	-0.011	0.085	0.086	-0.037	0.029
X47	-0.027	-0.030	-0.072	0.022	-0.039	0.091	-0.012	-0.008	0.013	-0.010	-0.079	-0.078	0.051	0.033
X48	-0.016	-0.002	0.032	0.017	0.036	-0.009	-0.012	0.013	-0.029	-0.006	0.002	0.010	0.005	0.004
X49	-0.015	-0.011	0.023	0.027	0.048	0.001	-0.020	-0.001	0.008	0.017	-0.016	-0.001	0.007	0.005
X50	-0.002	-0.015	-0.015	-0.019	-0.001	-0.001	0.021	0.012	0.003	-0.005	0.014	-0.025	0.002	0.002
X51	0.008	0.038	-0.007	0.001	-0.007	-0.016	-0.000	-0.015	-0.010	0.004	-0.001	0.014	-0.008	0.002
X52	0.038	-0.026	-0.023	0.064	-0.056	0.029	0.018	-0.101	0.057	-0.012	-0.059	-0.038	-0.003	0.030
X53	0.017	-0.020	0.005	-0.008	-0.002	-0.031	-0.023	-0.007	0.021	-0.005	0.005	0.025	0.002	0.003
X54	0.034	-0.054	-0.002	-0.012	-0.006	0.018	-0.008	0.018	0.019	0.004	-0.011	-0.014	-0.011	0.006
X55	-0.041	-0.009	-0.021	-0.051	0.002	0.016	-0.014	0.013	-0.015	-0.017	0.026	0.010	0.000	0.007
X56	-0.045	-0.011	-0.020	-0.054	0.001	0.013	-0.012	0.014	-0.013	-0.018	0.029	0.013	0.000	0.007
Abnormal transformations (components)	0.100	0.072	0.094	0.096	0.073	0.110	0.019	0.174	0.131	0.039	0.250	0.169	0.022	1.348
2002 patterns	Prof	Sh-t liq	M(Y)-I	M(C)-II	Ln&Ls	AQ-I	RBC	CG	AQ-II	Eff-I	Grth	Eff-II	IS	

1. Figures over .20 are in bold (Martikainen et al., 1995a, p. 41).

2. Refer to Table 4.4 for the full names of ratios.

Residual matrix (2002-2003)

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	Abnormal transformations (variables)
X1	-0.034	0.014	0.000	0.058	0.003	-0.059	-0.014	0.009	0.011	-0.015	0.002	0.037	-0.010	0.010
X2	-0.001	-0.026	0.044	0.007	0.019	-0.026	-0.008	-0.002	-0.002	0.002	0.025	0.003	-0.012	0.005
X3	-0.016	0.022	0.005	-0.018	0.002	-0.052	-0.023	0.011	0.016	-0.042	-0.013	0.049	-0.002	0.009
X4	0.001	-0.015	0.049	0.022	0.036	-0.010	0.020	-0.028	0.003	0.017	0.011	-0.056	0.034	0.010
X5	-0.001	0.003	0.043	0.012	-0.012	-0.023	-0.008	-0.009	-0.002	0.018	0.020	0.024	-0.002	0.004
X6	-0.040	0.019	-0.070	-0.030	0.018	0.030	-0.022	-0.024	0.002	0.033	-0.028	-0.118	0.049	0.028
X7	-0.007	-0.009	-0.051	-0.037	0.006	-0.030	0.006	0.011	-0.007	0.030	-0.034	-0.057	-0.006	0.011
X8	-0.004	-0.018	-0.016	-0.015	0.012	-0.030	0.014	0.014	-0.007	0.006	-0.021	-0.042	-0.008	0.005
X9	-0.006	-0.019	-0.017	-0.015	0.014	-0.032	0.029	0.012	-0.003	0.004	-0.016	-0.038	-0.012	0.005
X10	-0.007	-0.020	-0.016	-0.012	0.015	-0.033	0.031	0.011	-0.003	0.004	-0.015	-0.041	-0.014	0.005
X11	0.016	0.013	0.034	-0.005	0.009	-0.032	0.031	0.015	0.001	0.032	0.001	-0.004	0.002	0.005
X12	0.015	-0.006	0.018	0.001	-0.001	0.011	0.025	-0.003	-0.007	0.006	-0.010	-0.022	0.004	0.002
X13	-0.040	0.013	-0.006	0.062	0.002	-0.053	-0.022	0.004	0.011	-0.030	0.002	0.040	-0.012	0.012
X14	-0.006	-0.029	0.040	0.010	0.018	-0.023	-0.011	-0.005	-0.003	-0.009	0.025	0.003	-0.013	0.004
X15	-0.018	0.021	-0.003	-0.013	0.003	-0.043	-0.025	0.012	0.016	-0.052	-0.012	0.049	-0.004	0.009
X16	0.003	-0.002	-0.013	0.004	0.023	0.014	0.001	-0.009	-0.001	0.008	-0.014	-0.095	0.016	0.011
X17	0.011	-0.024	-0.001	-0.020	0.013	-0.011	0.013	-0.021	-0.003	-0.009	-0.014	-0.015	0.003	0.003
X18	-0.002	-0.020	-0.002	-0.009	-0.002	-0.006	-0.013	-0.004	-0.015	-0.006	0.006	0.032	0.017	0.002
X19	0.001	-0.010	0.001	-0.014	0.011	0.042	-0.006	0.007	0.000	0.022	-0.008	-0.061	0.033	0.008
X20	0.009	-0.018	0.013	-0.009	0.017	0.031	-0.008	0.001	0.002	0.024	-0.011	-0.057	0.030	0.007
X21	0.003	-0.017	0.002	0.006	-0.048	0.003	-0.052	-0.025	-0.027	-0.053	-0.004	0.145	-0.037	0.032
X22	-0.011	-0.018	0.000	-0.019	-0.009	0.032	-0.012	-0.028	-0.010	-0.013	0.027	0.011	0.007	0.004
X23	-0.047	0.021	-0.056	-0.019	-0.013	0.003	-0.034	-0.013	0.002	0.041	-0.013	-0.060	0.026	0.014
X24	0.002	-0.005	-0.025	-0.003	-0.003	-0.034	-0.036	-0.001	-0.002	0.041	0.017	0.007	0.003	0.005
X25	0.062	0.005	0.021	0.020	-0.006	-0.016	0.060	-0.001	-0.006	0.002	-0.005	0.009	0.001	0.009
X26	0.040	-0.012	0.003	-0.032	0.005	-0.007	-0.027	0.026	-0.002	0.017	0.002	-0.010	-0.042	0.006
X27	0.004	-0.013	-0.007	-0.026	-0.054	-0.015	-0.044	-0.022	-0.002	-0.024	0.013	0.142	-0.043	0.029
X28	-0.040	-0.014	-0.015	0.061	-0.034	0.026	-0.035	-0.014	-0.057	0.003	-0.007	0.050	0.060	0.018
X29	0.056	-0.002	0.011	-0.009	-0.002	0.005	-0.006	0.020	-0.016	-0.013	-0.015	0.004	-0.024	0.005
X30	-0.038	-0.058	0.003	0.016	0.044	0.059	0.007	0.013	0.013	-0.030	0.016	-0.011	0.016	0.012

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	Abnormal transformations (variables)
X31	0.010	0.093	-0.019	0.045	-0.061	-0.034	-0.010	-0.020	-0.025	0.029	0.023	-0.001	0.090	0.027
X32	-0.022	-0.092	-0.017	0.006	0.042	-0.030	-0.052	0.001	0.005	-0.003	0.051	0.066	-0.069	0.026
X33	0.069	0.014	0.116	0.002	-0.042	0.039	0.022	0.019	-0.026	0.005	0.023	0.022	-0.028	0.025
X34	-0.021	0.002	0.080	0.045	0.011	-0.086	-0.061	-0.012	0.017	-0.050	0.038	0.167	-0.061	0.056
X35	-0.032	0.006	0.014	0.041	-0.007	-0.021	-0.015	0.014	0.005	-0.035	-0.004	0.090	-0.019	0.014
X36	-0.025	0.016	0.036	0.066	-0.036	0.045	0.047	0.036	-0.014	-0.023	-0.044	0.011	-0.042	0.018
X37	0.011	0.006	0.055	0.055	0.002	0.031	-0.046	-0.017	-0.021	-0.113	0.109	0.151	0.074	0.063
X38	-0.015	-0.038	0.047	-0.002	0.041	-0.034	-0.015	-0.003	-0.004	-0.010	0.033	0.011	-0.017	0.009
X39	-0.033	0.032	-0.009	0.006	0.010	-0.019	0.008	0.027	0.004	0.019	0.018	-0.006	-0.011	0.004
X40	-0.054	0.020	-0.009	-0.069	0.006	0.024	0.002	0.050	-0.006	0.068	0.028	-0.088	0.034	0.026
X41	0.044	-0.007	0.023	0.016	-0.001	-0.006	-0.006	-0.015	-0.005	0.020	0.020	0.003	-0.016	0.004
X42	-0.051	0.018	0.004	-0.011	0.000	-0.006	0.005	0.005	0.005	-0.009	-0.002	0.037	-0.054	0.008
X43	-0.008	-0.010	0.009	-0.014	0.002	0.024	-0.009	-0.020	-0.003	-0.019	0.011	0.009	-0.009	0.002
X44	-0.050	-0.004	-0.022	-0.019	-0.024	-0.007	-0.021	-0.005	0.036	0.010	0.000	-0.027	-0.038	0.008
X45	-0.005	0.005	-0.006	0.005	0.011	-0.023	0.011	0.026	-0.010	0.025	-0.003	-0.024	0.020	0.003
X46	-0.020	0.002	-0.033	-0.016	0.032	0.024	-0.041	0.009	0.005	-0.033	0.029	0.031	-0.043	0.010
X47	0.020	-0.004	0.020	0.010	-0.022	-0.016	0.039	-0.016	-0.008	0.031	-0.006	-0.045	0.039	0.008
X48	-0.038	0.008	-0.039	-0.025	-0.003	0.007	-0.031	-0.011	0.002	0.040	-0.028	-0.071	0.042	0.014
X49	-0.063	0.024	-0.063	-0.023	-0.008	0.013	-0.024	-0.003	0.005	0.022	-0.020	-0.051	0.031	0.014
X50	0.026	-0.006	-0.006	-0.001	0.002	0.014	-0.057	-0.015	-0.006	-0.012	-0.007	-0.001	0.014	0.005
X51	-0.007	-0.015	0.004	0.001	-0.006	0.006	0.034	0.006	0.009	-0.006	0.008	0.004	-0.003	0.002
X52	0.024	0.058	0.047	0.015	0.017	-0.049	0.013	0.039	0.029	-0.084	-0.020	0.070	-0.063	0.028
X53	-0.007	-0.016	0.002	-0.015	0.019	-0.006	0.041	-0.002	0.008	0.003	-0.017	-0.034	-0.040	0.006
X54	0.156	0.088	-0.060	0.017	0.038	-0.192	-0.022	0.033	-0.031	-0.027	-0.009	-0.016	0.136	0.096
X55	0.032	-0.002	0.004	-0.006	0.005	0.018	0.016	0.005	-0.014	0.007	0.007	0.020	0.002	0.002
X56	0.032	-0.001	0.004	-0.005	0.006	0.020	0.018	0.004	-0.013	0.007	0.005	0.017	0.002	0.002
Abnormal transformations (components)	0.073	0.044	0.064	0.040	0.028	0.088	0.045	0.017	0.012	0.056	0.032	0.191	0.079	0.769
2003 patterns	Prof	Sh-t liq	M(Y)-I	Ln&Ls	M(C)-II	RBC	AQ-I	CG	AQ-II	Eff-I	Grth	IS	No Name	

1. Figures over .20 are in bold (Martikainen et al., 1995a, p. 41).

2. Refer to Table 4.4 for the full names of ratios.

Residual matrix (2003-2004)

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	Abnormal transformations (variables)
X1	0.010	-0.017	-0.005	0.021	0.006	-0.001	-0.011	0.020	-0.021	-0.017	-0.022	-0.008	-0.002	0.003
X2	-0.009	-0.017	0.004	0.016	-0.018	-0.039	-0.010	0.018	-0.002	0.004	-0.031	-0.020	-0.012	0.004
X3	0.020	-0.015	-0.007	-0.013	0.015	0.015	-0.006	0.011	-0.021	-0.014	-0.007	-0.002	0.004	0.002
X4	-0.001	0.019	-0.040	-0.016	0.043	0.019	0.012	0.019	0.019	-0.017	-0.008	0.005	-0.023	0.006
X5	0.010	0.011	-0.022	-0.020	0.015	0.011	0.025	0.009	-0.009	0.012	-0.004	0.028	0.003	0.003
X6	-0.094	0.001	-0.065	0.016	0.034	-0.019	-0.042	-0.007	0.033	0.026	-0.002	0.007	-0.033	0.020
X7	-0.005	0.009	-0.002	-0.002	-0.004	-0.005	0.004	0.027	-0.022	0.019	0.005	-0.011	0.001	0.002
X8	-0.004	0.018	-0.008	-0.003	-0.001	-0.017	0.005	0.021	-0.023	0.019	0.004	-0.006	0.010	0.002
X9	-0.004	0.029	-0.015	0.003	-0.002	-0.012	0.017	0.021	-0.028	0.014	-0.006	0.011	0.010	0.003
X10	-0.004	0.029	-0.016	0.003	0.000	-0.012	0.018	0.021	-0.028	0.014	-0.008	0.013	0.009	0.003
X11	-0.037	-0.003	0.060	-0.034	0.049	0.049	-0.014	0.006	-0.043	-0.011	-0.051	0.050	-0.011	0.018
X12	0.005	-0.016	0.014	0.015	0.014	0.009	0.010	0.002	0.014	0.013	-0.007	0.028	-0.001	0.002
X13	0.019	-0.016	-0.007	0.030	-0.004	-0.010	-0.006	0.018	-0.012	-0.013	-0.012	-0.020	0.001	0.003
X14	-0.005	-0.017	-0.003	0.019	-0.025	-0.047	-0.009	0.016	0.002	0.008	-0.025	-0.025	-0.011	0.005
X15	0.024	-0.014	-0.008	-0.009	0.011	0.008	-0.004	0.011	-0.017	-0.019	-0.003	-0.017	0.007	0.002
X16	-0.038	0.016	-0.018	0.000	0.031	-0.007	-0.016	0.008	-0.003	0.032	0.009	0.049	-0.030	0.008
X17	0.019	0.006	0.009	0.034	-0.019	0.004	-0.014	0.010	0.008	0.007	-0.017	-0.006	-0.011	0.003
X18	0.012	0.002	-0.002	0.024	-0.013	-0.021	-0.006	0.006	0.015	-0.010	-0.015	-0.017	-0.004	0.002
X19	-0.062	0.034	-0.034	-0.015	0.042	-0.019	-0.011	-0.014	-0.004	-0.016	0.027	0.024	-0.005	0.010
X20	-0.061	0.037	-0.030	-0.011	0.037	-0.017	-0.015	-0.009	-0.005	-0.010	0.027	0.024	-0.005	0.010
X21	-0.013	0.032	0.001	-0.018	-0.005	0.045	0.037	-0.002	0.028	-0.077	0.062	-0.122	0.081	0.037
X22	-0.005	0.023	-0.033	-0.048	-0.011	0.006	0.011	-0.001	0.021	-0.010	-0.033	0.025	-0.015	0.007
X23	0.008	-0.023	0.016	0.010	0.013	-0.006	-0.010	-0.009	-0.001	-0.006	0.007	-0.001	-0.005	0.001
X24	0.045	0.017	-0.036	0.004	-0.016	0.016	0.034	0.010	-0.014	-0.025	0.050	-0.041	0.007	0.010
X25	0.005	-0.021	0.042	0.018	-0.013	-0.014	-0.005	-0.015	0.012	-0.032	0.016	-0.017	0.020	0.005
X26	0.004	0.026	-0.016	0.020	-0.031	0.009	0.007	0.015	-0.043	0.061	-0.018	0.071	-0.001	0.014
X27	0.007	0.005	0.005	-0.033	-0.012	0.041	0.033	-0.007	0.024	-0.067	0.025	-0.102	0.067	0.025
X28	-0.005	-0.001	0.015	-0.123	-0.072	-0.109	0.001	0.023	0.037	-0.097	0.049	-0.132	0.033	0.065
X29	0.019	0.020	-0.016	0.012	-0.003	-0.013	-0.005	-0.004	-0.001	0.039	-0.013	0.018	-0.001	0.003
X30	-0.072	0.001	0.018	-0.048	-0.002	-0.020	0.029	-0.005	-0.006	-0.106	0.026	-0.099	0.010	0.031

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	Abnormal transformations (variables)
X31	0.043	-0.101	0.050	-0.052	-0.021	0.099	-0.031	-0.032	0.012	-0.033	0.018	-0.031	-0.042	0.034
X32	-0.009	0.073	0.018	-0.015	-0.026	-0.050	0.009	-0.013	0.049	-0.005	0.040	-0.130	0.054	0.033
X33	-0.009	0.014	-0.006	0.004	-0.016	-0.008	0.022	0.000	-0.024	-0.015	-0.005	0.029	0.016	0.003
X34	-0.012	-0.020	-0.007	-0.026	-0.005	0.042	0.016	-0.001	0.027	0.051	-0.033	-0.012	0.016	0.008
X35	-0.015	-0.001	-0.020	-0.013	-0.009	-0.003	-0.025	-0.002	0.025	-0.016	0.000	-0.033	0.010	0.004
X36	-0.016	0.022	-0.019	0.079	0.007	-0.060	0.006	0.019	-0.054	0.014	-0.014	0.054	0.004	0.018
X37	0.062	-0.176	0.031	-0.067	-0.043	0.062	-0.033	-0.008	0.035	-0.078	0.047	-0.230	-0.048	0.112
X38	-0.010	-0.017	-0.003	0.012	-0.029	-0.053	-0.014	0.020	-0.007	0.001	-0.032	-0.030	-0.015	0.007
X39	-0.007	-0.019	0.018	0.046	0.010	0.016	0.010	-0.005	-0.012	0.009	-0.026	0.040	-0.011	0.006
X40	-0.012	-0.011	-0.010	-0.020	-0.030	0.028	0.090	-0.034	-0.037	-0.046	-0.017	-0.047	0.074	0.023
X41	-0.022	0.024	0.031	0.046	0.034	0.015	0.013	0.006	-0.012	-0.027	-0.005	-0.016	-0.006	0.007
X42	-0.004	-0.033	-0.031	0.008	-0.038	0.001	0.005	-0.029	0.017	0.047	-0.015	0.018	-0.012	0.008
X43	-0.006	0.014	-0.031	-0.030	-0.017	0.001	0.009	-0.011	0.023	0.002	-0.022	0.019	-0.013	0.004
X44	0.004	-0.027	0.012	-0.008	-0.051	0.000	-0.026	-0.034	-0.003	0.017	-0.037	0.022	0.009	0.008
X45	-0.006	-0.011	0.032	0.029	0.023	0.017	0.005	0.004	-0.011	-0.013	-0.020	0.026	-0.004	0.004
X46	-0.005	-0.013	-0.040	0.007	-0.026	0.011	-0.019	-0.018	0.009	0.022	-0.002	-0.042	-0.008	0.006
X47	0.014	0.011	0.053	0.021	0.024	0.008	0.004	0.032	-0.013	-0.009	-0.009	0.034	-0.001	0.007
X48	0.019	-0.023	-0.006	0.000	0.005	0.001	-0.011	-0.012	0.008	-0.003	0.020	0.001	-0.001	0.002
X49	0.019	-0.026	0.002	-0.013	-0.003	0.007	-0.011	-0.011	0.004	0.009	0.009	0.009	0.000	0.002
X50	-0.008	0.000	0.012	-0.015	-0.027	0.000	-0.013	-0.004	0.003	-0.018	-0.008	-0.027	0.004	0.002
X51	0.022	0.006	0.012	-0.014	0.002	0.008	-0.004	-0.003	0.007	0.001	-0.009	-0.036	-0.002	0.002
X52	0.012	-0.028	-0.015	-0.003	-0.055	0.039	0.005	-0.007	-0.053	0.025	-0.039	0.034	-0.022	0.012
X53	0.001	0.027	0.004	0.016	-0.025	-0.004	0.007	0.006	-0.017	0.032	-0.008	0.039	0.010	0.005
X54	0.011	-0.040	0.013	0.008	-0.006	0.014	-0.007	-0.019	0.007	0.032	-0.015	0.015	-0.003	0.004
X55	0.027	0.020	-0.015	0.002	-0.016	0.020	0.036	0.029	-0.022	-0.026	0.032	-0.027	-0.004	0.007
X56	0.029	0.018	-0.016	-0.002	-0.016	0.022	0.036	0.027	-0.025	-0.029	0.035	-0.030	-0.003	0.008
Abnormal transformations (components)	0.040	0.068	0.034	0.051	0.036	0.055	0.026	0.015	0.029	0.064	0.034	0.163	0.031	0.645
2004 patterns	Prof	Sh-t liq	M(Y)-I	Ln&Ls	M(C)-II	RBC	AQ-I	CG	AQ-II	Eff-I	Grth	IS	No Name	

1. Figures over .20 are in bold (Martikainen et al., 1995a, p. 41).

2. Refer to Table 4.4 for the full names of ratios.

Residual matrix (2004-2005)

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	Abnormal transformations (variables)
X1	0.043	0.017	0.007	-0.030	-0.024	-0.016	-0.024	0.000	0.003	-0.007	-0.025	-0.072	-0.001	0.010
X2	-0.003	-0.049	0.009	0.013	-0.043	-0.020	-0.006	0.006	-0.005	-0.046	-0.071	-0.079	-0.012	0.019
X3	0.049	0.064	-0.013	0.003	0.010	0.003	-0.010	-0.013	0.000	0.012	0.022	-0.010	0.002	0.008
X4	0.002	0.004	-0.027	-0.057	-0.021	0.106	0.042	0.026	0.007	0.005	-0.022	0.001	0.003	0.019
X5	0.014	0.014	-0.022	-0.029	0.012	0.060	0.015	0.004	0.019	0.011	0.012	0.016	-0.004	0.007
X6	0.041	0.009	-0.027	-0.021	-0.016	0.059	0.022	-0.012	0.012	-0.013	-0.012	-0.008	0.028	0.009
X7	-0.005	0.014	0.054	0.028	-0.008	-0.023	-0.011	-0.006	0.000	-0.011	-0.013	0.015	-0.009	0.005
X8	-0.005	0.021	0.051	0.029	-0.010	-0.023	-0.012	-0.006	0.001	-0.009	-0.012	0.016	-0.006	0.005
X9	-0.006	0.022	0.061	0.033	-0.013	-0.034	-0.019	-0.001	0.008	-0.007	-0.003	0.026	-0.010	0.008
X10	-0.006	0.023	0.061	0.031	-0.015	-0.033	-0.017	-0.001	0.007	-0.008	-0.001	0.028	-0.008	0.008
X11	0.034	0.031	-0.046	-0.022	0.056	0.029	0.040	-0.024	0.030	0.060	0.037	0.092	0.003	0.025
X12	0.007	0.001	0.032	-0.025	0.003	-0.024	0.023	-0.012	0.016	-0.002	0.029	0.026	-0.001	0.005
X13	0.037	0.009	0.016	-0.023	-0.037	-0.023	-0.033	0.006	-0.004	-0.025	-0.034	-0.096	-0.002	0.016
X14	-0.006	-0.053	0.017	0.017	-0.050	-0.024	-0.011	0.010	-0.007	-0.059	-0.076	-0.091	-0.012	0.024
X15	0.040	0.057	-0.007	0.007	0.001	-0.002	-0.017	-0.009	-0.007	0.007	0.015	-0.024	0.001	0.006
X16	0.002	0.013	-0.068	-0.039	0.000	0.027	0.021	-0.023	0.039	-0.033	-0.018	-0.011	0.019	0.011
X17	0.011	0.005	-0.034	-0.030	-0.019	0.027	0.004	-0.008	-0.003	-0.011	0.013	-0.063	-0.007	0.008
X18	0.009	-0.019	-0.039	-0.018	-0.018	0.012	0.005	0.005	-0.006	0.021	0.005	-0.038	-0.010	0.005
X19	-0.009	-0.018	0.011	0.055	-0.025	-0.009	0.017	-0.009	-0.017	0.014	-0.055	0.059	-0.006	0.012
X20	-0.011	-0.015	0.002	0.052	-0.019	-0.013	0.017	-0.011	-0.018	0.010	-0.056	0.055	-0.006	0.011
X21	0.003	-0.015	0.001	0.058	0.009	-0.060	-0.041	0.012	0.023	0.035	0.013	0.031	-0.074	0.017
X22	0.012	-0.005	0.011	-0.011	-0.003	-0.012	0.007	-0.021	-0.006	0.044	0.036	0.034	0.028	0.006
X23	-0.036	-0.032	0.024	0.045	-0.005	-0.006	-0.019	0.022	-0.016	0.063	-0.036	0.071	-0.012	0.017
X24	-0.007	-0.006	0.026	0.042	-0.003	0.001	-0.018	0.024	0.006	0.036	-0.021	0.043	-0.010	0.007
X25	0.035	-0.035	-0.035	-0.015	-0.020	0.020	0.029	0.027	0.003	0.028	-0.032	0.028	-0.047	0.011
X26	0.008	0.013	0.011	0.012	0.013	0.018	0.005	-0.020	0.047	-0.028	0.014	-0.041	0.003	0.006
X27	-0.004	0.007	-0.019	0.021	0.027	-0.011	-0.037	0.002	0.004	0.073	0.015	0.029	-0.063	0.013
X28	-0.030	-0.002	-0.057	0.006	0.046	-0.042	0.007	0.044	-0.087	-0.003	-0.063	0.108	-0.052	0.036
X29	-0.012	-0.013	-0.027	-0.010	-0.022	0.017	0.021	-0.003	0.022	-0.005	-0.007	-0.009	0.000	0.003
X30	0.047	-0.068	-0.008	-0.007	0.060	0.082	-0.029	0.055	-0.063	0.072	-0.056	0.032	-0.031	0.035

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	Abnormal transformations (variables)
X31	-0.013	-0.010	-0.019	0.018	-0.013	-0.115	-0.001	0.028	0.033	0.109	-0.044	0.101	-0.009	0.040
X32	0.002	-0.012	-0.051	0.085	0.011	-0.019	-0.055	0.055	-0.011	0.055	-0.029	0.087	-0.075	0.034
X33	0.001	-0.026	-0.007	-0.009	0.021	0.021	0.008	-0.003	0.019	0.005	0.014	0.031	-0.006	0.003
X34	0.053	0.001	-0.169	-0.114	-0.021	0.093	-0.011	-0.019	0.047	-0.011	0.047	-0.023	0.023	0.060
X35	0.005	-0.011	-0.093	-0.089	-0.023	0.034	-0.005	-0.007	0.024	-0.027	0.028	-0.036	0.010	0.022
X36	0.030	-0.018	-0.042	-0.068	-0.062	-0.025	-0.024	-0.004	-0.002	-0.065	-0.033	-0.157	-0.010	0.043
X37	0.104	-0.033	-0.028	-0.003	0.001	0.050	0.008	-0.003	0.020	0.019	0.017	-0.087	-0.053	0.027
X38	0.000	-0.049	-0.003	0.024	-0.032	-0.018	-0.018	0.013	-0.008	-0.065	-0.097	-0.102	-0.012	0.029
X39	0.009	0.020	-0.034	-0.011	-0.023	0.015	-0.066	-0.007	0.011	0.014	-0.018	-0.033	-0.017	0.009
X40	-0.041	-0.031	0.020	0.114	0.054	-0.064	-0.062	0.069	-0.048	0.156	-0.046	0.122	-0.065	0.080
X41	-0.012	-0.029	0.019	0.076	0.000	-0.018	0.006	-0.001	-0.033	-0.018	-0.035	0.000	-0.010	0.010
X42	0.028	0.037	-0.054	-0.148	-0.021	0.065	-0.044	-0.040	0.040	-0.004	0.027	-0.051	0.002	0.040
X43	0.026	0.006	0.000	-0.063	-0.006	0.002	0.006	-0.028	0.004	0.032	0.024	0.010	0.013	0.007
X44	-0.037	-0.024	-0.017	-0.072	0.026	-0.044	0.001	-0.006	0.009	-0.014	0.075	0.026	-0.027	0.017
X45	0.001	0.004	-0.002	0.056	-0.005	-0.019	-0.037	0.010	-0.011	0.016	-0.026	0.002	-0.014	0.006
X46	-0.051	0.017	-0.060	-0.037	0.045	0.068	-0.019	-0.023	-0.009	-0.013	0.037	-0.017	0.008	0.017
X47	0.050	-0.021	0.053	0.027	-0.052	-0.070	0.015	-0.005	0.027	0.024	-0.024	0.024	0.001	0.017
X48	-0.020	-0.034	0.026	0.049	-0.010	-0.007	-0.006	0.020	-0.008	0.069	-0.025	0.089	-0.004	0.019
X49	-0.024	-0.017	0.024	-0.020	0.018	0.012	-0.015	0.023	-0.001	0.050	-0.022	0.041	-0.001	0.008
X50	0.026	-0.030	0.025	0.028	0.006	-0.003	-0.008	0.009	-0.005	0.028	-0.027	0.000	0.005	0.005
X51	-0.021	0.012	-0.023	-0.017	-0.018	0.005	0.001	-0.007	-0.001	0.000	-0.015	0.002	0.001	0.002
X52	0.013	0.026	-0.025	-0.090	-0.021	0.103	-0.018	-0.068	-0.008	-0.122	0.075	-0.181	0.090	0.087
X53	-0.001	0.012	0.008	-0.022	-0.006	0.010	0.017	-0.008	-0.004	-0.008	-0.001	0.009	-0.012	0.001
X54	0.007	0.097	-0.073	-0.024	0.001	-0.071	0.054	-0.001	0.007	-0.001	-0.011	-0.018	0.052	0.027
X55	0.033	0.016	0.028	0.040	-0.010	-0.004	-0.004	-0.002	0.007	0.007	0.004	0.006	0.006	0.004
X56	0.030	0.015	0.028	0.039	-0.008	-0.005	-0.007	-0.001	0.008	0.007	0.001	0.009	0.006	0.004
Abnormal transformations (components)	0.046	0.047	0.098	0.133	0.038	0.104	0.035	0.029	0.031	0.108	0.073	0.204	0.045	0.990
2005 patterns	Prof	Sh-t liq	M(Y)-I	M(C)-II	Ln&Ls	RBC	AQ-I	CG	AQ-II	Eff-I	Eff-II	Grth	IS	

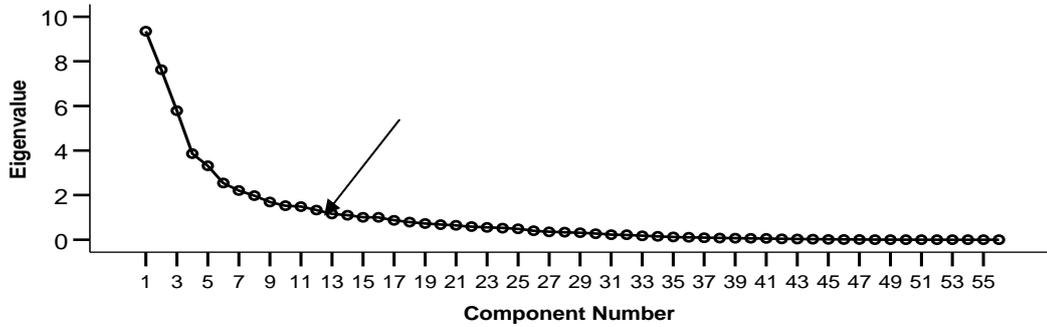
1. Figures over .20 are in bold (Martikainen et al., 1995a, p. 41).

2. Refer to Table 4.4 for the full names of ratios.

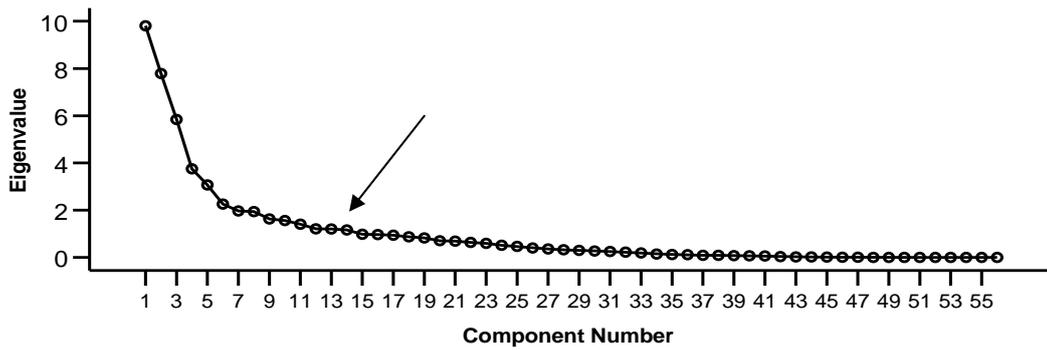
APPENDICES FOR CHAPTER 6

APPENDIX 6.1: Cattell's scree plots and PA outputs for groups G2, G3 and G4 (2005)

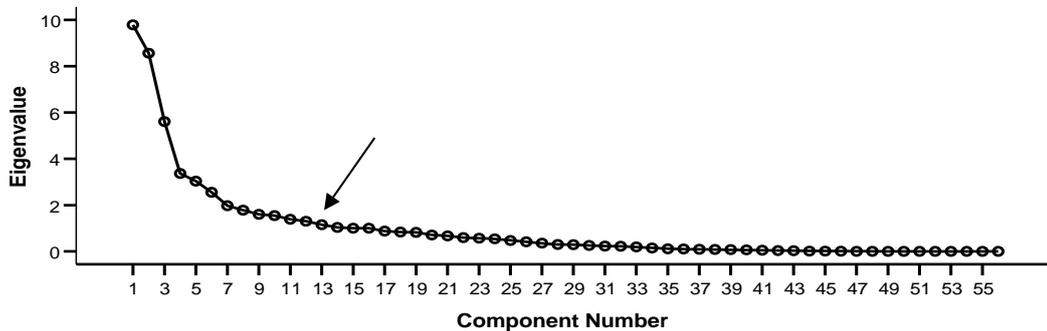
Cattell's scree plot for G2 (2005)



Cattell's scree plot for G3 (2005)



Cattell's scree plot for G4 (2005)



Parrallel analysis outputs for asset-size groups G2, G3 and G4 (2005)

Root	G2			G3			G4		
	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue
1	9.3496023	1.3515743	1.385516	9.8100819	1.4304365	1.4676175	9.7882181	1.4995707	1.5419364
2	7.6245878	1.3204616	1.3439548	7.7871976	1.3932877	1.4225475	8.5595007	1.455391	1.48909
3	5.7841232	1.2981951	1.3189785	5.8387717	1.3650765	1.3890832	5.609501	1.422074	1.4491251
4	3.8614636	1.278891	1.2966244	3.7513037	1.3411936	1.3632069	3.3678579	1.3945731	1.4205286
5	3.3116472	1.261757	1.2782823	3.0673136	1.3192912	1.3407309	3.0379511	1.3687764	1.3932099
6	2.5422218	1.2457631	1.2621453	2.260039	1.2990071	1.3181825	2.5510232	1.3457844	1.3692271
7	2.2041231	1.2308842	1.2469807	1.9694248	1.2804123	1.298217	1.9753003	1.3234749	1.3449463
8	1.978433	1.2159467	1.2309136	1.9425337	1.2626908	1.2802788	1.7821814	1.3030141	1.3225917
9	1.6902533	1.2024194	1.2162141	1.630686	1.2455901	1.2614085	1.6030616	1.2825155	1.3012747
10	1.5276158	1.1892166	1.2020077	1.562018	1.2293981	1.2451581	1.5478468	1.2634968	1.2823707
11	1.4874328	1.1764249	1.1889	1.4082343	1.2138356	1.2287689	1.389852	1.2450115	1.2632346
12	1.3294469	1.164216	1.1763218	1.2145615	1.1986514	1.2136332	1.3040477	1.2269768	1.2451302
13	1.1573999	1.152077	1.1644421	1.2044859	1.1838891	1.1973933	1.1547932	1.2093555	1.2260491
14	1.0975918	1.1401726	1.1519322	1.1617701	1.1693992	1.1842323	1.0351263	1.1928101	1.2093249
15	1.0051832	1.1288369	1.1399852	0.9795371	1.1548913	1.168685	1.0060035	1.1763376	1.1919077
16	1.0008579	1.1174089	1.1289807	0.9673549	1.1412852	1.1547942	1.0028387	1.1606914	1.176078
17	0.871593	1.1063454	1.1178116	0.9375045	1.1277492	1.1413117	0.8800551	1.1449098	1.1604404
18	0.7916431	1.0958387	1.1066458	0.8702438	1.1144663	1.1279778	0.8409029	1.1290444	1.1447566
19	0.7300223	1.0851401	1.0961455	0.825998	1.101579	1.1144885	0.8224335	1.1140135	1.1283661
20	0.6768738	1.0747316	1.0850326	0.7058031	1.088763	1.1013888	0.7119017	1.0994924	1.1136288
21	0.6491819	1.0641421	1.0746889	0.6885994	1.0760867	1.0878833	0.6692882	1.0851211	1.0991289
22	0.5906178	1.0542077	1.0644371	0.6393822	1.0636922	1.0767345	0.59759	1.0705616	1.0838243
23	0.5516015	1.0440919	1.0542548	0.5958291	1.0513605	1.0634506	0.5726584	1.0565624	1.0705319
24	0.5186476	1.0343734	1.0438699	0.5129914	1.0391213	1.0514962	0.5463529	1.0426321	1.0560477
25	0.4922125	1.0245756	1.034241	0.4648225	1.0273121	1.0390382	0.4758597	1.0291238	1.0431223
26	0.4008542	1.0147144	1.0245262	0.4027129	1.0154698	1.0273217	0.4140032	1.0155402	1.0273175
27	0.3496948	1.0049843	1.0152959	0.3618873	1.0038223	1.0154346	0.356427	1.0015577	1.0146253

Root	G2			G3			G4		
	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue
28	0.3412339	0.9953259	1.0056468	0.324368	0.9921073	1.0039904	0.3006738	0.9884621	1.0014065
29	0.3158848	0.9860207	0.9957264	0.3006964	0.9805211	0.9918399	0.291143	0.9752622	0.9881708
30	0.2703039	0.9764352	0.9859395	0.2754224	0.9691215	0.9798787	0.2620763	0.962285	0.9758699
31	0.22865	0.9671112	0.9766729	0.2517199	0.95742	0.9687958	0.2350125	0.9488886	0.9616807
32	0.2212515	0.9576327	0.967383	0.223727	0.9459313	0.9577299	0.2253861	0.9358701	0.9487017
33	0.1721098	0.9480738	0.9574313	0.1861694	0.9348824	0.946058	0.1993448	0.9232892	0.9358697
34	0.1480488	0.9389176	0.9483098	0.1413544	0.9232294	0.9338901	0.1485257	0.91031	0.9230352
35	0.1264936	0.9295257	0.9391217	0.1251008	0.9120129	0.9234505	0.1149575	0.8972293	0.9105138
36	0.1082873	0.9203163	0.9296619	0.1155752	0.9008386	0.9120233	0.1081175	0.8843803	0.896954
37	0.0874745	0.9107282	0.9205837	0.0903953	0.8898309	0.9017521	0.0961659	0.8716682	0.8847485
38	0.0758455	0.9013235	0.9107934	0.0869789	0.878715	0.8904188	0.0862792	0.8588538	0.8722456
39	0.0686543	0.8919785	0.9019968	0.0766171	0.8673721	0.8786505	0.0797956	0.846157	0.8588462
40	0.0646674	0.8825251	0.8920202	0.0695293	0.856124	0.8673576	0.0705169	0.83383	0.8476306
41	0.0587031	0.8731283	0.8830425	0.0604348	0.8449837	0.8558588	0.0506014	0.8213923	0.8349022
42	0.0399763	0.8634612	0.8736267	0.0348187	0.8337985	0.8448888	0.0385906	0.8084084	0.8209874
43	0.0322626	0.8540294	0.8636306	0.021491	0.8221658	0.8329114	0.0332455	0.7956414	0.8091338
44	0.0255693	0.8446049	0.8538967	0.0171131	0.8110584	0.8220738	0.0157696	0.7825613	0.795463
45	0.0132095	0.8348253	0.8449116	0.0130094	0.7992095	0.8116552	0.0132738	0.7697936	0.7831679
46	0.0089075	0.8245277	0.8344948	0.0093662	0.7876407	0.7992208	0.0109606	0.7569969	0.7704953
47	0.0081271	0.8142077	0.8245389	0.0088988	0.7755972	0.7877141	0.0077639	0.7438002	0.7578571
48	0.0039514	0.8040993	0.8149026	0.0020018	0.7636718	0.7760071	0.003972	0.7305556	0.7448232
49	0.0024806	0.7936407	0.8046476	0.0014061	0.7511782	0.7631914	0.0031195	0.7166661	0.7304868
50	0.0015982	0.7826518	0.7941215	0.0012486	0.7387488	0.7513105	0.0012752	0.7027289	0.7173764
51	9.67E-04	0.7714491	0.7837062	9.82E-04	0.7256751	0.7393478	5.54E-04	0.6881411	0.7031116
52	3.26E-04	0.7598152	0.7727567	3.75E-04	0.712394	0.7265123	1.79E-04	0.6735129	0.6893698
53	6.43E-05	0.7472821	0.7607794	8.03E-05	0.6978415	0.7130185	9.00E-05	0.6572908	0.6745761
54	1.51E-05	0.733586	0.7478056	1.78E-05	0.682481	0.6979805	2.01E-05	0.6403983	0.6581702
55	1.01E-05	0.7180945	0.7332946	1.41E-05	0.6651259	0.6818864	1.31E-05	0.6207695	0.6396018
56	3.25E-08	0.6972916	0.7163077	4.31E-08	0.6425656	0.6617057	3.18E-08	0.5964439	0.6179311

APPENDIX 6.2: Rotated component matrices for G2, G3 and G4 (2005)

Rotated Component Matrix G2 (2005)

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.952											
X7 PRETAX OPER INC (TE) \ AVR AST	0.951											
X9 NET OPER INC \ AVR AST	0.950											
X10 NET INC \ AVR AST	0.949											
X53 NET INC \ AVR TOT EQ	0.905											
X33 EFFICIENCY RATIO	-0.714						-0.552					
X13 INT INC (TE) \ AVR EARN AST		0.906										
X1 INT INC (TE) \ AVR AST		0.890			0.322							
X3 NET INT INC (TE) \ AVR AST		0.888										
X15 NET INT INC-TE \ AVR EARN AST		0.879										
X36 YIELD ON TOT LN&LS (TE)		0.866										
X34 AVR PERSONNEL EXP PER EMPL(\$000)		0.576					0.379					
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.403	0.526							-0.433			
X37 YIELD ON TOT INV SEC (TE)		0.373										
X45 S T INV \ S T N CORE FUND			-0.859									
X43 NET S T N CORE FUND DEPENDENCE			0.827									
X46 S T AST \ S T LIABS			-0.761									
X39 S T INV \ TOT AST			-0.761								0.346	
X47 NET S T LIAB \ TOT AST			0.732									
X22 NET N CORE FUND DEPENDENCE			0.728	0.309								
X42 S T N CORE FUNDING \ TOT AST			0.601								0.551	
X48 NET LS&LS \ DEP				0.901								
X23 NET LN&LS \ AST				0.880								
X49 NET LN&LS \ CORE DEP				0.857								
X44 BROK DEP \ DEP				0.367								
X2 INT EXP \ AVR AST					0.849							

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X14 INT EXP \ AVR EARN AST					0.845							
X38 COST OF ALL INT-BEARING FUNDS					0.784							
X12 AVR INT-BEARING FUNDS \ AVR AST					0.674							
X29 G R TIER ONE CAP						0.890						
X54 G R TOT EQCAP						0.828						
X26 RETAIN EARN \ AVR TOT EQ	0.414					0.798						
X25 CASH DIV \ NET INC	0.427					-0.601						
X30 G R NET LN&LS						0.338						
X35 AST PER EMPLOYEE (\$MILLION)							0.889					
X5 NONINT EXP \ AVR AST	-0.342	0.480					-0.728					
X4 NONINT INC \ AVR AST							-0.683					
X11 AVR EARN AST \ AVR AST							0.525					
X24 TIER ONE LEVERAGE CAP								0.923				
X55 TIER ONE RBC \ RISK-WGT AST				-0.403				0.857				
X56 TOT RBC \ RISK-WGT AST				-0.396				0.856				
X18 LN&LS ALLOW \ NET LOSSES									0.911			
X17 EARN COV OF NET LOSS	0.428								0.788			
X16 NET LOSS \ AVR TOT LN&LS	-0.358	0.456							-0.646			
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL									-0.524	0.400		
X21 NON-CUR LN&LS \ GRS LN&LS									-0.518	0.472		
X19 LN&LS ALLOW \ LN&LS NOT HFS										0.927		
X20 LN&LS ALLOW \ TOT LN&LS										0.925		
X31 G R S T INV			-0.341								0.596	
X28 G R AST						0.416					0.526	
X41 CORE DEP \ TOT AST			-0.459	-0.311							-0.464	
X32 G R S T NON CORE FUNDING											0.369	
X52 PLEDGED SEC \ TOT SEC											0.322	
X51 TOT AFS SEC \ TOT SEC												0.889
X50 TOT HTM SEC \ TOT SEC												-0.883
X40 MARKETABLE EQ SEC \ TOT AST												

Rotated Component Matrix G3 (2005)

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X10 NET INC \ AVR AST	0.943												
X9 NET OPER INC \ AVR AST	0.943												
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.940												
X7 PRETAX OPER INC (TE) \ AVR AST	0.939												
X53 NET INC \ AVR TOT EQ	0.871												
X33 EFFICIENCY RATIO	-0.817												
X25 CASH DIV \ NET INC	0.579							-0.442					
X45 S T INV \ S T NCORE FUND		-0.875											
X43 NET S T NCORE FUND DEPENDENCE		0.859											
X39 S T INV \ TOT AST		-0.798											
X22 NET NCORE FUND DEPENDENCE		0.766		0.325									
X46 S T AST \ S T LIABS		-0.754											
X47 NET S T LIAB \ TOT AST		0.741											
X42 S T NCORE FUNDING \ TOT AST		0.558											0.490
X31 G R S T INV		-0.324											0.322
X5 NONINT EXP \ AVR AST	-0.419		0.804										
X15 NET INT INC-TE \ AVR EARN AST			0.777		0.368								
X36 YIELD ON TOT LN&LS (TE)			0.737										
X3 NET INT INC (TE) \ AVR AST	0.337		0.723		0.408								
X13 INT INC (TE) \ AVR EARN AST			0.659	0.345	0.466								
X4 NONINT INC \ AVR AST			0.654										
X1 INT INC (TE) \ AVR AST			0.561	0.408	0.506								
X11 AVR EARN AST \ AVR AST			-0.454										
X2 INT EXP \ AVR AST				0.895									
X14 INT EXP \ AVR EARN AST				0.890									
X38 COST OF ALL INT-BEARING FUNDS				0.869									
X12 AVR INT-BEARING FUNDS \ AVR AST			-0.392	0.610				-0.304					

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X41 CORE DEP \ TOT AST		-0.479		-0.506							-0.317		-0.359
X23 NET LN&LS \ AST					0.885								
X48 NET LS&LS \ DEP					0.884								
X49 NET LN&LS \ CORE DEP				0.372	0.790								
X18 LN&LS ALLOW \ NET LOSSES						-0.873							
X16 NET LOSS \ AVR TOT LN&LS						0.832							
X17 EARN COV OF NET LOSS	0.464					-0.735							
X6 PROVISION: LN&LS LOSSES \ AVR AST						0.649							
X21 NON-CUR LN&LS \ GRS LN&LS						0.433			0.405		-0.319		
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL						0.414					-0.360		
X24 TIER ONE LEVERAGE CAP							0.920						
X55 TIER ONE RBC \ RISK-WGT AST					-0.432		0.828						
X56 TOT RBC \ RISK-WGT AST					-0.427		0.827						
X29 G R TIER ONE CAP								0.895					
X54 G R TOT EQCAP								0.838					
X26 RETAIN EARNS \ AVR TOT EQ	0.367							0.817					
X20 LN&LS ALLOW \ TOT LN&LS									0.925				
X19 LN&LS ALLOW \ LN&LS NOT HFS									0.925				
X32 G R S T NON CORE FUNDING										0.706			
X28 G R AST										0.662			
X30 G R NET LN&LS										0.626			
X34 AVR PERSONNEL EXP PER EMPL(\$000)											0.731		
X35 AST PER EMPLOYEE (\$MILLION)			-0.581								0.585		
X44 BROK DEP \ DEP				0.313							0.352		
X50 TOT HTM SEC \ TOT SEC												-0.901	
X51 TOT AFS SEC \ TOT SEC												0.898	
X37 YIELD ON TOT INV SEC (TE)		0.333											-0.563
X52 PLEDGED SEC \ TOT SEC													0.446
X40 MARKETABLE EQ SEC \ TOT AST													

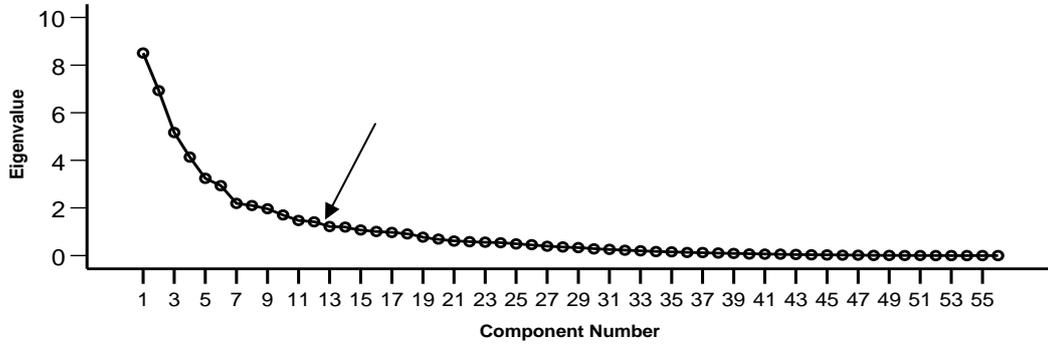
Rotated Component Matrix G4 (2005)

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X9 NET OPER INC \ AVR AST	0.943											
X10 NET INC \ AVR AST	0.940											
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.939											
X7 PRETAX OPER INC (TE) \ AVR AST	0.938											
X53 NET INC \ AVR TOT EQ	0.899											
X33 EFFICIENCY RATIO	-0.845											
X25 CASH DIV \ NET INC	0.588							-0.405				
X43 NET S T NCORE FUND DEPENDENCE		0.850										
X45 S T INV \ S T NCORE FUND		-0.847										
X46 S T AST \ S T LIABS		-0.816										
X39 S T INV \ TOT AST		-0.803										
X47 NET S T LIAB \ TOT AST		0.797										
X22 NET NCORE FUND DEPENDENCE		0.792		0.332								
X31 G R S T INV		-0.462								0.311		
X37 YIELD ON TOT INV SEC (TE)		0.370									0.311	
X15 NET INT INC-TE \ AVR EARN AST			0.881									
X3 NET INT INC (TE) \ AVR AST			0.858									
X13 INT INC (TE) \ AVR EARN AST			0.834		0.347							
X36 YIELD ON TOT LN&LS (TE)			0.785		-0.324							
X1 INT INC (TE) \ AVR AST			0.770	0.357	0.361							
X5 NONINT EXP \ AVR AST	-0.505		0.610	-0.323								-0.350
X2 INT EXP \ AVR AST				0.900								
X14 INT EXP \ AVR EARN AST				0.894								
X38 COST OF ALL INT-BEARING FUNDS				0.879								
X12 AVR INT-BEARING FUNDS \ AVR AST				0.570			-0.434					
X41 CORE DEP \ TOT AST		-0.364		-0.466			-0.422			-0.335		
X44 BROK DEP \ DEP				0.365								
X48 NET LS&LS \ DEP					0.858							

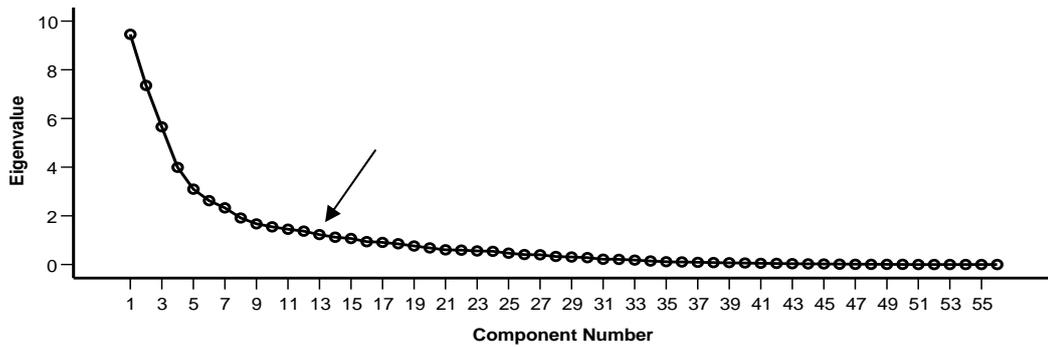
Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X23 NET LN&LS \ AST					0.837							
X49 NET LN&LS \ CORE DEP				0.374	0.808							
X18 LN&LS ALLOW \ NET LOSSES						-0.861						
X16 NET LOSS \ AVR TOT LN&LS	-0.315					0.820						
X17 EARN COV OF NET LOSS	0.557					-0.652						
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.381					0.595						
X21 NON-CUR LN&LS \ GRS LN&LS						0.552			0.332			
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL						0.520						
X24 TIER ONE LEVERAGE CAP							0.894					
X56 TOT RBC \ RISK-WGT AST					-0.389		0.807					
X55 TIER ONE RBC \ RISK-WGT AST					-0.394		0.807					
X29 G R TIER ONE CAP								0.879				
X54 G R TOT EQCAP								0.829				
X26 RETAIN EARNS \ AVR TOT EQ	0.484							0.755				
X20 LN&LS ALLOW \ TOT LN&LS									0.900			
X19 LN&LS ALLOW \ LN&LS NOT HFS									0.900			
X28 G R AST										0.689		
X32 G R S T NON CORE FUNDING										0.663		
X42 S T N CORE FUNDING \ TOT AST		0.494		0.366						0.516		
X30 G R NET LN&LS										0.427		
X34 AVR PERSONNEL EXP PER EMPL(\$000)											0.637	
X35 AST PER EMPLOYEE (\$MILLION)	0.369		-0.413	0.329							0.607	
X4 NONINT INC \ AVR AST			0.365								-0.509	
X11 AVR EARN AST \ AVR AST											0.419	
X51 TOT AFS SEC \ TOT SEC												0.903
X50 TOT HTM SEC \ TOT SEC												-0.896
X40 MARKETABLE EQ SEC \ TOT AST												
X52 PLEDGED SEC \ TOT SEC												

APPENDIX 6.3: Cattell's plots and PA outputs for all groups (2001-2004)

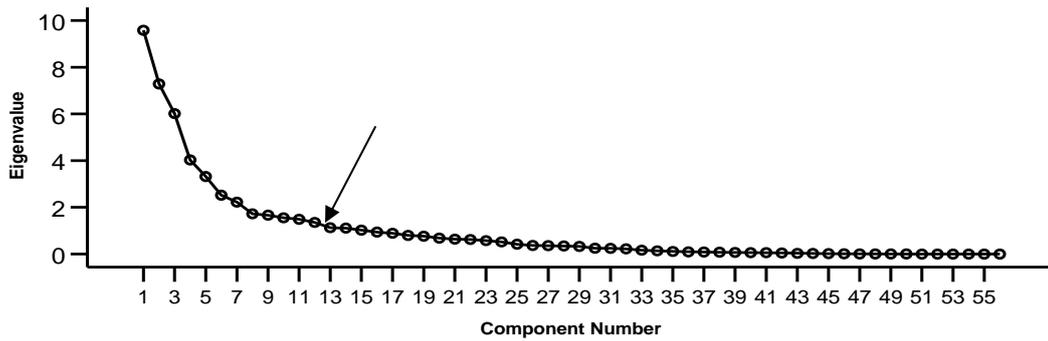
Cattell's scree plot for G1 (2001)



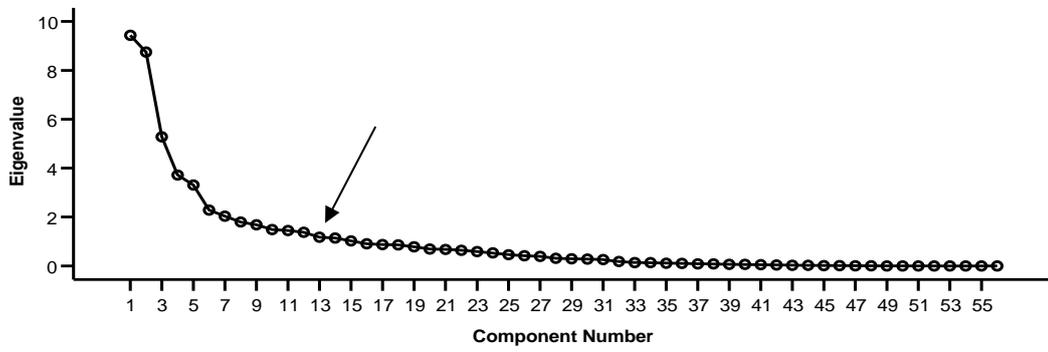
Cattell's scree plot for G2 (2001)



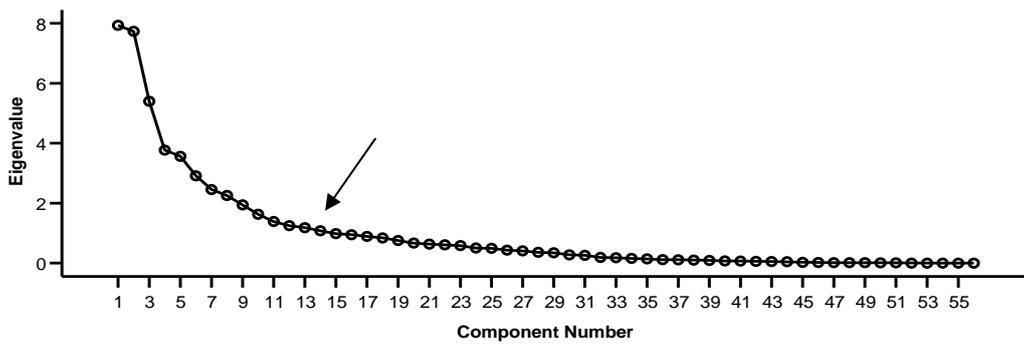
Cattell's scree plot for G3 (2001)



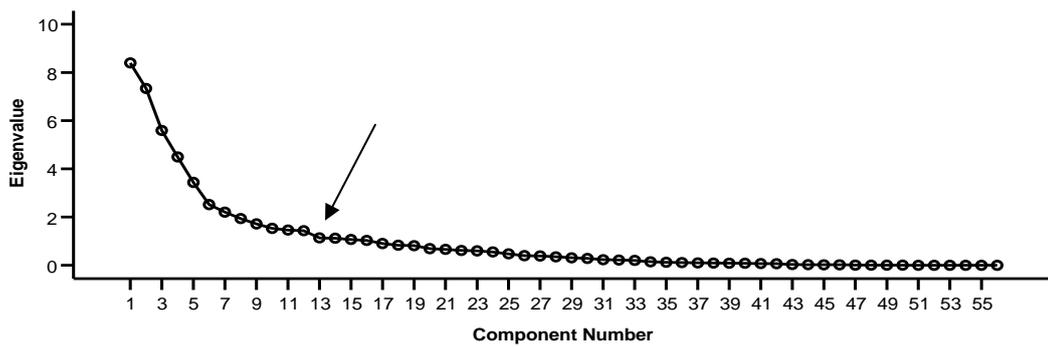
Cattell's scree plot for G4 (2001)



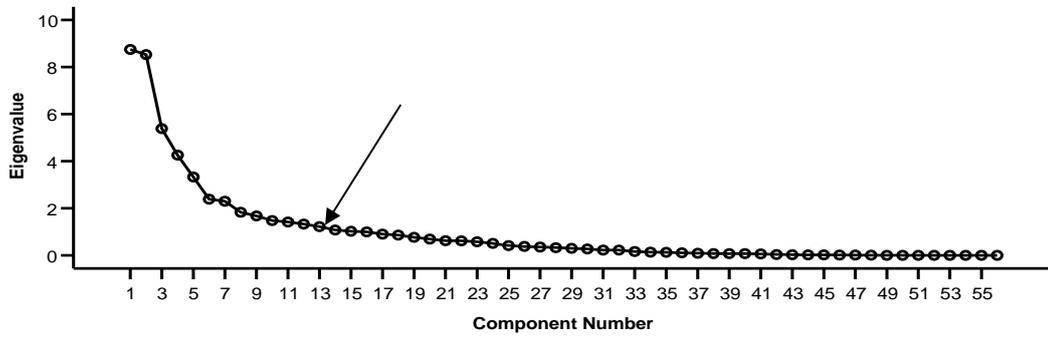
Cattell's scree plot for G1 (2002)



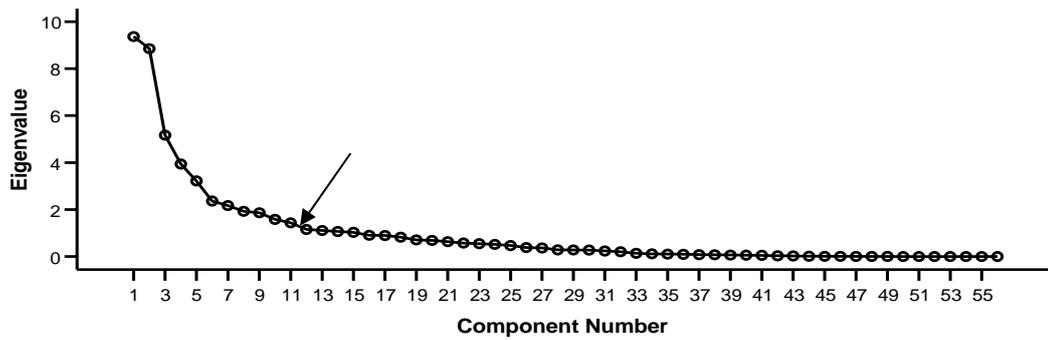
Cattell's scree plot for G2 (2002)



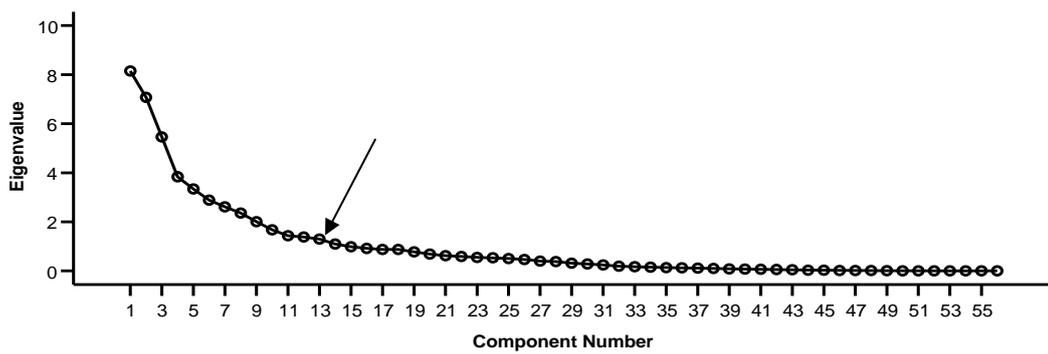
Cattell's scree plot for G3 (2002)



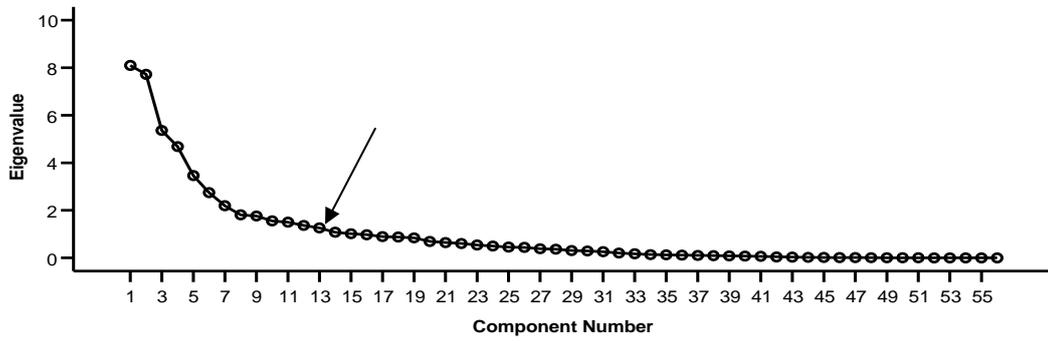
Cattell's scree plot for G4 (2002)



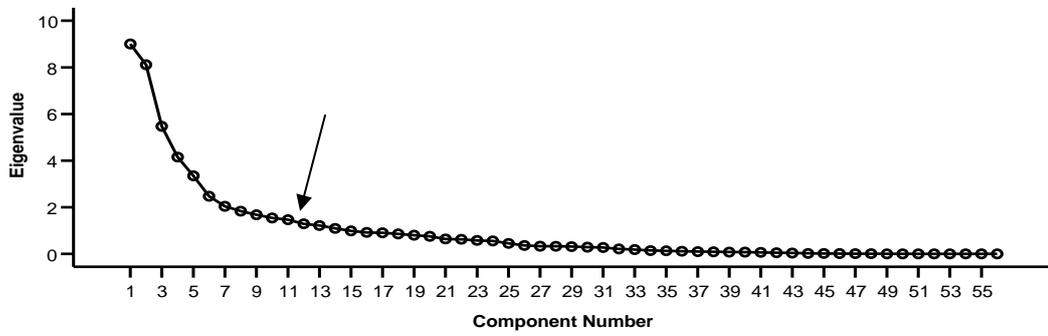
Cattell's scree plot for G1 (2003)



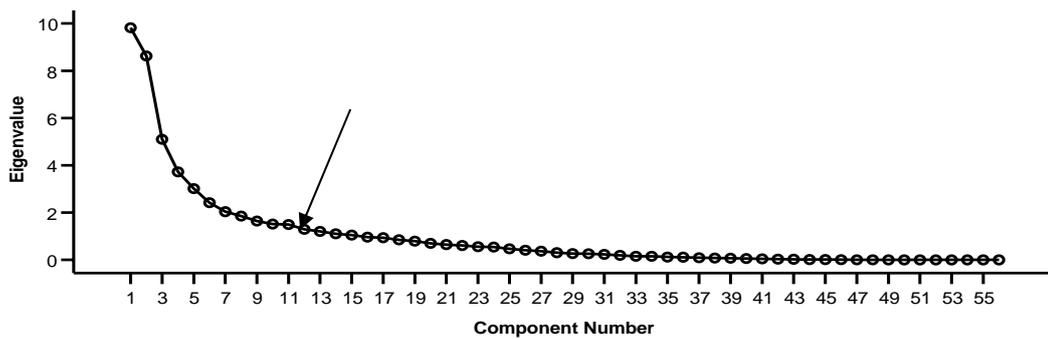
Cattell's scree plot for G2 (2003)



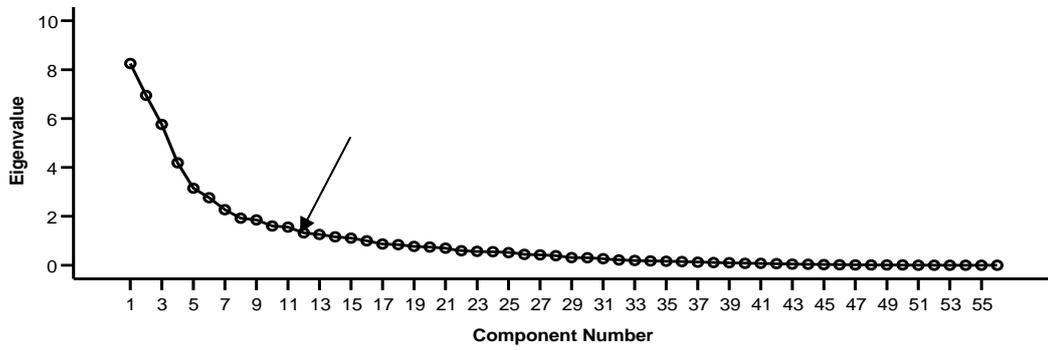
Cattell's scree plot for G3 (2003)



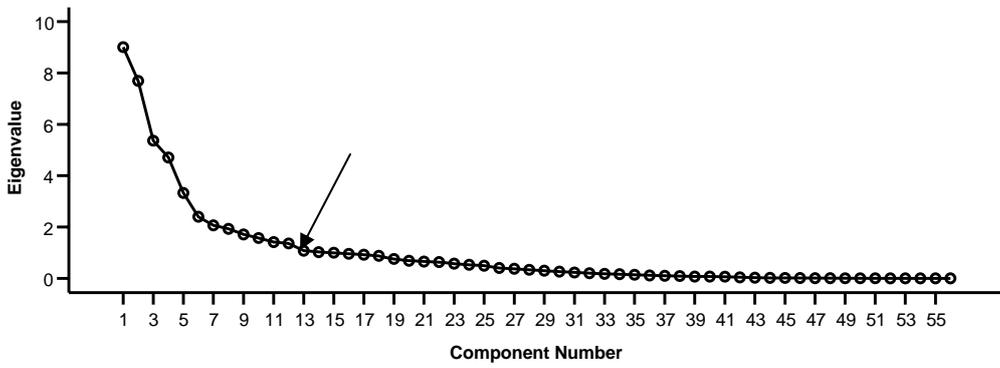
Cattell's scree plot for G4 (2003)



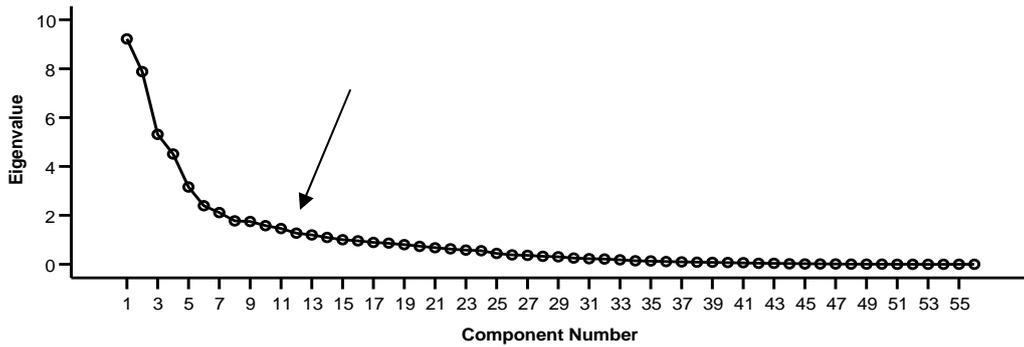
Cattell's scree plot for G1 (2004)



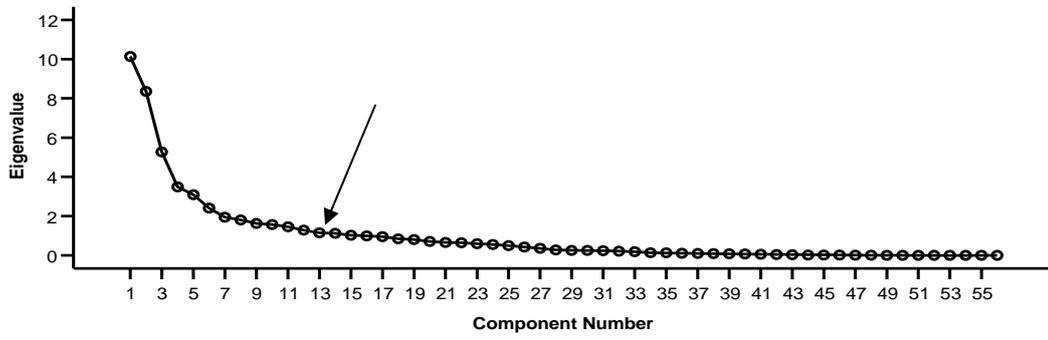
Cattell's scree plot for G2 (2004)



Cattell's scree plot for G3 (2004)



Cattell's scree plot for G4 (2004)



Parallel analysis outputs for asset-size groups (2001-2004)

Parallel analysis outputs for asset-size groups (2001)

Root	G1			G2			G3			G4		
	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue
1	8.5024609	1.5246886	1.5750532	9.4577333	1.3593656	1.3893836	9.5781487	1.3875302	1.4176969	9.431995	1.4129532	1.4504113
2	6.9271499	1.4790726	1.5154936	7.3546619	1.327824	1.3504493	7.2856041	1.3557129	1.3790432	8.7470851	1.3774299	1.4042203
3	5.1670507	1.4447026	1.477087	5.6534399	1.3046838	1.3243299	6.0137856	1.3310559	1.3524334	5.2821927	1.3503098	1.3729608
4	4.1341188	1.4149609	1.4423141	3.9906799	1.2852342	1.3044113	4.0293146	1.3102944	1.3288739	3.717527	1.32724	1.348265
5	3.2455186	1.3872884	1.4135614	3.0953605	1.267575	1.2839443	3.3215531	1.2900852	1.3073951	3.313225	1.3063248	1.325727
6	2.9337686	1.3622664	1.3862535	2.6244195	1.251028	1.2677182	2.5219151	1.2718744	1.2889653	2.2856296	1.2868948	1.3049883
7	2.1909036	1.3388558	1.361088	2.3267968	1.2356983	1.2510978	2.2219401	1.2550331	1.2715309	2.0332456	1.2690002	1.2868962
8	2.100944	1.3166173	1.3400145	1.9136041	1.2207365	1.2342958	1.7217901	1.2388763	1.2541638	1.7950182	1.2520555	1.268373
9	1.9639674	1.2957494	1.3166137	1.6697381	1.2067682	1.220572	1.6623128	1.2239178	1.2397274	1.6810249	1.2356185	1.2519842
10	1.706479	1.2755784	1.2948564	1.545621	1.193274	1.2056567	1.5502774	1.2090196	1.2242938	1.4833872	1.220522	1.2368963
11	1.4760796	1.2562835	1.2754706	1.448139	1.1802211	1.1921702	1.4866487	1.1947815	1.2095996	1.4479661	1.20511	1.2202431
12	1.4163238	1.2376824	1.2554789	1.3704564	1.1677963	1.1800375	1.3548246	1.1811547	1.1949946	1.3729983	1.1906782	1.2056287
13	1.2186022	1.2192911	1.2374931	1.2298337	1.1555935	1.1678691	1.1300246	1.167558	1.1810137	1.1769112	1.1765922	1.1900624
14	1.1941285	1.2017933	1.219093	1.1243383	1.143521	1.1549385	1.1101619	1.1544877	1.1671138	1.1420624	1.1629182	1.1764266
15	1.0726944	1.1843708	1.20186	1.0684697	1.1314396	1.1429394	1.025398	1.1417479	1.1541852	1.0274728	1.1492723	1.1624406
16	1.0100402	1.1674532	1.1847804	0.9383165	1.1202266	1.1313631	0.9398236	1.1293622	1.1406534	0.9017351	1.1362522	1.1494261
17	0.9725371	1.1507583	1.167507	0.9071907	1.1091645	1.1208084	0.8914604	1.11678	1.128347	0.8739024	1.1232261	1.1366728
18	0.9070351	1.1350527	1.1505047	0.8526078	1.0980678	1.1084196	0.7978137	1.1048812	1.1162276	0.859625	1.1103087	1.1230496
19	0.7729668	1.1194801	1.1352347	0.762341	1.0874182	1.0976129	0.7657384	1.0932463	1.1043267	0.7805099	1.0977468	1.1107594
20	0.689979	1.1036199	1.1190366	0.6847548	1.0764669	1.0870384	0.6841846	1.0818587	1.0930943	0.6929289	1.0857071	1.097738
21	0.6094973	1.0885006	1.1030578	0.6053638	1.0659305	1.0762393	0.6361678	1.0701906	1.0816005	0.6754742	1.0736168	1.0854123
22	0.5847781	1.0735385	1.0893916	0.5922427	1.0552199	1.0651463	0.6246023	1.0588971	1.0700003	0.6398446	1.0617458	1.0732817
23	0.5605966	1.0584181	1.0736116	0.5551942	1.0449266	1.0546434	0.5759598	1.0476246	1.0591852	0.5853018	1.0499215	1.0610191
24	0.5379855	1.0437887	1.0587753	0.5438819	1.034875	1.0450215	0.5188897	1.036555	1.0476051	0.5333222	1.0379793	1.049654
25	0.4907851	1.0293694	1.0434383	0.4663821	1.0249228	1.0349612	0.4206416	1.0257018	1.0362729	0.4589029	1.0266045	1.0379528
26	0.4556555	1.0152528	1.0296247	0.4115597	1.0149643	1.025586	0.3681118	1.0147247	1.0244841	0.4181952	1.0152473	1.0259886
27	0.3914595	1.0011908	1.0153982	0.4016136	1.0049404	1.0147949	0.3570873	1.004056	1.0138079	0.3886254	1.0040001	1.0152867

Root	G1			G2			G3			G4		
	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue
28	0.3628868	0.9871899	1.0007231	0.3307082	0.9950371	1.0051849	0.3463787	0.9936247	1.0037546	0.307611	0.9927632	1.0031708
29	0.3331673	0.9736381	0.9872761	0.3083891	0.9851427	0.9950996	0.3261416	0.9831483	0.993632	0.2890514	0.9815137	0.9925478
30	0.2817991	0.9596554	0.9734658	0.2815387	0.9754894	0.9848119	0.2494583	0.972679	0.9834789	0.2771566	0.9706254	0.9826728
31	0.2592622	0.9462889	0.959956	0.2175316	0.9658451	0.9753501	0.2457246	0.9621892	0.9729589	0.2584628	0.9595689	0.9704229
32	0.2248679	0.9327461	0.9465033	0.2097087	0.9561212	0.9659137	0.2253855	0.952009	0.9628035	0.182612	0.948529	0.9595541
33	0.2013636	0.9187706	0.9326667	0.1785851	0.9468531	0.9564463	0.1663531	0.9414564	0.9518772	0.1351508	0.9377103	0.9482482
34	0.1653638	0.9052754	0.9190468	0.146532	0.9371459	0.9466758	0.1369836	0.9310003	0.9417966	0.1338053	0.9267096	0.9373436
35	0.1539293	0.8918695	0.9052771	0.1164586	0.9272884	0.937226	0.1122644	0.9206202	0.9313484	0.1085309	0.9160861	0.9270059
36	0.1278403	0.8783697	0.8920196	0.1037498	0.9175805	0.9276938	0.0945072	0.9104237	0.9204821	0.1024735	0.9052389	0.9162077
37	0.1235704	0.8654909	0.8790227	0.0879165	0.90819	0.9173195	0.0874439	0.9002901	0.9109859	0.0824833	0.8945008	0.9051569
38	0.1075895	0.8518931	0.8659117	0.0802846	0.8987246	0.9088872	0.0803831	0.8900618	0.9004756	0.0815671	0.883634	0.8944679
39	0.0861379	0.8391596	0.8529305	0.0732178	0.8890901	0.8991003	0.0694572	0.8799633	0.8902962	0.0672762	0.8728099	0.8845835
40	0.0639496	0.8257153	0.8395673	0.0622485	0.8798523	0.8900702	0.0619851	0.869672	0.8800924	0.0612969	0.8618197	0.8731864
41	0.0581787	0.8125179	0.8271761	0.0506378	0.8697616	0.8798129	0.0609934	0.8594489	0.8698597	0.0514856	0.8510604	0.8623362
42	0.0546468	0.7989651	0.814232	0.0427759	0.8601975	0.8698788	0.0485939	0.8489151	0.8600529	0.0391104	0.8403645	0.8511954
43	0.0499146	0.78598	0.800143	0.0301613	0.8503429	0.8600721	0.0281	0.8385432	0.8492353	0.0265057	0.8293965	0.8408117
44	0.0312427	0.7725105	0.7873567	0.0262753	0.840673	0.850715	0.023254	0.8281743	0.8388873	0.0202707	0.8185614	0.8297997
45	0.0232936	0.7590562	0.773306	0.0237575	0.8307858	0.8417577	0.018138	0.8173731	0.8281829	0.0115724	0.807068	0.8191159
46	0.0176861	0.7451949	0.7594141	0.0120404	0.820783	0.8308225	0.0102567	0.8065557	0.8176206	0.0074537	0.7957401	0.8074079
47	0.0147606	0.731672	0.7463903	0.0090107	0.8103677	0.8210371	0.006006	0.7956655	0.8076066	0.0036527	0.784169	0.7961317
48	0.0092752	0.717896	0.7322634	0.0065023	0.8000344	0.8116504	0.004542	0.7844046	0.7959851	0.0030133	0.7731669	0.7847536
49	0.0083928	0.7035637	0.718731	0.0035174	0.7892965	0.8004668	0.0017208	0.7731459	0.7845825	0.0016021	0.7610737	0.772783
50	0.0040567	0.6888943	0.7043578	0.0032843	0.7781527	0.7895019	0.0013077	0.7615891	0.7737967	0.0011694	0.7487152	0.7602479
51	0.0026535	0.6742172	0.6897311	2.98E-04	0.7667068	0.7782565	2.46E-04	0.7491993	0.7621315	2.59E-04	0.7363006	0.7488555
52	3.57E-04	0.6585167	0.6751072	7.84E-05	0.7548594	0.7676488	1.36E-04	0.7368143	0.7501672	2.00E-04	0.7231306	0.7368093
53	1.86E-04	0.6418286	0.6589248	2.06E-05	0.7421511	0.7553593	2.50E-05	0.7233243	0.7358119	6.11E-05	0.7087472	0.7229688
54	8.21E-05	0.6240267	0.6423591	1.59E-05	0.7285411	0.7419515	1.74E-05	0.7085264	0.7224349	2.55E-05	0.6940189	0.7096208
55	3.06E-05	0.6039641	0.6243326	1.40E-05	0.7134618	0.7288455	1.63E-05	0.6921932	0.7072612	1.86E-05	0.6767527	0.6938217
56	9.53E-06	0.5795088	0.6029574	5.11E-08	0.6936415	0.7123256	3.99E-08	0.6719815	0.6905992	1.39E-05	0.6549491	0.6745472

Parallel analysis outputs for asset-size groups (2002)

Root	G1			G2			G3			G4		
	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue
1	7.9302241	1.4918647	1.5348942	8.393222	1.3481569	1.3795235	8.7483317	1.387475	1.4194428	9.3648731	1.4252018	1.4680577
2	7.7320958	1.447826	1.4806267	7.3372245	1.318245	1.341119	8.5288974	1.3547053	1.3805515	8.8519742	1.3867769	1.4169168
3	5.3975265	1.4155096	1.4430903	5.5919371	1.2960205	1.3140109	5.3822795	1.3297754	1.3526234	5.1688762	1.3586916	1.3840067
4	3.7687344	1.3879193	1.4137906	4.498679	1.2770867	1.295022	4.2585189	1.3076611	1.3272561	3.9420752	1.3347199	1.3568948
5	3.5624658	1.362683	1.3883413	3.4376364	1.2597216	1.2766002	3.3253165	1.2886524	1.3069554	3.2186174	1.3135117	1.3351012
6	2.9127925	1.3395786	1.3605506	2.5191887	1.2436831	1.2596348	2.3866012	1.2709558	1.2869849	2.3635117	1.293983	1.3132402
7	2.4561823	1.3179016	1.3370356	2.2078801	1.2286005	1.2428605	2.3005533	1.2542817	1.2709637	2.172103	1.2757668	1.293409
8	2.2539553	1.29709	1.315522	1.9398466	1.2146949	1.2289271	1.8276019	1.2384453	1.2541987	1.9258037	1.2584169	1.275646
9	1.9432046	1.2773753	1.2960894	1.7197003	1.2009937	1.2140187	1.6751664	1.2228086	1.2375027	1.8663957	1.2424647	1.2585205
10	1.6307896	1.2589436	1.2764799	1.5331388	1.187905	1.2011118	1.4761766	1.2083776	1.2222427	1.5843798	1.2262055	1.2431072
11	1.388368	1.2409841	1.2590355	1.4615878	1.1752201	1.1875877	1.4136138	1.1944738	1.207949	1.4385943	1.2106319	1.2258762
12	1.2522176	1.223485	1.2399738	1.4367605	1.1629008	1.1749658	1.330628	1.1806762	1.1949432	1.1559742	1.1959976	1.2107662
13	1.1833375	1.2065772	1.2232017	1.1361277	1.1512335	1.162759	1.2209271	1.1673171	1.1806555	1.1123988	1.1812236	1.1963044
14	1.076895	1.190287	1.2050532	1.1232427	1.1394189	1.1505093	1.0746217	1.1545993	1.167059	1.0664266	1.1668959	1.1813414
15	0.9835347	1.1743684	1.1899815	1.0683103	1.1281834	1.1395822	1.0215361	1.1415685	1.1541721	1.0320515	1.1530009	1.166927
16	0.9496146	1.1588843	1.1747505	1.0321426	1.1170595	1.1287158	0.9948776	1.1289694	1.1413142	0.9058959	1.1396303	1.1522182
17	0.8908078	1.1432629	1.1582457	0.9039255	1.1060225	1.1166529	0.9036746	1.1167163	1.1286937	0.8955879	1.1259565	1.1396743
18	0.8418111	1.1281328	1.1441559	0.8319577	1.0951921	1.1052533	0.8571102	1.1047833	1.1163013	0.8269978	1.1129271	1.1259659
19	0.7553946	1.113313	1.1282395	0.8154011	1.0849826	1.0958369	0.761701	1.0930465	1.1049755	0.7085036	1.0999967	1.1124454
20	0.669337	1.0986616	1.1131763	0.6919095	1.0746497	1.0842691	0.6889691	1.0814991	1.0930841	0.6858414	1.0877871	1.1006615
21	0.6331163	1.0845725	1.0986577	0.661105	1.0644471	1.0745667	0.61933	1.0700635	1.0807133	0.6339916	1.0753518	1.0876408
22	0.6095215	1.070328	1.0840115	0.6179657	1.0539955	1.0638047	0.6135602	1.0588384	1.0691801	0.5772284	1.0628601	1.0750132
23	0.5859026	1.0564654	1.0703123	0.5987411	1.0440715	1.0535895	0.5786202	1.0476531	1.0581665	0.551796	1.0508967	1.0627256
24	0.5047871	1.0426302	1.0564852	0.5555619	1.0340799	1.0436048	0.5065908	1.0367404	1.0473502	0.5195414	1.0389146	1.0495994
25	0.4919024	1.0288142	1.0424023	0.4737937	1.024356	1.0338352	0.4159875	1.0259378	1.0366777	0.4714049	1.0272217	1.0389819
26	0.4335295	1.0158645	1.0303231	0.401175	1.0147777	1.0246795	0.3774353	1.0150952	1.0254919	0.3848269	1.0151808	1.0270795
27	0.4083457	1.0023084	1.0157451	0.3876728	1.0048413	1.0144601	0.3497565	1.0047021	1.0155654	0.3654149	1.003925	1.0151416

Root	G1			G2			G3			G4		
	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue
28	0.3594465	0.988971	1.0017589	0.3519055	0.9953966	1.0047163	0.3226809	0.9938938	1.0051843	0.288418	0.9921229	1.003431
29	0.3443462	0.9764519	0.9899625	0.3120082	0.9858924	0.9953033	0.295146	0.9832428	0.9942393	0.2823162	0.9809459	0.9932116
30	0.277068	0.9631224	0.9771463	0.2861109	0.9763071	0.9861257	0.2678743	0.9727733	0.9828554	0.2793426	0.9695848	0.9810252
31	0.2604211	0.9501345	0.9631738	0.2330169	0.9672385	0.9765116	0.2265557	0.9622725	0.9721944	0.2392703	0.9584747	0.9697193
32	0.189072	0.9374526	0.9499046	0.2217161	0.9578657	0.9669473	0.2264914	0.9518903	0.9617333	0.2048014	0.9470899	0.9584434
33	0.1791119	0.924546	0.9378332	0.2040782	0.9485143	0.9572735	0.1626739	0.9417689	0.9524576	0.1386475	0.9361546	0.9470383
34	0.1574534	0.9117674	0.9251456	0.146936	0.9394255	0.9487821	0.1364967	0.9315712	0.9412612	0.118227	0.9250247	0.9368313
35	0.141584	0.8994027	0.9126182	0.1295929	0.929956	0.9395928	0.1279501	0.9212521	0.9320088	0.104258	0.9137695	0.9258196
36	0.1178225	0.8867583	0.8997815	0.1161336	0.9204925	0.9296804	0.10688	0.9108874	0.9210932	0.097325	0.9026492	0.9141106
37	0.1110854	0.8743512	0.8875634	0.0975714	0.9111962	0.9205586	0.0819716	0.9004306	0.9103839	0.0826116	0.8918883	0.9026388
38	0.1028594	0.8621272	0.8750071	0.0924577	0.9018442	0.9116864	0.0754755	0.8902957	0.9006412	0.0767781	0.8809214	0.8924607
39	0.0924631	0.8492172	0.8619576	0.089244	0.8925551	0.9024496	0.0722327	0.8799861	0.8906767	0.0651009	0.8694452	0.8803353
40	0.07534	0.8366004	0.8493754	0.0820725	0.883194	0.8931377	0.0693584	0.8698004	0.8798958	0.059313	0.8581965	0.8695391
41	0.0690435	0.8239384	0.8365538	0.0719111	0.8735618	0.8831135	0.0630857	0.8595269	0.8705979	0.0552214	0.8471175	0.8585359
42	0.0616812	0.8114525	0.824814	0.0647465	0.8641182	0.8734226	0.0349481	0.8493873	0.8604445	0.0322085	0.8360202	0.8474843
43	0.0543031	0.7985931	0.8120318	0.0294548	0.8548784	0.8643858	0.0271391	0.8386903	0.8493467	0.0300761	0.8249509	0.8364217
44	0.0452619	0.7858773	0.7987118	0.0278967	0.8455029	0.8550084	0.0198962	0.8283259	0.839112	0.0127715	0.8133058	0.824821
45	0.024723	0.7734069	0.7862525	0.0218261	0.8357363	0.8455903	0.0192154	0.8178258	0.8293465	0.0114835	0.8021268	0.8140001
46	0.0207711	0.7601573	0.7733809	0.0205688	0.8259098	0.8360174	0.0078006	0.8069815	0.8180354	0.0093994	0.7909108	0.8030158
47	0.018863	0.7470395	0.7608487	0.0100151	0.8158034	0.8258432	0.0072066	0.7964503	0.807817	0.0076821	0.7793436	0.791761
48	0.0156167	0.7335984	0.7471451	0.0059656	0.805509	0.8166385	0.0063393	0.7852512	0.7969687	0.0067158	0.7675005	0.7801937
49	0.0133651	0.7201323	0.7353868	0.0051648	0.7948574	0.8059279	0.001663	0.7736248	0.7848209	0.0043953	0.7556423	0.7688394
50	0.0119753	0.7060905	0.7210545	0.0028494	0.784149	0.794637	0.0012232	0.7621457	0.7742626	0.0013141	0.7429618	0.7566396
51	0.0093375	0.6917498	0.706828	5.61E-04	0.773213	0.7850975	1.14E-03	0.7502805	0.7625467	7.70E-04	0.730013	0.7435066
52	3.39E-04	0.6773221	0.6932372	1.77E-04	0.76144	0.7736206	9.31E-05	0.7371569	0.7496248	4.08E-04	0.7165036	0.7301978
53	1.49E-04	0.6616447	0.6780938	1.28E-04	0.7487985	0.7611252	4.21E-05	0.724245	0.7371921	4.00E-05	0.7022741	0.7171136
54	6.31E-05	0.6449941	0.6624882	4.36E-05	0.7352828	0.7480672	2.25E-05	0.709619	0.7241246	1.17E-05	0.6873216	0.7028812
55	3.08E-05	0.6255243	0.6445113	1.35E-05	0.7204993	0.7350224	1.52E-05	0.6929015	0.7088451	6.89E-06	0.6689669	0.6873395
56	8.94E-06	0.6019447	0.6247572	9.24E-08	0.7003224	0.7172854	4.46E-08	0.6717039	0.6910172	7.18E-08	0.6446359	0.6685993

Parallel analysis outputs for asset-size groups (2003)

Root	G1			G2			G3			G4		
	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue
1	8.1470984	1.4653367	1.505456	8.0946877	1.3419153	1.3697033	9.0039315	1.3950713	1.4285479	9.820921	1.4421272	1.4841065
2	7.0725821	1.4251656	1.4559342	7.7203636	1.3131438	1.3353489	8.1123567	1.3611982	1.3875677	8.6232149	1.4031078	1.4311414
3	5.4590976	1.394658	1.4205096	5.361994	1.2917308	1.3114792	5.4716324	1.3359711	1.3578944	5.0987593	1.3740267	1.4006053
4	3.8354122	1.3682739	1.3922814	4.6820478	1.2727765	1.2904258	4.1547037	1.314132	1.335702	3.7240812	1.3496855	1.3715233
5	3.3366915	1.344768	1.3666153	3.463391	1.255593	1.2721917	3.3452011	1.2938766	1.313214	3.0167896	1.3277031	1.3484797
6	2.8856805	1.3228436	1.3441521	2.7452648	1.2399315	1.2548791	2.4727074	1.2757128	1.2938942	2.4189109	1.3069255	1.3263071
7	2.6125405	1.3024827	1.3226397	2.193544	1.2252185	1.2395285	2.0395764	1.2579582	1.2734619	2.0387377	1.2878209	1.3061293
8	2.3545356	1.2831801	1.3014059	1.8094242	1.2110828	1.2253255	1.8320607	1.2421224	1.2576483	1.8564703	1.269083	1.2879011
9	2.0039163	1.2654111	1.2837368	1.7604425	1.1979439	1.2101525	1.677333	1.226815	1.2419266	1.6426924	1.252099	1.2692951
10	1.675895	1.2468793	1.263777	1.5545408	1.1850379	1.1973845	1.5399716	1.2118571	1.2258329	1.5154782	1.2355548	1.2518705
11	1.4311626	1.230028	1.2468776	1.5021387	1.1726597	1.1843972	1.4656045	1.1973299	1.2115564	1.4994283	1.2192792	1.2363789
12	1.3829628	1.2138413	1.2301573	1.3643759	1.1606368	1.1720446	1.2921264	1.1837174	1.1975472	1.2891263	1.2032603	1.2184408
13	1.2958727	1.197851	1.2132771	1.2603411	1.1488462	1.1600524	1.2163034	1.1699941	1.1840085	1.2043869	1.1883215	1.2034974
14	1.0965606	1.1819767	1.1967507	1.0800577	1.1376322	1.1486251	1.0920142	1.1569632	1.1704806	1.0998634	1.1732444	1.1876596
15	0.9852233	1.1667289	1.1811174	1.018445	1.1264579	1.1375006	0.9862854	1.1438515	1.157195	1.0504709	1.1590648	1.1735822
16	0.917232	1.1519482	1.1660871	0.9734487	1.1156955	1.1267879	0.9192191	1.1310696	1.1434314	0.9640613	1.1444749	1.1579308
17	0.8772294	1.1371079	1.150744	0.89509	1.1049946	1.1151746	0.9015032	1.1187317	1.1306677	0.9376861	1.1308362	1.143957
18	0.8702723	1.1225502	1.1365155	0.8748413	1.094185	1.1048427	0.8530746	1.1067529	1.1184432	0.8486553	1.117161	1.1303772
19	0.7769897	1.1083961	1.12194	0.8403891	1.0835202	1.0936959	0.8020586	1.0949966	1.1073107	0.7929926	1.1038819	1.1161327
20	0.6830855	1.0943696	1.1079857	0.6927005	1.0733865	1.0832103	0.7547771	1.0830545	1.0951696	0.7014366	1.0907522	1.1033951
21	0.6213207	1.0810064	1.0936856	0.6410672	1.0633309	1.0734677	0.63957	1.0716524	1.0829066	0.6491337	1.0777568	1.09044
22	0.5873822	1.0673536	1.0807339	0.6051328	1.0536821	1.0643609	0.6253191	1.0597069	1.071513	0.6093077	1.0649533	1.0773467
23	0.5483103	1.0540092	1.0669653	0.5433574	1.043734	1.0543164	0.5758928	1.0482175	1.0588382	0.5603586	1.0523334	1.0646419
24	0.5322476	1.0407868	1.0541553	0.4986865	1.0338818	1.0440951	0.5553151	1.0373269	1.0477038	0.5439754	1.0398877	1.0523697
25	0.5026407	1.0278249	1.0404183	0.4553347	1.0244126	1.0338582	0.4484664	1.0261504	1.0371636	0.4666902	1.0274496	1.0397667
26	0.4626541	1.0149758	1.0281171	0.4418533	1.0150254	1.0249381	0.3631197	1.0150249	1.0260778	0.4100079	1.0154267	1.0279201
27	0.3966678	1.0022167	1.0153828	0.3820145	1.0053609	1.0147023	0.3317163	1.0042515	1.0149702	0.3693001	1.0034756	1.0157778

Root	G1			G2			G3			G4		
	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue
28	0.3796363	0.9899608	1.0024224	0.3654047	0.9955952	1.0048749	0.3241601	0.993207	1.0043612	0.306128	0.9915957	1.0027732
29	0.3162813	0.977663	0.9890725	0.3064296	0.98654	0.9963363	0.3146252	0.9827846	0.9938225	0.2697909	0.9794644	0.9916456
30	0.2813867	0.965456	0.9772398	0.2904873	0.976925	0.9859734	0.2846578	0.9722817	0.9826266	0.2584327	0.9677642	0.9794756
31	0.2404811	0.9528155	0.9644069	0.257987	0.967758	0.9768651	0.2749306	0.96162	0.9722042	0.2351371	0.9560119	0.9676839
32	0.1883373	0.9406891	0.9526704	0.2019735	0.9586459	0.9673531	0.2122837	0.9511609	0.9622435	0.1959565	0.9443881	0.9554301
33	0.1724161	0.9288472	0.9411702	0.1702416	0.9494169	0.958678	0.1837187	0.9406922	0.9510459	0.1548202	0.9325372	0.9439887
34	0.1494756	0.9166773	0.9281273	0.1353766	0.9400022	0.9495415	0.1396855	0.9303421	0.9405861	0.1521065	0.9210637	0.9323914
35	0.1340241	0.9046266	0.9165292	0.1287666	0.9307332	0.9400676	0.1316789	0.9197018	0.9297614	0.1190123	0.9097844	0.9213961
36	0.1252007	0.8927607	0.9048345	0.1142523	0.9218037	0.931099	0.1124267	0.9091386	0.9200772	0.1159592	0.8982137	0.9095416
37	0.1141311	0.8805308	0.8926447	0.1032912	0.912596	0.9221345	0.0955956	0.898608	0.9094045	0.0864529	0.8867037	0.8986968
38	0.1002974	0.8687724	0.8810443	0.0914037	0.9035491	0.912578	0.0879777	0.8882602	0.898508	0.078431	0.8751583	0.886856
39	0.0778928	0.8565049	0.8683905	0.0821288	0.8941223	0.9028011	0.0750172	0.8779555	0.8888406	0.0694048	0.864135	0.8755881
40	0.0741025	0.8448879	0.85639	0.073808	0.8850483	0.8945557	0.0728862	0.8675465	0.8786797	0.0553252	0.8523741	0.8642807
41	0.0656203	0.832847	0.8450735	0.0653692	0.875868	0.8853107	0.0651323	0.8572759	0.867791	0.04404	0.8407165	0.8520425
42	0.0581698	0.8207425	0.8340274	0.0405532	0.8663501	0.8758528	0.0493676	0.8468786	0.8573657	0.0307706	0.8291421	0.8412793
43	0.0504183	0.808539	0.8214608	0.0321565	0.8570376	0.8666902	0.034483	0.8363799	0.8471349	0.0280243	0.8179699	0.8298799
44	0.0268287	0.796376	0.8097931	0.0207636	0.8474138	0.8575141	0.0195637	0.8253348	0.8362839	0.0127495	0.8062102	0.8179185
45	0.0250612	0.7841362	0.7969241	0.01871	0.8377537	0.8484354	0.0158992	0.8146194	0.8259112	0.011968	0.794556	0.807231
46	0.0192621	0.7717637	0.7852966	0.0148569	0.827959	0.8381954	0.01257	0.8036403	0.8148011	0.0092519	0.7825767	0.7951249
47	0.0161376	0.7593782	0.7735077	0.0116834	0.8177662	0.8283184	0.0092622	0.7927236	0.8046208	0.006458	0.7707089	0.7836028
48	0.0116428	0.7467802	0.7600751	0.0076433	0.8077926	0.8182811	0.0082856	0.7816328	0.7924008	0.002809	0.7583025	0.7701919
49	0.0109392	0.7334111	0.7466989	0.0040381	0.7976597	0.8084141	0.0020597	0.7700643	0.7810834	0.0016136	0.7456835	0.7589356
50	0.0055271	0.7199052	0.7331959	0.003008	0.7870301	0.7981209	0.0012995	0.7580288	0.7696144	0.0011884	0.7328268	0.7465276
51	0.0038971	0.7061204	0.720721	2.37E-03	0.7762639	0.7882742	3.21E-04	0.7458799	0.7581034	9.89E-04	0.7196896	0.7338097
52	1.37E-03	0.6920054	0.7073564	1.11E-03	0.7648198	0.7765377	1.19E-04	0.7331574	0.7461496	1.73E-04	0.7054885	0.7203267
53	1.43E-04	0.6766156	0.6918458	1.05E-03	0.7527708	0.7649145	1.02E-04	0.719056	0.7332694	4.02E-05	0.6908451	0.7057268
54	3.35E-05	0.6603717	0.6765029	8.33E-05	0.7395229	0.7525339	3.70E-05	0.7045146	0.719778	1.80E-05	0.6753499	0.6920269
55	1.65E-05	0.6411686	0.6593329	6.08E-05	0.7245679	0.7389583	1.32E-05	0.6874369	0.7034682	1.08E-05	0.6571577	0.675269
56	8.74E-06	0.6176769	0.6395652	1.54E-05	0.704872	0.7221908	3.45E-08	0.666571	0.684487	1.68E-06	0.6338886	0.6560988

Parallel analysis outputs for asset-size groups (2004)

Root	G1			G2			G3			G4		
	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue
1	8.2539988	1.4437128	1.481291	9.006064	1.3420356	1.3703754	9.2202614	1.4170644	1.4526897	10.135458	1.4770686	1.5203088
2	6.9499573	1.4062337	1.4361212	7.6891922	1.3138235	1.3342054	7.8811434	1.3805913	1.4083022	8.3557871	1.4343976	1.4669405
3	5.7575341	1.3776953	1.4029125	5.365831	1.2920642	1.3108877	5.3158861	1.35322	1.3762022	5.2681849	1.4030038	1.4316163
4	4.1915546	1.3525801	1.3772506	4.7090471	1.273829	1.2906939	4.5117318	1.3301522	1.3512013	3.4877946	1.3759091	1.3983874
5	3.1493823	1.3295102	1.3513005	3.3280505	1.2566294	1.2718105	3.1580632	1.3097292	1.3288067	3.0928328	1.3516224	1.3731362
6	2.7635724	1.3095278	1.3292254	2.4014457	1.2408544	1.2566067	2.3936787	1.2900418	1.3076548	2.4104322	1.3286782	1.3495228
7	2.2707154	1.2900976	1.3099311	2.0669837	1.2258964	1.2402603	2.1131449	1.2719355	1.2885021	1.9445777	1.3086694	1.32952
8	1.9260827	1.2713007	1.2890426	1.9282615	1.2116523	1.225896	1.7766043	1.2543566	1.2711883	1.8011383	1.2890312	1.3081926
9	1.8538056	1.2537783	1.2714322	1.7145054	1.1985203	1.2122556	1.7488559	1.2379899	1.2542864	1.6220504	1.2699485	1.2889858
10	1.6049608	1.2367901	1.252682	1.5733178	1.1855363	1.1982467	1.5766892	1.2224607	1.2391259	1.5694242	1.2519899	1.2711755
11	1.5591808	1.2204557	1.2370169	1.4144468	1.1730502	1.1851055	1.4570728	1.2075469	1.2223143	1.4540555	1.2345189	1.2521473
12	1.3219741	1.2044525	1.2198795	1.3614046	1.1606921	1.1732806	1.2723045	1.192739	1.2066735	1.285733	1.2176794	1.2354061
13	1.2558365	1.1895043	1.2048908	1.0804052	1.1490071	1.1613679	1.1986616	1.1781899	1.1932215	1.1492084	1.2013091	1.2173947
14	1.163357	1.174208	1.1890998	1.0235815	1.1376671	1.1495873	1.0951411	1.1643323	1.1787881	1.123187	1.1850021	1.2013123
15	1.1056687	1.1596261	1.1738358	0.9994818	1.1263427	1.1379032	1.0021072	1.15061	1.1647889	1.0238457	1.169658	1.1853443
16	0.9948619	1.1457048	1.1595066	0.9545159	1.1152757	1.1265244	0.956614	1.1369973	1.1500439	0.9960459	1.1542582	1.1690798
17	0.8689142	1.1319785	1.1454478	0.9217462	1.104628	1.1155871	0.8910623	1.124358	1.137484	0.9521511	1.1394429	1.1535154
18	0.8392269	1.1181252	1.1309076	0.8767804	1.0939128	1.1043396	0.8615067	1.1117159	1.1244238	0.8391946	1.1249733	1.1389389
19	0.7717811	1.1046548	1.1174793	0.7578795	1.0838473	1.0936102	0.799697	1.0988165	1.1115387	0.8014895	1.1103126	1.1249637
20	0.7439919	1.0913219	1.1044452	0.6877526	1.0734449	1.0836349	0.730108	1.0864942	1.097969	0.7066141	1.0963024	1.1100251
21	0.6942243	1.0781432	1.0909777	0.654366	1.0633494	1.0732674	0.6735298	1.0743868	1.0862394	0.655547	1.0824288	1.0959867
22	0.5931876	1.0655873	1.0782032	0.6363888	1.0532982	1.0631111	0.6309815	1.0622508	1.0739758	0.6401829	1.0689179	1.0822627
23	0.5636043	1.0529935	1.0652982	0.5746621	1.0436038	1.0529935	0.5774938	1.0502621	1.0614073	0.5909451	1.0553364	1.0690051
24	0.5496219	1.0402179	1.0528583	0.5281532	1.0337781	1.0432128	0.5546475	1.038461	1.0495923	0.5486741	1.042417	1.0551372
25	0.5109471	1.0277172	1.0397862	0.4926907	1.024125	1.0335162	0.4417821	1.0266096	1.0378452	0.4918158	1.0290092	1.0417893
26	0.4421062	1.0155084	1.0282394	0.4068681	1.0145026	1.0236984	0.3838169	1.0151964	1.0265573	0.4253834	1.0155122	1.0287623
27	0.4219333	1.0034927	1.015054	0.373324	1.0050084	1.014207	0.3617229	1.0039402	1.0150431	0.3599986	1.0027049	1.0148517

Root	G1			G2			G3			G4		
	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue
28	0.3885958	0.9913357	1.0030094	0.3347873	0.9955643	1.0047621	0.326414	0.9923826	1.0037578	0.2749615	0.9898247	1.0026232
29	0.3122602	0.9792104	0.990631	0.2991533	0.9860509	0.9946624	0.3039315	0.9811248	0.9917392	0.2501883	0.9769574	0.9888149
30	0.3057946	0.9676237	0.9795315	0.2658209	0.9766752	0.9853665	0.2527646	0.9698923	0.9808874	0.2491479	0.9644488	0.9776557
31	0.2655936	0.95592	0.9677915	0.2290632	0.967415	0.9767786	0.2226977	0.9589076	0.9698642	0.2400118	0.951909	0.9641082
32	0.2165432	0.943994	0.9555429	0.202704	0.9584055	0.9674843	0.2143553	0.9476539	0.9593384	0.2114247	0.9393358	0.9524425
33	0.1944211	0.9319181	0.9437145	0.1777467	0.9489875	0.9585234	0.1818446	0.9368774	0.9480613	0.186714	0.9272423	0.939039
34	0.1723319	0.9203927	0.9319678	0.1615547	0.9399132	0.9493239	0.1421578	0.9259788	0.9367329	0.1302715	0.914778	0.9268437
35	0.1577289	0.9089391	0.9204957	0.1404741	0.9307789	0.9403024	0.1351575	0.9149334	0.9254607	0.1275906	0.9025959	0.9153149
36	0.1504322	0.8977164	0.909493	0.1145226	0.9219414	0.9313183	0.1058207	0.9040651	0.914643	0.0990503	0.890156	0.9024895
37	0.1241898	0.8860885	0.8985809	0.1025009	0.9125607	0.9214123	0.0980088	0.8931818	0.9043675	0.0928798	0.8778576	0.8898081
38	0.1049784	0.8745848	0.8867061	0.0908174	0.9035237	0.9127588	0.0828439	0.8819947	0.892973	0.0829143	0.8655684	0.8772882
39	0.0994986	0.8631194	0.8754338	0.0723232	0.8941322	0.9038468	0.0779095	0.871298	0.8827558	0.0772258	0.8535287	0.8658981
40	0.0765878	0.8514689	0.8640951	0.0689919	0.8849337	0.8942035	0.0692258	0.8604596	0.8716117	0.0696991	0.8410407	0.8534323
41	0.0728242	0.8401176	0.8519675	0.0657089	0.8756599	0.8848142	0.0657349	0.8499723	0.8613885	0.0526829	0.8288705	0.8414252
42	0.0620529	0.8285044	0.8408844	0.0389105	0.8661271	0.875322	0.041135	0.8389437	0.8501681	0.0404201	0.8167133	0.8294405
43	0.0456829	0.8167558	0.8291384	0.0266208	0.8569716	0.8669748	0.0353104	0.8279071	0.8393139	0.0311456	0.8047697	0.8176425
44	0.0369237	0.804852	0.8176806	0.0241496	0.8473233	0.8571267	0.0169505	0.8164453	0.8278157	0.0129336	0.7921302	0.8047103
45	0.0255782	0.7931274	0.8062399	0.0164594	0.837768	0.8479913	0.0144799	0.8051872	0.8167003	0.0119009	0.7793713	0.7916732
46	0.0182498	0.7811414	0.7937718	0.0118162	0.8280075	0.8381741	0.0101515	0.7939125	0.8055709	0.0097771	0.7670703	0.7801778
47	0.0148567	0.7689169	0.7819798	0.0103066	0.8183274	0.8287648	0.0069757	0.7826483	0.7948629	0.0071757	0.7543812	0.7688037
48	0.0126532	0.7560809	0.7694145	0.006736	0.8080027	0.8184098	0.0044753	0.7708467	0.7840421	0.0046064	0.7411649	0.7547008
49	0.0113885	0.7436548	0.7568327	0.0046314	0.7976141	0.8090394	0.002431	0.758859	0.7715773	0.0019464	0.727959	0.7420138
50	0.0067382	0.7308609	0.7444057	0.0031859	0.7870587	0.798408	0.0023143	0.7463738	0.7589568	0.0017053	0.7143949	0.7284161
51	0.0013069	0.7172801	0.7310329	2.35E-03	0.7759459	0.7877781	1.25E-03	0.7340075	0.746934	1.14E-03	0.700536	0.7157312
52	3.96E-04	0.7032166	0.7174257	1.36E-03	0.7644394	0.7764884	1.20E-03	0.7205106	0.7331669	4.96E-04	0.6861334	0.7016342
53	2.22E-04	0.6885937	0.7041927	1.14E-04	0.7522184	0.7653024	1.14E-04	0.7067026	0.7209958	2.12E-04	0.670546	0.6857748
54	1.57E-04	0.6727682	0.689219	2.09E-05	0.7389652	0.7517284	1.99E-05	0.6916337	0.7068867	1.83E-05	0.654131	0.6704577
55	2.24E-05	0.6548376	0.6721127	1.65E-05	0.7236262	0.738052	1.57E-05	0.6743956	0.6912103	1.22E-05	0.6352576	0.6526221
56	9.59E-06	0.6320616	0.6539598	3.46E-08	0.7046877	0.7228425	6.37E-08	0.6524555	0.6715794	3.27E-08	0.6112253	0.6327193

APPENDIX 6.4: Rotated component matrices for all groups (2001-2004)

Rotated Component Matrix 2001- G1

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X3 NET INT INC (TE) \ AVR AST	0.899											
X13 INT INC (TE) \ AVR EARN AST	0.892											
X1 INT INC (TE) \ AVR AST	0.880				0.330							
X15 NET INT INC-TE \ AVR EARN AST	0.878				-0.331							
X36 YIELD ON TOT LN&LS (TE)	0.801											
X23 NET LN&LS \ AST	0.616		0.344				-0.337			-0.419		
X9 NET OPER INC \ AVR AST		0.945										
X10 NET INC \ AVR AST		0.945										
X8 PRETAX NET OPER INC (TE) \ AVR AST		0.939										
X7 PRETAX OPER INC (TE) \ AVR AST		0.933										
X53 NET INC \ AVR TOT EQ		0.875										
X49 NET LN&LS \ CORE DEP			0.878									
X41 CORE DEP \ TOT AST			-0.773									
X48 NET LS&LS \ DEP	0.440		0.697									
X42 S T N CORE FUNDING \ TOT AST			0.655	0.320								
X44 BROK DEP \ DEP			0.476									
X34 AVR PERSONNEL EXP PER EMPL(\$000)	-0.301		0.410								0.320	
X45 S T INV \ S T N CORE FUND				-0.807								
X39 S T INV \ TOT AST				-0.780								
X43 NET S T N CORE FUND DEPENDENCE			0.435	0.677								
X46 S T AST \ S T LIABS				-0.659	-0.350							
X47 NET S T LIAB \ TOT AST				0.629	0.386							
X22 NET N CORE FUND DEPENDENCE			0.467	0.604								
X31 G R S T INV				-0.566								
X14 INT EXP \ AVR EARN AST					0.890							
X2 INT EXP \ AVR AST					0.882							
X38 COST OF ALL INT-BEARING FUNDS					0.833							

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X18 LN&LS ALLOW \ NET LOSSES						-0.884						
X17 EARN COV OF NET LOSS		0.304				-0.836						
X16 NET LOSS \ AVR TOT LN&LS						0.750				0.301		
X21 NON-CUR LN&LS \ GRS LN&LS						0.612						
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL						0.582						0.333
X6 PROVISION: LN&LS LOSSES \ AVR AST	0.347		0.354			0.579						
X55 TIER ONE RBC \ RISK-WGT AST							0.908					
X56 TOT RBC \ RISK-WGT AST							0.889					
X24 TIER ONE LEVERAGE CAP							0.844					
X12 AVR INT-BEARING FUNDS \ AVR AST					0.391		-0.511	0.308				
X5 NONINT EXP \ AVR AST	0.380							-0.816				
X4 NONINT INC \ AVR AST								-0.790				
X11 AVR EARN AST \ AVR AST								0.641				
X33 EFFICIENCY RATIO		-0.575						-0.583				
X35 AST PER EMPLOYEE (\$MILLION)	-0.526		0.308					0.578				
X28 G R AST									0.838			
X32 G R S T NON CORE FUNDING									0.703			
X30 G R NET LN&LS									0.652			
X19 LN&LS ALLOW \ LN&LS NOT HFS										0.833		
X20 LN&LS ALLOW \ TOT LN&LS										0.830		
X52 PLEDGED SEC \ TOT SEC										-0.355		
X26 RETAIN EARN \ AVR TOT EQ											0.758	
X54 G R TOT EQCAP									0.586		0.623	
X29 G R TIER ONE CAP									0.554		0.622	
X25 CASH DIV \ NET INC		0.452									-0.576	
X50 TOT HTM SEC \ TOT SEC												-0.761
X51 TOT AFS SEC \ TOT SEC												0.754
X37 YIELD ON TOT INV SEC (TE)												
X40 MARKETABLE EQ SEC \ TOT AST												

Rotated Component Matrix 2001 G2

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.931												
X7 PRETAX OPER INC (TE) \ AVR AST	0.929												
X9 NET OPER INC \ AVR AST	0.928												
X10 NET INC \ AVR AST	0.927												
X53 NET INC \ AVR TOT EQ	0.872												
X33 EFFICIENCY RATIO	-0.777	-0.379											
X25 CASH DIV \ NET INC	0.583								-0.376				
X2 INT EXP \ AVR AST		0.820											
X5 NONINT EXP \ AVR AST	-0.320	-0.774	0.393										
X14 INT EXP \ AVR EARN AST		0.773											
X38 COST OF ALL INT-BEARING FUNDS		0.713											
X12 AVR INT-BEARING FUNDS \ AVR AST		0.681				-0.429							
X4 NONINT INC \ AVR AST		-0.639											
X11 AVR EARN AST \ AVR AST		0.624											
X13 INT INC (TE) \ AVR EARN AST			0.905										
X36 YIELD ON TOT LN&LS (TE)			0.885										
X1 INT INC (TE) \ AVR AST			0.880	0.301									
X3 NET INT INC (TE) \ AVR AST	0.385	-0.544	0.629										
X15 NET INT INC-TE \ AVR EARN AST	0.349	-0.612	0.617										
X23 NET LN&LS \ AST				0.876									
X48 NET LS&LS \ DEP				0.874									
X49 NET LN&LS \ CORE DEP				0.787			0.421						
X39 S T INV \ TOT AST					0.855								
X45 S T INV \ S T NCORE FUND					0.784		-0.400						
X31 G R S T INV					0.652								
X46 S T AST \ S T LIABS				0.345	0.575						0.322		
X47 NET S T LIAB \ TOT AST		0.309		-0.313	-0.497						-0.349		
X37 YIELD ON TOT INV SEC (TE)					-0.323								

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X24 TIER ONE LEVERAGE CAP						0.942							
X55 TIER ONE RBC \ RISK-WGT AST				-0.374		0.870							
X56 TOT RBC \ RISK-WGT AST				-0.369		0.869							
X42 S T N CORE FUNDING \ TOT AST							0.848						
X41 CORE DEP \ TOT AST							-0.798						
X43 NET S T N CORE FUND DEPENDENCE					-0.612		0.625						
X22 NET N CORE FUND DEPENDENCE					-0.554		0.592						
X52 PLEDGED SEC \ TOT SEC							0.462						
X44 BROK DEP \ DEP							0.380				0.319		
X18 LN&LS ALLOW \ NET LOSSES								0.918					
X17 EARN COV OF NET LOSS	0.457							0.769					
X16 NET LOSS \ AVR TOT LN&LS	-0.303							-0.749					
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.413		0.333					-0.524		0.348			
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL				0.330				-0.436		0.366	-0.310		
X29 G R TIER ONE CAP									0.900				
X54 G R TOT EQCAP									0.888				
X26 RETAIN EARNS \ AVR TOT EQ	0.337								0.802				
X20 LN&LS ALLOW \ TOT LN&LS										0.913			
X19 LN&LS ALLOW \ LN&LS NOT HFS										0.912			
X21 NON-CUR LN&LS \ GRS LN&LS								-0.447		0.486	-0.302		
X34 AVR PERSONNEL EXP PER EMPL(\$000)											0.784		
X35 AST PER EMPLOYEE (\$MILLION)		0.607									0.611		
X28 G R AST												0.777	
X32 G R S T NON CORE FUNDING												0.736	
X30 G R NET LN&LS				0.334								0.621	
X51 TOT AFS SEC \ TOT SEC													0.886
X50 TOT HTM SEC \ TOT SEC													-0.844
X40 MARKETABLE EQ SEC \ TOT AST													

Rotated Component Matrix 2001- G3

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X7 PRETAX OPER INC (TE) \ AVR AST	0.935											
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.935											
X9 NET OPER INC \ AVR AST	0.928											
X10 NET INC \ AVR AST	0.928											
X53 NET INC \ AVR TOT EQ	0.881											
X33 EFFICIENCY RATIO	-0.782				0.418							
X25 CASH DIV \ NET INC	0.688							-0.304				
X1 INT INC (TE) \ AVR AST		0.807										
X48 NET LS&LS \ DEP		0.803						-0.301				
X23 NET LN&LS \ AST		0.794						-0.384				
X13 INT INC (TE) \ AVR EARN AST		0.774			0.400							
X49 NET LN&LS \ CORE DEP		0.770							0.376			
X3 NET INT INC (TE) \ AVR AST	0.395	0.534	-0.473		0.420							
X15 NET INT INC-TE \ AVR EARN AST	0.358	0.509	-0.484		0.498							
X14 INT EXP \ AVR EARN AST			0.876									
X2 INT EXP \ AVR AST			0.874									
X38 COST OF ALL INT-BEARING FUNDS		0.300	0.801									
X12 AVR INT-BEARING FUNDS \ AVR AST			0.704					-0.386				
X39 S T INV \ TOT AST				0.857								
X45 S T INV \ S T N CORE FUND				0.800						-0.388		
X43 NET S T N CORE FUND DEPENDENCE				-0.702						0.531		
X46 S T AST \ S T LIABS			-0.380	0.692								
X47 NET S T LIAB \ TOT AST			0.390	-0.651								
X22 NET N CORE FUND DEPENDENCE				-0.634						0.511		
X31 G R S T INV				0.611								
X35 AST PER EMPLOYEE (\$MILLION)					-0.868							
X5 NONINT EXP \ AVR AST	-0.360		-0.343		0.758							
X4 NONINT INC \ AVR AST					0.639							

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X11 AVR EARN AST \ AVR AST					-0.592							
X36 YIELD ON TOT LN&LS (TE)		0.335			0.540	0.303				0.353		
X34 AVR PERSONNEL EXP PER EMPL(\$000)					-0.401							
X18 LN&LS ALLOW \ NET LOSSES						-0.916						
X16 NET LOSS \ AVR TOT LN&LS						0.830						
X17 EARN COV OF NET LOSS	0.502					-0.704						
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.450					0.604						
X21 NON-CUR LN&LS \ GRS LN&LS						0.535				0.312	-0.324	
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL						0.525					-0.309	
X24 TIER ONE LEVERAGE CAP							0.875					
X55 TIER ONE RBC \ RISK-WGT AST		-0.411					0.836					
X56 TOT RBC \ RISK-WGT AST		-0.403					0.835					
X29 G R TIER ONE CAP								0.913				
X54 G R TOT EQCAP								0.883				
X26 RETAIN EARNS \ AVR TOT EQ	0.386							0.829				
X42 S T N CORE FUNDING \ TOT AST									0.799			
X41 CORE DEP \ TOT AST									-0.772			
X52 PLEDGED SEC \ TOT SEC									0.400			
X44 BROK DEP \ DEP		0.317							0.388			
X19 LN&LS ALLOW \ LN&LS NOT HFS										0.915		
X20 LN&LS ALLOW \ TOT LN&LS										0.913		
X28 G R AST											0.790	
X32 G R S T NON CORE FUNDING											0.709	
X30 G R NET LN&LS											0.616	
X51 TOT AFS SEC \ TOT SEC												0.889
X50 TOT HTM SEC \ TOT SEC												-0.878
X37 YIELD ON TOT INV SEC (TE)												
X40 MARKETABLE EQ SEC \ TOT AST												

Rotated Component Matrix 2001- G4

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.918											
X7 PRETAX OPER INC (TE) \ AVR AST	0.918											
X10 NET INC \ AVR AST	0.917											
X9 NET OPER INC \ AVR AST	0.917											
X33 EFFICIENCY RATIO	-0.849											
X53 NET INC \ AVR TOT EQ	0.846							0.304				
X25 CASH DIV \ NET INC	0.615							-0.331				
X45 S T INV \ S T N CORE FUND		-0.847										
X43 NET S T N CORE FUND DEPENDENCE		0.832			0.303							
X39 S T INV \ TOT AST		-0.821										
X46 S T AST \ S T LIABS		-0.801										
X22 NET N CORE FUND DEPENDENCE		0.784			0.335							
X47 NET S T LIAB \ TOT AST		0.760										
X31 G R S T INV		-0.549										
X36 YIELD ON TOT LN&LS (TE)			0.836									
X15 NET INT INC-TE \ AVR EARN AST			0.829	-0.394								
X3 NET INT INC (TE) \ AVR AST			0.792	-0.375								
X13 INT INC (TE) \ AVR EARN AST			0.780	0.349	0.382							
X1 INT INC (TE) \ AVR AST			0.683	0.406	0.401							
X5 NONINT EXP \ AVR AST	-0.524		0.663	-0.372								
X35 AST PER EMPLOYEE (\$MILLION)	0.375		-0.506	0.303						0.457		
X4 NONINT INC \ AVR AST			0.491							-0.425		
X2 INT EXP \ AVR AST				0.906								
X14 INT EXP \ AVR EARN AST				0.903								
X38 COST OF ALL INT-BEARING FUNDS				0.868								
X12 AVR INT-BEARING FUNDS \ AVR AST				0.618		-0.456						

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X49 NET LN&LS \ CORE DEP					0.900							
X48 NET LS&LS \ DEP					0.858							
X23 NET LN&LS \ AST					0.822	-0.371						
X44 BROK DEP \ DEP					0.395							
X24 TIER ONE LEVERAGE CAP						0.785				0.315		
X55 TIER ONE RBC \ RISK-WGT AST					-0.399	0.783						
X56 TOT RBC \ RISK-WGT AST					-0.398	0.780						
X41 CORE DEP \ TOT AST					-0.403	-0.609						
X18 LN&LS ALLOW \ NET LOSSES							0.897					
X16 NET LOSS \ AVR TOT LN&LS	-0.360						-0.787					
X17 EARN COV OF NET LOSS	0.555						0.674					
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.401						-0.603					
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL							-0.448		0.349			
X29 G R TIER ONE CAP								0.890				
X54 G R TOT EQCAP								0.861				
X26 RETAIN EARNS \ AVR TOT EQ	0.399							0.840				
X19 LN&LS ALLOW \ LN&LS NOT HFS									0.918			
X20 LN&LS ALLOW \ TOT LN&LS									0.918			
X21 NON-CUR LN&LS \ GRS LN&LS							-0.441		0.473			
X34 AVR PERSONNEL EXP PER EMPL(\$000)										0.552		
X42 S T N CORE FUNDING \ TOT AST		0.462								-0.489		
X52 PLEDGED SEC \ TOT SEC										-0.468		
X11 AVR EARN AST \ AVR AST			-0.340							0.403		
X51 TOT AFS SEC \ TOT SEC											0.889	
X50 TOT HTM SEC \ TOT SEC											-0.869	
X28 G R AST												0.785
X32 G R S T NON CORE FUNDING												0.751
X30 G R NET LN&LS												0.468
X37 YIELD ON TOT INV SEC (TE)												
X40 MARKETABLE EQ SEC \ TOT AST												

Rotated Component Matrix 2002- G1

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X9 NET OPER INC \ AVR AST	0.935											
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.933											
X10 NET INC \ AVR AST	0.933											
X7 PRETAX OPER INC (TE) \ AVR AST	0.919											
X53 NET INC \ AVR TOT EQ	0.868											
X33 EFFICIENCY RATIO	-0.642								0.634			
X25 CASH DIV \ NET INC	0.519							-0.430				
X3 NET INT INC (TE) \ AVR AST		0.914										
X13 INT INC (TE) \ AVR EARN AST		0.907										
X15 NET INT INC-TE \ AVR EARN AST		0.894										
X1 INT INC (TE) \ AVR AST		0.892				0.336						
X36 YIELD ON TOT LN&LS (TE)		0.805										
X45 S T INV \ S T N CORE FUND			-0.828									
X39 S T INV \ TOT AST			-0.760									
X46 S T AST \ S T LIABS			-0.749			-0.333						
X47 NET S T LIAB \ TOT AST			0.736			0.315						
X43 NET S T N CORE FUND DEPENDENCE			0.736		0.391							
X22 NET N CORE FUND DEPENDENCE			0.641		0.421							
X18 LN&LS ALLOW \ NET LOSSES				-0.846								
X16 NET LOSS \ AVR TOT LN&LS				0.756						0.372		
X17 EARN COV OF NET LOSS	0.431			-0.728								
X21 NON-CUR LN&LS \ GRS LN&LS				0.696								
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL				0.653								
X6 PROVISION: LN&LS LOSSES \ AVR AST				0.637						0.368		
X49 NET LN&LS \ CORE DEP					0.911							
X48 NET LS&LS \ DEP					0.774							
X41 CORE DEP \ TOT AST		0.384			-0.654							

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X23 NET LN&LS \ AST		0.510			0.561		-0.359			-0.340		
X42 S T NCORE FUNDING \ TOT AST			0.461		0.546							
X44 BROK DEP \ DEP					0.475							
X34 AVR PERSONNEL EXP PER EMPL(\$000)		-0.337			0.342							
X2 INT EXP \ AVR AST						0.911						
X14 INT EXP \ AVR EARN AST						0.911						
X38 COST OF ALL INT-BEARING FUNDS						0.887						
X55 TIER ONE RBC \ RISK-WGT AST							0.904					
X56 TOT RBC \ RISK-WGT AST							0.890					
X24 TIER ONE LEVERAGE CAP							0.823					
X12 AVR INT-BEARING FUNDS \ AVR AST						0.340	-0.465		-0.354			
X29 G R TIER ONE CAP								0.887				
X54 G R TOT EQCAP								0.871				
X26 RETAIN EARNS \ AVR TOT EQ	0.313							0.772				
X30 G R NET LN&LS								0.453				0.438
X5 NONINT EXP \ AVR AST									0.891			
X4 NONINT INC \ AVR AST									0.813			
X35 AST PER EMPLOYEE (\$MILLION)		-0.491							-0.661			
X11 AVR EARN AST \ AVR AST						0.300			-0.570			
X19 LN&LS ALLOW \ LN&LS NOT HFS				0.311						0.806		
X20 LN&LS ALLOW \ TOT LN&LS				0.309						0.793		
X52 PLEDGED SEC \ TOT SEC										-0.393		
X51 TOT AFS SEC \ TOT SEC											0.835	
X50 TOT HTM SEC \ TOT SEC											-0.804	
X32 G R S T NON CORE FUNDING			0.305									0.614
X28 G R AST								0.507				0.597
X31 G R S T INV			-0.372									0.505
X40 MARKETABLE EQ SEC \ TOT AST												
X37 YIELD ON TOT INV SEC (TE)												

Rotated Component Matrix 2002 G2

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X10 NET INC \ AVR AST	0.923											
X9 NET OPER INC \ AVR AST	0.922											
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.915											
X7 PRETAX OPER INC (TE) \ AVR AST	0.912											
X53 NET INC \ AVR TOT EQ	0.865											
X25 CASH DIV \ NET INC	0.554							-0.387				
X33 EFFICIENCY RATIO	-0.551									0.447		
X2 INT EXP \ AVR AST		0.948										
X14 INT EXP \ AVR EARN AST		0.931										
X38 COST OF ALL INT-BEARING FUNDS		0.900										
X12 AVR INT-BEARING FUNDS \ AVR AST		0.710										
X5 NONINT EXP \ AVR AST	-0.334	-0.563	0.437								0.412	
X4 NONINT INC \ AVR AST		-0.475									0.406	
X11 AVR EARN AST \ AVR AST		0.427										
X13 INT INC (TE) \ AVR EARN AST			0.899									
X1 INT INC (TE) \ AVR AST		0.302	0.883									
X3 NET INT INC (TE) \ AVR AST		-0.387	0.839									
X36 YIELD ON TOT LN&LS (TE)			0.827									
X15 NET INT INC-TE \ AVR EARN AST		-0.434	0.824									
X45 S T INV \ S T N CORE FUND				-0.869								
X43 NET S T N CORE FUND DEPENDENCE				0.816								
X39 S T INV \ TOT AST				-0.782								
X22 NET N CORE FUND DEPENDENCE				0.709								
X46 S T AST \ S T LIABS				-0.698	0.374							
X47 NET S T LIAB \ TOT AST				0.661	-0.358							
X48 NET LS&LS \ DEP					0.882							
X49 NET LN&LS \ CORE DEP					0.876							
X23 NET LN&LS \ AST					0.854							

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X44 BROK DEP \ DEP					0.370							
X30 G R NET LN&LS					0.350				-0.313			
X18 LN&LS ALLOW \ NET LOSSES						0.916						
X17 EARN COV OF NET LOSS	0.394					0.805						
X16 NET LOSS \ AVR TOT LN&LS						-0.777						
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.406		0.304			-0.570						
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL						-0.502			0.406			
X24 TIER ONE LEVERAGE CAP							0.925					
X55 TIER ONE RBC \ RISK-WGT AST					-0.384		0.875					
X56 TOT RBC \ RISK-WGT AST					-0.377		0.874					
X29 G R TIER ONE CAP								0.899				
X54 G R TOT EQCAP								0.884				
X26 RETAIN EARNS \ AVR TOT EQ	0.355							0.785				
X19 LN&LS ALLOW \ LN&LS NOT HFS									0.903			
X20 LN&LS ALLOW \ TOT LN&LS									0.901			
X21 NON-CUR LN&LS \ GRS LN&LS						-0.491			0.509			
X35 AST PER EMPLOYEE (\$MILLION)		0.350	-0.326							-0.784		
X34 AVR PERSONNEL EXP PER EMPL(\$000)										-0.612		
X52 PLEDGED SEC \ TOT SEC										0.345		
X42 S T N CORE FUNDING \ TOT AST				0.537							0.633	
X32 G R S T NON CORE FUNDING											0.605	
X41 CORE DEP \ TOT AST				-0.429							-0.518	
X31 G R S T INV				-0.441							0.478	
X28 G R AST								0.395			0.463	
X51 TOT AFS SEC \ TOT SEC												0.877
X50 TOT HTM SEC \ TOT SEC												-0.845
X37 YIELD ON TOT INV SEC (TE)												
X40 MARKETABLE EQ SEC \ TOT AST												

Rotated Component Matrix 2002- G3

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X9 NET OPER INC \ AVR AST	0.909												
X10 NET INC \ AVR AST	0.909												
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.905												
X7 PRETAX OPER INC (TE) \ AVR AST	0.898												
X53 NET INC \ AVR TOT EQ	0.875												
X33 EFFICIENCY RATIO	-0.707								-0.498				
X25 CASH DIV \ NET INC	0.674												
X45 S T INV \ S T N CORE FUND		-0.886											
X43 NET S T N CORE FUND DEPENDENCE		0.874											
X39 S T INV \ TOT AST		-0.784											
X22 NET N CORE FUND DEPENDENCE		0.778											
X46 S T AST \ S T LIABS		-0.722		0.329									
X47 NET S T LIAB \ TOT AST		0.700											
X14 INT EXP \ AVR EARN AST			0.938										
X2 INT EXP \ AVR AST			0.928										
X38 COST OF ALL INT-BEARING FUNDS			0.908										
X12 AVR INT-BEARING FUNDS \ AVR AST			0.647										
X48 NET LS&LS \ DEP				0.874									
X49 NET LN&LS \ CORE DEP				0.866									
X23 NET LN&LS \ AST				0.850									
X30 G R NET LN&LS				0.346									
X13 INT INC (TE) \ AVR EARN AST				0.327	0.834								
X3 NET INT INC (TE) \ AVR AST			-0.416		0.805								
X1 INT INC (TE) \ AVR AST			0.321	0.370	0.803								
X15 NET INT INC-TE \ AVR EARN AST			-0.438		0.796								
X36 YIELD ON TOT LN&LS (TE)					0.743								
X37 YIELD ON TOT INV SEC (TE)					0.344								
X18 LN&LS ALLOW \ NET LOSSES						0.914							

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X16 NET LOSS \ AVR TOT LN&LS	-0.335					-0.799							
X17 EARN COV OF NET LOSS	0.456					0.783							
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL						-0.546				0.375			
X21 NON-CUR LN&LS \ GRS LN&LS						-0.545				0.451			
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.531					-0.537							
X29 G R TIER ONE CAP							0.905						
X54 G R TOT EQCAP							0.888						
X26 RETAIN EARNS \ AVR TOT EQ	0.404						0.804						
X24 TIER ONE LEVERAGE CAP								0.889					
X55 TIER ONE RBC \ RISK-WGT AST				-0.439				0.823					
X56 TOT RBC \ RISK-WGT AST				-0.429				0.823					
X4 NONINT INC \ AVR AST									-0.729				
X5 NONINT EXP \ AVR AST	-0.374		-0.315		0.332				-0.710				
X35 AST PER EMPLOYEE (\$MILLION)									0.683				0.468
X11 AVR EARN AST \ AVR AST									0.633				
X19 LN&LS ALLOW \ LN&LS NOT HFS										0.917			
X20 LN&LS ALLOW \ TOT LN&LS										0.916			
X42 S T N CORE FUNDING \ TOT AST		0.569									0.638		
X41 CORE DEP \ TOT AST		-0.480						-0.344			-0.530		
X31 G R S T INV		-0.338									0.509		
X32 G R S T NON CORE FUNDING											0.505		
X28 G R AST							0.406				0.441		
X51 TOT AFS SEC \ TOT SEC												0.895	
X50 TOT HTM SEC \ TOT SEC												-0.866	
X34 AVR PERSONNEL EXP PER EMPL(\$000)													0.759
X52 PLEDGED SEC \ TOT SEC													-0.465
X44 BROK DEP \ DEP													0.427
X40 MARKETABLE EQ SEC \ TOT AST													0.318

Rotated Component Matrix 2002 - G4

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	
X7 PRETAX OPER INC (TE) \ AVR AST	0.911											
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.907											
X9 NET OPER INC \ AVR AST	0.905											
X10 NET INC \ AVR AST	0.904											
X53 NET INC \ AVR TOT EQ	0.855							0.303				
X33 EFFICIENCY RATIO	-0.849											
X25 CASH DIV \ NET INC	0.668							-0.318				
X11 AVR EARN AST \ AVR AST	0.307											
X15 NET INT INC-TE \ AVR EARN AST		0.929										
X3 NET INT INC (TE) \ AVR AST		0.900										
X13 INT INC (TE) \ AVR EARN AST		0.847		0.415								
X36 YIELD ON TOT LN&LS (TE)		0.835										
X1 INT INC (TE) \ AVR AST		0.789		0.479								
X5 NONINT EXP \ AVR AST	-0.481	0.775										
X4 NONINT INC \ AVR AST		0.613										
X37 YIELD ON TOT INV SEC (TE)		0.489		0.325								
X43 NET S T N CORE FUND DEPENDENCE			0.874									
X45 S T INV \ S T N CORE FUND			-0.872									
X46 S T AST \ S T LIABS			-0.810									
X22 NET N CORE FUND DEPENDENCE			0.808		0.354							
X47 NET S T LIAB \ TOT AST			0.784									
X39 S T INV \ TOT AST			-0.700								0.354	
X42 S T N CORE FUNDING \ TOT AST			0.665								0.494	
X41 CORE DEP \ TOT AST			-0.459			-0.404					-0.454	
X2 INT EXP \ AVR AST				0.936								
X14 INT EXP \ AVR EARN AST				0.918								
X38 COST OF ALL INT-BEARING FUNDS				0.882								
X12 AVR INT-BEARING FUNDS \ AVR AST				0.639		-0.346						

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	
X35 AST PER EMPLOYEE (\$MILLION)	0.340	-0.385		0.443		0.419						
X48 NET LS&LS \ DEP					0.896							
X23 NET LN&LS \ AST					0.876	-0.301						
X49 NET LN&LS \ CORE DEP			0.302		0.868							
X44 BROK DEP \ DEP					0.344							
X24 TIER ONE LEVERAGE CAP						0.847						
X56 TOT RBC \ RISK-WGT AST					-0.477	0.764						
X55 TIER ONE RBC \ RISK-WGT AST					-0.483	0.763						
X34 AVR PERSONNEL EXP PER EMPL(\$000)		0.377				0.418						
X18 LN&LS ALLOW \ NET LOSSES							0.891					
X16 NET LOSS \ AVR TOT LN&LS	-0.340						-0.778					
X17 EARN COV OF NET LOSS	0.581						0.647					
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.374						-0.615					
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL						-0.338	-0.447		0.430			
X29 G R TIER ONE CAP								0.903				
X54 G R TOT EQCAP								0.880				
X26 RETAIN EARNS \ AVR TOT EQ	0.418							0.810				
X20 LN&LS ALLOW \ TOT LN&LS									0.872			
X19 LN&LS ALLOW \ LN&LS NOT HFS									0.867			
X21 NON-CUR LN&LS \ GRS LN&LS							-0.462		0.506			
X30 G R NET LN&LS					0.372				-0.443			
X51 TOT AFS SEC \ TOT SEC										0.874		
X50 TOT HTM SEC \ TOT SEC										-0.874		
X31 G R S T INV			-0.308									0.572
X32 G R S T NON CORE FUNDING												0.529
X28 G R AST									-0.401			0.526
X52 PLEDGED SEC \ TOT SEC												
X40 MARKETABLE EQ SEC \ TOT AST												

Rotated Component Matrix 2003- G1

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X9 NET OPER INC \ AVR AST	0.937												
X10 NET INC \ AVR AST	0.936												
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.929												
X7 PRETAX OPER INC (TE) \ AVR AST	0.922												
X53 NET INC \ AVR TOT EQ	0.881												
X33 EFFICIENCY RATIO	-0.654								0.586				
X13 INT INC (TE) \ AVR EARN AST		0.913											
X1 INT INC (TE) \ AVR AST		0.909											
X3 NET INT INC (TE) \ AVR AST		0.904											
X15 NET INT INC-TE \ AVR EARN AST		0.886											
X36 YIELD ON TOT LN&LS (TE)		0.797											
X45 S T INV \ S T N CORE FUND			-0.852										
X39 S T INV \ TOT AST			-0.809										
X43 NET S T N CORE FUND DEPENDENCE			0.769	0.387									
X46 S T AST \ S T LIABS			-0.701		-0.383								
X47 NET S T LIAB \ TOT AST			0.687		0.375								
X22 NET N CORE FUND DEPENDENCE			0.671	0.405									
X31 G R S T INV			-0.497										
X49 NET LN&LS \ CORE DEP				0.912									
X48 NET LS&LS \ DEP				0.806									
X41 CORE DEP \ TOT AST				-0.697									
X42 S T N CORE FUNDING \ TOT AST			0.431	0.591									
X23 NET LN&LS \ AST		0.531		0.572									
X44 BROK DEP \ DEP				0.531									
X14 INT EXP \ AVR EARN AST					0.919								
X2 INT EXP \ AVR AST					0.917								
X38 COST OF ALL INT-BEARING FUNDS					0.896								
X18 LN&LS ALLOW \ NET LOSSES						-0.924							

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X17 EARN COV OF NET LOSS	0.364					-0.813							
X16 NET LOSS \ AVR TOT LN&LS						0.788				0.406			
X6 PROVISION: LN&LS LOSSES \ AVR AST		0.324				0.617				0.364			
X55 TIER ONE RBC \ RISK-WGT AST							0.924						
X56 TOT RBC \ RISK-WGT AST							0.903						
X24 TIER ONE LEVERAGE CAP				0.305			0.792						
X12 AVR INT-BEARING FUNDS \ AVR AST					0.347		-0.419		-0.335				
X29 G R TIER ONE CAP								0.890					
X54 G R TOT EQCAP								0.864					
X26 RETAIN EARNS \ AVR TOT EQ								0.843					
X25 CASH DIV \ NET INC	0.412							-0.523					
X5 NONINT EXP \ AVR AST									0.900				
X4 NONINT INC \ AVR AST									0.796				
X35 AST PER EMPLOYEE (\$MILLION)		-0.410							-0.691				-0.338
X11 AVR EARN AST \ AVR AST									-0.579				
X19 LN&LS ALLOW \ LN&LS NOT HFS										0.879			
X20 LN&LS ALLOW \ TOT LN&LS										0.872			
X21 NON-CUR LN&LS \ GRS LN&LS						0.347				0.514	-0.386		
X28 G R AST								0.346			0.768		
X30 G R NET LN&LS											0.648		
X32 G R S T NON CORE FUNDING			0.332								0.622		
X51 TOT AFS SEC \ TOT SEC												0.843	
X50 TOT HTM SEC \ TOT SEC												-0.840	
X52 PLEDGED SEC \ TOT SEC													0.597
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL										0.344	-0.385		0.478
X40 MARKETABLE EQ SEC \ TOT AST													-0.425
X34 AVR PERSONNEL EXP PER EMPL(\$000)				0.389	-0.308								-0.405
X37 YIELD ON TOT INV SEC (TE)													

Rotated Component Matrix 2003 - G2

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X9 NET OPER INC \ AVR AST	0.933												
X10 NET INC \ AVR AST	0.932												
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.927												
X7 PRETAX OPER INC (TE) \ AVR AST	0.918												
X53 NET INC \ AVR TOT EQ	0.883												
X33 EFFICIENCY RATIO	-0.712								-0.532				
X25 CASH DIV \ NET INC	0.495							-0.490					
X13 INT INC (TE) \ AVR EARN AST		0.907											
X1 INT INC (TE) \ AVR AST		0.894											
X3 NET INT INC (TE) \ AVR AST		0.871		-0.319									
X15 NET INT INC-TE \ AVR EARN AST		0.859		-0.342									
X36 YIELD ON TOT LN&LS (TE)		0.649											
X45 S T INV \ S T N CORE FUND			-0.838										
X43 NET S T N CORE FUND DEPENDENCE			0.797				0.355						
X39 S T INV \ TOT AST			-0.788										
X46 S T AST \ S T LIABS			-0.741										
X47 NET S T LIAB \ TOT AST			0.714										
X22 NET N CORE FUND DEPENDENCE			0.701				0.370						
X42 S T N CORE FUNDING \ TOT AST			0.511				0.507					0.392	
X31 G R S T INV			-0.495									0.430	
X14 INT EXP \ AVR EARN AST				0.932									
X2 INT EXP \ AVR AST				0.926									
X38 COST OF ALL INT-BEARING FUNDS				0.893									
X12 AVR INT-BEARING FUNDS \ AVR AST				0.669	0.306								
X55 TIER ONE RBC \ RISK-WGT AST					-0.917								
X56 TOT RBC \ RISK-WGT AST					-0.913								
X24 TIER ONE LEVERAGE CAP					-0.868								
X23 NET LN&LS \ AST		0.473			0.499		0.366						0.386

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X18 LN&LS ALLOW \ NET LOSSES						0.924							
X17 EARN COV OF NET LOSS	0.388					0.826							
X16 NET LOSS \ AVR TOT LN&LS						-0.825							
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.374	0.306				-0.574							
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL						-0.500				0.334			0.395
X49 NET LN&LS \ CORE DEP		0.316					0.725						0.316
X41 CORE DEP \ TOT AST							-0.701						
X44 BROK DEP \ DEP							0.595						
X34 AVR PERSONNEL EXP PER EMPL(\$000)							0.540						-0.501
X48 NET LS&LS \ DEP		0.398			0.402		0.514						0.390
X29 G R TIER ONE CAP								0.917					
X54 G R TOT EQCAP								0.901					
X26 RETAIN EARNS \ AVR TOT EQ	0.322							0.831					
X30 G R NET LN&LS								0.332		-0.327		0.315	
X5 NONINT EXP \ AVR AST		0.393							-0.759				
X4 NONINT INC \ AVR AST									-0.757				
X35 AST PER EMPLOYEE (\$MILLION)		-0.380					0.349		0.638				-0.363
X11 AVR EARN AST \ AVR AST									0.541				
X19 LN&LS ALLOW \ LN&LS NOT HFS										0.929			
X20 LN&LS ALLOW \ TOT LN&LS										0.929			
X21 NON-CUR LN&LS \ GRS LN&LS						-0.473				0.476			0.316
X51 TOT AFS SEC \ TOT SEC											-0.884		
X50 TOT HTM SEC \ TOT SEC											0.860		
X28 G R AST								0.411				0.597	
X32 G R S T NON CORE FUNDING			0.307									0.586	
X52 PLEDGED SEC \ TOT SEC													0.501
X37 YIELD ON TOT INV SEC (TE)													
X40 MARKETABLE EQ SEC \ TOT AST													

Rotated Component Matrix 2003 - G3

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X10 NET INC \ AVR AST	0.923												
X9 NET OPER INC \ AVR AST	0.923												
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.920												
X7 PRETAX OPER INC (TE) \ AVR AST	0.912												
X53 NET INC \ AVR TOT EQ	0.889												
X33 EFFICIENCY RATIO	-0.799											-0.359	
X25 CASH DIV \ NET INC	0.571						-0.490						
X13 INT INC (TE) \ AVR EARN AST		0.906											
X15 NET INT INC-TE \ AVR EARN AST		0.890	-0.317										
X3 NET INT INC (TE) \ AVR AST		0.889											
X1 INT INC (TE) \ AVR AST		0.872	0.327										
X36 YIELD ON TOT LN&LS (TE)		0.696											
X5 NONINT EXP \ AVR AST	-0.454	0.538	-0.399									-0.422	
X2 INT EXP \ AVR AST			0.952										
X14 INT EXP \ AVR EARN AST			0.946										
X38 COST OF ALL INT-BEARING FUNDS			0.918										
X12 AVR INT-BEARING FUNDS \ AVR AST			0.730		0.303								
X45 S T INV \ S T N CORE FUND				-0.849									
X39 S T INV \ TOT AST				-0.824									
X43 NET S T N CORE FUND DEPENDENCE				0.815					0.344				
X46 S T AST \ S T LIABS				-0.778									
X47 NET S T LIAB \ TOT AST				0.747									
X22 NET N CORE FUND DEPENDENCE				0.724					0.353				
X31 G R S T INV				-0.475							0.416		
X55 TIER ONE RBC \ RISK-WGT AST					-0.934								
X56 TOT RBC \ RISK-WGT AST					-0.931								
X24 TIER ONE LEVERAGE CAP					-0.848								
X23 NET LN&LS \ AST		0.414			0.586						-0.343	0.303	

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X48 NET LS&LS \ DEP		0.393			0.505				0.353		-0.359	0.303	
X18 LN&LS ALLOW \ NET LOSSES						0.927							
X16 NET LOSS \ AVR TOT LN&LS	-0.332					-0.793							
X17 EARN COV OF NET LOSS	0.482					0.752							
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.382					-0.545							
X21 NON-CUR LN&LS \ GRS LN&LS						-0.462		0.449					
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL						-0.456		0.343					
X54 G R TOT EQCAP							0.902						
X29 G R TIER ONE CAP							0.895						
X26 RETAIN EARN \ AVR TOT EQ	0.438						0.782						
X19 LN&LS ALLOW \ LN&LS NOT HFS								0.924					
X20 LN&LS ALLOW \ TOT LN&LS								0.924					
X30 G R NET LN&LS								-0.341					
X41 CORE DEP \ TOT AST				-0.323					-0.700				
X42 S T NCORE FUNDING \ TOT AST				0.434					0.640		0.373		
X49 NET LN&LS \ CORE DEP		0.361			0.447				0.534				
X52 PLEDGED SEC \ TOT SEC									0.421	-0.326			
X34 AVR PERSONNEL EXP PER EMPL(\$000)										0.835			
X35 AST PER EMPLOYEE (\$MILLION)		-0.344	0.327							0.623		0.335	
X44 BROK DEP \ DEP									0.414	0.477			
X28 G R AST							0.383				0.621		
X32 G R S T NON CORE FUNDING											0.541		
X4 NONINT INC \ AVR AST			-0.410									-0.478	
X11 AVR EARN AST \ AVR AST			0.307									0.461	
X40 MARKETABLE EQ SEC \ TOT AST												-0.422	
X51 TOT AFS SEC \ TOT SEC													0.902
X50 TOT HTM SEC \ TOT SEC													-0.888
X37 YIELD ON TOT INV SEC (TE)													

Rotated Component Matrix 2003 - G4

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.930												
X7 PRETAX OPER INC (TE) \ AVR AST	0.929												
X10 NET INC \ AVR AST	0.927												
X9 NET OPER INC \ AVR AST	0.927												
X53 NET INC \ AVR TOT EQ	0.871												
X33 EFFICIENCY RATIO	-0.859												
X25 CASH DIV \ NET INC	0.594						-0.347						
X43 NET S T N CORE FUND DEPENDENCE		0.866											
X45 S T INV \ S T N CORE FUND		-0.866											
X39 S T INV \ TOT AST		-0.833											
X22 NET N CORE FUND DEPENDENCE		0.807											
X46 S T AST \ S T LIABS		-0.788											
X47 NET S T LIAB \ TOT AST		0.764											
X31 G R S T INV		-0.552									0.345		
X2 INT EXP \ AVR AST			0.921										
X14 INT EXP \ AVR EARN AST			0.905										
X38 COST OF ALL INT-BEARING FUNDS			0.882										
X12 AVR INT-BEARING FUNDS \ AVR AST			0.683			-0.359							
X11 AVR EARN AST \ AVR AST			0.325	-0.309									
X36 YIELD ON TOT LN&LS (TE)				0.812									
X15 NET INT INC-TE \ AVR EARN AST				0.808	0.356								
X13 INT INC (TE) \ AVR EARN AST				0.766	0.430								
X3 NET INT INC (TE) \ AVR AST	0.333			0.760	0.381								
X1 INT INC (TE) \ AVR AST			0.367	0.680	0.451								
X5 NONINT EXP \ AVR AST	-0.565		-0.396	0.607									
X35 AST PER EMPLOYEE (\$MILLION)	0.419		0.340	-0.527									0.494
X4 NONINT INC \ AVR AST			-0.418	0.457									
X48 NET LS&LS \ DEP					0.878								

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X23 NET LN&LS \ AST					0.854								
X49 NET LN&LS \ CORE DEP					0.835								
X24 TIER ONE LEVERAGE CAP						0.916							
X56 TOT RBC \ RISK-WGT AST					-0.341	0.874							
X55 TIER ONE RBC \ RISK-WGT AST					-0.348	0.873							
X29 G R TIER ONE CAP							0.895						
X54 G R TOT EQCAP							0.875						
X26 RETAIN EARN \ AVR TOT EQ	0.457							0.803					
X18 LN&LS ALLOW \ NET LOSSES								0.881					
X16 NET LOSS \ AVR TOT LN&LS	-0.372							-0.752					
X17 EARN COV OF NET LOSS	0.605							0.626					
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.455							-0.541					
X20 LN&LS ALLOW \ TOT LN&LS									0.903				
X19 LN&LS ALLOW \ LN&LS NOT HFS									0.902				
X21 NON-CUR LN&LS \ GRS LN&LS								-0.424	0.442				-0.385
X51 TOT AFS SEC \ TOT SEC										0.889			
X50 TOT HTM SEC \ TOT SEC										-0.889			
X28 G R AST											0.811		
X32 G R S T NON CORE FUNDING											0.725		
X30 G R NET LN&LS											0.540		
X42 S T N CORE FUNDING \ TOT AST		0.462										0.723	
X41 CORE DEP \ TOT AST		-0.307					-0.414					-0.515	-0.322
X52 PLEDGED SEC \ TOT SEC												0.513	
X37 YIELD ON TOT INV SEC (TE)	0.331											-0.338	
X34 AVR PERSONNEL EXP PER EMPL(\$000)													0.695
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL					0.399			-0.387	0.333				-0.417
X44 BROK DEP \ DEP													0.350
X40 MARKETABLE EQ SEC \ TOT AST													

Rotated Component Matrix 2004 G1

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.934												
X10 NET INC \ AVR AST	0.933												
X9 NET OPER INC \ AVR AST	0.932												
X7 PRETAX OPER INC (TE) \ AVR AST	0.930												
X53 NET INC \ AVR TOT EQ	0.894												
X33 EFFICIENCY RATIO	-0.684								0.562				
X13 INT INC (TE) \ AVR EARN AST		0.910											
X3 NET INT INC (TE) \ AVR AST	0.305	0.895											
X1 INT INC (TE) \ AVR AST		0.895											
X15 NET INT INC-TE \ AVR EARN AST		0.887											
X36 YIELD ON TOT LN&LS (TE)		0.819											
X45 S T INV \ S T N CORE FUND			-0.842										
X39 S T INV \ TOT AST			-0.792										
X43 NET S T N CORE FUND DEPENDENCE			0.745	0.387									
X46 S T AST \ S T LIABS			-0.727										
X47 NET S T LIAB \ TOT AST			0.705										
X22 NET N CORE FUND DEPENDENCE			0.654	0.414									
X37 YIELD ON TOT INV SEC (TE)			0.391										
X31 G R S T INV			-0.388										
X49 NET LN&LS \ CORE DEP				0.875									
X48 NET LS&LS \ DEP				0.804									
X23 NET LN&LS \ AST		0.454		0.654									
X42 S T N CORE FUNDING \ TOT AST			0.469	0.536							0.350		
X41 CORE DEP \ TOT AST				-0.528									
X44 BROK DEP \ DEP				0.442									
X2 INT EXP \ AVR AST					0.925								
X14 INT EXP \ AVR EARN AST					0.917								
X38 COST OF ALL INT-BEARING FUNDS					0.891								

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X29 G R TIER ONE CAP						0.906							
X54 G R TOT EQCAP						0.894							
X26 RETAIN EARNNS \ AVR TOT EQ						0.786							
X25 CASH DIV \ NET INC	0.345					-0.550							
X30 G R NET LN&LS						0.431					0.411		
X18 LN&LS ALLOW \ NET LOSSES							-0.914						
X17 EARN COV OF NET LOSS	0.385						-0.778						
X16 NET LOSS \ AVR TOT LN&LS							0.754			0.353			
X6 PROVISION: LN&LS LOSSES \ AVR AST		0.467					0.502			0.332			
X21 NON-CUR LN&LS \ GRS LN&LS							0.453			0.313	-0.356	0.339	
X55 TIER ONE RBC \ RISK-WGT AST								0.896					
X56 TOT RBC \ RISK-WGT AST								0.874					
X24 TIER ONE LEVERAGE CAP								0.794					
X12 AVR INT-BEARING FUNDS \ AVR AST					0.380			-0.411					
X5 NONINT EXP \ AVR AST		0.307							0.874				
X4 NONINT INC \ AVR AST									0.845				
X35 AST PER EMPLOYEE (\$MILLION)		-0.364							-0.629			-0.524	
X11 AVR EARN AST \ AVR AST					0.366				-0.487				
X19 LN&LS ALLOW \ LN&LS NOT HFS										0.933			
X20 LN&LS ALLOW \ TOT LN&LS										0.929			
X32 G R S T NON CORE FUNDING											0.630		
X28 G R AST						0.513					0.598		
X34 AVR PERSONNEL EXP PER EMPL(\$000)												-0.627	
X52 PLEDGED SEC \ TOT SEC												0.591	
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL							0.371				-0.378	0.504	
X50 TOT HTM SEC \ TOT SEC													-0.849
X51 TOT AFS SEC \ TOT SEC													0.846
X40 MARKETABLE EQ SEC \ TOT AST													

Rotated Component Matrix 2004-G2

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X9 NET OPER INC \ AVR AST	0.926											
X10 NET INC \ AVR AST	0.924											
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.918											
X7 PRETAX OPER INC (TE) \ AVR AST	0.913											
X53 NET INC \ AVR TOT EQ	0.880											
X33 EFFICIENCY RATIO	-0.711							-0.537				
X25 CASH DIV \ NET INC	0.518						-0.499					
X43 NET S T N CORE FUND DEPENDENCE		0.841										
X42 S T N CORE FUNDING \ TOT AST		0.840										
X45 S T INV \ S T N CORE FUND		-0.762										0.432
X22 NET N CORE FUND DEPENDENCE		0.737										
X41 CORE DEP \ TOT AST		-0.729										
X46 S T AST \ S T LIABS		-0.630			0.419							
X47 NET S T LIAB \ TOT AST		0.617			-0.409							
X32 G R S T NON CORE FUNDING		0.399										
X13 INT INC (TE) \ AVR EARN AST			0.876									
X1 INT INC (TE) \ AVR AST			0.853									
X3 NET INT INC (TE) \ AVR AST	0.302		0.836									
X15 NET INT INC-TE \ AVR EARN AST			0.827	-0.335								
X36 YIELD ON TOT LN&LS (TE)			0.800									
X2 INT EXP \ AVR AST				0.914								
X14 INT EXP \ AVR EARN AST				0.912								
X38 COST OF ALL INT-BEARING FUNDS				0.882								
X12 AVR INT-BEARING FUNDS \ AVR AST				0.660					-0.325			
X48 NET LS&LS \ DEP					0.862							
X23 NET LN&LS \ AST					0.854							
X49 NET LN&LS \ CORE DEP		0.382			0.830							

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X44 BROK DEP \ DEP		0.368			0.371							
X18 LN&LS ALLOW \ NET LOSSES						0.917						
X17 EARN COV OF NET LOSS	0.355					0.815						
X16 NET LOSS \ AVR TOT LN&LS						-0.804						
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.323		0.363			-0.561						
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL						-0.489				0.410		
X29 G R TIER ONE CAP							0.904					
X54 G R TOT EQCAP							0.900					
X26 RETAIN EARN \ AVR TOT EQ	0.347						0.831					
X28 G R AST							0.436			-0.329		
X35 AST PER EMPLOYEE (\$MILLION)								0.876				
X5 NONINT EXP \ AVR AST	-0.335		0.397	-0.317				-0.699				
X4 NONINT INC \ AVR AST								-0.645				
X11 AVR EARN AST \ AVR AST								0.520				
X34 AVR PERSONNEL EXP PER EMPL(\$000)								0.473				
X24 TIER ONE LEVERAGE CAP									0.921			
X55 TIER ONE RBC \ RISK-WGT AST					-0.439				0.834			
X56 TOT RBC \ RISK-WGT AST					-0.433				0.832			
X19 LN&LS ALLOW \ LN&LS NOT HFS										0.919		
X20 LN&LS ALLOW \ TOT LN&LS										0.918		
X21 NON-CUR LN&LS \ GRS LN&LS						-0.461				0.513		
X30 G R NET LN&LS							0.324			-0.380		
X51 TOT AFS SEC \ TOT SEC											0.878	
X50 TOT HTM SEC \ TOT SEC											-0.854	
X31 G R S T INV												0.703
X39 S T INV \ TOT AST		-0.538										0.645
X37 YIELD ON TOT INV SEC (TE)												
X52 PLEDGED SEC \ TOT SEC												
X40 MARKETABLE EQ SEC \ TOT AST												

Rotated Component Matrix 2004-G3

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.927												
X9 NET OPER INC \ AVR AST	0.927												
X7 PRETAX OPER INC (TE) \ AVR AST	0.926												
X10 NET INC \ AVR AST	0.925												
X53 NET INC \ AVR TOT EQ	0.863												
X33 EFFICIENCY RATIO	-0.845												
X25 CASH DIV \ NET INC	0.558					-0.470							
X15 NET INT INC-TE \ AVR EARN AST		0.895											
X13 INT INC (TE) \ AVR EARN AST		0.886											
X3 NET INT INC (TE) \ AVR AST		0.877											
X1 INT INC (TE) \ AVR AST		0.833	0.369										
X36 YIELD ON TOT LN&LS (TE)		0.670						-0.339					
X5 NONINT EXP \ AVR AST	-0.507	0.601	-0.413										
X2 INT EXP \ AVR AST			0.944										
X14 INT EXP \ AVR EARN AST			0.933										
X38 COST OF ALL INT-BEARING FUNDS			0.904										
X12 AVR INT-BEARING FUNDS \ AVR AST			0.727										
X4 NONINT INC \ AVR AST		0.377	-0.450								0.336		
X11 AVR EARN AST \ AVR AST			0.365										
X39 S T INV \ TOT AST				-0.850									
X45 S T INV \ S T N CORE FUND				-0.848									
X43 NET S T N CORE FUND DEPENDENCE				0.777				0.424					
X46 S T AST \ S T LIABS				-0.674								0.318	
X22 NET N CORE FUND DEPENDENCE			0.323	0.663				0.401					
X47 NET S T LIAB \ TOT AST				0.661								-0.301	
X31 G R S T INV				-0.477				0.316					
X24 TIER ONE LEVERAGE CAP					-0.913								
X55 TIER ONE RBC \ RISK-WGT AST					-0.879								
X56 TOT RBC \ RISK-WGT AST					-0.878								

Ratios	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
X29 G R TIER ONE CAP						0.914							
X54 G R TOT EQCAP						0.908							
X26 RETAIN EARN \ AVR TOT EQ	0.395					0.809							
X28 G R AST						0.395			0.348		-0.338		
X18 LN&LS ALLOW \ NET LOSSES							0.868						
X16 NET LOSS \ AVR TOT LN&LS							-0.806						
X17 EARN COV OF NET LOSS	0.479						0.696						
X6 PROVISION: LN&LS LOSSES \ AVR AST							-0.626			0.303			
X23 NET LN&LS \ AST		0.351			0.328			0.770					
X48 NET LS&LS \ DEP		0.331						0.766					
X49 NET LN&LS \ CORE DEP		0.328	0.306					0.707	0.339				
X37 YIELD ON TOT INV SEC (TE)								-0.329					
X42 S T NCORE FUNDING \ TOT AST				0.388					0.785				
X41 CORE DEP \ TOT AST			-0.302						-0.739				
X32 G R S T NON CORE FUNDING									0.486				
X44 BROK DEP \ DEP									0.466			0.334	
X20 LN&LS ALLOW \ TOT LN&LS										0.905			
X19 LN&LS ALLOW \ LN&LS NOT HFS										0.905			
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL							-0.313				0.716		
X21 NON-CUR LN&LS \ GRS LN&LS							-0.347				0.678		
X34 AVR PERSONNEL EXP PER EMPL(\$000)												0.765	
X35 AST PER EMPLOYEE (\$MILLION)	0.353	-0.423	0.344									0.584	
X52 PLEDGED SEC \ TOT SEC									0.335			-0.368	
X51 TOT AFS SEC \ TOT SEC													0.898
X50 TOT HTM SEC \ TOT SEC													-0.887
X30 G R NET LN&LS													
X40 MARKETABLE EQ SEC \ TOT AST													

Rotated Component Matrix 2004-G4

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X9 NET OPER INC \ AVR AST	0.943											
X10 NET INC \ AVR AST	0.943											
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.941											
X7 PRETAX OPER INC (TE) \ AVR AST	0.941											
X53 NET INC \ AVR TOT EQ	0.878											
X33 EFFICIENCY RATIO	-0.874											
X25 CASH DIV \ NET INC	0.614						-0.306					
X43 NET S T NCORE FUND DEPENDENCE		0.853										
X45 S T INV \ S T NCORE FUND		-0.838		-0.300								
X46 S T AST \ S T LIABS		-0.817										
X47 NET S T LIAB \ TOT AST		0.802										
X22 NET NCORE FUND DEPENDENCE		0.787										
X39 S T INV \ TOT AST		-0.772		-0.301								
X42 S T NCORE FUNDING \ TOT AST		0.532							0.404	0.371	-0.382	
X31 G R S T INV		-0.396										
X15 NET INT INC-TE \ AVR EARN AST			0.862	0.318								
X3 NET INT INC (TE) \ AVR AST			0.808	0.346								
X13 INT INC (TE) \ AVR EARN AST			0.775	0.411	0.338							
X36 YIELD ON TOT LN&LS (TE)			0.756									
X1 INT INC (TE) \ AVR AST			0.686	0.436	0.397							
X5 NONINT EXP \ AVR AST	-0.542		0.664		-0.305							
X35 AST PER EMPLOYEE (\$MILLION)	0.385		-0.634								0.349	
X4 NONINT INC \ AVR AST			0.503		-0.333							
X11 AVR EARN AST \ AVR AST			-0.369									
X48 NET LS&LS \ DEP				0.890								
X23 NET LN&LS \ AST				0.877								
X49 NET LN&LS \ CORE DEP				0.858								
X2 INT EXP \ AVR AST					0.910							

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
X14 INT EXP \ AVR EARN AST					0.906							
X38 COST OF ALL INT-BEARING FUNDS					0.869							
X12 AVR INT-BEARING FUNDS \ AVR AST					0.657							
X18 LN&LS ALLOW \ NET LOSSES						-0.872						
X16 NET LOSS \ AVR TOT LN&LS	-0.300					0.809						
X6 PROVISION: LN&LS LOSSES \ AVR AST						0.641						
X17 EARN COV OF NET LOSS	0.583					-0.628						
X21 NON-CUR LN&LS \ GRS LN&LS						0.533		0.380				
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL						0.481					-0.317	
X29 G R TIER ONE CAP							0.906					
X54 G R TOT EQCAP							0.895					
X26 RETAIN EARNS \ AVR TOT EQ	0.483						0.755					
X19 LN&LS ALLOW \ LN&LS NOT HFS								0.904				
X20 LN&LS ALLOW \ TOT LN&LS								0.904				
X41 CORE DEP \ TOT AST		-0.386							-0.750			
X24 TIER ONE LEVERAGE CAP									0.637		0.472	
X55 TIER ONE RBC \ RISK-WGT AST				-0.512	-0.334				0.539		0.341	
X56 TOT RBC \ RISK-WGT AST				-0.509	-0.330				0.538		0.341	
X40 MARKETABLE EQ SEC \ TOT AST									0.310			
X28 G R AST										0.713		
X32 G R S T NON CORE FUNDING										0.673		
X30 G R NET LN&LS				0.302				-0.321		0.415		
X52 PLEDGED SEC \ TOT SEC											-0.481	
X34 AVR PERSONNEL EXP PER EMPL(\$000)											0.468	
X37 YIELD ON TOT INV SEC (TE)											0.357	
X51 TOT AFS SEC \ TOT SEC												0.916
X50 TOT HTM SEC \ TOT SEC												-0.908
X44 BROK DEP \ DEP												

APPENDIX 6.5: Cross-sectional transformation matrices (2001-2004)

Cross-sectional transformation matrices of factor patterns (2001)

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
	G1	M(Y)-I	Prof	Fnd	Sh-t liq	M(C)-II	AQ-I	RBC	Eff	Grth	AQ-II	CG	IS	-
G2	C1	Prof	0.067	0.953	-0.039	-0.010	-0.114	-0.039	0.003	0.220	0.040	-0.053	-0.124	0.045
	C2	M(C)-II	-0.146	-0.068	0.051	0.019	0.690	-0.018	-0.017	0.701	-0.016	-0.007	-0.015	0.009
	C3	M(Y)-I	0.805	0.063	0.032	0.020	0.346	-0.008	0.045	-0.191	0.015	0.218	0.032	-0.198
	C4	Ln&Ls	0.450	-0.126	0.486	-0.123	-0.172	0.013	-0.140	0.232	-0.117	-0.508	0.033	0.257
	C5	Sh-t liq	-0.098	0.023	0.045	-0.960	0.108	0.014	0.034	-0.114	0.089	-0.007	-0.105	0.030
	C6	RBC	0.037	-0.045	0.077	-0.008	-0.128	-0.043	0.971	0.145	-0.062	-0.032	0.052	-0.004
	C7	Fnd-II	-0.269	0.146	0.770	0.177	0.266	0.088	0.073	-0.358	0.163	0.110	-0.176	0.019
	C8	AQ-I	-0.007	-0.014	0.070	-0.028	0.041	-0.973	-0.031	-0.059	-0.030	0.122	0.012	0.014
	C9	CG	-0.037	0.141	-0.030	-0.045	0.188	0.042	0.032	-0.133	0.317	-0.044	0.870	0.150
	C10	AQ-II	0.143	-0.047	0.080	-0.112	-0.129	0.169	-0.020	0.199	-0.010	0.773	-0.040	0.220
	C11	Eff-II	-0.102	-0.002	0.379	-0.057	-0.402	-0.046	-0.159	0.310	-0.166	0.235	0.382	-0.295
	C12	Grth	0.095	-0.144	0.010	0.051	-0.218	-0.071	-0.011	0.225	0.904	-0.017	-0.181	-0.061
	C13	IS	0.000	-0.025	-0.041	0.093	-0.034	-0.062	-0.001	-0.024	-0.016	0.090	-0.011	0.854
	G3	Prof	M(Y)-I	M(C)-II	Sh-t liq	Eff	AQ-I	RBC	CG	Fnd-II	AQ-II	G	IS	
G2	C1	Prof	0.974	-0.004	-0.142	0.000	-0.137	-0.000	-0.062	0.036	0.032	-0.034	-0.037	0.005
	C2	M(C)-II	0.040	0.026	0.790	-0.048	-0.601	0.027	0.047	-0.019	-0.072	0.027	0.021	-0.015
	C3	M(Y)-I	0.165	0.599	0.279	-0.025	0.477	0.156	0.236	-0.039	-0.160	0.246	0.234	0.018
	C4	Ln&Ls	-0.092	0.740	-0.089	0.108	-0.161	-0.051	-0.181	0.009	0.127	-0.241	-0.201	-0.030
	C5	Sh-t liq	0.020	-0.069	0.080	0.987	0.022	0.014	0.015	-0.031	0.065	0.004	0.045	0.042
	C6	RBC	0.001	-0.025	-0.148	0.019	-0.136	0.006	0.941	0.001	0.036	-0.036	-0.045	-0.024
	C7	Fnd-II	0.016	0.003	0.146	-0.092	0.093	-0.002	0.040	-0.036	0.969	0.017	0.046	0.020
	C8	AQ-I	0.033	0.046	0.076	0.007	0.077	-0.980	0.046	-0.015	-0.030	0.139	0.015	-0.020
	C9	CG	-0.016	-0.010	0.080	0.022	0.069	-0.005	0.013	0.993	0.023	-0.000	0.010	0.013
	C10	AQ-II	-0.024	-0.018	-0.085	0.030	-0.097	0.097	-0.092	0.004	0.063	0.916	-0.114	-0.006

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
	C11	Eff-II	-0.102	0.289	-0.440	0.018	-0.558	-0.030	0.032	0.088	0.035	0.135	0.130	0.053
	C12	G	-0.014	-0.033	-0.082	-0.011	-0.094	-0.019	-0.076	-0.005	0.024	-0.027	0.931	-0.018
	C13	IS	-0.005	-0.001	0.017	-0.037	0.000	-0.022	0.010	-0.016	-0.018	-0.012	-0.004	0.996
	G4	Prof	Sh-t liq	M(Y)-I	M(C)-II	Ln&Ls	RBC	AQ-I	CG	AQ-II	No Name	IS	Grth	
G3	C1	Prof	0.972	-0.003	0.176	-0.002	-0.107	-0.002	0.032	-0.001	-0.027	-0.104	0.001	-0.014
	C2	M(Y)-I	0.029	-0.022	0.507	0.144	0.759	-0.087	0.011	-0.038	-0.039	0.363	-0.035	-0.041
	C3	M(C)-II	-0.025	0.065	-0.009	0.975	-0.151	-0.069	0.038	0.007	-0.053	-0.080	0.022	-0.069
	C4	Sh-t liq	-0.003	-0.972	-0.038	0.077	0.075	0.088	0.000	-0.017	0.025	-0.160	0.016	0.093
	C5	Eff	-0.227	0.008	0.752	-0.105	-0.247	-0.056	0.118	0.062	-0.140	-0.508	0.031	-0.112
	C6	AQ-I	0.001	0.001	0.128	0.031	-0.056	-0.011	-0.987	-0.008	0.058	-0.040	-0.004	0.014
	C7	RBC	-0.024	-0.012	0.193	0.046	-0.215	0.877	0.007	0.016	-0.109	0.349	-0.012	-0.098
	C8	CG	0.017	-0.010	-0.030	0.009	0.062	0.004	-0.014	0.996	0.033	0.019	0.022	0.030
	C9	Fnd-II	0.025	0.220	-0.168	0.060	0.485	0.454	-0.015	-0.036	0.149	-0.643	0.055	0.196
	C10	AQ-II	-0.016	-0.001	0.193	0.042	-0.131	0.009	0.088	-0.019	0.962	0.092	-0.014	0.036
	C11	Grth	-0.020	0.052	0.160	0.047	-0.134	-0.027	0.033	-0.013	-0.105	0.127	-0.022	0.960
	C12	IS	0.005	0.002	0.014	-0.015	0.001	-0.016	-0.005	-0.023	0.005	0.076	0.996	0.012

1. Elements above .950 are in bold (Martikainen et al., 1994, p. 63).

2. Refer to Table 5.8 for the full names of the components.

Cross-sectional transformation matrices of factor patterns (2002)

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
	G2	Prof	M(C)-II	M(Y)-I	Sh-t liq	Ln&Ls	AQ-I	RBC	CG	AQ-II	Eff-II	Grth	IS	-
G1	C1	Prof	0.976	-0.043	-0.007	0.019	0.013	0.026	0.013	0.071	0.126	0.141	0.048	-0.030
	C2	M(Y)-I	0.036	0.005	0.968	-0.037	0.149	-0.010	-0.013	-0.078	-0.102	-0.021	-0.140	0.025
	C3	Sh-t liq	0.001	0.037	0.061	0.968	-0.177	-0.030	-0.029	-0.024	-0.118	-0.004	0.092	0.043
	C4	AQ-I	0.001	0.005	0.010	-0.016	0.017	-0.981	-0.048	-0.012	0.169	0.033	0.056	0.049
	C5	fnd	-0.042	0.030	-0.070	0.179	0.900	0.043	0.160	0.040	0.200	-0.130	0.243	-0.075

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
	C6	M(C)-II	-0.046	0.890	0.030	-0.014	-0.010	0.033	0.047	0.115	0.118	0.415	-0.004	-0.040
	C7	RBC	-0.008	-0.047	0.042	-0.015	-0.169	-0.054	0.980	0.005	-0.042	-0.000	0.053	0.015
	C8	CG	-0.015	-0.002	0.060	-0.011	-0.026	-0.044	-0.023	0.958	-0.171	-0.210	0.020	0.028
	C9	Eff	-0.176	-0.445	0.047	0.058	0.081	0.048	-0.001	0.207	0.142	0.833	-0.017	0.000
	C10	AQ-II	-0.099	-0.047	0.159	0.050	-0.265	0.147	-0.014	0.099	0.896	-0.217	0.092	-0.003
	C11	IS	0.027	0.036	-0.052	-0.007	0.094	0.053	0.016	-0.007	0.050	0.007	-0.108	0.984
	C12	Grth	-0.024	-0.002	0.132	-0.150	-0.147	0.043	-0.090	-0.050	-0.145	0.065	0.940	0.129
	G2	Prof	M(C)-II	M(Y)-I	Sh-t liq	Ln&Ls	AQ-I	RBC	CG	AQ-II	Eff-II	Grth	IS	
G3	C1	Prof	0.986	-0.007	-0.035	-0.002	0.010	0.023	0.008	0.010	0.017	0.028	-0.017	-0.023
	C2	Sh-t liq	0.008	0.023	-0.007	0.995	0.002	-0.007	-0.006	-0.005	0.005	-0.015	0.085	0.005
	C3	M(C)-II	-0.048	0.925	-0.004	-0.007	0.035	-0.012	-0.008	0.087	0.042	0.213	-0.028	0.000
	C4	Ln&Ls	0.014	0.009	0.035	-0.006	0.987	0.009	-0.027	0.013	0.011	0.000	-0.004	-0.025
	C5	M(Y)-I	0.043	0.028	0.996	0.004	-0.040	-0.006	0.009	-0.033	-0.022	-0.018	0.008	0.029
	C6	AQ-I	-0.025	0.002	0.007	0.006	-0.005	0.998	-0.001	0.013	-0.049	0.024	0.021	0.017
	C7	CG	0.029	-0.002	0.020	-0.004	-0.046	-0.008	-0.012	0.971	-0.023	-0.074	0.016	-0.002
	C8	RBC	-0.013	-0.003	-0.006	0.008	0.031	0.001	0.999	0.020	0.007	-0.006	-0.014	-0.003
	C9	Eff	0.108	0.363	-0.055	-0.038	-0.082	0.030	0.019	-0.180	-0.057	-0.723	0.040	-0.054
	C10	AQ-II	-0.001	-0.010	0.019	-0.005	-0.030	0.051	-0.003	-0.002	0.991	0.004	-0.026	-0.033
	C11	Grth	0.005	0.004	-0.005	-0.083	0.015	-0.020	0.012	0.001	0.035	0.005	0.993	0.009
	C12	IS	0.039	0.029	-0.034	-0.009	0.009	-0.013	0.007	-0.020	0.023	0.033	-0.004	0.991
	C13	No Name	-0.096	-0.100	0.027	0.017	0.109	0.002	-0.031	0.119	0.086	-0.651	-0.050	0.109
	G4	Prof	M(Y)-I	Sh-t liq	M(C)-II	Ln&Ls	RBC	AQ-I	CG	AQ-II	IS	Grth	-	-
G3	C1	Prof	0.947	0.053	0.030	-0.055	-0.056	-0.068	0.036	0.074	0.042	-0.085	0.002	
	C2	Sh-t liq	-0.006	0.018	0.983	-0.010	0.064	0.045	0.018	-0.015	-0.026	0.035	-0.074	
	C3	M(C)-II	-0.056	-0.075	0.067	0.908	-0.085	-0.129	0.033	0.087	0.064	-0.095	-0.014	
	C4	Ln&Ls	0.006	0.075	-0.014	-0.029	0.933	-0.039	0.011	0.046	0.039	-0.087	-0.055	
	C5	M(Y)-I	0.084	0.893	-0.047	0.227	0.000	0.100	-0.043	-0.085	-0.050	0.065	-0.013	

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
C6	AQ-I	0.016	-0.021	-0.023	0.012	0.001	0.021	0.983	-0.022	-0.095	0.046	0.021		
C7	CG	-0.005	-0.008	-0.025	0.032	0.052	0.055	-0.011	0.954	-0.098	0.079	0.061		
C8	RBC	-0.019	0.027	0.036	-0.070	-0.155	0.846	0.002	0.098	0.068	-0.086	-0.083		
C9	Eff	0.289	-0.424	-0.076	0.318	0.205	0.338	-0.122	-0.208	-0.070	0.152	0.041		
C10	AQ-II	-0.018	0.015	-0.002	-0.005	0.018	0.019	0.087	0.050	0.976	-0.011	0.010		
C11	Grth	-0.008	0.031	0.089	-0.016	0.013	0.024	-0.021	-0.032	0.014	-0.010	0.986		
C12	IS	0.041	0.000	0.012	-0.013	-0.021	-0.079	-0.030	0.010	0.071	0.949	-0.026		
C13	No Name	-0.082	0.076	-0.094	0.112	0.214	0.353	0.076	-0.105	-0.060	0.176	0.078		

1. Elements above .950 are in bold (Martikainen et al., 1994, p. 63).
2. Refer to Table 5.8 for the full names of the components.

Cross-sectional transformation matrices of factor patterns (2003)

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	
	G2	Prof	M(Y)-I	Sh-t liq	M(C)-II	RBC	AQ-I	Fnd	CG	Eff	AQ-II	IS	Grth	No Name	
G1	C1	Prof	0.992	0.031	0.004	-0.007	-0.015	0.007	0.045	-0.003	-0.092	-0.018	0.015	0.065	-0.009
	C2	M(Y)-I	-0.006	0.976	-0.032	-0.024	0.027	-0.010	-0.107	0.035	0.122	0.032	-0.020	-0.094	0.078
	C3	Sh-t liq	0.002	0.023	0.996	-0.020	0.017	-0.008	-0.038	0.008	0.011	-0.003	-0.004	-0.063	-0.040
	C4	Fnd	-0.038	0.082	0.040	0.043	0.084	0.026	0.965	0.014	0.028	-0.016	0.028	-0.039	0.213
	C5	M(C)-II	-0.011	0.042	0.028	0.979	-0.092	-0.022	-0.047	-0.012	-0.093	-0.055	0.012	0.113	0.059
	C6	AQ-I	-0.006	0.018	-0.007	-0.027	0.001	-0.981	0.058	-0.008	-0.005	-0.079	0.005	0.089	-0.136
	C7	RBC	-0.017	0.026	0.020	-0.094	-0.990	-0.001	0.071	0.009	0.030	-0.015	0.009	0.004	0.063
	C8	CG	0.007	-0.037	-0.012	0.025	0.001	-0.012	0.995	-0.014	0.045	0.024	-0.059	-0.048	
	C9	Eff	-0.099	0.124	0.009	-0.108	-0.010	0.017	0.012	-0.976	-0.100	0.009	0.014	0.025	
	C10	AQ-II	-0.005	0.002	0.019	0.017	-0.014	-0.063	0.020	-0.034	-0.097	0.970	0.032	0.202	0.031
	C11	Grth	-0.065	0.093	0.054	-0.110	0.022	0.114	0.032	0.073	0.063	-0.179	-0.045	0.955	-0.054
	C12	IS	0.017	-0.023	-0.002	0.015	-0.009	-0.016	0.023	0.020	-0.018	0.035	-0.997	-0.032	0.037
	C13	No Name	0.018	-0.098	0.033	-0.070	0.053	-0.136	-0.201	0.048	0.019	-0.044	0.031	0.065	0.955

			C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
			Prof	M(Y)-I	M(C)-II	Sh-t liq	RBC	AQ-I	CG	AQ-II	Fnd-II	Eff-II	Grth	Eff-I	IS
G2	G3	Prof	0.992	0.036	-0.025	-0.003	-0.009	-0.016	-0.006	-0.007	0.052	-0.005	0.010	-0.105	0.013
	C1	Prof	0.992	0.036	-0.025	-0.003	-0.009	-0.016	-0.006	-0.007	0.052	-0.005	0.010	-0.105	0.013
	C2	M(Y)-I	-0.012	0.981	0.024	0.017	0.019	0.013	0.013	0.001	-0.112	0.018	-0.023	0.147	0.001
	C3	Sh-t liq	0.000	-0.008	-0.006	0.993	0.008	0.007	-0.001	0.002	0.065	-0.096	0.009	0.005	-0.004
	C4	M(C)-II	-0.001	0.013	0.971	-0.002	-0.007	-0.005	-0.016	-0.001	0.009	-0.089	0.015	-0.217	0.031
	C5	RBC	0.016	-0.032	0.016	0.010	0.983	-0.005	-0.029	0.010	-0.126	0.108	0.061	-0.009	-0.023
	C6	AQ-I	0.021	-0.020	0.010	-0.002	-0.006	0.998	-0.004	-0.002	-0.053	0.019	0.009	0.008	0.001
	C7	Fnd	-0.036	0.071	0.051	0.009	0.042	0.032	0.036	-0.062	0.779	0.607	-0.084	0.008	0.009
	C8	CG	0.007	-0.015	0.013	0.004	0.022	0.001	0.998	0.005	-0.044	0.000	0.021	-0.017	0.018
	C9	Eff	0.117	-0.163	0.226	0.035	-0.062	-0.031	0.000	0.039	-0.200	0.269	0.046	0.886	-0.029
	C10	AQ-II	-0.001	0.011	-0.006	0.000	-0.013	0.004	-0.004	0.996	0.041	0.054	0.033	-0.050	-0.008
	C11	IS	0.009	0.008	0.025	-0.008	-0.015	0.003	0.019	-0.008	0.033	-0.033	-0.014	-0.020	-0.998
	C12	Grth	-0.017	0.042	-0.018	-0.037	-0.014	0.006	-0.009	-0.031	0.212	-0.145	0.962	0.059	-0.002
C13	No Name	0.011	0.010	0.014	-0.104	0.165	0.041	0.030	0.046	0.515	-0.710	-0.243	0.357	0.036	
			Prof	Sh-t liq	M(C)-II	M(Y)-I	Ln&Ls	RBC	CG	AQ-I	AQ-II	IS	Grth	Fnd-II	No Name
G3	G4	Prof	0.975	-0.003	-0.019	0.003	-0.085	-0.054	0.088	-0.026	-0.027	0.017	-0.135	0.107	-0.004
	C1	Prof	0.975	-0.003	-0.019	0.003	-0.085	-0.054	0.088	-0.026	-0.027	0.017	-0.135	0.107	-0.004
	C2	M(Y)-I	0.083	0.016	0.040	0.890	0.347	0.067	-0.086	-0.037	0.081	-0.038	0.145	-0.190	-0.005
	C3	M(C)-II	0.004	0.016	0.992	-0.034	0.029	-0.013	0.025	0.015	-0.018	0.023	-0.105	-0.004	-0.031
	C4	Sh-t liq	0.008	0.996	-0.011	-0.014	-0.052	-0.021	-0.011	-0.002	0.006	-0.007	0.033	-0.047	0.010
	C5	RBC	-0.037	0.003	-0.025	-0.027	0.333	-0.934	0.029	0.021	-0.018	0.019	-0.001	0.104	-0.030
	C6	AQ-I	0.061	-0.003	-0.003	-0.034	0.075	0.036	-0.014	0.981	0.019	-0.021	0.118	-0.069	0.072
	C7	CG	-0.023	0.007	-0.006	-0.043	0.165	0.077	0.947	-0.036	0.024	0.001	0.223	-0.122	-0.033
	C8	AQ-II	-0.017	-0.004	0.004	0.010	-0.133	-0.055	0.041	0.020	0.976	0.013	-0.128	0.072	-0.057
	C9	Fnd-II	-0.031	0.069	-0.008	-0.035	0.490	0.267	-0.004	0.007	0.024	0.028	0.005	0.823	0.051
	C10	Eff-II	0.034	-0.011	0.027	-0.095	0.132	-0.003	-0.018	-0.098	0.090	0.021	0.006	-0.142	0.966
	C11	Grth	0.017	-0.037	0.104	0.147	-0.497	-0.153	-0.022	-0.027	0.003	-0.030	0.748	0.345	0.121
	C12	Eff-I	0.184	-0.017	0.041	-0.412	0.446	0.116	-0.283	-0.148	0.174	-0.178	0.539	-0.303	-0.190
C13	IS	0.023	0.002	-0.011	-0.032	0.060	0.032	-0.059	-0.006	0.021	0.981	0.135	-0.079	-0.050	

1. Elements above .950 are in bold (Martikainen et al., 1994, p. 63).
2. Refer to Table 5.8 for the full names of the components.

Cross-sectional transformation matrices of factor patterns (2004)

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
		G2	Prof	Sh-t liq	M(Y)-I	M(C)-II	Ln&Ls	AQ-I	CG	Eff	RBC	AQ-II	IS	Sh-t inv
G1	C1	Prof	0.963	0.073	0.075	-0.036	-0.035	0.026	0.041	0.037	0.025	-0.002	0.044	0.137
	C2	M(Y)-I	0.022	-0.149	0.928	0.032	0.148	-0.038	-0.011	-0.064	-0.023	-0.010	-0.058	-0.183
	C3	Sh-t liq	0.013	0.779	0.043	0.086	-0.207	0.019	0.008	-0.059	-0.046	-0.035	0.029	-0.577
	C4	Fnd	-0.016	0.342	-0.054	-0.037	0.918	-0.035	-0.019	0.088	0.114	0.036	0.002	0.101
	C5	M(C)-II	-0.052	0.062	0.082	0.941	-0.024	0.011	0.013	0.019	0.045	0.021	0.036	0.241
	C6	CG	-0.024	-0.052	-0.018	0.010	0.049	0.023	0.994	0.008	-0.007	-0.021	-0.010	-0.072
	C7	AQ-I	-0.024	0.106	0.039	-0.050	-0.096	-0.973	0.043	0.051	-0.009	-0.008	0.038	0.140
	C8	RBC	-0.007	0.065	0.018	-0.030	-0.137	0.009	0.022	-0.058	0.965	0.039	-0.046	0.052
	C9	Eff	-0.120	0.092	0.132	-0.165	0.000	0.042	0.027	-0.806	0.021	-0.052	0.099	0.213
	C10	AQ-II	-0.069	0.136	0.115	-0.105	-0.107	0.064	0.043	0.099	-0.056	0.944	0.011	0.156
	C11	Grth	-0.095	0.447	0.165	-0.145	-0.197	0.175	0.072	0.113	-0.158	-0.245	-0.061	0.670
	C12	No Name	0.198	-0.019	-0.248	0.201	0.093	-0.107	-0.000	-0.551	-0.146	0.201	-0.198	-0.023
	C13	IS	0.007	-0.027	-0.008	0.017	0.021	0.019	0.007	-0.034	0.002	0.022	0.967	0.001
G3		G2	Prof	Sh-t liq	M(Y)-I	M(C)-II	Ln&Ls	AQ-I	CG	Eff	RBC	AQ-II	IS	Sh-t inv
	C1	Prof	0.969	-0.002	0.046	-0.030	-0.029	0.027	0.001	0.232	-0.006	-0.005	-0.015	0.008
	C2	M(Y)-I	0.041	0.021	0.929	0.021	0.158	0.005	-0.008	-0.328	0.019	0.011	0.008	0.025
	C3	M(C)-II	-0.041	0.049	0.070	0.947	0.055	-0.003	-0.002	0.289	-0.020	0.000	-0.012	0.082
	C4	Sh-t liq	0.004	0.700	0.021	0.033	-0.122	0.000	0.006	-0.009	-0.038	-0.007	0.028	-0.700
	C5	RBC	0.002	-0.012	-0.013	-0.012	0.117	0.009	0.014	-0.045	-0.985	-0.006	0.024	0.028
	C6	CG	0.016	-0.019	-0.009	0.027	-0.041	-0.002	0.996	-0.065	0.011	0.009	-0.006	-0.003
	C7	AQ-I	0.037	0.002	-0.110	0.084	0.113	0.944	-0.012	-0.241	0.045	0.060	0.008	-0.011
	C8	Ln&Ls	0.017	-0.072	-0.099	-0.067	0.856	-0.029	0.037	0.146	0.046	-0.013	-0.017	-0.254
	C9	Fnd-II	-0.003	0.706	-0.063	-0.109	0.230	-0.015	0.028	0.022	0.038	0.002	-0.044	0.654
	C10	AQ-II	-0.055	0.015	0.091	-0.083	-0.112	0.065	0.005	0.243	-0.053	0.926	0.002	0.012
	C11	AQ-III	0.121	-0.036	-0.214	0.170	0.305	-0.303	-0.026	-0.482	0.118	0.371	0.001	-0.060
C12	Eff-II	-0.192	-0.044	0.221	-0.199	0.189	0.106	0.067	0.612	0.071	-0.040	0.115	-0.052	

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	
	C13	IS	0.036	0.016	-0.035	0.027	0.001	-0.021	0.000	-0.055	0.018	0.002	0.991	0.051	
		G4	Prof	Sh-t liq	M(Y)-I	Ln&Ls	M(C)-II	AQ-I	CG	AQ-II	RBC	Grth	No Name	I S	-
G3	C1	Prof	0.996	-0.010	-0.035	-0.017	-0.032	0.024	0.022	-0.006	-0.026	-0.001	-0.037	0.004	
	C2	M(Y)-I	0.048	0.013	0.960	0.193	0.096	0.026	-0.033	0.045	0.032	0.044	0.145	-0.026	
	C3	M(C)-II	0.035	0.059	-0.123	0.027	0.979	0.038	-0.003	0.010	0.061	-0.068	0.098	-0.020	
	C4	Sh-t liq	0.008	0.970	-0.030	0.067	-0.079	0.008	-0.001	-0.015	-0.097	-0.117	0.145	0.011	
	C5	RBC	-0.031	0.018	0.018	0.238	0.119	0.026	-0.083	-0.040	-0.746	0.390	-0.415	0.096	
	C6	CG	-0.021	0.010	0.029	-0.018	0.017	0.006	0.988	-0.009	-0.058	0.128	0.029	0.018	
	C7	AQ-I	0.018	0.001	0.023	0.089	0.043	-0.970	0.027	0.085	0.018	-0.111	-0.088	0.009	
	C8	Ln&Ls	0.021	-0.071	-0.175	0.859	-0.079	0.026	0.045	-0.031	0.042	-0.178	0.025	-0.047	
	C9	Fnd-II	0.005	0.192	-0.022	0.139	0.028	0.008	-0.027	0.093	0.610	0.604	-0.438	-0.060	
	C10	AQ-II	0.006	0.018	-0.030	-0.080	-0.015	0.043	0.001	0.961	-0.128	-0.012	-0.020	-0.025	
	C11	AQ-III	-0.035	-0.031	0.052	0.206	0.015	0.230	0.096	0.160	0.153	-0.538	-0.409	0.062	
	C12	Eff-II	0.003	-0.106	-0.156	0.295	-0.042	0.024	-0.044	0.175	0.034	0.336	0.637	0.059	
	C13	IS	0.005	0.006	0.016	-0.002	0.010	-0.006	-0.014	0.013	0.101	0.004	0.007	0.988	

1. Elements above .950 are in bold (Martikainen et al., 1994, p. 63).
2. Refer to Table 5.8 for the full names of the components.

APPENDIX 6.6: Short-term transformation matrices for G2-G4

Short-term transformation matrices for G2 (2001-2005)

			C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
		2002	Prof	M(C)-II	M(Y)-I	Sh-t liq	Ln&Ls	AQ-I	RBC	CG	AQ-II	Eff-II	Grth	IS	-
2001	C1	Prof	0.990	-0.067	0.047	-0.011	-0.011	0.033	0.000	-0.026	-0.013	-0.075	0.025	-0.013	
	C2	M(C)-II	0.042	0.935	-0.168	0.015	-0.051	0.004	0.040	-0.035	0.017	-0.288	0.013	-0.032	
	C3	M(Y)-I	-0.014	0.205	0.956	0.016	0.002	-0.026	0.033	0.004	0.006	0.065	0.072	0.009	
	C4	Ln&Ls	-0.002	0.057	0.048	-0.078	0.942	0.009	-0.030	-0.001	-0.044	0.039	-0.168	-0.014	
	C5	Sh-t liq	0.013	0.047	-0.067	-0.903	0.040	-0.051	0.058	-0.018	0.042	0.111	0.342	0.056	
	C6	RBC	-0.025	-0.076	0.024	-0.018	-0.022	0.016	0.976	-0.000	-0.028	-0.086	-0.068	-0.038	
	C7	Fnd-II	0.045	0.040	-0.159	0.416	0.277	-0.111	0.154	-0.018	0.164	0.164	0.699	0.017	
	C8	AQ-I	-0.011	0.029	-0.019	-0.000	0.040	0.978	0.024	0.006	0.059	0.070	0.004	0.002	
	C9	CG	0.041	0.049	-0.027	-0.008	0.010	-0.026	0.019	0.992	0.037	0.041	-0.050	0.022	
	C10	AQ-II	-0.022	-0.057	0.065	-0.034	-0.030	0.003	-0.034	-0.006	0.951	-0.099	0.008	-0.016	
	C11	Eff-II	-0.060	-0.226	0.044	-0.037	0.144	0.006	-0.038	0.029	-0.012	-0.895	0.031	0.059	
	C12	Grth	-0.097	-0.092	0.122	0.007	-0.090	0.157	-0.112	0.114	-0.242	-0.203	0.594	-0.058	
	C13	IS	0.009	0.028	0.001	0.044	-0.011	0.013	0.027	-0.018	-0.005	0.016	-0.002	0.993	
		2002	Prof	M(C)-II	M(Y)-I	Sh-t liq	Ln&Ls	AQ-I	RBC	CG	AQ-II	Eff-II	Grth	IS	-
2003	C1	Prof	0.987	-0.013	0.024	0.013	-0.076	-0.022	-0.015	0.059	0.017	-0.033	0.044	0.001	
	C2	M(Y)-I	0.015	-0.006	0.960	0.011	0.235	0.031	0.034	-0.034	-0.026	0.032	-0.085	-0.001	
	C3	Sh-t liq	-0.002	0.019	-0.011	0.988	-0.067	0.026	-0.026	-0.010	-0.023	0.051	-0.001	-0.015	
	C4	M(C)-II	-0.025	0.924	0.051	0.005	-0.045	-0.038	-0.066	0.067	0.049	0.206	0.019	0.050	
	C5	RBC	0.007	-0.030	-0.034	-0.004	0.269	0.002	-0.958	-0.015	-0.010	-0.085	-0.028	-0.005	
	C6	AQ-I	0.021	0.012	-0.042	-0.013	0.065	0.992	0.018	0.008	0.010	0.036	-0.023	0.020	
	C7	Fnd	-0.020	-0.024	-0.082	0.122	0.695	-0.066	0.210	0.010	0.109	-0.317	0.408	0.064	
	C8	CG	-0.032	0.001	-0.007	-0.003	0.082	0.003	0.015	0.978	0.000	-0.048	-0.034	-0.007	
	C9	Eff	0.073	0.371	-0.084	-0.040	0.097	0.058	0.089	-0.149	-0.075	-0.671	-0.095	-0.122	
	C10	AQ-II	-0.028	-0.021	0.065	0.008	-0.156	0.016	-0.048	-0.004	0.975	-0.099	0.039	-0.015	

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	
	C11	IS	-0.021	-0.008	0.020	0.005	-0.006	0.006	0.000	0.025	-0.003	0.014	0.003	-0.984	
	C12	Grth	-0.047	0.020	0.141	-0.051	-0.332	0.069	-0.121	0.024	-0.122	-0.018	0.891	-0.025	
	C13	No Name	0.121	0.073	-0.186	-0.064	0.471	-0.017	0.083	-0.100	0.113	0.617	0.133	-0.098	
		2004	Prof	Sh-t liq	M(Y)-I	M(C)-II	Ln&Ls	AQ-I	CG	Eff	RBC	AQ-II	IS	Sh-t inv	-
2003	C1	Prof	0.976	0.043	0.041	-0.029	-0.085	0.004	0.014	0.069	-0.017	0.007	0.029	0.068	
	C2	M(Y)-I	0.030	-0.062	0.941	0.044	0.220	0.010	-0.010	-0.120	0.030	-0.011	-0.030	-0.132	
	C3	Sh-t liq	0.003	0.803	-0.006	0.052	-0.160	0.015	-0.000	-0.069	-0.054	-0.022	0.007	-0.562	
	C4	M(C)-II	-0.021	0.043	0.025	0.970	-0.053	-0.008	0.009	0.025	-0.023	0.020	0.036	0.151	
	C5	RBC	-0.004	-0.046	-0.027	-0.013	0.289	-0.002	-0.002	0.028	-0.946	-0.010	0.007	-0.069	
	C6	AQ-I	0.013	-0.043	-0.040	0.025	0.060	0.994	-0.011	-0.014	0.020	0.001	0.003	-0.048	
	C7	Fnd	-0.055	0.426	0.004	-0.094	0.686	-0.000	0.003	0.263	0.214	0.009	0.107	0.325	
	C8	CG	0.006	-0.033	-0.025	0.012	0.065	-0.000	0.994	-0.023	0.020	-0.002	0.001	-0.061	
	C9	Eff.	0.050	-0.111	-0.039	0.107	0.089	-0.021	-0.021	0.842	0.023	-0.042	-0.100	-0.243	
	C10	AQ-II	-0.042	0.062	0.079	-0.051	-0.130	0.021	0.024	0.114	-0.054	0.973	0.003	0.072	
	C11	IS	-0.006	0.018	0.001	-0.000	0.029	0.004	0.006	-0.002	0.031	0.006	-0.971	-0.017	
	C12	Grth	-0.039	0.380	0.141	-0.074	-0.321	0.077	0.073	0.079	-0.215	-0.153	-0.120	0.677	
	C13	No Name	0.194	0.028	-0.286	0.157	0.474	-0.061	-0.069	-0.420	0.057	0.165	-0.137	0.012	
		2005	Prof	M(Y)-I	Sh-t liq	Ln&Ls	M(C)-II	CG	Eff	RBC	AQ-I	AQ-II	Grth	I S	-
2004	C1	Prof	0.995	-0.021	0.014	0.019	0.006	-0.053	0.028	0.004	-0.071	0.006	0.023	-0.001	
	C2	Sh-t liq	-0.024	0.037	0.894	0.084	-0.031	-0.022	0.034	0.030	0.017	0.047	0.430	-0.002	
	C3	M(Y)-I	0.032	0.986	-0.015	-0.050	0.062	0.004	-0.093	0.016	0.095	-0.017	-0.032	-0.025	
	C4	M(C)-II	-0.010	-0.055	0.068	0.049	0.990	0.012	0.050	0.018	-0.026	-0.028	-0.075	-0.016	
	C5	Ln&Ls	-0.018	0.058	-0.127	0.986	-0.033	0.010	0.027	-0.034	-0.013	0.016	0.063	0.034	
	C6	AQ-I	0.072	-0.103	-0.005	0.023	0.022	0.032	-0.055	0.014	0.989	0.023	-0.015	-0.011	
	C7	CG	0.050	-0.001	0.008	-0.012	-0.009	0.997	-0.009	-0.001	-0.035	0.011	0.039	0.022	
	C8	Eff	-0.018	0.088	-0.038	-0.039	-0.039	0.012	0.991	-0.035	0.067	-0.008	-0.003	0.008	
	C9	RBC	-0.005	-0.010	-0.018	0.033	-0.024	0.003	0.036	0.997	-0.014	-0.008	-0.042	0.012	

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
C10	AQ-II	-0.006	0.015	-0.022	-0.016	0.025	-0.009	0.008	0.006	-0.022	0.997	-0.062	0.005	
C11	IS	0.002	0.019	0.022	-0.029	0.015	-0.021	-0.011	-0.011	0.014	-0.007	-0.035	0.998	
C12	Sh-t inv	-0.014	0.010	-0.420	-0.108	0.104	-0.033	-0.013	0.037	0.012	0.041	0.892	0.036	
C13	-													

1. Elements above .950 are in bold (Martikainen et al., 1994, p. 63).

2. Refer to Table 5.8 for the full names of the components.

Short-term transformation matrices for G3 (2001-2005)

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	
	2001	Prof	M(Y)-I	M(C)-II	Sh-t liq	Eff	AQ-I	RBC	CG	Fnd-II	AQ-II	Grth	IS	-	
2002	C1	Prof	0.943	-0.040	-0.045	0.044	-0.082	-0.052	-0.063	0.086	0.139	-0.066	-0.218	-0.023	
	C2	Sh-t liq	0.009	-0.001	0.055	-0.926	0.028	0.005	-0.011	-0.013	0.365	0.002	0.066	0.029	
	C3	M(C)-II	-0.040	0.118	0.949	0.062	-0.064	-0.031	0.015	0.068	0.057	-0.022	-0.197	-0.023	
	C4	Ln&Ls	-0.089	0.745	-0.127	0.096	-0.163	-0.087	-0.213	0.050	0.331	-0.180	-0.229	-0.065	
	C5	M(Y)-I	0.241	0.593	0.066	-0.078	0.427	0.203	0.221	-0.091	-0.318	0.240	0.359	0.069	
	C6	AQ-I	0.038	0.037	0.033	-0.037	0.049	-0.962	0.028	-0.044	-0.126	0.082	0.199	0.004	
	C7	CG	-0.008	-0.020	0.009	-0.028	0.002	0.020	-0.010	0.963	-0.074	0.023	0.217	0.003	
	C8	RBC	-0.004	-0.007	-0.045	0.035	-0.083	-0.038	0.940	0.042	0.173	-0.038	-0.189	-0.022	
	C9	Eff	0.123	0.054	0.098	-0.110	-0.807	0.113	0.033	-0.140	-0.302	0.086	0.352	0.017	
	C10	AQ-II	-0.007	-0.051	-0.006	0.034	-0.028	0.008	-0.085	0.019	0.139	0.928	-0.261	-0.033	
	C11	Grth	0.057	-0.097	0.103	0.321	0.036	0.046	0.003	-0.091	0.672	0.060	0.636	0.031	
	C12	IS	0.005	-0.010	0.018	0.032	-0.007	-0.016	-0.021	0.007	0.020	-0.017	-0.091	0.990	
	C13	No Name	-0.152	0.246	-0.223	0.036	-0.342	-0.077	0.094	0.135	0.140	0.155	-0.014	0.080	
	2003	Prof	M(Y)-I	M(C)-II	Sh-t liq	RBC	AQ-I	CG	AQ-II	Fnd-II	Eff-II	Grth	Eff-I	IS	
2002	C1	Prof	0.983	0.004	-0.011	-0.032	0.007	0.036	-0.046	-0.027	0.093	-0.033	-0.095	-0.100	-0.005
	C2	Sh-t liq	0.018	0.009	0.009	0.983	0.009	-0.016	-0.006	0.009	0.176	0.014	0.037	-0.019	0.010
	C3	M(C)-II	-0.022	-0.026	0.973	-0.016	-0.029	0.027	0.017	-0.026	0.048	-0.082	-0.062	-0.189	-0.017
	C4	Ln&Ls	-0.064	0.259	0.033	-0.083	0.408	0.106	0.149	-0.129	0.577	0.153	-0.464	0.365	0.003

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	
	C5	M(Y)-I	0.042	0.948	0.058	0.022	-0.074	-0.049	-0.031	0.040	-0.220	0.026	0.187	0.032	0.012
	C6	AQ-I	-0.013	0.005	-0.011	0.031	-0.014	0.987	-0.008	-0.030	-0.100	-0.007	0.115	0.032	0.011
	C7	CG	0.068	-0.022	-0.006	0.019	-0.003	-0.017	0.983	0.011	-0.108	-0.021	0.127	-0.014	0.010
	C8	RBC	-0.034	0.053	-0.037	-0.032	-0.907	0.041	0.069	-0.062	0.296	0.054	-0.246	0.103	-0.008
	C9	Eff	0.146	-0.171	0.215	0.043	-0.067	-0.070	-0.053	0.085	-0.247	0.297	0.219	0.828	0.013
	C10	AQ-II	-0.000	0.013	0.006	-0.025	0.004	0.056	0.018	0.984	0.116	-0.025	-0.115	-0.017	-0.012
	C11	Grth	0.009	-0.006	0.013	-0.142	-0.005	-0.020	-0.028	0.013	0.627	0.011	0.765	-0.023	0.004
	C12	IS	0.002	-0.010	0.013	-0.011	-0.007	-0.008	-0.008	0.010	0.007	-0.006	-0.014	-0.015	0.999
	C13	No Name	-0.001	-0.020	0.011	-0.014	0.006	0.017	0.012	0.020	-0.030	0.936	-0.002	-0.350	0.000
		2004	Prof	M(Y)-I	M(C)-II	Sh-t liq	RBC	CG	AQ-I	Ln&Ls	Fnd-II	AQ-II	AQ-III	Eff-II	IS
2003	C1	Prof	0.991	-0.006	-0.006	0.022	0.036	0.022	0.025	-0.085	-0.016	-0.026	0.083	-0.012	0.003
	C2	M(Y)-I	0.025	0.988	0.035	0.004	-0.051	-0.014	-0.034	0.110	-0.015	0.020	-0.070	0.024	-0.002
	C3	M(C)-II	-0.010	-0.018	0.991	-0.017	0.004	0.015	0.043	-0.057	-0.011	-0.037	0.098	-0.011	-0.000
	C4	Sh-t liq	-0.019	-0.001	0.023	0.987	0.008	0.007	-0.005	-0.062	0.107	0.008	-0.083	-0.043	0.012
	C5	RBC	-0.019	0.025	0.002	0.019	0.949	-0.006	0.015	0.293	-0.003	-0.019	0.101	-0.020	-0.008
	C6	AQ-I	0.010	0.000	-0.006	-0.011	-0.011	-0.011	0.953	0.088	-0.008	0.069	-0.277	0.026	-0.011
	C7	CG	-0.009	-0.003	-0.008	0.006	-0.045	0.986	0.004	0.156	0.010	-0.008	0.029	0.031	-0.008
	C8	AQ-II	-0.002	0.009	0.010	-0.002	0.037	0.024	-0.003	-0.121	0.006	0.973	0.189	-0.010	0.011
	C9	Fnd-II	0.024	-0.011	-0.005	-0.040	-0.153	-0.082	0.067	0.381	0.838	-0.015	0.329	-0.087	0.014
	C10	Eff-II	0.019	-0.031	0.019	0.033	0.015	-0.035	-0.037	0.034	0.099	0.019	-0.021	0.991	0.004
	C11	Grth	0.011	0.032	0.037	-0.145	0.228	0.108	-0.122	-0.514	0.520	0.036	-0.600	-0.047	-0.000
	C12	Eff-I	0.124	-0.145	0.117	-0.006	-0.125	-0.085	-0.258	0.655	-0.074	0.208	-0.616	-0.052	-0.019
	C13	IS	-0.001	-0.000	0.002	-0.012	0.006	0.007	0.005	0.014	-0.015	-0.006	-0.020	-0.003	0.999
		2005	Prof	Sh-t liq	M(Y)-I	M(C)-II	Ln&Ls	AQ-I	RBC	CG	AQ-II	Grth	Eff-II	IS	No Name
2004	C1	Prof	0.992	-0.003	-0.107	-0.032	-0.018	-0.002	-0.007	0.025	-0.009	-0.026	0.028	-0.000	0.037
	C2	M(Y)-I	0.120	-0.008	0.872	0.139	0.297	0.086	0.074	-0.053	0.109	0.187	-0.002	-0.012	-0.232
	C3	M(C)-II	0.016	0.043	-0.266	0.925	0.109	0.033	-0.017	-0.036	0.052	0.055	-0.073	-0.014	-0.213

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
C4	Sh-t liq	0.003	0.952	-0.055	-0.128	0.095	0.011	-0.020	0.022	0.001	-0.052	-0.047	-0.014	-0.244
C5	RBC	-0.000	-0.020	0.037	-0.019	0.102	0.007	-0.988	-0.005	0.003	0.098	-0.007	0.011	0.026
C6	CG	-0.015	-0.018	0.027	0.030	-0.021	-0.021	0.006	0.987	0.005	0.138	-0.059	0.005	-0.031
C7	AQ-I	0.008	0.013	0.095	0.063	0.059	-0.981	-0.012	-0.004	0.032	-0.142	0.002	-0.011	0.009
C8	Ln&Ls	-0.020	-0.059	-0.252	-0.130	0.915	0.009	0.104	0.020	-0.008	0.086	-0.059	0.016	0.236
C9	Fnd-II	-0.010	0.285	0.153	0.239	-0.110	-0.006	0.029	0.000	-0.028	0.275	0.380	-0.027	0.777
C10	AQ-II	-0.005	0.002	-0.095	-0.069	-0.040	0.012	0.001	-0.003	0.990	0.035	0.029	-0.009	0.043
C11	AQ-III	-0.006	0.036	0.201	0.150	0.089	0.169	-0.066	0.123	0.054	-0.889	-0.091	-0.010	0.279
C12	Eff-II	-0.027	-0.069	-0.075	-0.021	0.130	0.024	-0.022	0.075	-0.010	-0.186	0.911	-0.025	-0.316
C13	IS	0.001	0.022	0.014	0.022	-0.008	-0.007	0.009	-0.003	0.011	-0.009	0.031	0.999	0.003

1. Elements above .950 are in bold (Martikainen et al., 1994, p. 63).

2. Refer to Table 5.8 for the full names of the components.

Short-term transformation matrices of factor patterns of G4 (2001-2005)

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
	2002	Prof	M(Y)-I	Sh-t liq	M(C)-II	Ln&Ls	RBC	AQ-I	CG	AQ-II	IS	Grth	-	-
2001	C1	Prof	0.998	0.030	0.018	0.019	-0.000	0.024	0.002	0.009	0.007	-0.020	0.043	
	C2	Sh-t liq	-0.010	0.006	0.953	0.023	0.010	0.044	0.028	-0.022	-0.060	0.031	-0.196	
	C3	M(Y)-I	-0.030	0.991	-0.003	0.033	-0.101	-0.054	-0.005	0.009	-0.016	-0.040	-0.002	
	C4	M(C)-II	-0.027	-0.046	0.079	0.937	-0.080	-0.077	-0.020	0.030	0.032	-0.074	0.217	
	C5	Ln&Ls	-0.009	0.100	0.059	0.010	0.962	0.030	-0.007	0.010	0.046	-0.017	0.091	
	C6	RBC	-0.034	0.029	0.131	-0.133	-0.167	0.807	-0.034	0.048	0.092	-0.090	0.278	
	C7	AQ-I	-0.002	0.002	-0.002	-0.009	-0.017	-0.024	0.994	-0.005	-0.017	-0.004	0.014	
	C8	CG	-0.005	-0.006	-0.022	0.019	0.021	0.037	0.015	0.989	-0.040	0.012	-0.104	
	C9	AQ-II	-0.013	0.022	-0.007	0.041	0.023	0.069	0.055	0.014	0.923	0.074	0.098	
	C10	No Name	0.009	0.041	-0.247	0.313	0.148	0.567	0.069	-0.129	-0.205	0.223	-0.430	
	C11	IS	0.019	0.030	0.043	-0.010	-0.054	-0.079	-0.028	0.021	0.036	0.952	0.023	
	C12	Grth	-0.031	0.011	0.023	-0.038	0.055	0.051	0.041	0.026	-0.294	0.149	0.788	
	C13	-												

			C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
2002			Prof	M(Y)-I	Sh-t liq	M(C)-II	Ln&Ls	RBC	AQ-I	CG	AQ-II	IS	Grth	-	-
2003	C1	Prof	0.993	0.041	0.015	0.024	-0.006	0.052	0.050	0.023	-0.020	-0.007	0.007		
	C2	Sh-t liq	-0.024	0.034	0.960	0.016	0.023	0.031	0.027	-0.011	-0.061	0.048	-0.199		
	C3	M(C)-II	-0.006	-0.097	0.046	0.963	-0.005	-0.028	-0.018	0.024	0.026	-0.028	0.087		
	C4	M(Y)-I	-0.038	0.974	0.006	0.065	-0.140	-0.073	-0.011	0.009	-0.010	-0.036	0.070		
	C5	Ln&Ls	0.028	0.135	-0.014	-0.034	0.931	0.002	-0.043	0.027	0.033	-0.034	-0.091		
	C6	RBC	-0.005	0.009	0.052	-0.095	-0.178	0.824	-0.049	0.099	0.058	-0.035	0.024		
	C7	CG	-0.036	0.001	-0.012	0.012	0.026	-0.008	0.012	0.984	0.000	-0.016	-0.022		
	C8	AQ-I	-0.031	-0.009	-0.002	-0.027	-0.018	-0.072	0.976	0.019	0.014	-0.006	-0.027		
	C9	AQ-II	-0.003	0.065	-0.014	0.064	0.021	0.104	0.057	-0.034	0.897	0.069	0.057		
	C10	IS	0.026	-0.007	0.016	-0.043	-0.022	-0.109	-0.052	0.048	0.080	0.943	-0.003		
	C11	Grth	-0.010	0.042	0.008	0.034	0.051	0.074	0.067	0.014	-0.326	0.199	0.660		
	C12	Fnd-II	0.011	-0.110	0.262	-0.177	0.068	-0.149	-0.042	0.029	0.233	-0.191	0.701		
	C13	No.Name	-0.094	0.057	-0.059	0.132	0.267	0.505	0.164	-0.119	-0.137	0.152	0.082		
2004			Prof	Sh-t liq	M(Y)-I	Ln&Ls	M(C)-II	AQ-I	CG	AQ-II	RBC	Grth	No Name	I S	-
2003	C1	Prof	0.997	0.011	-0.004	-0.012	-0.010	-0.030	0.001	-0.002	-0.056	0.007	0.034	0.005	
	C2	Sh-t liq	-0.013	0.996	-0.003	0.039	-0.030	-0.001	0.002	-0.026	0.001	-0.027	0.065	0.020	
	C3	M(C)-II	0.012	0.026	-0.088	-0.042	0.986	0.016	0.021	-0.000	0.091	-0.012	0.080	-0.023	
	C4	M(Y)-I	0.006	0.007	0.983	-0.029	0.082	0.005	-0.011	0.004	0.078	0.030	0.012	-0.025	
	C5	Ln&Ls	0.024	-0.038	0.063	0.941	0.027	0.051	0.011	0.004	0.089	-0.053	0.005	-0.006	
	C6	RBC	0.035	-0.023	-0.010	-0.198	-0.127	-0.028	0.076	0.050	0.799	-0.227	0.357	-0.077	
	C7	CG	-0.001	0.001	-0.002	0.029	-0.010	-0.012	0.989	-0.003	-0.009	-0.020	-0.078	-0.002	
	C8	AQ-I	-0.028	0.002	0.017	0.035	0.024	-0.990	-0.010	0.093	-0.042	-0.034	-0.041	0.008	
	C9	AQ-II	-0.002	0.026	0.016	-0.030	0.003	0.099	0.020	0.981	-0.113	0.032	0.037	0.020	
	C10	IS	0.004	-0.015	0.016	-0.011	0.019	0.008	-0.001	-0.005	0.117	-0.023	-0.071	0.990	
	C11	Grth	-0.008	0.013	0.029	-0.081	-0.015	-0.023	0.081	-0.081	-0.011	0.888	0.164	0.029	
	C12	Fnd-II	0.050	0.061	-0.072	0.043	0.017	-0.002	-0.076	0.104	0.506	0.265	-0.770	-0.105	
	C13	No Name	-0.016	-0.033	-0.125	0.246	-0.032	-0.069	-0.052	0.092	0.229	0.286	0.477	0.027	

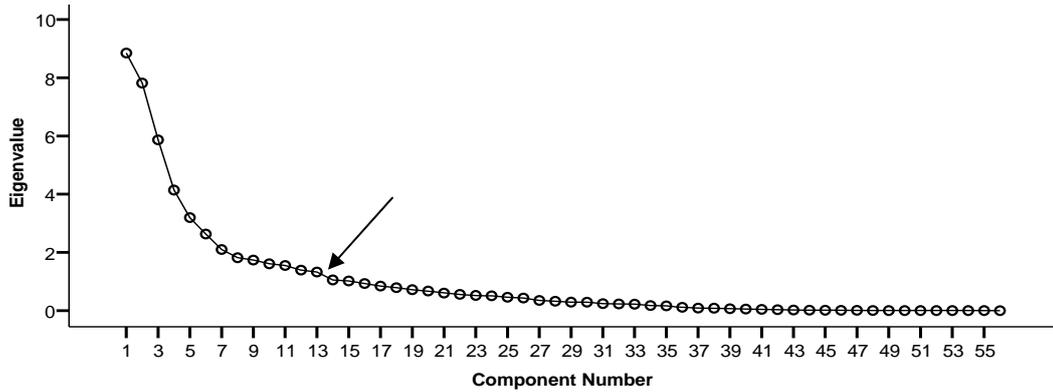
			C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
2005			Prof	Sh-t liq	M(Y)-I	M(C)-II	Ln&Ls	AQ-I	RBC	CG	AQ-II	Grth	Eff	IS	-
2004	C1	Prof	0.992	-0.002	0.052	0.013	-0.003	-0.004	0.026	-0.028	-0.011	0.007	0.110	-0.003	
	C2	Sh-t liq	0.005	0.997	-0.010	0.019	-0.025	-0.002	-0.030	0.011	0.031	0.041	-0.018	-0.019	
	C3	M(Y)-I	-0.022	0.005	0.965	-0.048	-0.056	-0.013	-0.016	0.009	-0.009	-0.019	-0.248	0.018	
	C4	Ln&Ls	-0.011	0.021	0.084	0.032	0.984	0.002	-0.102	-0.005	0.017	0.048	0.101	-0.004	
	C5	M(C)-II	-0.022	-0.016	0.065	0.954	-0.063	-0.028	-0.214	0.017	-0.056	-0.131	0.114	0.017	
	C6	AQ-I	-0.005	0.002	0.029	0.016	-0.013	0.996	-0.014	0.005	-0.036	0.011	0.064	-0.014	
	C7	CG	0.042	-0.015	-0.036	0.015	0.023	0.005	0.032	0.989	0.032	0.030	-0.122	-0.011	
	C8	AQ-II	-0.017	-0.025	0.062	0.025	-0.040	0.019	0.023	-0.001	0.972	-0.039	0.213	-0.009	
	C9	RBC	0.007	0.006	-0.039	0.279	0.100	0.030	0.856	-0.084	0.058	0.266	-0.307	0.045	
	C10	Grth	-0.033	-0.042	0.073	0.040	-0.098	-0.034	-0.199	0.014	-0.022	0.938	0.243	0.003	
	C11	No Name	-0.110	0.042	0.202	-0.065	-0.048	-0.059	0.407	0.116	-0.209	-0.157	0.827	0.056	
	C12	I S	0.010	0.017	-0.027	-0.023	0.004	0.017	-0.057	0.008	0.019	-0.002	-0.029	0.997	
	C13	-													

1. Elements above .950 are in bold (Martikainen et al., 1994, p. 63).
2. Refer to Table 5.8 for the full names of the components.

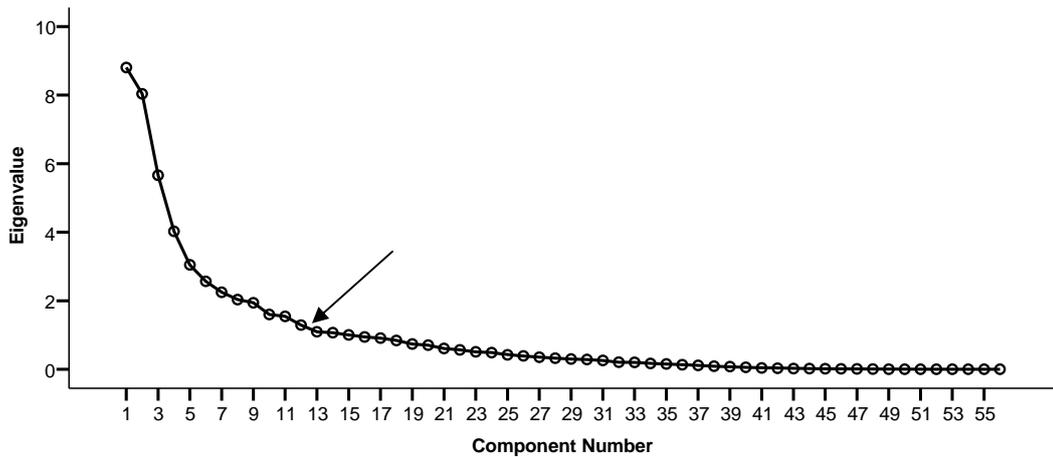
APPENDICES FOR CHAPTER 7

APPENDIX 7.1: Cattell's scree plots and PA outputs for savings banks (2001-2004)

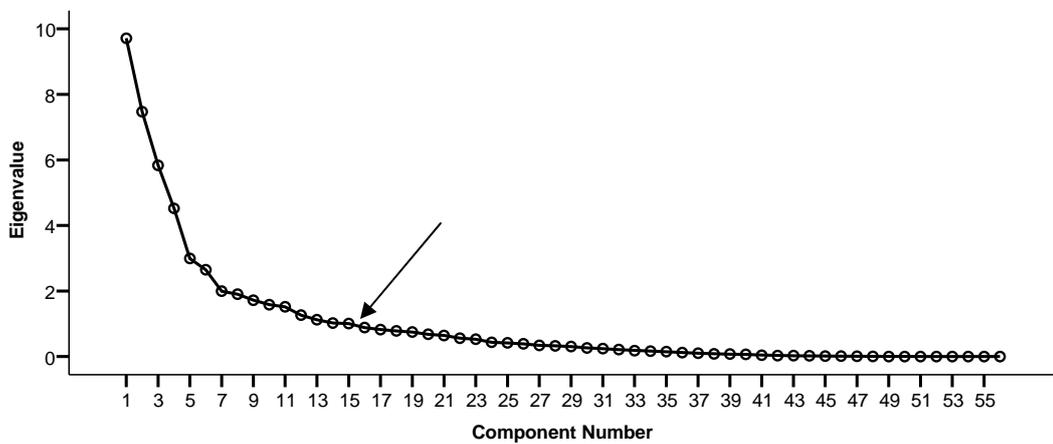
Cattell's Scree Plot for Savings Banks 2001



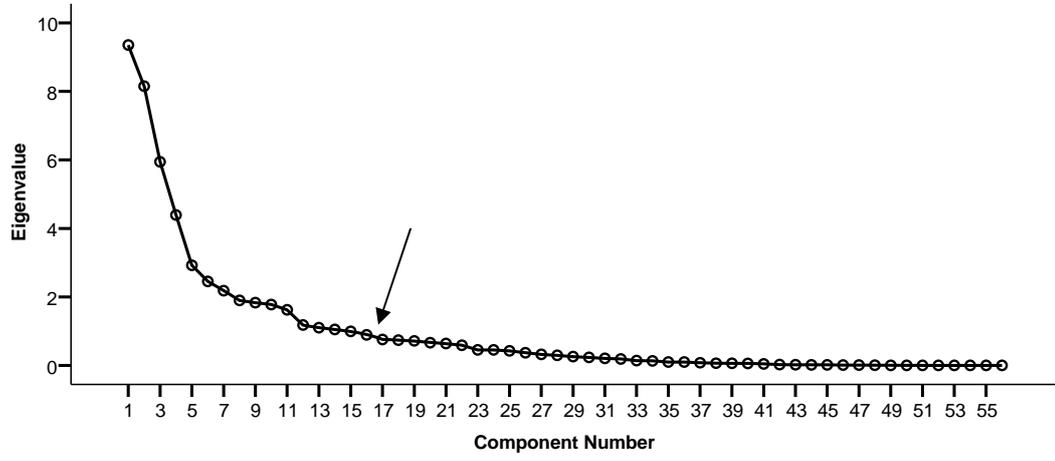
Cattell's Scree Plot for Savings Banks 2002



Cattell's Scree Plot for Savings Banks 2003



Cattell's Scree Plot for Savings Banks 2004



Parallel analysis outputs for savings banks (2001-2004)

Root	2001			2002			2003			2004		
	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue
1	8.85324	2.01310	2.11070	8.80759	1.98655	2.09241	9.71304	1.99141	2.08282	9.34963	1.98880	2.09150
2	7.81715	1.91523	1.99471	8.03776	1.89106	1.96492	7.46920	1.89538	1.96609	8.15000	1.89347	1.97142
3	5.86796	1.84124	1.90305	5.66318	1.81792	1.88107	5.83307	1.82440	1.88628	5.94268	1.82002	1.88136
4	4.14308	1.77948	1.83516	4.02600	1.75832	1.81078	4.52095	1.76270	1.81527	4.38924	1.76066	1.81644
5	3.19905	1.72410	1.77509	3.04779	1.70563	1.75483	2.99315	1.70877	1.75812	2.92365	1.70541	1.75785
6	2.63095	1.67261	1.72136	2.56718	1.65607	1.69979	2.64977	1.65876	1.70131	2.45500	1.65617	1.69950
7	2.09873	1.62515	1.66797	2.24693	1.60898	1.65146	1.99405	1.61295	1.65678	2.18481	1.61029	1.65522
8	1.81558	1.57965	1.62077	2.03493	1.56615	1.60463	1.90183	1.56924	1.61057	1.89857	1.56640	1.60893
9	1.73881	1.53683	1.57763	1.94245	1.52445	1.56163	1.71949	1.52701	1.56709	1.83488	1.52382	1.56212
10	1.60787	1.49671	1.53397	1.60098	1.48441	1.52098	1.58163	1.48792	1.52688	1.77987	1.48524	1.52193
11	1.55338	1.45792	1.49459	1.54592	1.44670	1.48189	1.51908	1.44956	1.48484	1.62456	1.44828	1.48502
12	<u>1.39393</u>	<u>1.42098</u>	<u>1.45687</u>	<u>1.29002</u>	<u>1.41055</u>	<u>1.44381</u>	<u>1.26374</u>	<u>1.41318</u>	<u>1.45024</u>	<u>1.18103</u>	<u>1.41219</u>	<u>1.44540</u>
13	1.32785	1.38494	1.42017	1.09365	1.37614	1.40769	1.12505	1.37797	1.41259	1.10192	1.37741	1.41049
14	1.05588	1.35036	1.38448	1.06919	1.34164	1.37279	1.02271	1.34377	1.37609	1.05047	1.34300	1.37612
15	1.01902	1.31657	1.35012	1.00191	1.30924	1.33847	1.00535	1.31049	1.34350	.99601	1.30987	1.34209
16	.93134	1.28299	1.31499	.94475	1.27732	1.30772	.88387	1.27862	1.30941	.89435	1.27844	1.30902
17	.84224	1.25163	1.28313	.90857	1.24614	1.27701	.82300	1.24722	1.27884	.75930	1.24786	1.27966
18	.78988	1.22042	1.24937	.84125	1.21662	1.24551	.78178	1.21719	1.24685	.74017	1.21780	1.24643
19	.71829	1.19041	1.21939	.73994	1.18747	1.21620	.74568	1.18787	1.21563	.71945	1.18815	1.21700
20	.67366	1.16045	1.18874	.70546	1.15879	1.18617	.68036	1.16001	1.18798	.66491	1.15916	1.18710
21	.60079	1.13225	1.15987	.60830	1.13070	1.15859	.64433	1.13201	1.15776	.63484	1.13247	1.15949
22	.56087	1.10429	1.13131	.56791	1.10364	1.12963	.55984	1.10385	1.12925	.59464	1.10459	1.13123
23	.52251	1.07644	1.10323	.50973	1.07614	1.10082	.52865	1.07642	1.10250	.51951	1.07831	1.10575
24	.50715	1.04924	1.07657	.48735	1.05014	1.07531	.43466	1.04962	1.07693	.46781	1.05035	1.07609
25	.45778	1.02347	1.04985	.42107	1.02370	1.04903	.41867	1.02434	1.05104	.43934	1.02374	1.04994
26	.43314	.99745	1.02339	.39146	.99872	1.02408	.38794	.99864	1.02250	.41856	.99827	1.02407
27	.35252	.97162	.99567	.35313	.97379	.99818	.34353	.97377	.99789	.35434	.97245	.99778

Root	2001			2002			2003			2004		
	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue	Actual eigenvalue	Average eigenvalue	95 th percentile eigenvalue
28	.32364	.94712	.97373	.32322	.94970	.97319	.32575	.94919	.97552	.30402	.94816	.97297
29	.29024	.92231	.94766	.30067	.92514	.94978	.30721	.92524	.94923	.27278	.92340	.94862
30	.28898	.89881	.92398	.28550	.90128	.92375	.26411	.90085	.92434	.24892	.89898	.92403
31	.23961	.87452	.90035	.25838	.87840	.90392	.23992	.87807	.90161	.21089	.87531	.90025
32	.22982	.85060	.87439	.20531	.85512	.87793	.21128	.85530	.87903	.20117	.85188	.87332
33	.22000	.82835	.85225	.20190	.83256	.85567	.18210	.83182	.85654	.18279	.82935	.85137
34	.17454	.80518	.82802	.17091	.81031	.83223	.16587	.80929	.83136	.15281	.80747	.83120
35	.16473	.78274	.80666	.15659	.78852	.81234	.14991	.78736	.81030	.13844	.78411	.80534
36	.11275	.76053	.78382	.13383	.76728	.78919	.12042	.76566	.78907	.11741	.76215	.78505
37	.08865	.73860	.76175	.11279	.74587	.76788	.10295	.74417	.76614	.08517	.73985	.76178
38	.08361	.71669	.74081	.08956	.72427	.74650	.08140	.72195	.74502	.08174	.71816	.73976
39	.06690	.69481	.71915	.08008	.70285	.72483	.07780	.70098	.72280	.06368	.69653	.71846
40	.05472	.67327	.69513	.05976	.68268	.70388	.06636	.67992	.70109	.05284	.67616	.69741
41	.04236	.65253	.67547	.03767	.66224	.68236	.03890	.65952	.68196	.04046	.65451	.67578
42	.03086	.63144	.65364	.03017	.64153	.66353	.03090	.63883	.65923	.03343	.63429	.65573
43	.01999	.61081	.63418	.02156	.62104	.64103	.02904	.61830	.64112	.02317	.61335	.63449
44	.01617	.59024	.61258	.02001	.60066	.62141	.02106	.59843	.62008	.01820	.59289	.61449
45	.01160	.56997	.59180	.01842	.58072	.60193	.01355	.57782	.59952	.01496	.57257	.59442
46	.00973	.54925	.57069	.01315	.56075	.58224	.01206	.55726	.57884	.01329	.55233	.57597
47	.00848	.52891	.54984	.01027	.54045	.56423	.00755	.53746	.55837	.01089	.53172	.55451
48	.00607	.50894	.53029	.00891	.52038	.54210	.00397	.51703	.53787	.00455	.51080	.53141
49	.00277	.48874	.50999	.00504	.49986	.52107	.00265	.49658	.51692	.00267	.49080	.51216
50	.00091	.46779	.48960	.00153	.47899	.49971	.00051	.47662	.49721	.00420	.47774	.50106
51	.00012	.44705	.46963	.00023	.45853	.48038	.00012	.45563	.47626	.00112	.45741	.47979
52	.00003	.42519	.44707	.00004	.43738	.45844	.00010	.43459	.45730	.00018	.43624	.45860
53	.00003	.40355	.42611	.00003	.41493	.43652	.00007	.41244	.43441	.00007	.41378	.43623
54	.00002	.37960	.40229	.00002	.39142	.41498	.00002	.39010	.41381	.00002	.39014	.41392
55	.00002	.35409	.37978	.00002	.36606	.39080	.00001	.36411	.39007	.00002	.36454	.39031
56	.00000	.32286	.35181	.00000	.33411	.36323	.00000	.33239	.36045	.00000	.33344	.36187

APPENDIX 7.2: Rotated component matrices for savings banks (2001-2004)

Rotated Component Matrix for Savings Banks 2001

Ratios	Component										
	1	2	3	4	5	6	7	8	9	10	11
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.957										
X9 NET OPER INC \ AVR AST	0.956										
X10 NET INC \ AVR AST	0.956										
X7 PRETAX OPER INC (TE) \ AVR AST	0.938										
X53 NET INC \ AVR TOT EQ	0.868										
X33 EFFICIENCY RATIO	-0.849				0.360						
X25 CASH DIV \ NET INC	0.458					-0.378			-0.435		
X48 NET LS&LS \ DEP		0.880									
X49 NET LN&LS \ CORE DEP		0.873									
X23 NET LN&LS \ AST		0.866									
X1 INT INC (TE) \ AVR AST		0.684	0.433								
X13 INT INC (TE) \ AVR EARN AST		0.676	0.375								
X38 COST OF ALL INT-BEARING FUNDS			0.783		-0.372						
X14 INT EXP \ AVR EARN AST			0.773		-0.377						
X2 INT EXP \ AVR AST			0.764		-0.455						
X41 CORE DEP \ TOT AST			-0.517	-0.370							
X44 BROK DEP \ DEP			0.494								
X42 S T N CORE FUNDING \ TOT AST			0.448	0.440							
X36 YIELD ON TOT LN&LS (TE)		0.403	0.420				0.378	0.405			
X40 MARKETABLE EQ SEC \ TOT AST			-0.394								
X37 YIELD ON TOT INV SEC (TE)			0.363								
X45 S T INV \ S T N CORE FUND				-0.876							
X39 S T INV \ TOT AST				-0.853							
X43 NET S T N CORE FUND DEPENDENCE				0.801							
X46 S T AST \ S T LIABS				-0.743							
X22 NET N CORE FUND DEPENDENCE				0.664							
X47 NET S T LIAB \ TOT AST				0.522							
X31 G R S T INV				-0.519							

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	
X5 NONINT EXP \ AVR AST	-0.363				0.808							
X35 AST PER EMPLOYEE (\$MILLION)					-0.744							
X4 NONINT INC \ AVR AST					0.732							
X11 AVR EARN AST \ AVR AST					-0.590							
X15 NET INT INC-TE \ AVR EARN AST	0.391	0.474			0.571							
X3 NET INT INC (TE) \ AVR AST	0.415	0.494			0.514							
X24 TIER ONE LEVERAGE CAP						0.920						
X56 TOT RBC \ RISK-WGT AST						0.873						
X55 TIER ONE RBC \ RISK-WGT AST						0.865						
X12 AVR INT-BEARING FUNDS \ AVR AST						-0.495						
X52 PLEDGED SEC \ TOT SEC						-0.360						
X18 LN&LS ALLOW \ NET LOSSES							-0.832					
X16 NET LOSS \ AVR TOT LN&LS							0.783					
X17 EARN COV OF NET LOSS	0.531						-0.652					
X6 PROVISION: LN&LS LOSSES \ AVR AST							0.596					
X21 NON-CUR LN&LS \ GRS LN&LS			0.381				0.411			0.397		
X34 AVR PERSONNEL EXP PER EMPL(\$000)							-0.404					
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL							0.367					
X19 LN&LS ALLOW \ LN&LS NOT HFS								0.906				
X20 LN&LS ALLOW \ TOT LN&LS								0.906				
X29 G R TIER ONE CAP	0.372								0.805			
X54 G R TOT EQCAP									0.789			
X26 RETAIN EARNS \ AVR TOT EQ	0.490								0.747			
X50 TOT HTM SEC \ TOT SEC										0.777		
X51 TOT AFS SEC \ TOT SEC										-0.759		
X28 G R AST												0.822
X30 G R NET LN&LS												0.685
X32 G R S T NON CORE FUNDING												0.664

Rotated Component Matrix for Savings Banks 2002

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	
X10 NET INC \ AVR AST	0.949											
X9 NET OPER INC \ AVR AST	0.948											
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.945											
X7 PRETAX OPER INC (TE) \ AVR AST	0.916											
X53 NET INC \ AVR TOT EQ	0.884											
X33 EFFICIENCY RATIO	-0.800											
X1 INT INC (TE) \ AVR AST		0.819										
X23 NET LN&LS \ AST		0.819										
X13 INT INC (TE) \ AVR EARN AST		0.817										
X48 NET LS&LS \ DEP		0.810										
X49 NET LN&LS \ CORE DEP		0.800										
X3 NET INT INC (TE) \ AVR AST		0.652	-0.593									
X36 YIELD ON TOT LN&LS (TE)		0.424								0.361		
X2 INT EXP \ AVR AST			0.939									
X14 INT EXP \ AVR EARN AST			0.913									
X38 COST OF ALL INT-BEARING FUNDS			0.899									
X15 NET INT INC-TE \ AVR EARN AST		0.629	-0.644									
X12 AVR INT-BEARING FUNDS \ AVR AST			0.477			-0.428						
X11 AVR EARN AST \ AVR AST			0.421									
X39 S T INV \ TOT AST				-0.819								
X45 S T INV \ S T N CORE FUND				-0.768				-0.392				
X43 NET S T N CORE FUND DEPENDENCE				0.748				0.435				
X46 S T AST \ S T LIABS				-0.737								
X22 NET N CORE FUND DEPENDENCE				0.623								
X47 NET S T LIAB \ TOT AST				0.559							0.366	
X31 G R S T INV				-0.558								
X18 LN&LS ALLOW \ NET LOSSES					-0.844							
X16 NET LOSS \ AVR TOT LN&LS					0.738							
X17 EARN COV OF NET LOSS	0.487					-0.700						

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	
X21 NON-CUR LN&LS \ GRS LN&LS					0.586							
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL					0.546							
X6 PROVISION: LN&LS LOSSES \ AVR AST					0.512				0.397			
X34 AVR PERSONNEL EXP PER EMPL(\$000)					-0.363							
X24 TIER ONE LEVERAGE CAP						0.891						
X56 TOT RBC \ RISK-WGT AST						0.880						
X55 TIER ONE RBC \ RISK-WGT AST						0.877						
X41 CORE DEP \ TOT AST							-0.704					
X42 S T N CORE FUNDING \ TOT AST							0.700					
X44 BROK DEP \ DEP							0.557					
X32 G R S T NON CORE FUNDING							0.458					
X52 PLEDGED SEC \ TOT SEC							0.454					
X29 G R TIER ONE CAP								0.830				
X54 G R TOT EQCAP								0.790				
X26 RETAIN EARNNS \ AVR TOT EQ	0.569							0.654				
X28 G R AST							0.427	0.592				
X25 CASH DIV \ NET INC	0.373							-0.461				
X30 G R NET LN&LS								0.363				
X20 LN&LS ALLOW \ TOT LN&LS									0.901			
X19 LN&LS ALLOW \ LN&LS NOT HFS									0.892			
X4 NONINT INC \ AVR AST											-0.756	
X37 YIELD ON TOT INV SEC (TE)											0.672	
X35 AST PER EMPLOYEE (\$MILLION)											0.641	
X5 NONINT EXP \ AVR AST	-0.400	0.368	-0.411								-0.620	
X50 TOT HTM SEC \ TOT SEC												0.801
X51 TOT AFS SEC \ TOT SEC												-0.792
X40 MARKETABLE EQ SEC \ TOT AST												

Rotated Component Matrix for Savings Banks 2003

Ratios	Component										
	1	2	3	4	5	6	7	8	9	10	11
X10 NET INC \ AVR AST	0.944										
X9 NET OPER INC \ AVR AST	0.944										
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.940										
X7 PRETAX OPER INC (TE) \ AVR AST	0.933										
X33 EFFICIENCY RATIO	-0.852										
X53 NET INC \ AVR TOT EQ	0.840										
X13 INT INC (TE) \ AVR EARN AST		0.834									
X23 NET LN&LS \ AST		0.816									
X1 INT INC (TE) \ AVR AST		0.812									
X49 NET LN&LS \ CORE DEP		0.801									
X48 NET LS&LS \ DEP		0.782									
X3 NET INT INC (TE) \ AVR AST	0.375	0.773		-0.399							
X15 NET INT INC-TE \ AVR EARN AST	0.354	0.766		-0.446							
X5 NONINT EXP \ AVR AST		0.586		-0.425					0.496		
X35 AST PER EMPLOYEE (\$MILLION)		-0.453							-0.352		
X36 YIELD ON TOT LN&LS (TE)		0.427									
X43 NET S T N CORE FUND DEPENDENCE			0.887								
X45 S T INV \ S T N CORE FUND			-0.880								
X39 S T INV \ TOT AST			-0.824								
X22 NET N CORE FUND DEPENDENCE			0.774								
X46 S T AST \ S T LIABS			-0.668								
X42 S T N CORE FUNDING \ TOT AST			0.627								
X41 CORE DEP \ TOT AST			-0.511	-0.491							
X2 INT EXP \ AVR AST				0.921							
X38 COST OF ALL INT-BEARING FUNDS				0.899							
X14 INT EXP \ AVR EARN AST				0.896							
X11 AVR EARN AST \ AVR AST				0.447							
X18 LN&LS ALLOW \ NET LOSSES					-0.802						

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	
X16 NET LOSS \ AVR TOT LN&LS					0.704							
X17 EARN COV OF NET LOSS	0.444				-0.673							
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL					0.611							
X21 NON-CUR LN&LS \ GRS LN&LS					0.606							
X6 PROVISION: LN&LS LOSSES \ AVR AST					0.542							
X34 AVR PERSONNEL EXP PER EMPL(\$000)					-0.451							
X24 TIER ONE LEVERAGE CAP						0.874						
X56 TOT RBC \ RISK-WGT AST		-0.356				0.819						
X55 TIER ONE RBC \ RISK-WGT AST		-0.358				0.815						
X12 AVR INT-BEARING FUNDS \ AVR AST				0.381		-0.556						
X52 PLEDGED SEC \ TOT SEC						-0.391						
X20 LN&LS ALLOW \ TOT LN&LS							0.924					
X19 LN&LS ALLOW \ LN&LS NOT HFS							0.923					
X54 G R TOT EQCAP	0.426							0.734				
X29 G R TIER ONE CAP	0.399							0.727				
X26 RETAIN EARNES \ AVR TOT EQ	0.483							0.706				
X25 CASH DIV \ NET INC						-0.374		-0.581				
X37 YIELD ON TOT INV SEC (TE)									-0.731			
X4 NONINT INC \ AVR AST									0.710			
X47 NET S T LIAB \ TOT AST			0.540						-0.540			
X44 BROK DEP \ DEP									0.411			
X28 G R AST											0.695	
X32 G R S T NON CORE FUNDING											0.560	
X30 G R NET LN&LS											0.483	
X31 G R S T INV											0.409	
X51 TOT AFS SEC \ TOT SEC												0.876
X50 TOT HTM SEC \ TOT SEC												-0.848
X40 MARKETABLE EQ SEC \ TOT AST												

Rotated Component Matrix for Savings Banks 2004

Ratios	Component										
	1	2	3	4	5	6	7	8	9	10	11
X9 NET OPER INC \ AVR AST	0.954										
X10 NET INC \ AVR AST	0.949										
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.942										
X7 PRETAX OPER INC (TE) \ AVR AST	0.941										
X53 NET INC \ AVR TOT EQ	0.885										
X33 EFFICIENCY RATIO	-0.701						-0.504				
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.548				0.459						
X23 NET LN&LS \ AST		0.845									
X49 NET LN&LS \ CORE DEP		0.813									
X48 NET LS&LS \ DEP		0.792									
X1 INT INC (TE) \ AVR AST		0.788			0.404						
X13 INT INC (TE) \ AVR EARN AST		0.773			0.392						
X3 NET INT INC (TE) \ AVR AST		0.716				-0.445					
X15 NET INT INC-TE \ AVR EARN AST		0.688				-0.468	-0.363				
X55 TIER ONE RBC \ RISK-WGT AST			-0.871								
X56 TOT RBC \ RISK-WGT AST			-0.868								
X24 TIER ONE LEVERAGE CAP			-0.854								
X52 PLEDGED SEC \ TOT SEC			0.424								
X30 G R NET LN&LS			0.424								
X39 S T INV \ TOT AST				-0.795							
X45 S T INV \ S T N CORE FUND				-0.773							
X46 S T AST \ S T LIABS				-0.760							
X43 NET S T N CORE FUND DEPENDENCE				0.756							
X47 NET S T LIAB \ TOT AST				0.704							
X22 NET N CORE FUND DEPENDENCE				0.654							
X31 G R S T INV				-0.356							
X18 LN&LS ALLOW \ NET LOSSES					-0.829						
X16 NET LOSS \ AVR TOT LN&LS	-0.425				0.690						
X17 EARN COV OF NET LOSS	0.389				-0.671						

Ratios	Component											
	1	2	3	4	5	6	7	8	9	10	11	
X21 NON-CUR LN&LS \ GRS LN&LS					0.650							
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL					0.596							
X36 YIELD ON TOT LN&LS (TE)		0.359	-0.374		0.479							
X2 INT EXP \ AVR AST						0.929						
X14 INT EXP \ AVR EARN AST						0.927						
X38 COST OF ALL INT-BEARING FUNDS						0.924						
X35 AST PER EMPLOYEE (\$MILLION)							0.827					
X5 NONINT EXP \ AVR AST		0.394					-0.751					
X4 NONINT INC \ AVR AST							-0.652					
X11 AVR EARN AST \ AVR AST							0.617					
X12 AVR INT-BEARING FUNDS \ AVR AST			0.351				0.482					
X37 YIELD ON TOT INV SEC (TE)							0.396					
X41 CORE DEP \ TOT AST				-0.356				-0.663				
X42 S T N CORE FUNDING \ TOT AST				0.402				0.636				
X44 BROK DEP \ DEP								0.589				
X32 G R S T NON CORE FUNDING								0.491				
X28 G R AST			0.402					0.425	0.376			
X29 G R TIER ONE CAP									0.847			
X54 G R TOT EQCAP									0.787			
X26 RETAIN EARN S \ AVR TOT EQ	0.428								0.758			
X25 CASH DIV \ NET INC			0.377						-0.592			
X20 LN&LS ALLOW \ TOT LN&LS										0.945		
X19 LN&LS ALLOW \ LN&LS NOT HFS										0.944		
X51 TOT AFS SEC \ TOT SEC											0.896	
X50 TOT HTM SEC \ TOT SEC											-0.829	
X40 MARKETABLE EQ SEC \ TOT AST											0.390	
X34 AVR PERSONNEL EXP PER EMPL(\$000)												

APPENDIX 7.3: Residual matrices for savings banks over time (2001-2005)

Residual matrix 2001-2002

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X1	-0.047	-0.060	-0.026	0.009	0.088	-0.021	0.103	-0.064	-0.017	-0.119	0.021	0.044
X2	-0.023	-0.020	-0.041	-0.031	0.066	0.005	0.107	-0.008	-0.005	0.013	0.032	0.021
X3	-0.008	-0.060	-0.017	0.049	0.028	-0.025	0.004	-0.066	0.014	-0.128	-0.020	0.029
X4	-0.021	0.084	-0.062	0.014	0.031	0.041	0.003	0.085	-0.017	0.107	0.082	0.040
X5	-0.043	0.011	-0.073	-0.013	0.052	0.010	-0.054	0.022	0.060	0.057	-0.008	0.021
X6	-0.053	0.043	-0.103	-0.001	-0.056	0.057	-0.118	0.075	-0.110	0.175	-0.093	0.093
X7	0.003	0.020	-0.014	0.034	0.050	0.000	0.099	0.032	-0.000	0.013	0.004	0.015
X8	-0.010	0.018	-0.023	0.003	0.041	0.026	0.067	0.021	0.038	0.030	-0.053	0.013
X9	-0.027	0.018	-0.028	-0.011	0.054	0.026	0.058	0.061	0.019	0.095	-0.050	0.025
X10	-0.029	0.019	-0.030	-0.013	0.052	0.027	0.055	0.062	0.016	0.094	-0.050	0.024
X11	-0.046	-0.142	0.022	0.019	0.191	-0.047	-0.107	0.106	-0.078	0.250	-0.064	0.157
X12	-0.091	-0.003	-0.013	-0.044	0.013	-0.047	-0.021	0.026	-0.064	-0.021	-0.091	0.027
X13	-0.044	-0.045	-0.047	0.003	0.029	-0.011	0.127	-0.096	-0.004	-0.200	0.035	0.074
X14	-0.025	0.001	-0.044	-0.032	0.051	0.012	0.131	-0.025	0.001	-0.032	0.044	0.027
X15	-0.004	-0.052	-0.002	0.046	-0.002	-0.018	0.019	-0.079	0.022	-0.153	-0.010	0.036
X16	-0.015	0.025	-0.036	-0.113	-0.021	0.085	-0.113	0.037	0.117	0.180	0.029	0.084
X17	0.055	0.010	-0.054	0.025	0.057	-0.027	0.158	0.050	-0.043	-0.114	-0.005	0.053
X18	-0.036	-0.023	-0.026	0.016	0.015	-0.091	0.030	-0.010	0.008	-0.109	-0.014	0.024
X19	0.073	-0.062	0.028	-0.127	0.062	0.050	-0.011	0.127	0.010	0.022	-0.010	0.049
X20	0.060	-0.055	0.021	-0.114	0.047	0.045	0.046	0.095	0.004	-0.063	-0.006	0.039
X21	0.036	0.026	0.013	0.050	-0.119	-0.000	-0.002	0.163	0.002	0.093	0.134	0.072
X22	0.201	-0.116	-0.024	0.018	-0.025	-0.033	-0.033	-0.046	0.014	-0.128	-0.039	0.078
X23	0.052	0.026	0.040	-0.073	-0.039	0.041	-0.008	0.078	-0.027	0.084	-0.000	0.027
X24	0.003	-0.010	-0.034	0.026	0.007	-0.005	-0.053	0.032	-0.053	0.095	-0.059	0.021
X25	0.036	-0.027	-0.059	-0.051	0.107	-0.031	0.075	0.082	-0.008	0.084	-0.070	0.045
X26	-0.016	0.049	0.046	0.007	-0.068	0.004	-0.001	0.007	0.083	-0.060	0.062	0.024
X27	0.172	0.050	-0.053	-0.056	-0.090	0.042	-0.007	0.075	0.030	0.025	0.110	0.067
X28	-0.109	-0.003	-0.224	-0.024	0.087	0.037	-0.004	-0.077	-0.110	0.220	0.027	0.139
X29	0.205	0.016	0.143	0.018	-0.007	-0.071	-0.266	-0.115	0.058	-0.117	-0.016	0.169

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X30	-0.122	-0.095	-0.179	-0.015	-0.084	0.054	0.010	0.068	-0.117	0.236	-0.032	0.141
X31	0.090	0.122	0.097	0.044	-0.077	-0.172	-0.284	-0.100	-0.055	-0.202	0.076	0.210
X32	-0.045	-0.316	-0.219	-0.190	0.053	0.199	0.038	0.079	0.070	0.093	-0.062	0.253
X33	-0.050	-0.061	0.015	-0.028	0.004	0.016	0.025	-0.030	0.055	-0.001	-0.033	0.013
X34	-0.054	0.166	0.044	0.061	-0.159	0.024	-0.296	-0.102	-0.016	-0.040	0.163	0.188
X35	-0.032	0.129	0.059	0.026	-0.154	-0.034	-0.171	-0.166	0.017	-0.087	0.115	0.125
X36	-0.103	0.102	-0.105	0.063	0.162	-0.113	0.150	-0.105	0.012	-0.143	-0.072	0.134
X37	0.077	-0.161	0.167	0.001	-0.066	0.034	0.213	-0.153	-0.093	-0.836	0.354	0.967
X38	0.005	-0.007	-0.071	-0.033	0.073	0.082	0.138	-0.020	0.029	0.010	0.032	0.040
X39	-0.059	-0.017	0.104	-0.024	0.055	-0.037	0.016	0.009	0.123	-0.025	-0.079	0.042
X40	-0.064	0.056	-0.308	0.008	-0.001	-0.000	0.149	0.069	-0.014	0.210	0.015	0.174
X41	-0.130	-0.024	-0.169	-0.051	0.055	0.071	0.311	0.069	-0.050	-0.059	0.080	0.171
X42	-0.048	-0.024	0.148	0.032	0.085	0.047	-0.123	0.005	0.138	0.032	-0.074	0.076
X43	0.005	0.015	-0.023	-0.006	-0.039	-0.011	-0.031	-0.022	-0.010	-0.112	0.035	0.018
X44	0.039	0.058	0.139	-0.038	-0.046	-0.103	-0.188	-0.048	0.046	0.021	0.116	0.092
X45	-0.042	-0.025	-0.017	-0.053	-0.000	-0.082	0.028	0.008	0.054	-0.045	-0.015	0.018
X46	-0.010	0.034	0.096	-0.006	0.048	0.033	-0.043	-0.055	0.060	0.063	0.016	0.027
X47	-0.142	0.054	0.028	-0.049	0.013	0.024	0.158	-0.000	0.027	-0.011	-0.023	0.053
X48	0.145	0.030	0.079	-0.050	-0.083	-0.002	-0.147	0.010	0.009	0.087	-0.027	0.068
X49	0.103	0.048	0.111	-0.039	-0.063	-0.013	-0.184	0.029	-0.004	0.095	-0.042	0.076
X50	0.013	-0.009	-0.025	0.019	-0.060	-0.037	-0.078	0.019	-0.053	0.118	-0.031	0.030
X51	0.052	-0.008	-0.043	0.084	-0.083	-0.015	0.088	-0.039	-0.020	-0.322	0.038	0.134
X52	0.090	0.007	0.004	-0.013	-0.073	-0.028	-0.063	-0.131	-0.132	-0.067	-0.133	0.075
X53	-0.012	0.010	-0.022	-0.026	0.011	0.010	0.153	0.064	0.056	0.012	-0.036	0.034
X54	0.061	-0.000	0.100	-0.000	0.007	-0.009	-0.226	-0.087	0.105	-0.202	0.041	0.126
X55	-0.019	-0.020	-0.049	0.016	0.042	-0.013	-0.074	0.035	-0.011	0.048	-0.088	0.022
X56	-0.020	-0.015	-0.057	-0.006	0.023	-0.011	-0.057	0.032	0.005	0.056	-0.099	0.022
Abnormal transformations (components)	0.311	0.297	0.481	0.141	0.277	0.171	0.868	0.299	0.188	1.486	0.347	4.866
2002 patterns	Prof	Ln&Ls	M(C)-II	Sh-t liq	AQ-I	RBC	Fnd-II	CG	AQ-II	Eff	IS	

1. Figures over .20 are in bold (Martikainen et al., 1995a, p. 41).

2. Refer to Table 4.4 for the full names of ratios.

Residual matrix 2002-2003

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X1	-0.062	-0.026	0.134	0.024	0.001	-0.030	0.044	-0.035	-0.045	0.093	-0.060	0.041
X2	-0.036	0.016	0.261	-0.056	-0.127	-0.060	-0.011	-0.020	-0.109	0.028	-0.031	0.107
X3	-0.001	-0.060	-0.120	-0.054	0.052	0.024	0.054	-0.038	0.087	0.071	-0.036	0.042
X4	-0.168	-0.013	0.126	0.057	-0.158	-0.123	-0.026	-0.072	0.026	0.109	-0.157	0.131
X5	-0.173	-0.129	0.055	0.023	-0.037	-0.037	-0.059	-0.059	0.063	0.132	-0.110	0.093
X6	0.000	0.028	-0.083	0.102	-0.002	-0.035	0.068	-0.080	-0.221	-0.057	-0.157	0.107
X7	-0.015	-0.076	-0.052	0.021	-0.116	-0.019	-0.016	-0.042	0.027	-0.057	-0.001	0.029
X8	0.007	-0.095	-0.033	-0.015	-0.084	-0.040	-0.085	-0.011	0.022	-0.043	-0.049	0.031
X9	0.005	-0.082	0.030	-0.025	-0.087	-0.047	-0.063	-0.002	0.037	-0.049	-0.074	0.031
X10	0.006	-0.080	0.031	-0.022	-0.085	-0.048	-0.061	-0.003	0.037	-0.047	-0.074	0.030
X11	0.082	0.145	0.090	0.004	-0.112	0.006	0.032	0.061	0.045	0.038	-0.053	0.059
X12	0.006	0.037	0.106	-0.017	-0.043	0.041	0.039	0.052	-0.023	0.085	-0.196	0.067
X13	-0.083	-0.038	0.117	0.004	0.054	-0.033	0.035	-0.041	-0.049	0.082	-0.046	0.040
X14	-0.051	-0.002	0.258	-0.064	-0.110	-0.065	-0.019	-0.024	-0.116	0.025	-0.025	0.105
X15	-0.010	-0.070	-0.132	-0.064	0.070	0.024	0.048	-0.044	0.082	0.064	-0.028	0.048
X16	-0.038	0.065	-0.103	-0.080	0.038	-0.055	-0.126	0.055	-0.091	0.075	0.044	0.062
X17	0.020	-0.044	-0.024	0.104	-0.040	0.004	0.068	-0.115	-0.006	0.064	-0.064	0.041
X18	-0.013	-0.050	0.111	0.069	-0.040	0.053	0.083	-0.063	0.063	0.099	-0.104	0.060
X19	-0.081	0.078	0.078	-0.049	-0.083	0.018	-0.040	-0.108	0.068	-0.202	0.000	0.087
X20	-0.047	0.063	0.013	-0.040	-0.060	0.038	-0.038	-0.078	-0.037	-0.233	0.010	0.076
X21	-0.110	0.042	0.243	-0.082	-0.010	0.072	0.177	0.042	0.042	-0.011	-0.030	0.121
X22	-0.054	0.063	-0.076	-0.190	-0.082	-0.120	0.073	-0.091	-0.229	0.001	-0.007	0.136
X23	-0.041	-0.001	0.049	0.060	-0.014	-0.008	-0.029	-0.070	-0.056	-0.231	0.040	0.072
X24	-0.089	0.032	0.158	0.073	-0.009	0.014	-0.012	-0.079	0.037	-0.112	-0.023	0.060
X25	0.064	0.007	0.031	-0.094	0.009	0.053	-0.135	0.087	0.030	-0.081	0.007	0.050
X26	0.081	-0.061	-0.062	-0.003	-0.019	-0.049	-0.087	-0.031	-0.071	0.028	0.053	0.034
X27	-0.090	-0.047	0.182	-0.058	-0.070	-0.006	0.113	0.072	0.045	-0.051	-0.051	0.077
X28	-0.004	-0.042	0.056	-0.023	-0.065	0.049	0.109	0.185	0.133	-0.056	-0.018	0.079
X29	-0.128	-0.044	-0.087	0.009	0.038	0.135	-0.047	0.040	-0.180	0.089	-0.046	0.092
X30	-0.039	-0.058	0.028	0.071	-0.022	0.128	-0.002	0.112	0.069	-0.100	0.008	0.055
X31	0.115	0.001	-0.015	0.083	0.104	0.120	0.053	-0.071	-0.099	0.032	-0.312	0.162

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X32	-0.162	0.235	-0.097	0.044	-0.134	-0.084	-0.138	0.026	-0.094	-0.116	-0.123	0.175
X33	0.024	-0.039	-0.010	-0.020	0.061	0.055	-0.062	0.059	-0.060	0.010	-0.023	0.021
X34	-0.066	-0.047	-0.123	-0.114	0.133	-0.149	-0.048	-0.072	-0.359	0.300	-0.179	0.333
X35	0.043	0.077	-0.062	-0.102	0.108	-0.012	0.031	0.074	-0.198	0.085	0.003	0.087
X36	-0.056	-0.010	0.182	-0.004	-0.022	-0.054	0.103	0.089	0.001	0.273	-0.027	0.134
X37	-0.211	-0.405	-0.077	-0.195	-0.043	-0.129	-0.199	-0.079	-0.579	0.537	0.373	1.080
X38	-0.273	0.001	0.272	0.747	0.121	-0.039	-0.215	0.043	0.600	-0.039	-0.103	1.143
X39	0.144	-0.142	-0.837	-0.631	-0.187	0.105	-0.058	-0.141	0.182	0.198	-0.212	1.326
X40	-0.031	-0.009	0.732	-0.036	-0.310	0.006	0.138	0.153	-0.078	-0.228	0.489	0.974
X41	-0.157	-0.058	-0.433	-0.225	0.095	-0.155	-0.205	0.048	-0.043	-0.025	-0.271	0.419
X42	0.336	0.277	1.077	0.464	0.110	-0.073	0.219	-0.429	0.027	0.558	-0.336	2.239
X43	-0.127	0.065	0.182	-0.360	-0.044	-0.176	0.013	0.144	-0.332	-0.194	0.160	0.410
X44	-0.108	0.011	-0.486	0.118	0.143	0.219	0.079	-0.047	0.212	0.243	-0.027	0.443
X45	-0.197	-0.274	-1.052	-0.052	-0.087	0.272	-0.198	0.105	-0.297	-0.198	-0.080	1.489
X46	0.009	-0.038	0.073	0.149	0.029	-0.017	-0.123	0.034	0.174	0.086	0.084	0.091
X47	0.144	-0.021	-0.193	-0.072	-0.045	-0.028	0.028	-0.053	0.023	-0.154	-0.217	0.141
X48	-0.013	0.005	0.099	-0.020	0.012	0.005	-0.034	-0.083	-0.085	-0.240	0.033	0.085
X49	-0.068	-0.023	0.147	-0.066	0.002	-0.017	-0.002	-0.077	-0.018	-0.119	0.004	0.052
X50	0.051	-0.007	-0.027	0.094	0.074	-0.062	-0.126	-0.007	0.031	-0.074	0.076	0.050
X51	-0.029	-0.016	-0.041	-0.055	0.055	0.102	0.063	-0.009	-0.122	0.199	-0.119	0.092
X52	0.037	-0.065	0.168	-0.033	0.085	0.122	-0.029	-0.169	0.269	-0.056	-0.123	0.177
X53	0.030	-0.068	-0.119	-0.042	-0.083	0.045	-0.130	-0.056	-0.048	-0.080	-0.001	0.059
X54	-0.107	-0.176	0.137	-0.003	0.111	-0.117	-0.057	0.001	-0.156	0.059	0.066	0.123
X55	0.007	0.035	0.133	0.058	-0.011	0.035	0.003	-0.041	0.106	0.007	-0.053	0.039
X56	-0.002	0.038	0.145	0.059	-0.010	0.036	-0.011	-0.049	0.102	-0.014	-0.045	0.042
Abnormal transformations (components)	0.589	0.571	4.698	1.621	0.448	0.417	0.498	0.504	1.589	1.465	1.052	13.451
2003 factors	Prof	Ln&Ls	Sh-t liq	M(C)-II	AQ-I	RBC	AQ-II	CG	Undefined	Grth	IS	

1. Figures over .20 are in bold (Martikainen et al., 1995a, p. 41).
2. Refer to Table 4.4 for the full names of ratios.

Residual matrix 2003-2004

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X1	0.143	0.016	-0.039	-0.037	-0.095	0.023	0.107	-0.093	0.023	-0.009	-0.041	0.056
X2	-0.032	-0.050	-0.097	-0.267	0.060	-0.035	-0.028	-0.111	-0.004	-0.065	-0.023	0.107
X3	0.102	0.039	0.032	0.134	-0.120	0.039	0.109	-0.011	0.046	0.026	-0.013	0.062
X4	0.211	-0.078	0.060	-0.077	-0.043	0.051	-0.120	-0.208	0.002	-0.007	0.024	0.123
X5	0.133	0.076	0.093	-0.025	-0.006	-0.060	0.027	-0.056	-0.035	0.006	-0.019	0.042
X6	0.381	0.045	0.116	0.146	0.040	0.151	-0.409	-0.077	0.085	0.090	0.171	0.424
X7	-0.025	0.114	-0.041	-0.001	0.098	-0.080	-0.034	0.019	-0.022	0.061	0.041	0.039
X8	-0.021	0.087	-0.026	0.018	0.094	-0.049	-0.047	0.022	0.003	0.063	0.045	0.029
X9	-0.034	0.082	-0.038	-0.024	0.105	-0.070	-0.045	0.043	0.018	0.090	0.038	0.040
X10	-0.029	0.090	-0.045	-0.040	0.102	-0.052	-0.031	0.058	0.022	0.094	0.034	0.040
X11	0.032	0.009	-0.065	-0.002	-0.164	0.067	-0.260	0.138	-0.134	0.078	-0.054	0.150
X12	0.054	0.060	0.085	0.042	0.000	0.101	-0.247	-0.126	-0.088	-0.042	-0.081	0.119
X13	0.141	0.037	-0.028	-0.039	-0.045	0.021	0.180	-0.128	0.051	-0.019	-0.028	0.079
X14	-0.037	-0.052	-0.094	-0.275	0.079	-0.045	0.002	-0.132	0.010	-0.075	-0.017	0.120
X15	0.103	0.052	0.036	0.127	-0.093	0.029	0.155	-0.034	0.061	0.021	-0.005	0.070
X16	0.333	-0.084	-0.020	0.171	-0.022	0.220	-0.279	-0.171	-0.025	0.184	0.083	0.345
X17	0.106	0.045	0.028	0.122	0.070	-0.018	-0.087	-0.257	0.107	-0.095	-0.048	0.131
X18	0.031	0.088	0.045	0.064	0.076	-0.028	0.028	-0.187	0.077	-0.069	-0.055	0.071
X19	0.035	-0.029	0.022	0.007	0.131	-0.109	0.103	0.107	0.007	-0.035	0.101	0.065
X20	0.028	-0.022	0.028	0.008	0.136	-0.115	0.097	0.122	0.011	-0.036	0.103	0.070
X21	0.118	-0.095	0.052	-0.170	-0.000	0.023	0.020	-0.079	0.054	-0.004	-0.042	0.066
X22	0.021	-0.105	-0.134	-0.155	-0.068	0.238	-0.199	0.142	-0.047	-0.084	0.066	0.188
X23	-0.002	-0.060	0.016	-0.078	0.093	-0.013	-0.159	0.067	0.006	-0.032	0.097	0.059
X24	0.011	-0.025	0.007	-0.063	0.038	-0.086	0.142	0.088	0.077	0.003	0.148	0.069
X25	-0.071	0.087	-0.009	-0.004	0.085	-0.043	0.237	0.103	0.041	0.002	0.071	0.095
X26	0.093	0.006	-0.042	-0.002	0.092	0.051	-0.209	0.003	-0.100	0.044	0.001	0.077
X27	-0.039	-0.051	0.049	-0.107	0.027	-0.087	0.027	0.060	-0.020	-0.025	0.014	0.032
X28	-0.091	0.006	-0.150	-0.086	0.020	-0.083	0.261	0.042	0.038	-0.090	-0.107	0.136
X29	0.147	0.010	0.074	0.019	-0.038	0.129	-0.123	0.034	-0.142	0.089	-0.041	0.092
X30	-0.048	0.133	-0.008	0.047	0.118	-0.070	0.178	0.123	0.002	0.121	-0.044	0.104
X31	-0.075	-0.040	0.030	-0.145	0.014	0.009	-0.042	0.111	-0.029	-0.409	0.124	0.227

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X32	0.020	-0.034	-0.154	-0.022	0.081	-0.147	0.156	0.143	-0.043	0.038	-0.110	0.114
X33	-0.086	0.027	0.090	-0.052	0.070	-0.086	0.077	0.160	-0.066	-0.081	-0.057	0.077
X34	0.329	-0.157	-0.107	0.021	-0.114	0.293	-0.450	-0.209	-0.152	0.182	-0.020	0.546
X35	0.075	-0.117	-0.103	0.034	-0.105	0.194	-0.215	-0.065	-0.056	0.134	-0.019	0.152
X36	0.112	0.041	0.006	0.031	-0.062	0.026	0.301	-0.263	-0.042	0.030	-0.116	0.196
X37	0.008	0.273	-0.388	-0.365	0.231	0.095	-0.442	0.151	0.010	0.076	-0.435	0.834
X38	0.049	0.027	-0.060	0.226	-0.103	-0.885	0.488	-0.239	0.163	0.105	0.190	1.221
X39	-0.015	0.150	0.099	0.588	0.205	0.856	0.097	0.055	0.021	0.037	0.115	1.181
X40	0.024	0.034	0.058	-0.550	0.160	-0.129	0.124	-0.275	-0.089	0.001	-0.495	0.694
X41	0.216	0.035	-0.186	0.284	-0.037	0.322	0.005	0.259	-0.043	0.166	0.324	0.470
X42	-0.346	-0.405	-0.063	-0.509	-0.175	-0.519	-0.148	-1.133	0.176	-0.135	0.136	2.220
X43	0.052	-0.113	-0.192	-0.512	-0.080	0.226	0.039	0.276	-0.258	0.074	-0.108	0.533
X44	0.102	-0.036	0.094	0.470	-0.235	0.183	0.006	-0.063	-0.030	0.152	-0.070	0.363
X45	0.353	0.304	0.367	0.588	0.082	0.308	-0.264	0.665	-0.118	0.111	0.045	1.339
X46	-0.020	0.090	0.029	0.082	-0.010	-0.220	-0.036	-0.110	0.026	0.039	-0.086	0.088
X47	0.030	-0.042	-0.027	-0.009	0.087	0.108	0.103	0.109	-0.032	-0.095	0.099	0.065
X48	-0.067	-0.020	0.010	-0.210	0.061	0.024	-0.195	0.019	0.017	-0.043	0.125	0.110
X49	0.008	-0.010	-0.005	-0.204	0.036	0.054	-0.102	-0.053	-0.005	-0.011	0.096	0.069
X50	0.128	0.070	-0.079	-0.009	-0.032	0.003	0.019	-0.033	0.004	0.060	-0.009	0.034
X51	-0.140	0.046	0.021	0.027	-0.000	-0.000	-0.006	-0.088	-0.058	0.045	-0.025	0.037
X52	-0.197	0.120	0.010	-0.155	-0.028	0.006	0.126	0.022	0.142	0.010	0.075	0.120
X53	-0.028	0.015	0.073	0.023	0.198	-0.031	-0.053	0.049	0.025	0.030	0.005	0.054
X54	0.122	0.065	-0.053	-0.130	-0.036	0.107	-0.093	-0.092	-0.050	0.062	-0.058	0.078
X55	-0.053	-0.013	0.024	0.024	-0.005	-0.042	0.141	0.048	0.063	-0.060	0.053	0.038
X56	-0.050	-0.003	0.022	0.029	-0.004	-0.049	0.141	0.049	0.055	-0.059	0.046	0.037
Abnormal transformations (components)	1.014	0.585	0.582	2.513	0.534	2.574	1.856	2.636	0.327	0.506	0.867	13.995
2004 Patterns	Prof	Ln&Ls	RBC	Sh-t liq	AQ-I	M(C)-II	Eff	Fnd-II	CG	AQ-II	IS	

1. Figures over .20 are in bold (Martikainen et al., 1995a, p. 41).
2. Refer to Table 4.4 for the full names of ratios.

Residual matrix 2004-2005

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	Abnormal Transformations (variables)
X1	-0.058	0.011	0.010	0.042	-0.064	-0.017	-0.020	-0.040	0.005	-0.028	0.013
X2	-0.024	-0.057	-0.089	0.019	-0.083	0.081	-0.102	-0.059	0.059	-0.008	0.043
X3	-0.044	0.038	0.036	0.010	0.007	-0.085	0.008	-0.012	-0.032	0.008	0.013
X4	-0.237	-0.051	0.129	0.040	0.034	0.050	0.066	-0.115	-0.102	0.080	0.115
X5	-0.059	-0.008	-0.011	-0.009	0.016	-0.023	0.013	-0.127	0.004	0.055	0.024
X6	-0.463	-0.101	-0.077	-0.137	0.015	-0.015	-0.125	0.048	-0.124	-0.081	0.290
X7	0.003	0.002	-0.039	-0.051	0.039	-0.049	-0.115	-0.110	-0.008	0.007	0.033
X8	-0.016	0.036	-0.033	-0.098	0.018	-0.044	-0.099	-0.106	-0.053	0.040	0.040
X9	0.003	0.010	-0.052	-0.107	0.035	-0.069	-0.127	-0.153	-0.070	0.049	0.067
X10	-0.004	-0.010	-0.058	-0.099	0.041	-0.085	-0.118	-0.154	-0.073	0.050	0.068
X11	0.030	-0.033	-0.126	0.113	-0.141	-0.027	-0.067	-0.180	-0.229	-0.054	0.143
X12	0.138	-0.007	-0.100	0.041	-0.042	0.071	-0.198	-0.062	-0.054	0.225	0.134
X13	-0.072	0.005	0.018	0.001	-0.029	-0.015	0.011	-0.006	0.057	-0.017	0.010
X14	-0.028	-0.050	-0.077	0.010	-0.068	0.087	-0.098	-0.040	0.089	-0.001	0.041
X15	-0.056	0.043	0.036	-0.010	0.029	-0.083	0.024	0.007	0.002	0.012	0.015
X16	-0.363	0.069	-0.067	-0.190	0.063	0.017	-0.068	-0.018	-0.109	0.031	0.199
X17	-0.060	-0.013	-0.013	0.000	-0.021	0.029	-0.018	0.015	-0.041	-0.015	0.008
X18	0.005	-0.094	0.013	-0.003	-0.023	0.024	0.022	-0.040	0.003	-0.022	0.013
X19	-0.163	0.010	0.006	-0.096	0.039	0.031	0.034	0.012	-0.019	-0.029	0.041
X20	-0.154	0.017	0.003	-0.105	0.039	0.037	0.035	0.016	-0.013	-0.038	0.041
X21	-0.093	-0.007	-0.010	0.005	0.030	-0.056	0.165	-0.134	-0.179	-0.058	0.093
X22	0.071	-0.051	0.035	0.045	-0.019	-0.086	0.006	0.028	0.012	-0.051	0.022
X23	-0.013	0.065	0.008	-0.122	0.042	0.092	0.080	0.032	-0.036	0.017	0.039
X24	-0.047	0.046	0.041	-0.007	0.030	0.042	0.041	0.000	0.032	-0.069	0.016
X25	-0.038	0.078	-0.103	-0.049	0.038	-0.049	0.051	-0.020	-0.012	-0.043	0.029
X26	-0.078	0.051	-0.101	-0.130	0.080	-0.026	-0.127	-0.089	0.063	0.045	0.073
X27	-0.022	0.034	-0.060	0.022	0.016	-0.034	0.125	-0.043	-0.078	-0.066	0.035
X28	0.092	-0.265	-0.025	-0.051	0.040	-0.018	0.047	0.037	0.039	-0.044	0.091
X29	-0.177	-0.024	-0.024	-0.139	-0.025	0.041	0.081	-0.064	0.168	0.046	0.095
X30	0.088	-0.233	0.271	-0.029	0.107	-0.136	0.046	0.063	0.003	-0.114	0.185
X31	0.109	-0.275	0.131	0.114	0.079	-0.058	-0.214	0.122	0.029	0.144	0.210

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	Abnormal Transformations (variables)
X32	-0.003	0.292	0.027	0.112	0.162	0.061	0.079	-0.199	-0.087	-0.088	0.190
X33	0.122	-0.057	-0.013	-0.018	0.017	0.029	0.038	-0.046	0.112	0.036	0.037
X34	-0.099	-0.053	-0.035	0.027	0.027	-0.052	0.051	-0.052	0.073	0.077	0.035
X35	-0.034	-0.026	-0.085	0.019	-0.010	0.010	0.016	0.048	0.018	-0.008	0.013
X36	-0.124	-0.005	-0.117	0.056	-0.151	-0.016	0.026	-0.080	0.092	-0.086	0.078
X37	0.098	-0.314	-0.032	0.102	0.160	0.026	-0.465	0.064	0.024	0.115	0.380
X38	-0.061	-0.043	-0.074	0.017	-0.073	0.070	-0.074	-0.048	0.077	-0.063	0.039
X39	-0.046	-0.015	0.081	0.051	-0.039	-0.006	0.013	-0.131	-0.088	0.076	0.044
X40	-0.059	0.018	0.020	0.098	-0.041	0.031	0.084	-0.172	0.148	-0.073	0.080
X41	-0.062	0.051	-0.057	-0.065	0.062	0.033	-0.140	-0.008	0.056	-0.018	0.042
X42	0.066	-0.096	0.077	0.098	0.010	-0.051	0.128	-0.132	-0.061	-0.083	0.076
X43	0.106	-0.082	0.017	0.035	-0.004	-0.062	0.034	-0.031	-0.060	-0.100	0.039
X44	-0.038	-0.028	-0.011	0.014	-0.176	0.002	0.161	-0.015	-0.009	0.092	0.068
X45	-0.038	-0.003	0.028	-0.004	-0.051	-0.023	-0.033	-0.038	-0.038	0.100	0.019
X46	-0.107	-0.050	-0.019	0.065	0.070	0.028	-0.057	0.020	0.098	0.113	0.050
X47	0.043	-0.075	0.125	0.055	-0.033	-0.120	-0.069	-0.002	-0.111	0.091	0.067
X48	0.039	0.039	0.055	-0.108	0.036	0.097	0.127	0.105	0.036	-0.010	0.057
X49	0.012	-0.047	0.078	-0.057	0.019	0.078	0.134	0.016	-0.038	0.026	0.038
X50	-0.105	-0.005	0.013	0.099	0.036	-0.106	-0.029	0.030	0.108	-0.047	0.049
X51	0.140	-0.057	-0.077	-0.038	-0.001	0.171	-0.010	0.007	0.062	0.059	0.067
X52	0.103	-0.065	0.074	0.069	-0.016	-0.072	-0.130	0.018	0.065	-0.071	0.057
X53	-0.000	0.065	-0.075	-0.126	0.003	-0.045	-0.048	-0.120	-0.014	0.081	0.051
X54	-0.148	-0.040	-0.144	-0.151	0.080	-0.060	0.112	-0.013	0.102	0.071	0.105
X55	-0.004	0.049	0.011	0.026	0.002	0.025	-0.024	0.004	-0.032	-0.024	0.006
X56	-0.015	0.051	-0.006	0.015	0.007	0.032	-0.027	-0.000	-0.026	-0.019	0.006
Abnormal Transformations (components)	0.739	0.501	0.308	0.333	0.223	0.213	0.653	0.356	0.338	0.270	3.934
2005 patterns	Prof	M(C)-II	Ln&Ls	AQ-I	RBC	Sh-t liq	Eff	AQ-II	CG	IS	

1. Figures over .20 are in bold (Martikainen et al., 1995a, p. 41).
2. Refer to Table 4.4 for the full names of ratios.

APPENDIX 7.4: Residual matrices for commercial vs. savings banks (2001-2005)

Residual matrix for commercial and savings banks 2001

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X1	-0.014	0.020	-0.091	-0.046	-0.007	0.002	-0.009	-0.052	0.108	0.025	0.073	0.031
X2	0.065	0.096	-0.037	0.063	0.022	-0.123	-0.023	-0.001	0.062	0.016	0.054	0.042
X3	-0.013	0.012	0.032	-0.064	-0.024	0.111	0.063	-0.051	0.057	0.055	0.028	0.032
X4	0.058	-0.160	-0.169	0.021	-0.095	-0.069	0.058	0.044	-0.013	-0.050	-0.044	0.082
X5	0.077	-0.082	0.040	-0.025	0.039	0.054	-0.016	-0.014	0.076	0.002	-0.021	0.026
X6	-0.223	0.025	0.094	0.018	0.015	-0.009	-0.048	0.087	-0.042	0.033	-0.088	0.080
X7	0.014	-0.107	-0.018	-0.021	0.010	-0.020	-0.033	-0.108	-0.009	0.020	-0.011	0.026
X8	-0.003	-0.081	0.007	-0.019	0.019	-0.039	-0.070	-0.085	-0.017	0.043	-0.023	0.024
X9	-0.006	-0.087	-0.024	-0.058	0.024	-0.057	-0.113	-0.120	-0.021	0.025	-0.045	0.046
X10	-0.007	-0.090	-0.021	-0.055	0.022	-0.056	-0.115	-0.120	-0.020	0.025	-0.047	0.046
X11	0.062	0.112	-0.210	0.102	-0.057	0.032	0.064	0.006	0.003	-0.011	-0.024	0.080
X12	0.101	0.088	0.133	0.113	-0.078	-0.006	0.018	0.114	-0.007	-0.193	-0.010	0.105
X13	-0.027	-0.002	-0.022	-0.075	0.003	-0.007	-0.024	-0.051	0.109	0.032	0.081	0.030
X14	0.065	0.081	-0.013	0.047	0.028	-0.130	-0.036	0.001	0.065	0.018	0.061	0.040
X15	-0.021	0.000	0.055	-0.075	0.008	0.103	0.053	-0.051	0.053	0.053	0.034	0.032
X16	-0.194	0.043	0.032	0.077	0.001	0.011	-0.039	0.083	-0.080	0.048	-0.040	0.065
X17	-0.048	0.050	0.048	-0.052	0.052	0.010	-0.046	0.037	-0.047	-0.040	-0.050	0.022
X18	0.051	0.053	0.121	-0.099	0.035	0.069	-0.032	-0.047	0.021	-0.028	-0.015	0.041
X19	-0.155	-0.097	0.066	-0.046	-0.132	0.138	-0.014	-0.013	-0.099	0.128	-0.067	0.107
X20	-0.161	-0.097	0.089	-0.058	-0.111	0.139	-0.022	-0.016	-0.094	0.117	-0.066	0.106
X21	-0.126	-0.133	-0.097	-0.070	0.024	-0.070	0.031	0.052	-0.075	-0.321	-0.101	0.176
X22	-0.089	-0.010	0.051	0.093	-0.042	0.079	0.068	-0.055	-0.010	0.073	0.121	0.055
X23	0.022	-0.036	0.086	0.106	-0.156	-0.158	-0.038	0.019	0.017	0.004	-0.004	0.072
X24	0.008	-0.065	-0.000	-0.065	-0.041	-0.029	-0.033	0.093	-0.035	0.056	-0.031	0.026
X25	0.124	-0.147	-0.123	-0.142	0.025	0.316	-0.228	-0.150	0.081	0.103	-0.060	0.268
X26	-0.072	0.050	0.125	0.061	0.083	0.023	0.048	0.000	0.027	-0.052	0.005	0.040
X27	-0.206	-0.066	-0.017	0.045	-0.053	-0.071	0.070	-0.035	0.040	-0.186	-0.029	0.100
X28	-0.055	0.074	0.160	-0.037	-0.065	-0.070	-0.041	-0.029	0.085	0.050	-0.014	0.057
X29	-0.106	0.119	0.077	0.091	0.084	-0.062	-0.033	-0.006	0.033	-0.028	0.148	0.075
X30	0.021	0.102	0.113	-0.004	0.008	-0.055	-0.025	-0.064	0.062	0.128	-0.079	0.058

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X31	-0.053	-0.150	0.150	-0.023	0.115	0.033	0.052	0.097	-0.014	-0.306	0.091	0.177
X32	0.056	0.118	0.056	0.080	-0.063	-0.082	0.013	0.058	0.068	-0.061	0.103	0.060
X33	0.073	-0.035	0.132	-0.015	0.103	0.034	-0.092	-0.015	0.077	-0.007	-0.003	0.051
X34	-0.076	-0.039	0.169	-0.129	0.029	-0.096	0.111	0.086	0.144	-0.268	0.025	0.175
X35	-0.090	0.050	0.016	-0.023	-0.034	-0.142	0.080	0.046	0.070	-0.206	0.069	0.093
X36	0.004	-0.127	-0.101	-0.157	0.103	0.183	-0.052	-0.127	0.073	0.038	0.078	0.127
X37	0.171	0.169	-0.179	0.226	-0.021	0.066	-0.059	0.140	0.111	0.020	-0.012	0.182
X38	0.013	0.100	-0.028	0.017	0.054	-0.085	-0.028	-0.055	0.075	0.109	0.072	0.048
X39	0.050	-0.092	-0.026	0.044	0.133	0.085	-0.057	0.062	0.043	-0.136	0.030	0.067
X40	0.097	0.015	0.308	0.091	0.127	-0.223	0.081	-0.093	0.018	0.113	-0.141	0.227
X41	0.230	0.156	0.127	0.009	-0.064	-0.128	0.096	-0.048	0.029	0.032	-0.073	0.133
X42	-0.067	-0.026	-0.042	0.078	-0.010	0.074	-0.028	-0.073	0.094	-0.198	0.020	0.073
X43	-0.044	0.023	0.052	0.017	-0.128	0.035	0.085	-0.060	0.037	-0.023	-0.008	0.036
X44	-0.054	0.092	-0.205	0.106	-0.187	-0.021	-0.155	0.043	-0.034	0.082	-0.060	0.137
X45	0.075	-0.048	0.022	0.015	0.106	0.050	-0.022	0.080	-0.004	-0.040	0.019	0.031
X46	-0.011	0.004	-0.234	0.053	-0.172	0.159	-0.075	-0.064	0.059	0.159	0.053	0.154
X47	0.037	-0.138	0.233	0.137	0.194	-0.169	-0.034	-0.008	0.137	-0.297	-0.057	0.271
X48	-0.079	-0.065	0.041	0.054	-0.066	-0.086	-0.053	0.022	-0.002	0.012	0.063	0.034
X49	-0.096	-0.120	0.039	0.111	-0.106	-0.040	-0.091	0.059	-0.015	-0.029	0.033	0.064
X50	0.000	0.022	-0.059	-0.029	0.156	0.071	0.087	0.021	-0.077	0.036	0.058	0.053
X51	0.042	-0.104	0.182	0.028	-0.111	-0.078	0.044	-0.082	0.096	-0.052	-0.038	0.087
X52	-0.134	0.046	-0.215	0.007	-0.134	0.061	0.018	-0.068	0.197	0.065	0.093	0.145
X53	0.012	-0.046	0.097	-0.004	0.081	0.054	-0.096	-0.085	-0.061	0.018	-0.054	0.045
X54	0.006	0.116	-0.017	0.028	-0.036	0.050	-0.044	-0.035	0.036	-0.152	0.163	0.072
X55	0.063	-0.047	-0.069	-0.054	0.103	-0.000	0.021	0.195	-0.060	-0.029	-0.001	0.067
X56	0.062	-0.059	-0.060	-0.037	0.101	-0.017	0.026	0.180	-0.041	-0.006	-0.017	0.058
Abnormal transformations (components)	0.457	0.425	0.728	0.316	0.418	0.519	0.256	0.327	0.263	0.719	0.229	4.657
2001 savings banks' patterns	Prof	Ln&Ls	M(C)-II	Sh-t liq	Eff	RBC	AQ-I	AQ-II	CG	IS	Grth	

1. Figures over .20 are in bold (Martikainen et al., 1995a, p. 41).
2. Refer to Table 4.4 for the full names of ratios.

Residual matrix for commercial and savings banks 2002

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X1	-0.047	0.035	-0.074	-0.012	-0.007	-0.004	-0.197	0.083	-0.050	0.105	0.026	0.069
X2	0.077	0.171	-0.058	0.012	0.017	-0.045	-0.038	0.090	0.031	0.087	0.006	0.059
X3	-0.044	0.083	0.112	0.029	0.064	0.054	-0.118	0.024	-0.021	0.088	0.077	0.058
X4	0.102	-0.118	-0.138	0.003	0.109	0.044	-0.044	0.116	-0.033	0.185	-0.036	0.109
X5	0.054	-0.003	-0.043	-0.048	0.104	0.115	-0.104	0.142	0.039	0.115	0.001	0.077
X6	-0.228	-0.064	-0.020	-0.019	0.002	0.049	0.061	0.001	-0.092	-0.020	-0.032	0.073
X7	0.020	-0.060	0.014	0.058	0.009	-0.032	0.017	0.003	-0.110	0.018	0.024	0.022
X8	-0.004	-0.012	0.026	0.022	-0.015	-0.003	0.007	-0.006	-0.041	0.015	0.001	0.004
X9	-0.012	-0.026	0.021	-0.022	-0.046	-0.019	-0.036	0.005	-0.090	0.051	-0.009	0.016
X10	-0.013	-0.028	0.022	-0.020	-0.047	-0.017	-0.038	0.010	-0.094	0.050	-0.007	0.017
X11	-0.008	0.002	-0.102	0.119	0.152	-0.115	-0.145	0.072	-0.069	0.250	-0.084	0.161
X12	0.064	0.137	0.106	0.051	0.009	-0.002	0.055	0.063	0.089	0.064	-0.323	0.160
X13	-0.040	0.033	-0.032	-0.044	-0.062	0.026	-0.165	0.063	-0.030	0.054	0.049	0.048
X14	0.085	0.176	-0.043	-0.002	-0.005	-0.031	-0.022	0.082	0.043	0.062	0.018	0.054
X15	-0.052	0.083	0.116	0.014	0.045	0.070	-0.097	0.015	-0.018	0.036	0.088	0.049
X16	-0.204	-0.022	-0.013	-0.080	0.004	0.147	0.114	-0.038	0.125	0.075	0.103	0.117
X17	-0.004	0.118	-0.030	0.024	-0.021	-0.038	-0.014	-0.003	0.022	-0.118	-0.063	0.036
X18	0.033	0.094	0.045	-0.039	-0.028	-0.047	-0.131	-0.009	0.030	-0.100	-0.057	0.048
X19	-0.078	-0.183	0.165	-0.143	0.050	0.225	-0.018	-0.055	-0.007	0.051	0.110	0.158
X20	-0.094	-0.172	0.167	-0.144	0.039	0.223	0.039	-0.083	-0.015	-0.051	0.114	0.163
X21	-0.066	-0.199	-0.004	0.035	-0.056	-0.134	-0.139	-0.050	0.116	-0.136	-0.232	0.174
X22	0.092	-0.076	-0.049	0.054	0.019	0.022	0.091	0.047	-0.061	0.008	0.017	0.035
X23	0.093	-0.116	0.181	0.019	-0.084	-0.135	0.130	0.075	0.057	-0.021	-0.032	0.108
X24	0.042	-0.117	0.007	-0.050	0.015	-0.022	0.070	-0.053	0.039	-0.031	0.052	0.032
X25	0.189	-0.065	-0.076	-0.129	-0.119	0.264	-0.380	0.062	-0.134	0.074	0.030	0.319
X26	-0.083	0.073	0.087	0.047	0.019	0.047	0.201	0.071	0.073	-0.124	0.001	0.091
X27	0.008	-0.111	0.038	0.019	-0.016	-0.117	-0.119	-0.000	0.079	-0.135	-0.142	0.087
X28	-0.048	0.086	0.056	0.005	0.044	-0.122	-0.066	-0.070	-0.175	0.211	0.091	0.122
X29	0.062	0.067	0.118	0.052	0.004	-0.098	0.037	0.015	0.021	-0.206	-0.068	0.084
X30	0.017	0.019	-0.012	-0.067	-0.088	0.012	-0.044	0.007	-0.219	0.081	0.078	0.076

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X31	-0.022	-0.051	0.042	0.075	0.030	-0.182	0.091	0.069	0.060	-0.155	-0.111	0.097
X32	0.075	-0.163	-0.068	-0.042	-0.021	0.028	0.037	0.033	0.100	0.107	-0.042	0.065
X33	0.107	0.066	0.001	-0.048	-0.025	0.101	0.028	0.084	0.055	-0.062	-0.004	0.044
X34	-0.175	0.021	0.115	-0.154	0.079	-0.011	0.081	0.165	0.014	-0.139	-0.201	0.168
X35	-0.151	0.030	0.051	-0.029	-0.048	-0.187	0.102	-0.023	0.026	-0.146	-0.145	0.118
X36	-0.126	0.101	-0.196	-0.055	0.007	0.119	-0.267	0.013	-0.144	0.095	0.004	0.183
X37	0.328	0.162	0.031	0.175	-0.125	0.060	-0.009	-0.044	0.082	-0.527	0.227	0.523
X38	0.058	0.168	-0.072	-0.009	0.025	-0.011	-0.057	0.081	0.003	0.076	0.103	0.064
X39	-0.078	-0.120	0.000	0.036	0.038	0.118	0.153	0.062	0.156	-0.200	-0.078	0.135
X40	0.025	0.067	-0.139	0.077	0.211	-0.168	0.330	0.087	-0.064	0.074	0.198	0.268
X41	0.118	0.291	0.020	-0.019	0.087	-0.060	-0.011	-0.001	0.032	0.080	0.052	0.121
X42	-0.109	-0.146	0.012	0.130	0.068	0.140	0.024	0.089	0.012	-0.056	-0.131	0.103
X43	-0.003	0.035	0.004	0.011	0.016	0.006	-0.012	0.024	-0.072	0.003	0.025	0.008
X44	-0.013	0.009	0.061	0.067	-0.186	-0.202	-0.085	-0.078	0.029	0.129	0.042	0.116
X45	-0.027	-0.040	-0.030	-0.043	0.003	0.015	0.071	0.022	0.132	-0.138	-0.006	0.047
X46	-0.068	-0.091	0.013	0.023	-0.109	0.127	-0.061	-0.016	-0.052	0.069	0.013	0.053
X47	-0.042	0.016	0.090	0.128	0.095	-0.051	0.167	0.133	0.083	-0.170	-0.098	0.129
X48	0.067	-0.165	0.127	-0.028	-0.121	-0.118	0.090	0.040	0.044	-0.085	-0.033	0.097
X49	0.013	-0.233	0.146	0.036	-0.116	-0.079	0.135	0.059	0.026	-0.071	-0.061	0.128
X50	-0.013	0.027	-0.144	-0.025	0.031	0.024	0.035	-0.055	-0.055	-0.083	0.026	0.039
X51	0.102	-0.050	0.127	0.100	-0.024	-0.044	0.018	0.053	-0.067	-0.116	-0.025	0.063
X52	-0.060	0.038	-0.099	0.066	-0.203	0.056	-0.217	0.056	-0.221	-0.019	0.027	0.164
X53	0.000	0.027	0.044	-0.002	-0.047	0.095	0.117	0.009	-0.027	-0.060	-0.016	0.032
X54	0.031	0.047	0.054	0.032	-0.033	0.048	-0.030	0.050	0.038	-0.114	-0.137	0.047
X55	0.032	-0.029	-0.162	-0.032	0.091	0.007	-0.040	-0.037	0.155	-0.035	-0.040	0.067
X56	0.042	-0.041	-0.156	-0.033	0.088	-0.002	-0.018	-0.034	0.153	-0.045	-0.024	0.064
Abnormal transformations (components)	0.482	0.639	0.447	0.247	0.332	0.576	0.794	0.221	0.425	0.891	0.515	5.570
2002 savings banks' patterns	Prof	Ln&Ls	M(C)-II	Sh-t liq	AQ-I	RBC	Fnd-II	CG	AQ-II	Eff	IS	

1. Figures over .20 are in bold (Martikainen et al., 1995a, p. 41).

2. Refer to Table 4.4 for the full names of ratios.

Residual matrix for commercial and savings banks 2003

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X1	-0.056	0.028	-0.006	-0.094	-0.010	-0.028	0.004	0.032	-0.186	0.019	0.020	0.050
X2	0.066	0.181	0.255	-0.128	-0.118	-0.134	-0.023	0.078	-0.248	-0.025	0.023	0.220
X3	-0.024	0.007	-0.128	0.084	0.118	0.048	0.031	-0.030	-0.051	0.006	-0.040	0.046
X4	-0.056	-0.135	0.079	-0.059	-0.099	-0.057	-0.086	0.037	-0.039	-0.016	-0.123	0.070
X5	-0.107	-0.137	-0.040	0.019	0.038	0.090	-0.061	0.096	-0.008	-0.060	-0.030	0.059
X6	-0.208	-0.010	-0.017	0.114	-0.041	0.068	0.056	-0.061	-0.096	0.090	-0.212	0.132
X7	0.012	-0.092	0.015	0.022	-0.071	-0.036	-0.096	-0.055	0.003	-0.010	-0.030	0.029
X8	0.010	-0.091	0.011	0.006	-0.067	-0.041	-0.108	-0.047	0.001	-0.023	-0.053	0.032
X9	0.001	-0.090	0.003	-0.000	-0.100	-0.055	-0.137	-0.041	-0.018	-0.021	-0.054	0.045
X10	0.000	-0.088	0.005	0.001	-0.101	-0.055	-0.136	-0.039	-0.017	-0.019	-0.054	0.045
X11	0.064	0.104	0.046	-0.141	0.058	-0.112	-0.004	0.088	-0.233	0.173	0.017	0.145
X12	0.076	0.147	0.239	0.069	-0.048	0.053	0.142	0.054	-0.089	0.150	0.095	0.157
X13	-0.066	0.021	-0.018	-0.061	-0.019	-0.002	0.007	0.015	-0.136	-0.024	0.015	0.029
X14	0.063	0.172	0.256	-0.116	-0.127	-0.127	-0.023	0.069	-0.232	-0.044	0.020	0.206
X15	-0.038	0.006	-0.139	0.081	0.116	0.063	0.024	-0.036	-0.010	-0.024	-0.039	0.049
X16	-0.236	0.026	-0.065	-0.005	0.009	0.118	0.055	-0.027	0.021	0.156	-0.149	0.125
X17	0.022	0.096	0.021	0.038	-0.041	-0.068	0.102	-0.103	-0.034	0.031	0.029	0.042
X18	0.015	0.057	0.050	0.063	-0.031	-0.034	0.091	0.016	-0.036	-0.005	0.025	0.023
X19	-0.175	-0.159	0.012	0.143	0.037	0.218	-0.068	-0.075	0.002	-0.175	-0.087	0.174
X20	-0.175	-0.154	0.001	0.144	0.044	0.221	-0.070	-0.072	0.002	-0.187	-0.083	0.178
X21	-0.206	-0.149	0.126	-0.137	-0.043	-0.046	0.266	0.111	-0.014	0.008	0.228	0.239
X22	0.064	-0.042	-0.005	-0.272	-0.022	-0.095	-0.036	0.011	-0.251	0.001	-0.039	0.155
X23	0.078	-0.071	0.147	0.187	-0.100	-0.104	0.064	-0.021	-0.065	0.015	-0.059	0.101
X24	-0.098	-0.040	0.125	0.057	0.041	-0.000	0.036	-0.079	0.040	0.032	-0.107	0.053
X25	0.191	-0.077	-0.291	-0.130	-0.116	0.334	-0.296	0.143	-0.089	-0.265	0.041	0.457
X26	-0.021	0.049	0.093	0.080	0.045	-0.031	-0.030	0.040	0.037	0.105	0.034	0.037
X27	-0.105	-0.124	0.086	-0.035	-0.056	-0.109	0.114	0.177	0.021	-0.045	0.113	0.110
X28	0.003	0.003	-0.003	-0.041	-0.001	-0.029	-0.035	0.162	-0.033	-0.117	-0.027	0.046
X29	-0.134	0.032	-0.009	0.090	0.042	-0.002	-0.055	0.101	-0.033	0.040	0.050	0.047
X30	0.015	-0.083	-0.067	0.012	-0.079	0.116	-0.225	0.115	-0.065	-0.043	-0.049	0.104

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X31	0.055	0.002	0.086	0.074	0.073	0.009	0.156	0.017	0.114	-0.004	-0.142	0.079
X32	-0.045	0.110	-0.102	-0.085	-0.086	-0.093	-0.035	0.120	-0.248	-0.084	0.107	0.143
X33	0.055	-0.067	-0.052	0.018	0.033	0.145	-0.041	0.126	-0.031	-0.088	0.047	0.061
X34	-0.220	-0.057	0.094	0.114	0.100	-0.164	-0.023	0.124	0.150	0.286	0.012	0.231
X35	-0.086	0.078	0.135	-0.034	0.022	-0.171	0.089	0.054	0.179	0.186	0.083	0.147
X36	-0.138	0.027	-0.086	-0.219	0.010	0.126	-0.006	0.077	-0.161	0.093	0.159	0.157
X37	0.064	-0.309	0.130	-0.231	-0.243	-0.212	-0.232	0.004	-0.194	0.058	0.171	0.398
X38	-0.183	0.166	0.240	0.675	0.143	-0.112	-0.265	0.152	0.453	-0.124	-0.125	0.937
X39	0.061	-0.202	-0.694	-0.632	-0.176	0.210	0.160	-0.111	0.374	0.254	-0.100	1.253
X40	0.081	0.049	0.981	-0.086	-0.063	-0.143	0.100	0.162	0.107	-0.165	0.221	1.127
X41	-0.047	0.222	-0.494	-0.184	0.136	-0.256	-0.133	-0.068	-0.147	-0.015	-0.318	0.559
X42	0.261	0.117	1.201	0.409	0.248	0.066	0.179	-0.232	-0.000	0.568	-0.092	2.174
X43	-0.112	0.058	0.172	-0.379	0.024	-0.178	-0.127	0.251	-0.378	-0.222	0.164	0.520
X44	-0.094	0.016	-0.405	0.176	-0.064	0.079	0.037	-0.048	0.150	0.132	-0.014	0.258
X45	-0.242	-0.256	-1.014	-0.050	-0.130	0.280	0.013	0.056	-0.128	-0.167	-0.096	1.307
X46	-0.048	-0.105	0.105	0.213	-0.127	0.112	-0.118	0.018	0.142	0.078	0.041	0.141
X47	0.076	-0.021	-0.002	-0.095	0.077	-0.107	0.084	0.072	0.086	-0.124	-0.100	0.078
X48	0.055	-0.122	0.162	0.066	-0.107	-0.070	0.023	-0.023	-0.010	-0.031	-0.075	0.073
X49	-0.031	-0.214	0.280	0.022	-0.090	-0.044	0.033	0.022	0.036	0.085	-0.051	0.148
X50	0.009	0.051	-0.034	-0.006	0.088	0.019	-0.084	-0.001	0.138	0.059	-0.035	0.043
X51	0.066	-0.105	0.085	-0.020	0.023	-0.028	-0.105	0.028	-0.085	0.030	0.001	0.044
X52	-0.047	-0.044	-0.067	-0.170	-0.036	0.127	-0.330	-0.068	0.022	0.022	-0.009	0.170
X53	0.043	-0.029	-0.039	0.005	-0.107	0.127	-0.155	-0.125	0.009	-0.029	0.012	0.073
X54	-0.222	0.041	0.141	0.082	0.051	-0.118	0.000	0.058	0.016	0.068	0.091	0.111
X55	-0.012	0.019	-0.011	-0.099	0.112	0.049	0.172	-0.049	0.057	-0.004	-0.001	0.061
X56	-0.014	0.009	0.014	-0.093	0.111	0.038	0.156	-0.053	0.067	-0.010	-0.015	0.055
Abnormal transformations (components)	0.683	0.706	5.032	1.793	0.483	0.850	0.851	0.472	1.150	0.970	0.558	13.548
2003 savings banks patterns	Prof	Ln&Ls	Sh-t liq	M(C)-II	AQ-I	RBC	AQ-II	CG	No Name	Grth	IS	

1. Figures over .20 are in bold (Martikainen et al., 1995a, p. 41).
2. Refer to Table 4.4 for the full names of ratios.

Residual matrix for commercial and savings banks 2004

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X1	0.072	0.019	0.007	0.026	-0.081	-0.029	0.076	-0.097	0.094	-0.004	-0.007	0.038
X2	0.031	0.168	0.066	0.069	-0.027	-0.062	0.050	-0.008	0.109	-0.018	0.034	0.059
X3	0.065	0.003	-0.035	0.002	0.017	0.133	0.040	-0.067	0.020	0.033	-0.052	0.034
X4	0.119	-0.168	0.072	0.040	-0.117	-0.038	0.040	-0.107	0.070	-0.079	-0.011	0.089
X5	0.016	-0.104	-0.006	-0.038	0.004	0.018	-0.036	-0.020	0.012	-0.017	-0.009	0.015
X6	0.211	0.188	-0.025	0.078	0.104	0.050	-0.086	-0.057	0.151	-0.017	0.001	0.134
X7	0.005	0.032	0.004	0.002	0.036	-0.046	0.022	-0.004	-0.079	0.007	-0.002	0.011
X8	0.007	0.018	0.018	0.020	0.035	-0.028	0.002	-0.014	-0.052	-0.002	-0.029	0.007
X9	-0.004	0.008	0.022	-0.026	0.013	-0.043	-0.010	-0.009	-0.039	0.009	-0.052	0.008
X10	0.002	0.017	0.014	-0.043	0.009	-0.025	0.002	0.009	-0.033	0.014	-0.055	0.007
X11	0.090	0.073	0.033	0.121	-0.045	-0.031	-0.099	0.167	0.063	0.043	-0.077	0.082
X12	0.075	0.230	0.056	0.151	-0.028	0.150	-0.122	0.115	0.026	0.108	0.071	0.153
X13	0.058	0.031	-0.003	-0.004	-0.056	-0.008	0.109	-0.140	0.079	-0.005	0.012	0.045
X14	0.024	0.165	0.063	0.057	-0.024	-0.060	0.071	-0.030	0.104	-0.021	0.042	0.058
X15	0.053	0.008	-0.042	-0.019	0.030	0.120	0.039	-0.092	0.010	0.028	-0.035	0.032
X16	0.066	0.031	-0.157	0.020	0.085	0.013	-0.047	-0.116	0.070	0.076	-0.030	0.065
X17	0.128	0.106	0.135	0.109	-0.029	0.072	-0.144	-0.185	0.004	0.083	0.004	0.126
X18	0.071	0.130	0.091	0.089	-0.043	0.149	-0.113	-0.103	0.038	0.126	-0.033	0.104
X19	-0.088	-0.096	-0.322	-0.016	0.148	-0.001	0.137	0.020	-0.111	-0.084	-0.034	0.183
X20	-0.091	-0.091	-0.319	-0.024	0.161	-0.002	0.120	0.017	-0.106	-0.086	-0.027	0.179
X21	-0.087	-0.235	0.087	-0.019	-0.139	-0.048	-0.074	-0.125	0.092	0.264	0.013	0.192
X22	0.058	-0.068	-0.030	0.019	-0.018	-0.002	0.016	0.074	0.026	-0.100	0.065	0.030
X23	0.071	-0.077	0.087	0.026	0.008	0.147	0.032	0.099	-0.004	0.016	-0.010	0.052
X24	-0.079	-0.017	-0.018	0.014	0.043	0.021	0.069	0.086	-0.079	0.034	-0.061	0.033
X25	0.183	-0.091	-0.341	-0.027	-0.069	-0.097	0.009	-0.281	0.124	-0.193	0.080	0.311
X26	0.014	0.087	0.052	-0.024	0.175	0.059	-0.058	0.129	-0.007	0.036	0.029	0.067
X27	-0.140	-0.175	0.130	0.019	-0.098	-0.044	-0.055	-0.022	0.074	0.131	-0.040	0.107
X28	-0.048	0.017	-0.085	-0.005	0.028	0.065	0.054	-0.043	0.097	-0.164	-0.106	0.067
X29	-0.069	0.098	0.090	-0.007	0.036	0.119	0.070	0.046	0.021	-0.004	0.014	0.046
X30	0.067	0.035	-0.148	0.059	0.053	-0.006	0.107	0.015	0.046	-0.127	-0.067	0.068

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Abnormal transformations (variables)
X31	0.002	-0.216	0.016	-0.066	0.032	0.200	-0.277	0.247	-0.045	-0.185	0.030	0.267
X32	0.040	0.035	-0.073	0.027	-0.066	-0.088	0.061	-0.092	-0.005	0.026	-0.053	0.037
X33	-0.007	-0.099	-0.042	-0.055	0.068	0.001	-0.053	0.154	-0.015	-0.035	0.003	0.047
X34	-0.015	-0.099	0.102	-0.103	0.087	0.158	-0.005	0.110	0.125	-0.050	0.070	0.099
X35	-0.077	0.087	0.106	-0.010	0.009	-0.015	-0.021	0.102	0.118	0.041	0.093	0.060
X36	-0.010	0.010	-0.035	-0.003	-0.091	-0.152	0.098	-0.206	0.052	0.052	0.047	0.092
X37	0.026	-0.027	-0.146	0.070	-0.092	0.022	-0.353	0.160	0.085	-0.128	-0.146	0.232
X38	0.008	0.151	0.030	0.042	-0.013	-0.069	0.075	-0.033	0.111	-0.050	0.019	0.052
X39	0.055	-0.197	0.034	0.020	-0.019	0.011	-0.192	0.078	-0.017	0.141	-0.042	0.109
X40	0.126	0.140	0.179	0.192	0.043	0.047	-0.083	0.127	-0.103	0.162	-0.228	0.220
X41	0.165	0.156	0.022	0.034	0.132	0.080	-0.047	-0.068	-0.078	0.030	0.018	0.091
X42	-0.043	-0.178	-0.061	0.085	-0.082	0.058	-0.015	0.022	-0.036	0.121	0.086	0.079
X43	-0.054	-0.010	-0.022	0.006	-0.019	0.046	0.082	0.002	-0.024	-0.004	0.058	0.017
X44	-0.074	0.033	0.098	-0.008	-0.212	0.035	0.328	-0.070	0.059	0.094	-0.072	0.192
X45	0.071	-0.077	0.067	-0.039	0.024	-0.022	-0.146	0.057	-0.004	0.071	-0.082	0.054
X46	-0.082	0.063	-0.074	0.013	-0.135	-0.136	0.096	0.024	0.106	-0.164	-0.052	0.104
X47	0.167	-0.187	0.054	0.025	0.133	0.169	-0.203	0.042	-0.094	0.103	-0.013	0.175
X48	-0.021	-0.067	0.052	-0.052	-0.024	0.063	-0.029	0.024	0.002	-0.039	-0.007	0.018
X49	-0.029	-0.154	0.051	0.008	-0.063	0.080	0.050	0.129	0.036	-0.002	-0.018	0.058
X50	0.115	0.113	-0.040	-0.090	0.012	-0.048	-0.050	0.029	0.049	-0.072	0.003	0.049
X51	-0.061	-0.075	0.030	0.114	0.014	0.079	0.015	-0.014	-0.051	-0.001	-0.049	0.035
X52	-0.150	-0.021	-0.044	-0.087	-0.142	-0.023	-0.109	-0.037	0.015	-0.149	-0.070	0.094
X53	0.019	-0.021	-0.006	-0.044	0.088	-0.050	-0.013	0.023	-0.083	-0.064	0.015	0.025
X54	-0.169	0.138	0.092	-0.011	0.015	0.120	0.077	0.016	0.067	-0.009	0.029	0.082
X55	-0.055	-0.034	-0.012	0.023	0.071	-0.063	-0.082	0.012	-0.077	0.140	0.005	0.046
X56	-0.052	-0.028	-0.011	0.047	0.070	-0.058	-0.080	0.019	-0.095	0.130	-0.020	0.047
Abnormal transformations (components)	0.399	0.689	0.600	0.196	0.357	0.367	0.663	0.541	0.290	0.491	0.192	4.783
2004 savings banks patterns	Prof	Ln&Ls	RBC	Sh-t liq	AQ-I	M(C)-II	Eff	Fnd-II	CG	AQ-II	IS	

1. Figures over .20 are in bold (Martikainen et al., 1995a, p. 41).

2. Refer to Table 4.4 for the full names of ratios.

Residual matrix for commercial and savings banks 2005

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	Abnormal transformations (variables)
X1	-0.005	0.017	0.043	-0.107	-0.035	-0.007	-0.043	-0.009	0.012	-0.019	0.017
X2	0.058	-0.026	0.102	-0.084	0.038	-0.051	-0.048	-0.038	0.014	0.001	0.029
X3	-0.039	0.114	0.026	0.015	-0.044	0.014	-0.038	0.026	0.006	-0.002	0.020
X4	-0.115	-0.125	-0.093	0.009	0.076	0.015	-0.005	-0.157	-0.122	-0.015	0.083
X5	-0.059	-0.007	-0.133	0.018	-0.027	0.040	0.044	-0.135	-0.015	0.002	0.044
X6	-0.243	-0.030	0.071	0.005	-0.019	-0.028	-0.044	0.039	0.020	-0.065	0.074
X7	0.001	-0.047	-0.055	-0.055	0.074	-0.064	-0.079	-0.108	-0.101	-0.002	0.046
X8	-0.015	-0.012	-0.062	-0.096	0.071	-0.069	-0.059	-0.117	-0.113	0.003	0.053
X9	-0.003	-0.064	-0.089	-0.125	0.104	-0.051	-0.076	-0.164	-0.107	-0.007	0.085
X10	-0.003	-0.058	-0.090	-0.122	0.106	-0.049	-0.077	-0.160	-0.106	-0.012	0.083
X11	0.103	0.020	-0.027	0.070	-0.167	-0.100	0.034	-0.181	-0.172	-0.076	0.124
X12	0.182	0.245	0.095	0.008	0.027	-0.044	-0.064	-0.036	-0.085	0.274	0.193
X13	-0.027	0.013	0.055	-0.121	0.003	0.015	-0.045	0.033	0.049	-0.001	0.024
X14	0.048	-0.029	0.106	-0.092	0.060	-0.041	-0.058	-0.018	0.035	0.009	0.033
X15	-0.055	0.100	0.030	0.006	-0.018	0.026	-0.020	0.050	0.029	0.009	0.019
X16	-0.263	0.088	-0.017	-0.059	-0.112	0.074	0.004	0.052	-0.002	0.005	0.101
X17	0.007	-0.043	0.126	0.004	0.108	-0.046	0.017	0.082	-0.066	0.043	0.045
X18	0.035	-0.053	0.192	0.013	0.078	-0.062	-0.022	0.065	0.039	0.004	0.057
X19	-0.231	-0.090	-0.077	0.068	-0.242	0.009	-0.115	-0.030	-0.058	-0.036	0.149
X20	-0.227	-0.085	-0.073	0.067	-0.237	0.023	-0.098	-0.028	-0.044	-0.038	0.139
X21	-0.139	-0.289	-0.167	-0.045	0.130	-0.092	0.077	0.066	0.039	0.040	0.172
X22	0.104	-0.039	-0.038	0.002	-0.047	-0.125	-0.036	-0.073	0.015	-0.026	0.039
X23	0.101	0.129	-0.112	-0.050	0.151	-0.002	-0.037	0.003	-0.021	0.008	0.067
X24	-0.106	0.028	0.009	0.073	0.026	-0.004	-0.082	0.041	0.035	-0.075	0.033
X25	0.093	-0.203	-0.190	-0.071	-0.280	-0.064	0.012	-0.185	0.105	0.075	0.225
X26	-0.052	0.199	-0.024	-0.009	0.107	0.003	-0.021	-0.121	0.023	0.074	0.076
X27	-0.109	-0.165	-0.181	-0.004	0.131	-0.106	0.021	0.055	0.111	-0.054	0.119
X28	0.079	-0.154	0.007	0.025	-0.049	0.046	0.075	-0.042	0.156	-0.136	0.085
X29	-0.216	0.152	0.099	-0.077	0.056	0.061	-0.009	-0.105	0.181	0.066	0.141
X30	0.139	-0.149	0.235	0.045	-0.106	-0.236	-0.026	0.037	0.084	-0.155	0.199
X31	0.051	-0.005	-0.050	0.138	0.178	0.039	0.019	-0.147	0.039	0.126	0.097

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	Abnormal transformations (variables)
X32	0.027	0.156	0.106	0.067	0.096	0.060	0.042	-0.122	0.011	-0.036	0.072
X33	0.109	0.009	-0.108	0.017	-0.048	0.047	0.129	-0.094	0.073	0.004	0.059
X34	-0.074	0.232	-0.103	0.206	0.098	0.093	0.103	-0.114	0.152	0.074	0.183
X35	-0.029	0.151	0.030	0.069	0.098	0.038	0.107	0.094	0.106	0.076	0.078
X36	-0.146	-0.076	-0.021	-0.135	-0.145	0.006	0.019	0.074	0.061	0.016	0.077
X37	0.015	-0.158	-0.083	-0.079	0.029	-0.048	-0.027	-0.069	0.040	-0.024	0.049
X38	0.007	-0.036	0.109	-0.077	0.005	-0.039	-0.027	-0.036	0.050	-0.066	0.030
X39	-0.006	0.013	-0.088	0.016	0.026	0.014	0.162	0.009	-0.019	0.062	0.040
X40	0.119	0.144	0.104	0.176	0.147	-0.177	0.187	-0.028	0.011	-0.326	0.272
X41	0.069	0.084	0.076	0.014	0.097	-0.009	-0.031	-0.002	-0.072	0.033	0.035
X42	-0.036	0.039	-0.088	0.035	-0.073	-0.053	0.045	0.005	0.049	0.052	0.027
X43	0.006	-0.009	0.003	0.016	-0.035	-0.052	-0.106	-0.027	-0.039	-0.038	0.019
X44	-0.036	0.017	0.069	-0.094	-0.122	-0.012	-0.229	0.071	0.016	0.005	0.088
X45	0.040	-0.042	-0.031	-0.004	0.049	0.013	0.121	0.026	-0.035	0.017	0.024
X46	-0.045	-0.136	0.078	-0.039	-0.082	0.004	-0.129	-0.104	0.188	0.022	0.098
X47	0.052	0.058	-0.088	0.134	0.105	-0.125	0.096	0.027	-0.188	0.113	0.116
X48	0.049	-0.039	-0.032	-0.036	0.115	0.070	0.035	0.025	0.089	-0.031	0.035
X49	0.034	0.023	-0.120	-0.046	0.062	0.014	-0.009	-0.006	0.032	-0.014	0.024
X50	0.016	-0.012	0.091	0.063	-0.009	-0.075	0.066	0.002	0.103	-0.090	0.041
X51	0.064	0.009	-0.133	0.005	0.054	0.109	-0.063	-0.030	0.054	0.038	0.046
X52	-0.091	-0.143	0.081	-0.100	-0.095	0.029	-0.105	-0.056	0.219	-0.131	0.134
X53	-0.006	0.053	-0.128	-0.079	0.009	-0.012	0.039	-0.180	-0.146	0.085	0.088
X54	-0.287	0.134	0.107	-0.089	0.148	0.066	0.001	-0.043	0.158	0.041	0.174
X55	-0.105	-0.047	-0.018	0.074	0.006	0.016	0.040	0.156	-0.049	0.028	0.048
X56	-0.113	-0.037	-0.029	0.066	0.009	-0.002	0.033	0.140	-0.055	0.006	0.043
Abnormal transformations (components)	0.646	0.653	0.518	0.330	0.597	0.249	0.324	0.436	0.458	0.360	4.571
2005 savings banks factors	Prof	M(C)-II	Ln&Ls	AQ-I	RBC	Sh-t liq	Eff	AQ-II	CG	IS	

1. Figures over .20 are in bold (Martikainen et al., 1995a, p. 41).

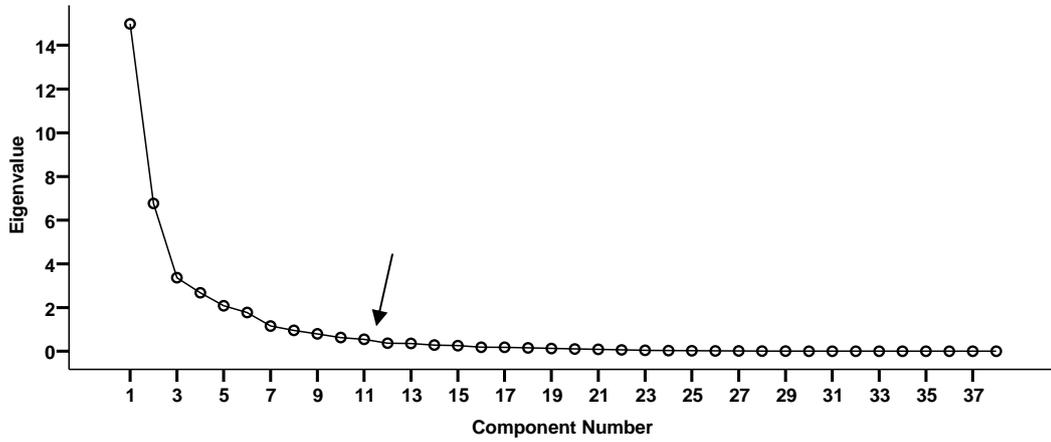
2. Refer to Table 4.4 for the full names of ratios.

APPENDICES FOR CHAPTER 8

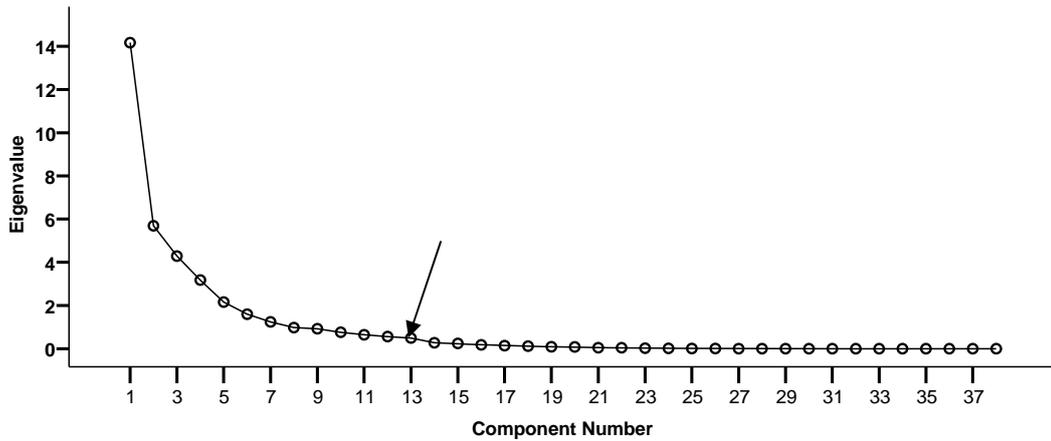
APPENDIX 8.1: Results for De Novo banks 2001-2005 (38 ratios)

Cattell's scree plots for De Novo banks 2001-2005 (38 ratios)

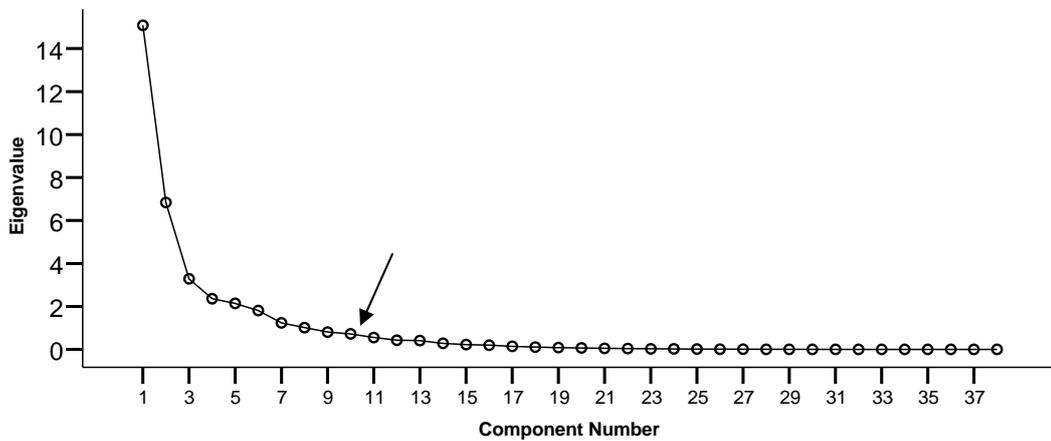
Cattell's Scree Plot for De Novo Banks 2001 (38 Ratios)



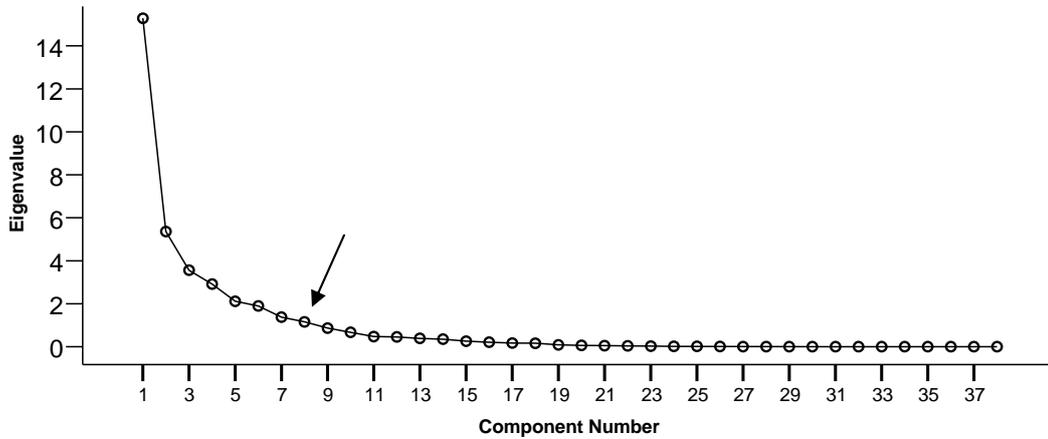
Cattell's Scree Plot for De Novo Banks 2002 (38 Ratios)



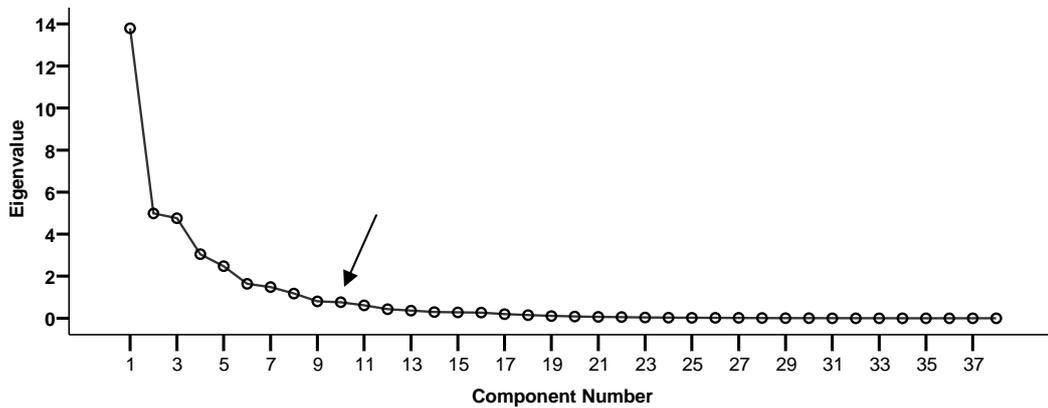
Cattell's Scree Plot for De Novo Banks 2003 (38 Ratios)



Cattell's Scree Plot for De Novo Banks 2004 (38 Ratios)



Cattell's Scree Plot for De Novo Banks 2005 (38 Ratios)



Factoability results for De Novo banks (38 ratios)

KMO and Bartlett's Test- 2001

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.759
Bartlett's Test of Sphericity	Approx. Chi-Square	10214.345
	df	703
	Sig.	.000

KMO and Bartlett's Test- 2005

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.777
Bartlett's Test of Sphericity	Approx. Chi-Square	15735.842
	df	703
	Sig.	.000

Parallel analysis outputs for De Novo banks- 38 ratios (2001-2005)

PARALLEL ANALYSIS FOR DE NOVO BANKS- 38 RATIOS 2005

Run MATRIX procedure:

PARALLEL ANALYSIS:

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 100
 Nvars 38
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcentyle
1.000000	14.982553	2.422214	2.615484
2.000000	6.767765	2.226411	2.365551
3.000000	3.366911	2.080490	2.192061
4.000000	2.674803	1.958011	2.062012
5.000000	2.082324	1.851759	1.940742
6.000000	1.769900	1.757093	1.837502
7.000000	1.154643	1.669161	1.745195
8.000000	.952807	1.587252	1.657554
9.000000	.793167	1.509104	1.574859
10.000000	.624779	1.435604	1.500816
11.000000	.547085	1.366169	1.430150
12.000000	.367324	1.300348	1.358985
13.000000	.357068	1.236177	1.289313
14.000000	.278924	1.175829	1.230536
15.000000	.253528	1.117697	1.172550
16.000000	.182937	1.062354	1.117101
17.000000	.181409	1.009019	1.060241

18.000000	.153867	.956788	1.007187
19.000000	.127500	.904717	.954850
20.000000	.101649	.856012	.901069
21.000000	.087375	.808652	.856957
22.000000	.059313	.762471	.806041
23.000000	.040284	.718849	.760442
24.000000	.027484	.676377	.721695
25.000000	.020829	.633947	.673655
26.000000	.011185	.593798	.633490
27.000000	.010566	.555285	.594256
28.000000	.006848	.516248	.553415
29.000000	.005814	.479503	.517319
30.000000	.003930	.443468	.481786
31.000000	.001857	.408461	.444326
32.000000	.001340	.374417	.409993
33.000000	.001189	.340881	.374871
34.000000	.000932	.308186	.343218
35.000000	.000070	.275072	.308854
36.000000	.000023	.242996	.277306
37.000000	.000018	.209206	.243614
38.000000	.000001	.169976	.205720

----- END MATRIX -----

PARALLEL ANALYSIS FOR DE NOVO BANKS- 38 RATIOS 2002

Run MATRIX procedure:

PARALLEL ANALYSIS:

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 75

Nvars 38
 Ndatsets 1000
 Percent 95

29.000000 .003638 .396374 .436322
 30.000000 .001160 .358473 .399594
 31.000000 .000235 .323195 .360168
 32.000000 .000084 .289540 .326227
 33.000000 .000040 .255817 .289965
 34.000000 .000020 .224236 .259032
 35.000000 .000008 .193208 .222586
 36.000000 .000003 .163656 .195247
 37.000000 .000000 .132502 .161331
 38.000000 .000000 .099998 .128210

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	14.164388	2.687280	2.945340
2.000000	5.690028	2.449258	2.617076
3.000000	4.285794	2.270634	2.403587
4.000000	3.176718	2.123572	2.235449
5.000000	2.158473	1.995157	2.106600
6.000000	1.597110	1.878542	1.972231
7.000000	1.242079	1.772072	1.864827
8.000000	.979462	1.670747	1.755989
9.000000	.927231	1.577929	1.660416
10.000000	.762699	1.490391	1.567398
11.000000	.649031	1.405400	1.480798
12.000000	.562069	1.329756	1.402044
13.000000	.494025	1.254832	1.320687
14.000000	.276490	1.182849	1.248239
15.000000	.243971	1.114992	1.174290
16.000000	.180492	1.049732	1.113459
17.000000	.143303	.986011	1.048427
18.000000	.120041	.925281	.982454
19.000000	.091940	.867816	.920173
20.000000	.081970	.812155	.868256
21.000000	.048676	.758214	.815894
22.000000	.045340	.705585	.755233
23.000000	.026772	.656231	.703999
24.000000	.015168	.607468	.657490
25.000000	.011645	.561661	.611691
26.000000	.009336	.517663	.561988
27.000000	.005668	.476542	.520038
28.000000	.004891	.435230	.479416

----- END MATRIX -----

PARALLEL ANALYSIS FOR DE NOVO BANKS- 38 RATIOS 2003

Run MATRIX procedure:

PARALLEL ANALYSIS:

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 91
 Nvars 38
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	15.080058	2.495607	2.696299
2.000000	6.838398	2.289628	2.435813
3.000000	3.284349	2.134349	2.264520
4.000000	2.358753	2.009894	2.122083
5.000000	2.139583	1.899907	1.993905

6.000000	1.805315	1.794019	1.880900
7.000000	1.232164	1.699977	1.781741
8.000000	1.013569	1.611811	1.686602
9.000000	.807725	1.530250	1.603456
10.000000	.725218	1.451322	1.519999
11.000000	.554801	1.378520	1.445923
12.000000	.428111	1.308714	1.368998
13.000000	.413450	1.242202	1.298764
14.000000	.286667	1.178239	1.235305
15.000000	.227541	1.117509	1.175690
16.000000	.197070	1.058629	1.111840
17.000000	.145146	1.001820	1.056323
18.000000	.110157	.946776	.995872
19.000000	.085140	.892929	.944148
20.000000	.071780	.843549	.891971
21.000000	.052390	.794278	.840505
22.000000	.036462	.746186	.790189
23.000000	.025661	.700731	.745767
24.000000	.024220	.656830	.701010
25.000000	.018763	.613023	.655495
26.000000	.013692	.571447	.610098
27.000000	.010937	.531032	.568827
28.000000	.006377	.492989	.530993
29.000000	.003852	.456028	.492977
30.000000	.001121	.419713	.455370
31.000000	.000874	.384203	.421113
32.000000	.000379	.348957	.383399
33.000000	.000166	.315400	.349615
34.000000	.000047	.282497	.314419
35.000000	.000038	.249713	.282282
36.000000	.000017	.218546	.249848
37.000000	.000007	.184692	.214530
38.000000	.000000	.148085	.181850

----- END MATRIX -----

PARALLEL ANALYSIS FOR DE NOVO BANKS- 38 RATIOS 2004

Run MATRIX procedure:

PARALLEL ANALYSIS:

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 101
 Nvars 38
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prntyle
1.000000	15.284052	2.411210	2.617006
2.000000	5.361380	2.217260	2.357238
3.000000	3.562198	2.071105	2.193600
4.000000	2.915827	1.952976	2.060349
5.000000	2.116569	1.848359	1.933215
6.000000	1.894633	1.751032	1.830323
7.000000	1.376739	1.664546	1.741015
8.000000	1.155249	1.582060	1.652160
9.000000	.863372	1.504754	1.577204
10.000000	.668688	1.434501	1.502921
11.000000	.474001	1.363608	1.423125
12.000000	.456663	1.297785	1.354504
13.000000	.390194	1.235669	1.297323
14.000000	.349207	1.175379	1.228600
15.000000	.260685	1.116869	1.171081

16.000000	.207823	1.060884	1.114921
17.000000	.168313	1.007990	1.060943
18.000000	.158159	.956884	1.006320
19.000000	.090143	.908107	.957748
20.000000	.063186	.857138	.902872
21.000000	.050314	.812503	.858416
22.000000	.039833	.768059	.814358
23.000000	.030842	.723469	.769284
24.000000	.019126	.681085	.727622
25.000000	.014732	.639277	.684866
26.000000	.009727	.597898	.639909
27.000000	.007826	.557951	.599082
28.000000	.004524	.520030	.560741
29.000000	.002888	.483797	.522854
30.000000	.002101	.447462	.486100
31.000000	.000625	.412582	.451426
32.000000	.000307	.377972	.415690
33.000000	.000039	.344763	.382326
34.000000	.000023	.311053	.347389
35.000000	.000008	.278304	.311286
36.000000	.000003	.244678	.277918
37.000000	.000000	.209963	.244190
38.000000	.000000	.171036	.207513

----- END MATRIX -----

PARALLEL ANALYSIS FOR DE NOVO BANKS- 38 RATIOS 2005

Run MATRIX procedure:

PARALLEL ANALYSIS:

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 136
 Nvars 38
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	13.792903	2.180561	2.332693
2.000000	4.991468	2.024367	2.125697
3.000000	4.759809	1.905699	1.997532
4.000000	3.049560	1.808697	1.888559
5.000000	2.477963	1.724386	1.799637
6.000000	1.637629	1.645653	1.713440
7.000000	1.483349	1.572071	1.635815
8.000000	1.176734	1.504907	1.563752
9.000000	.807429	1.441575	1.495469
10.000000	.762965	1.380683	1.432808
11.000000	.616089	1.324345	1.375691
12.000000	.432980	1.268815	1.316395
13.000000	.363123	1.215976	1.263700
14.000000	.297748	1.165069	1.211982
15.000000	.278852	1.116425	1.162120
16.000000	.269332	1.069117	1.112732
17.000000	.197243	1.022491	1.064194
18.000000	.151098	.977517	1.017635
19.000000	.107372	.935348	.976433
20.000000	.084261	.892560	.933149
21.000000	.069408	.851029	.889247
22.000000	.053845	.810791	.848712
23.000000	.034055	.771444	.809385
24.000000	.025232	.733996	.771523
25.000000	.022040	.696748	.735793

26.000000	.018711	.660875	.698117
27.000000	.015816	.625577	.661624
28.000000	.012413	.591397	.625330
29.000000	.004684	.557274	.591086
30.000000	.003435	.523198	.557520
31.000000	.001914	.490319	.523598
32.000000	.000340	.458172	.492323
33.000000	.000139	.425810	.458639
34.000000	.000027	.393929	.426627
35.000000	.000024	.361659	.393037
36.000000	.000007	.328191	.361274
37.000000	.000002	.292595	.327381
38.000000	.000001	.250735	.288926

----- END MATRIX -----

Rotated Component Matrices: De Novo Banks (38 Ratios) 2001-2005

Rotated Component Matrix 2001 38 ratios

Ratios	Component				
	1	2	3	4	5
X10 NET INC \ AVR AST	0.876	0.262	-0.308	0.181	0.136
X53 NET INC \ AVR TOT EQ	0.860	0.194	-0.072	-0.059	0.015
X9 NET OPER INC \ AVR AST	0.858	0.265	-0.320	0.187	0.144
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.856	0.262	-0.322	0.182	0.144
X7 PRETAX OPER INC (TE) \ AVR AST	0.855	0.261	-0.323	0.182	0.145
X26 RETAIN EARNS \ AVR TOT EQ	0.799	0.186	-0.171	-0.132	0.082
X33 EFFICIENCY RATIO	-0.783	-0.415	-0.130	-0.097	-0.191
X5 NONINT EXP \ AVR AST	-0.773	-0.177	0.464	-0.226	-0.239
X35 AST PER EMPLOYEE (\$MILLION)	0.659	-0.032	-0.044	0.443	0.079
X24 TIER ONE LEVERAGE CAP	-0.593	-0.288	0.343	-0.537	-0.226

Ratios	Component				
	1	2	3	4	5
X34 AVR PERSONNEL EXP PER EMPL(\$000)	-0.498	-0.225	0.408	-0.042	-0.297
X11 AVR EARN AST \ AVR AST	0.253	-0.013	0.183	-0.106	-0.139
X45 S T INV \ S T NCORE FUND	-0.165	-0.912	-0.049	-0.125	-0.083
X39 S T INV \ TOT AST	-0.198	-0.851	-0.118	-0.076	-0.163
X43 NET S T NCORE FUND DEPENDENCE	0.274	0.850	0.051	0.218	0.249
X22 NET NCORE FUND DEPENDENCE	0.304	0.823	0.057	0.240	0.245
X46 S T AST \ S T LIABS	-0.215	-0.799	0.058	-0.230	-0.068
X47 NET S T LIAB \ TOT AST	0.267	0.782	0.050	0.185	0.094
X42 S T NCORE FUNDING \ TOT AST	0.159	0.677	-0.138	0.213	-0.062
X4 NONINT INC \ AVR AST	-0.007	0.517	0.034	-0.158	0.157
X1 INT INC (TE) \ AVR AST	-0.108	0.135	0.920	0.180	-0.200
X3 NET INT INC (TE) \ AVR AST	-0.156	0.138	0.889	-0.171	-0.170
X13 INT INC (TE) \ AVR EARN AST	-0.177	0.141	0.880	0.212	-0.165
X15 NET INT INC-TE \ AVR EARN AST	-0.212	0.143	0.843	-0.146	-0.138
X36 YIELD ON TOT LN&LS (TE)	-0.240	-0.079	0.746	0.106	0.313
X20 LN&LS ALLOW \ TOT LN&LS	-0.016	-0.146	0.708	-0.077	0.399
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.367	0.023	0.705	-0.166	0.329
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.030	-0.110	0.699	-0.091	0.398
X14 INT EXP \ AVR EARN AST	0.066	0.226	0.011	0.926	-0.039
X2 INT EXP \ AVR AST	0.132	0.227	0.015	0.912	-0.066
X38 COST OF ALL INT-BEARING FUNDS	-0.164	0.040	-0.093	0.692	-0.159
X41 CORE DEP \ TOT AST	0.193	-0.050	-0.001	0.683	0.465
X12 AVR INT-BEARING FUNDS \ AVR AST	0.376	0.339	0.003	0.676	0.243
X56 TOT RBC \ RISK-WGT AST	-0.491	-0.365	-0.012	-0.567	-0.426
X55 TIER ONE RBC \ RISK-WGT AST	-0.495	-0.366	-0.015	-0.565	-0.423
X48 NET LS&LS \ DEP	0.210	0.387	0.078	-0.029	0.810
X23 NET LN&LS \ AST	0.322	0.375	-0.011	0.253	0.785
X49 NET LN&LS \ CORE DEP	0.222	0.430	0.046	-0.040	0.780

Rotated Component Matrix 2002 38 ratios

Ratios	Component				
	1	2	3	4	5
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.966	0.150	0.116	0.060	0.048
X7 PRETAX OPER INC (TE) \ AVR AST	0.966	0.151	0.116	0.061	0.048
X10 NET INC \ AVR AST	0.961	0.182	0.113	0.050	0.039
X9 NET OPER INC \ AVR AST	0.961	0.182	0.113	0.050	0.039
X53 NET INC \ AVR TOT EQ	0.881	0.076	-0.070	0.227	0.136
X26 RETAIN EARN \ AVR TOT EQ	0.881	0.076	-0.070	0.227	0.136
X5 NONINT EXP \ AVR AST	-0.865	-0.271	-0.236	0.140	0.030
X33 EFFICIENCY RATIO	-0.864	-0.313	-0.093	-0.243	0.061
X24 TIER ONE LEVERAGE CAP	-0.681	-0.274	-0.451	0.286	0.184
X35 AST PER EMPLOYEE (\$MILLION)	0.636	0.222	0.333	-0.008	-0.092
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.625	0.471	-0.017	0.139	0.018
X56 TOT RBC \ RISK-WGT AST	-0.571	-0.527	-0.443	0.107	0.199
X55 TIER ONE RBC \ RISK-WGT AST	-0.570	-0.530	-0.441	0.104	0.199
X41 CORE DEP \ TOT AST	0.551	0.091	0.544	-0.232	-0.042
X34 AVR PERSONNEL EXP PER EMPL(\$000)	-0.542	-0.105	0.087	0.261	-0.259
X4 NONINT INC \ AVR AST	0.308	-0.012	0.009	-0.143	0.088
X45 S T INV \ S T N CORE FUND	-0.148	-0.868	-0.091	-0.206	0.077
X43 NET S T N CORE FUND DEPENDENCE	0.244	0.845	0.115	0.207	-0.157
X49 NET LN&LS \ CORE DEP	0.018	0.821	-0.073	-0.080	0.461
X22 NET N CORE FUND DEPENDENCE	0.247	0.817	0.121	0.241	-0.152
X23 NET LN&LS \ AST	0.266	0.768	0.181	-0.162	0.359
X48 NET LS&LS \ DEP	0.047	0.766	-0.117	-0.061	0.495
X39 S T INV \ TOT AST	-0.193	-0.765	-0.126	-0.278	0.112
X46 S T AST \ S T LIABS	-0.136	-0.759	-0.269	-0.008	0.090
X42 S T N CORE FUNDING \ TOT AST	0.068	0.696	0.027	-0.006	-0.029
X47 NET S T LIAB \ TOT AST	0.076	0.568	0.228	0.102	-0.050
X14 INT EXP \ AVR EARN AST	0.241	0.175	0.928	0.019	0.073
X2 INT EXP \ AVR AST	0.325	0.271	0.861	-0.036	-0.002
X38 COST OF ALL INT-BEARING FUNDS	-0.137	0.106	0.759	0.119	0.068

Ratios	Component				
	1	2	3	4	5
X12 AVR INT-BEARING FUNDS \ AVR AST	0.563	0.325	0.611	-0.212	-0.109
X11 AVR EARN AST \ AVR AST	0.249	0.277	-0.340	-0.179	-0.287
X15 NET INT INC-TE \ AVR EARN AST	-0.065	0.078	-0.164	0.935	-0.014
X13 INT INC (TE) \ AVR EARN AST	0.031	0.117	0.311	0.913	-0.059
X3 NET INT INC (TE) \ AVR AST	0.015	0.170	-0.276	0.880	-0.110
X1 INT INC (TE) \ AVR AST	0.143	0.245	0.166	0.861	-0.190
X20 LN&LS ALLOW \ TOT LN&LS	-0.225	-0.079	-0.162	0.355	-0.813
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.215	-0.092	-0.151	0.354	-0.810
X36 YIELD ON TOT LN&LS (TE)	-0.027	-0.196	-0.138	0.133	0.700

Rotated Component Matrix 2003 38 ratios

Ratio	Components				
	1	2	3	4	5
X10 NET INC \ AVR AST	0.921	0.271	-0.038	0.114	-0.184
X7 PRETAX OPER INC (TE) \ AVR AST	0.919	0.244	-0.023	0.114	-0.233
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.919	0.241	-0.024	0.116	-0.234
X9 NET OPER INC \ AVR AST	0.910	0.275	-0.006	0.137	-0.215
X5 NONINT EXP \ AVR AST	-0.863	-0.260	0.079	0.302	-0.094
X26 RETAIN EARN \ AVR TOT EQ	0.833	0.049	-0.273	0.264	-0.230
X53 NET INC \ AVR TOT EQ	0.833	0.049	-0.273	0.264	-0.230
X33 EFFICIENCY RATIO	-0.785	-0.365	-0.169	-0.415	0.028
X24 TIER ONE LEVERAGE CAP	-0.778	-0.368	-0.270	0.044	0.026
X55 TIER ONE RBC \ RISK-WGT AST	-0.748	-0.387	-0.404	-0.086	-0.191
X56 TOT RBC \ RISK-WGT AST	-0.748	-0.384	-0.410	-0.082	-0.188
X41 CORE DEP \ TOT AST	0.746	-0.076	0.130	-0.231	0.398
X34 AVR PERSONNEL EXP PER EMPL(\$000)	-0.665	-0.075	0.021	0.247	-0.120
X12 AVR INT-BEARING FUNDS \ AVR AST	0.636	0.392	0.470	-0.084	0.148
X23 NET LN&LS \ AST	0.550	0.280	0.501	0.224	0.289
X35 AST PER EMPLOYEE (\$MILLION)	0.528	0.290	0.086	-0.269	0.318
X11 AVR EARN AST \ AVR AST	0.244	-0.089	0.083	0.180	0.075

Ratio	Components				
	1	2	3	4	5
X45 S T INV \ S T N CORE FUND	-0.240	-0.899	-0.113	-0.101	-0.047
X43 NET S T N CORE FUND DEPENDENCE	0.259	0.858	0.179	0.195	-0.005
X46 S T AST \ S T LIABS	-0.212	-0.823	-0.139	-0.142	-0.089
X22 NET N CORE FUND DEPENDENCE	0.290	0.811	0.223	0.201	-0.029
X47 NET S T LIAB \ TOT AST	0.169	0.808	0.002	0.036	0.141
X39 S T INV \ TOT AST	-0.358	-0.787	-0.028	-0.066	-0.102
X42 S T N CORE FUNDING \ TOT AST	0.031	0.718	0.223	0.168	-0.042
X38 COST OF ALL INT-BEARING FUNDS	-0.185	0.076	0.841	0.238	-0.178
X2 INT EXP \ AVR AST	0.114	0.297	0.826	0.248	-0.103
X14 INT EXP \ AVR EARN AST	0.105	0.312	0.826	0.228	-0.099
X36 YIELD ON TOT LN&LS (TE)	-0.196	-0.124	0.542	0.298	-0.082
X49 NET LN&LS \ CORE DEP	0.235	0.358	0.504	0.374	0.120
X48 NET LS&LS \ DEP	0.298	0.262	0.480	0.406	0.167
X3 NET INT INC (TE) \ AVR AST	0.030	0.172	0.188	0.922	0.125
X15 NET INT INC-TE \ AVR EARN AST	0.004	0.184	0.179	0.914	0.124
X1 INT INC (TE) \ AVR AST	0.069	0.267	0.469	0.790	0.067
X13 INT INC (TE) \ AVR EARN AST	0.039	0.285	0.464	0.780	0.061
X4 NONINT INC \ AVR AST	0.060	0.129	0.339	0.556	-0.431
X20 LN&LS ALLOW \ TOT LN&LS	0.013	0.131	-0.252	-0.001	0.806
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.264	-0.073	0.263	0.210	0.757
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.044	0.176	-0.121	0.135	0.716

Rotated Component Matrix 2004 38 Ratios

Ratios	Components					
	1	2	3	4	5	6
X33 EFFICIENCY RATIO	-0.867	0.136	-0.337	0.004	-0.030	-0.122
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.856	-0.415	0.244	-0.014	-0.103	-0.004
X7 PRETAX OPER INC (TE) \ AVR AST	0.855	-0.415	0.245	-0.014	-0.104	-0.005
X9 NET OPER INC \ AVR AST	0.854	-0.413	0.252	-0.022	-0.076	-0.017
X10 NET INC \ AVR AST	0.854	-0.413	0.252	-0.022	-0.076	-0.017

Ratios	Components					
	1	2	3	4	5	6
X53 NET INC \ AVR TOT EQ	0.824	-0.169	0.154	-0.166	0.171	0.022
X26 RETAIN EARN S \ AVR TOT EQ	0.824	-0.169	0.154	-0.166	0.171	0.022
X5 NONINT EXP \ AVR AST	-0.797	0.500	-0.214	-0.044	0.149	-0.010
X55 TIER ONE RBC \ RISK-WGT AST	-0.771	0.018	-0.329	-0.306	0.253	0.021
X56 TOT RBC \ RISK-WGT AST	-0.771	0.021	-0.327	-0.308	0.259	0.022
X24 TIER ONE LEVERAGE CAP	-0.706	0.436	-0.296	-0.172	0.295	0.073
X35 AST PER EMPLOYEE (\$MILLION)	0.654	0.012	-0.123	0.280	-0.075	-0.036
X41 CORE DEP \ TOT AST	0.626	-0.189	-0.067	0.322	-0.237	-0.479
X12 AVR INT-BEARING FUNDS \ AVR AST	0.597	-0.259	0.231	0.466	-0.250	-0.162
X23 NET LN&LS \ AST	0.594	0.026	0.131	0.257	-0.417	0.435
X34 AVR PERSONNEL EXP PER EMPL(\$000)	-0.512	0.431	-0.348	-0.100	0.029	0.002
X13 INT INC (TE) \ AVR EARN AST	-0.250	0.944	0.025	0.066	-0.007	-0.024
X15 NET INT INC-TE \ AVR EARN AST	-0.278	0.930	-0.011	-0.101	0.048	0.026
X1 INT INC (TE) \ AVR AST	-0.158	0.911	-0.064	0.179	0.164	0.186
X3 NET INT INC (TE) \ AVR AST	-0.203	0.891	-0.097	-0.037	0.208	0.220
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.348	0.699	-0.136	0.248	0.203	0.255
X36 YIELD ON TOT LN&LS (TE)	-0.241	0.644	-0.065	-0.204	-0.341	-0.024
X11 AVR EARN AST \ AVR AST	0.292	-0.505	-0.180	0.182	0.323	0.406
X45 S T INV \ S T N CORE FUND	-0.251	0.019	-0.891	-0.006	-0.070	-0.045
X43 NET S T N CORE FUND DEPENDENCE	0.291	0.065	0.876	0.099	-0.088	0.036
X46 S T AST \ S T LIABS	-0.144	0.191	-0.853	-0.024	-0.193	0.004
X22 NET N CORE FUND DEPENDENCE	0.351	0.053	0.828	0.154	-0.083	0.036
X39 S T INV \ TOT AST	-0.294	-0.052	-0.809	-0.007	-0.044	0.008
X47 NET S T LIAB \ TOT AST	0.110	-0.027	0.786	0.167	0.023	0.003
X42 S T N CORE FUNDING \ TOT AST	0.155	-0.116	0.697	0.072	-0.003	0.134
X4 NONINT INC \ AVR AST	-0.074	-0.149	0.464	-0.070	0.195	0.075
X2 INT EXP \ AVR AST	0.250	0.045	0.163	0.909	-0.037	-0.095
X14 INT EXP \ AVR EARN AST	0.157	0.110	0.226	0.872	-0.123	-0.140
X38 COST OF ALL INT-BEARING FUNDS	-0.191	-0.076	-0.031	0.722	0.192	0.149
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.159	0.138	0.190	0.004	0.886	-0.150

Ratios	Components					
	1	2	3	4	5	6
X20 LN&LS ALLOW \ TOT LN&LS	-0.159	0.139	0.189	0.002	0.886	-0.150
X48 NET LS&LS \ DEP	-0.004	0.157	0.116	-0.062	-0.152	0.935
X49 NET LN&LS \ CORE DEP	-0.019	0.175	0.182	-0.048	-0.178	0.932

Rotated Component Matrix 2005 38 Ratios

Ratios	Components				
	1	2	3	4	5
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.928	0.157	0.173	-0.157	-0.135
X7 PRETAX OPER INC (TE) \ AVR AST	0.928	0.157	0.173	-0.157	-0.135
X10 NET INC \ AVR AST	0.920	0.189	0.214	-0.147	-0.116
X9 NET OPER INC \ AVR AST	0.920	0.191	0.214	-0.147	-0.116
X53 NET INC \ AVR TOT EQ	0.895	0.065	0.014	0.075	-0.217
X26 RETAIN EARN \ AVR TOT EQ	0.895	0.065	0.013	0.075	-0.217
X33 EFFICIENCY RATIO	-0.869	-0.205	-0.224	-0.105	-0.020
X5 NONINT EXP \ AVR AST	-0.799	-0.268	-0.249	0.365	-0.043
X35 AST PER EMPLOYEE (\$MILLION)	0.628	0.312	0.111	-0.124	-0.003
X23 NET LN&LS \ AST	0.557	0.193	0.431	0.024	0.549
X48 NET LS&LS \ DEP	0.553	0.138	-0.106	0.257	0.551
X38 COST OF ALL INT-BEARING FUNDS	-0.520	0.196	0.362	0.192	-0.131
X34 AVR PERSONNEL EXP PER EMPL(\$000)	-0.435	-0.222	-0.301	0.242	-0.055
X11 AVR EARN AST \ AVR AST	0.307	0.096	-0.090	0.011	0.131
X45 S T INV \ S T NCORE FUND	-0.213	-0.922	-0.149	-0.040	-0.021
X46 S T AST \ S T LIABS	-0.031	-0.893	-0.094	0.116	0.057
X43 NET S T NCORE FUND DEPENDENCE	0.356	0.840	0.182	0.048	0.131
X47 NET S T LIAB \ TOT AST	0.108	0.833	0.072	-0.004	0.017
X22 NET NCORE FUND DEPENDENCE	0.349	0.818	0.202	0.009	0.141
X39 S T INV \ TOT AST	-0.294	-0.778	-0.094	-0.069	-0.072
X42 S T NCORE FUNDING \ TOT AST	0.083	0.763	0.183	-0.038	-0.019
X14 INT EXP \ AVR EARN AST	-0.018	0.393	0.825	0.005	-0.116
X2 INT EXP \ AVR AST	0.025	0.409	0.815	0.007	-0.088

Ratios	Components				
	1	2	3	4	5
X12 AVR INT-BEARING FUNDS \ AVR AST	0.167	0.294	0.794	-0.245	0.051
X41 CORE DEP \ TOT AST	0.096	-0.174	0.779	-0.337	0.080
X56 TOT RBC \ RISK-WGT AST	-0.457	-0.397	-0.685	0.152	-0.233
X55 TIER ONE RBC \ RISK-WGT AST	-0.457	-0.398	-0.682	0.153	-0.234
X24 TIER ONE LEVERAGE CAP	-0.470	-0.315	-0.573	0.437	-0.101
X4 NONINT INC \ AVR AST	0.072	-0.122	0.404	0.164	-0.188
X13 INT INC (TE) \ AVR EARN AST	-0.142	0.071	0.047	0.955	-0.027
X1 INT INC (TE) \ AVR AST	-0.048	0.099	0.020	0.944	0.012
X15 NET INT INC-TE \ AVR EARN AST	-0.105	-0.111	-0.275	0.896	0.035
X3 NET INT INC (TE) \ AVR AST	-0.035	-0.089	-0.292	0.892	0.063
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.317	0.017	-0.085	-0.131	0.683
X20 LN&LS ALLOW \ TOT LN&LS	-0.312	-0.029	-0.093	-0.119	0.677
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.169	0.094	0.238	0.523	0.634
X49 NET LN&LS \ CORE DEP	0.506	0.264	-0.092	0.267	0.575
X36 YIELD ON TOT LN&LS (TE)	0.001	-0.397	0.321	0.391	0.485

APPENDIX 8.2: Results for small De Novo banks 2001-2005 (38 ratios)

Cattell's scree plots for small De Novo banks 2001-2005 (38 ratios)

Figure 8.B.1: Cattell's Scree Plot for Small De Novo Banks 2001 (38 Ratios)

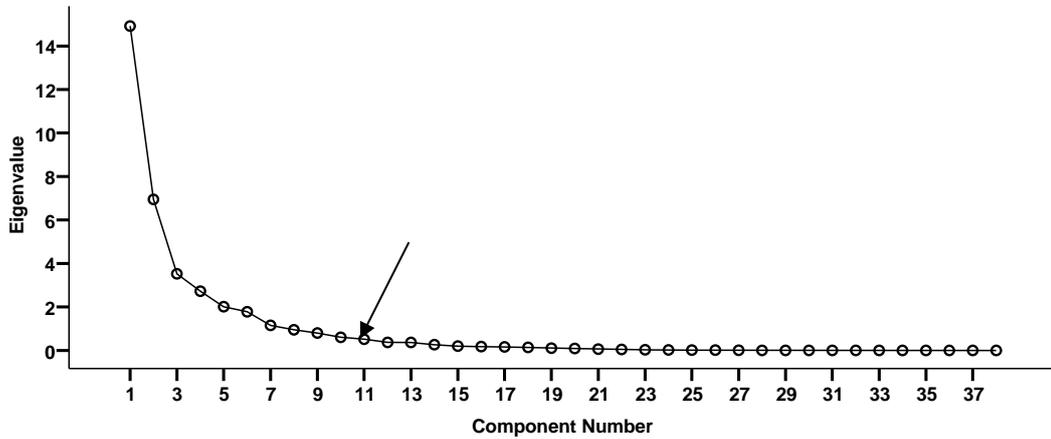


Figure 8.B.2: Cattell's Scree Plot for Small De Novo Banks 2002 (38 Ratios)

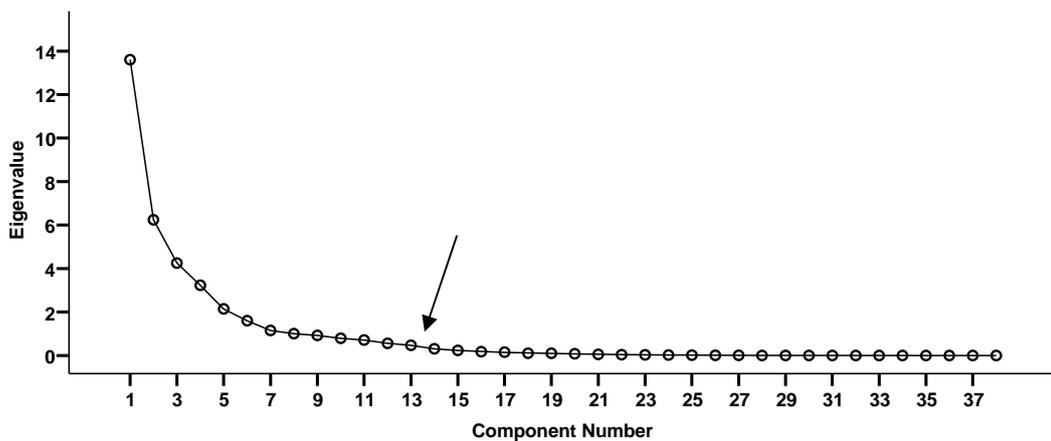


Figure 8.B.3: Cattell's Scree Plot for Small De Novo Banks 2003 (38 Ratios)

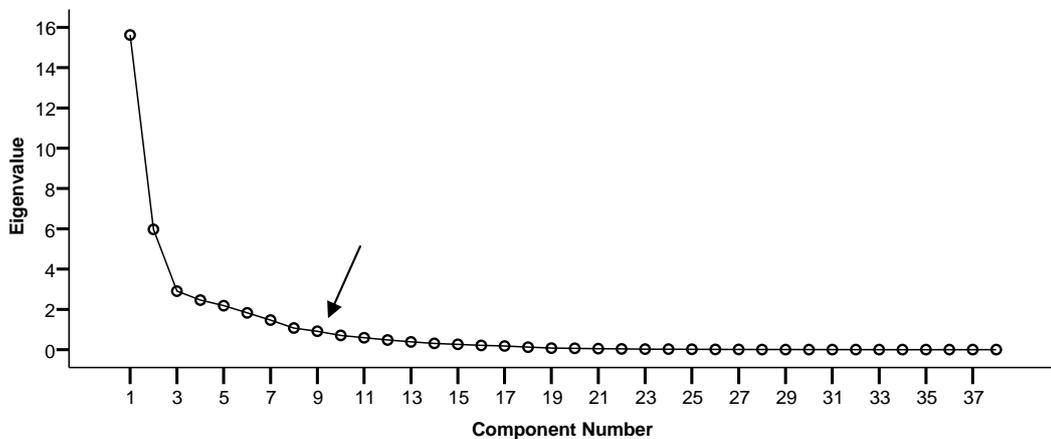


Figure 8.B.4: Cattell's Scree Plot for Small De Novo Banks 2004 (38 Ratios)

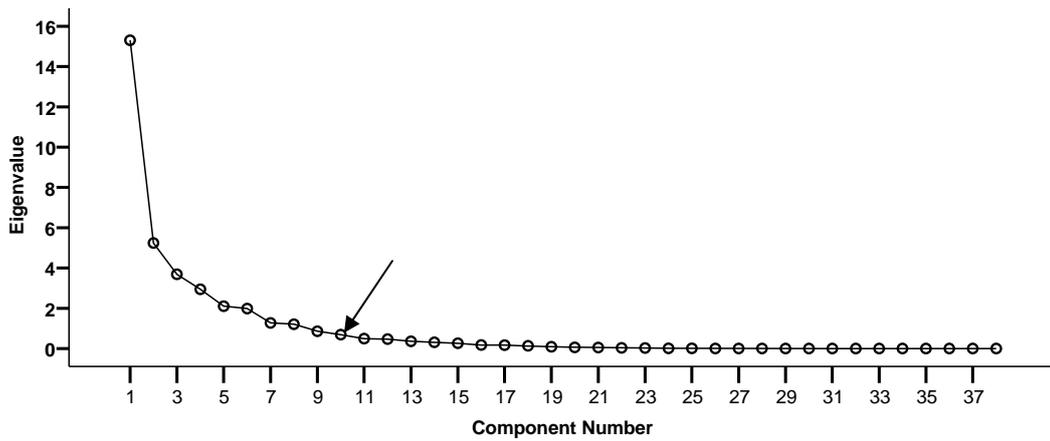
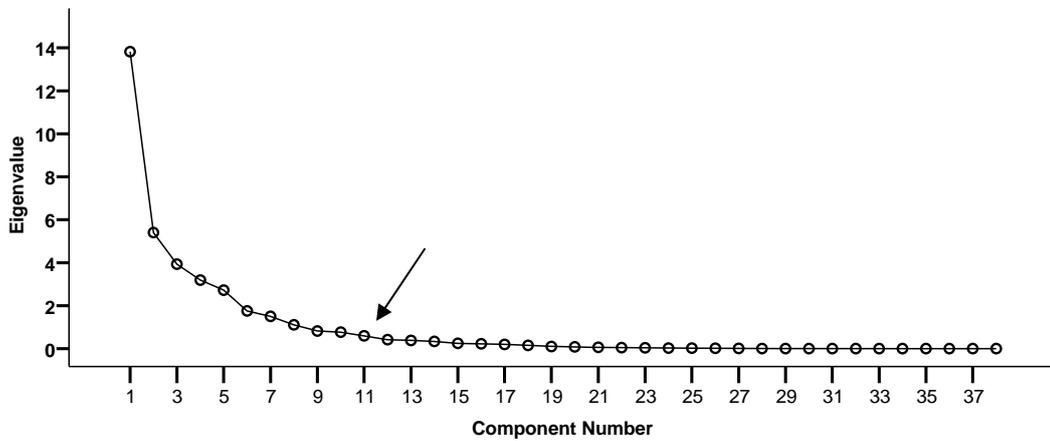


Figure 8.B.5: Cattell's Scree Plot for Small De Novo Banks 2005 (38 Ratios)



APPENDIX 8.B

Factorability results for small De Novo banks 2001-2005 (38 ratios)

KMO and Bartlett's Test-2005

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.748
Bartlett's Test of Sphericity	Approx. Chi-Square	13249.512
	df	703
	Sig.	.000

Parallel analysis outputs for small De Novo banks 2001-2005 (38 ratios)

SMALL DE NOVO BANKS 38 RATIOS

PARALLEL ANALYSIS: 2001

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 95
 Nvars 38
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	14.921364	2.466813	2.677513
2.000000	6.949257	2.258199	2.406811
3.000000	3.521348	2.110323	2.225164
4.000000	2.726618	1.987908	2.102308
5.000000	2.010906	1.876918	1.968816
6.000000	1.779587	1.777015	1.864843
7.000000	1.153146	1.684856	1.767170
8.000000	.952791	1.600812	1.675729
9.000000	.798107	1.519900	1.585709
10.000000	.601839	1.445148	1.514317
11.000000	.516253	1.373673	1.438557
12.000000	.373063	1.305129	1.363595
13.000000	.362956	1.239031	1.294316
14.000000	.260283	1.177611	1.230266
15.000000	.200471	1.118632	1.172958
16.000000	.176759	1.057836	1.109803
17.000000	.161045	1.003926	1.055414
18.000000	.136669	.951119	1.001862
19.000000	.106510	.899950	.950170
20.000000	.090524	.849224	.903031
21.000000	.061046	.799851	.846650

22.000000	.046362	.753724	.801616
23.000000	.028826	.708827	.757078
24.000000	.020856	.665220	.710134
25.000000	.011355	.622993	.667212
26.000000	.011084	.582333	.626395
27.000000	.006675	.542032	.586458
28.000000	.004798	.503630	.547120
29.000000	.003961	.467237	.508504
30.000000	.001922	.430302	.467711
31.000000	.001310	.395034	.433950
32.000000	.001254	.360585	.397104
33.000000	.000965	.327611	.361408
34.000000	.000063	.294260	.328289
35.000000	.000023	.261512	.293642
36.000000	.000002	.228575	.261093
37.000000	.000001	.195264	.227847
38.000000	.000000	.156985	.190392

----- END MATRIX -----

PARALLEL ANALYSIS:2002

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 71
 Nvars 38
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	13.603245	2.742474	2.993570
2.000000	6.243906	2.492663	2.659378
3.000000	4.254075	2.318903	2.463118

4.000000	3.227878	2.163838	2.286933
5.000000	2.139581	2.027350	2.141869
6.000000	1.601803	1.901374	2.000722
7.000000	1.148395	1.789674	1.878310
8.000000	1.003163	1.690420	1.771912
9.000000	.923023	1.593255	1.668132
10.000000	.790879	1.502977	1.575535
11.000000	.711680	1.417721	1.494857
12.000000	.562280	1.333022	1.409552
13.000000	.469150	1.254703	1.326477
14.000000	.303866	1.182073	1.251482
15.000000	.234913	1.112283	1.176602
16.000000	.176428	1.044231	1.107193
17.000000	.152443	.978716	1.040225
18.000000	.103456	.917297	.976037
19.000000	.101382	.856461	.913583
20.000000	.076039	.799995	.855143
21.000000	.049222	.745416	.798337
22.000000	.041552	.691534	.744219
23.000000	.028513	.642165	.694257
24.000000	.017180	.593671	.644433
25.000000	.011690	.546673	.594060
26.000000	.007513	.502039	.545176
27.000000	.006491	.458333	.501081
28.000000	.004943	.418337	.459449
29.000000	.003798	.380021	.420826
30.000000	.001139	.341775	.381016
31.000000	.000232	.307395	.344602
32.000000	.000076	.272482	.306398
33.000000	.000035	.240096	.275421
34.000000	.000018	.208121	.238791
35.000000	.000011	.177398	.208123
36.000000	.000003	.148395	.177876
37.000000	.000000	.118653	.145716
38.000000	.000000	.088067	.115469

----- END MATRIX -----

PARALLEL ANALYSIS: 2003

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 88
 Nvars 38
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	15.616322	2.524404	2.729013
2.000000	5.972799	2.312619	2.457138
3.000000	2.904848	2.161573	2.284872
4.000000	2.458936	2.032454	2.145107
5.000000	2.188066	1.914558	2.012855
6.000000	1.831448	1.812661	1.902092
7.000000	1.465466	1.714453	1.793034
8.000000	1.068414	1.626695	1.701864
9.000000	.914051	1.540509	1.612521
10.000000	.704921	1.459368	1.528359
11.000000	.592120	1.384181	1.446379
12.000000	.478084	1.313557	1.378124
13.000000	.386905	1.245060	1.306077
14.000000	.310716	1.181206	1.239925
15.000000	.264139	1.118080	1.175330
16.000000	.208719	1.058475	1.115240
17.000000	.184414	.998556	1.053770
18.000000	.125122	.942847	.995689
19.000000	.076410	.889393	.942243
20.000000	.063465	.836980	.886231
21.000000	.045696	.785858	.836017

22.000000	.038355	.738125	.787664	4.000000	2.945678	1.995459	2.102364
23.000000	.026269	.691500	.736443	5.000000	2.102810	1.881894	1.975325
24.000000	.022881	.647352	.689376	6.000000	1.988136	1.780993	1.872041
25.000000	.019341	.603320	.647479	7.000000	1.272878	1.689259	1.769522
26.000000	.011878	.562132	.603007	8.000000	1.212431	1.603202	1.676936
27.000000	.010037	.521007	.561176	9.000000	.859829	1.522404	1.594903
28.000000	.006738	.481900	.523776	10.000000	.688935	1.445521	1.511803
29.000000	.001239	.444226	.484320	11.000000	.493550	1.373006	1.436318
30.000000	.001033	.407146	.445038	12.000000	.470381	1.306365	1.368809
31.000000	.000580	.371876	.405966	13.000000	.363109	1.239638	1.301223
32.000000	.000291	.338016	.373797	14.000000	.307865	1.176962	1.232788
33.000000	.000191	.304624	.335386	15.000000	.263420	1.116463	1.173048
34.000000	.000046	.272588	.306255	16.000000	.177151	1.057459	1.107744
35.000000	.000033	.239858	.272131	17.000000	.169495	1.002304	1.051143
36.000000	.000018	.207678	.238566	18.000000	.135547	.950032	1.000941
37.000000	.000009	.175303	.209276	19.000000	.090474	.897564	.949747
38.000000	.000000	.139861	.174275	20.000000	.061050	.847679	.897630
				21.000000	.051656	.799922	.848294
				22.000000	.034916	.752644	.799472
				23.000000	.029132	.706573	.754632
				24.000000	.015122	.662974	.709333
				25.000000	.011946	.620560	.666309
				26.000000	.007635	.580068	.623170
				27.000000	.006648	.538965	.581920
				28.000000	.004694	.500900	.539250
				29.000000	.002656	.463225	.502841
				30.000000	.001895	.427574	.469114
				31.000000	.000519	.392653	.429364
				32.000000	.000302	.358333	.395991
				33.000000	.000034	.324217	.359321
				34.000000	.000023	.290855	.324229
				35.000000	.000008	.259078	.294218
				36.000000	.000002	.226210	.259901
				37.000000	.000000	.192643	.225674
				38.000000	.000000	.154890	.189876

----- END MATRIX -----

PARALLEL ANALYSIS:2004

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 94
 Nvars 38
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	15.306025	2.475023	2.698579
2.000000	5.238384	2.268860	2.424110
3.000000	3.685663	2.117626	2.240956

----- END MATRIX -----

PARALLEL ANALYSIS: 2005

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 115
 Nvars 38
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	13.816999	2.299196	2.471838
2.000000	5.401714	2.127822	2.249951
3.000000	3.933455	1.999785	2.108525
4.000000	3.192128	1.890348	1.981719
5.000000	2.722343	1.795079	1.879283
6.000000	1.751223	1.706149	1.778477
7.000000	1.498779	1.625520	1.696654
8.000000	1.106599	1.549623	1.615055
9.000000	.819442	1.477672	1.541385
10.000000	.768676	1.409288	1.469636
11.000000	.594883	1.346543	1.400072
12.000000	.419287	1.285562	1.341983
13.000000	.385252	1.227234	1.279707
14.000000	.336803	1.171893	1.220096
15.000000	.247717	1.116454	1.167662
16.000000	.224769	1.063340	1.114132
17.000000	.199517	1.013723	1.062302
18.000000	.154634	.964429	1.009133
19.000000	.101889	.917489	.962739
20.000000	.084952	.872533	.916353
21.000000	.067640	.829158	.871710

22.000000	.046600	.786410	.828583
23.000000	.037693	.745587	.787165
24.000000	.026818	.703550	.743102
25.000000	.022303	.664729	.704753
26.000000	.014928	.626312	.665610
27.000000	.009206	.588418	.629074
28.000000	.005348	.552733	.591253
29.000000	.004192	.516695	.553326
30.000000	.001928	.482316	.518428
31.000000	.001680	.447172	.482653
32.000000	.000328	.413997	.448475
33.000000	.000204	.380940	.414595
34.000000	.000040	.348779	.381960
35.000000	.000020	.315927	.348878
36.000000	.000006	.282377	.317911
37.000000	.000002	.247734	.282158
38.000000	.000001	.207482	.242419

----- END MATRIX -----

Rotated component matrices for small De Novo banks (38 ratios)

Rotated Component Matrix Small De Novo 38R 2001

Ratios	Component				
	1	2	3	4	5
X10 NET INC \ AVR AST	0.892	0.253	-0.309	0.178	0.028
X53 NET INC \ AVR TOT EQ	0.889	0.185	-0.097	-0.115	-0.013
X26 RETAIN EARNs \ AVR TOT EQ	0.889	0.185	-0.097	-0.115	-0.013
X9 NET OPER INC \ AVR AST	0.877	0.255	-0.323	0.185	0.030
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.873	0.253	-0.334	0.178	0.035
X7 PRETAX OPER INC (TE) \ AVR AST	0.872	0.253	-0.335	0.178	0.035
X33 EFFICIENCY RATIO	-0.805	-0.401	-0.170	-0.100	-0.151
X5 NONINT EXP \ AVR AST	-0.795	-0.183	0.469	-0.235	-0.098
X35 AST PER EMPLOYEE (\$MILLION)	0.613	-0.014	-0.065	0.455	0.084

Ratios	Component				
	1	2	3	4	5
X24 TIER ONE LEVERAGE CAP	-0.596	-0.294	0.363	-0.555	-0.108
X34 AVR PERSONNEL EXP PER EMPL(\$000)	-0.558	-0.237	0.416	-0.062	-0.162
X11 AVR EARN AST \ AVR AST	0.179	-0.022	0.176	-0.118	-0.043
X45 S T INV \ S T N CORE FUND	-0.139	-0.926	-0.057	-0.109	-0.037
X43 NET S T N CORE FUND DEPENDENCE	0.257	0.872	0.030	0.220	0.189
X39 S T INV \ TOT AST	-0.155	-0.871	-0.098	-0.055	-0.147
X22 NET N CORE FUND DEPENDENCE	0.289	0.843	0.038	0.245	0.188
X46 S T AST \ S T LIABS	-0.179	-0.814	0.064	-0.216	-0.017
X47 NET S T LIAB \ TOT AST	0.212	0.797	0.035	0.171	0.070
X42 S T N CORE FUNDING \ TOT AST	0.175	0.689	-0.075	0.228	-0.183
X4 NONINT INC \ AVR AST	0.047	0.512	0.054	-0.146	0.088
X1 INT INC (TE) \ AVR AST	-0.165	0.087	0.950	0.166	-0.007
X3 NET INT INC (TE) \ AVR AST	-0.186	0.099	0.919	-0.181	0.013
X13 INT INC (TE) \ AVR EARN AST	-0.215	0.095	0.913	0.201	0.004
X15 NET INT INC-TE \ AVR EARN AST	-0.225	0.106	0.876	-0.153	0.021
X36 YIELD ON TOT LN&LS (TE)	-0.261	-0.073	0.650	0.103	0.470
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.388	0.070	0.588	-0.148	0.505
X14 INT EXP \ AVR EARN AST	0.039	0.197	0.042	0.931	-0.091
X2 INT EXP \ AVR AST	0.091	0.197	0.045	0.917	-0.107
X41 CORE DEP \ TOT AST	0.194	-0.024	-0.086	0.696	0.444
X12 AVR INT-BEARING FUNDS \ AVR AST	0.346	0.348	-0.034	0.693	0.213
X38 COST OF ALL INT-BEARING FUNDS	-0.159	0.013	-0.039	0.678	-0.225
X56 TOT RBC \ RISK-WGT AST	-0.484	-0.395	0.039	-0.591	-0.368
X55 TIER ONE RBC \ RISK-WGT AST	-0.486	-0.396	0.036	-0.590	-0.367
X48 NET LS&LS \ DEP	0.267	0.457	-0.048	0.008	0.732
X49 NET LN&LS \ CORE DEP	0.284	0.502	-0.070	0.000	0.691
X23 NET LN&LS \ AST	0.377	0.441	-0.122	0.292	0.682
X20 LN&LS ALLOW \ TOT LN&LS	-0.134	-0.115	0.528	-0.089	0.621
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.148	-0.079	0.519	-0.103	0.617

Rotated Component Matrix Small De Novo 38R 2002

Ratios	Component			
	1	2	3	4
X7 PRETAX OPER INC (TE) \ AVR AST	0.950	0.067	0.255	-0.032
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.950	0.066	0.256	-0.032
X10 NET INC \ AVR AST	0.947	0.105	0.250	-0.023
X9 NET OPER INC \ AVR AST	0.947	0.105	0.250	-0.023
X53 NET INC \ AVR TOT EQ	0.904	0.024	-0.028	0.066
X26 RETAIN EARN S \ AVR TOT EQ	0.904	0.024	-0.028	0.066
X33 EFFICIENCY RATIO	-0.860	-0.249	-0.218	-0.253
X5 NONINT EXP \ AVR AST	-0.812	-0.166	-0.415	0.144
X34 AVR PERSONNEL EXP PER EMPL(\$000)	-0.628	-0.144	0.085	0.307
X4 NONINT INC \ AVR AST	0.369	0.018	0.018	-0.125
X11 AVR EARN AST \ AVR AST	0.208	0.163	-0.086	0.006
X49 NET LN&LS \ CORE DEP	0.049	0.886	-0.119	-0.291
X45 S T INV \ S T N CORE FUND	-0.093	-0.843	-0.187	-0.233
X48 NET LS&LS \ DEP	0.073	0.841	-0.181	-0.300
X43 NET S T N CORE FUND DEPENDENCE	0.170	0.805	0.254	0.282
X23 NET LN&LS \ AST	0.285	0.798	0.176	-0.298
X22 NET N CORE FUND DEPENDENCE	0.189	0.776	0.246	0.311
X39 S T INV \ TOT AST	-0.144	-0.743	-0.201	-0.328
X46 S T AST \ S T LIABS	-0.098	-0.713	-0.389	-0.065
X42 S T N CORE FUNDING \ TOT AST	-0.003	0.652	0.140	-0.002
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.532	0.542	-0.070	0.164
X47 NET S T LIAB \ TOT AST	0.029	0.539	0.300	0.105
X2 INT EXP \ AVR AST	0.243	0.216	0.857	-0.063
X14 INT EXP \ AVR EARN AST	0.170	0.153	0.847	-0.055
X12 AVR INT-BEARING FUNDS \ AVR AST	0.471	0.229	0.742	-0.139
X24 TIER ONE LEVERAGE CAP	-0.581	-0.162	-0.666	0.164
X55 TIER ONE RBC \ RISK-WGT AST	-0.482	-0.437	-0.641	-0.019
X56 TOT RBC \ RISK-WGT AST	-0.485	-0.433	-0.640	-0.017
X38 COST OF ALL INT-BEARING FUNDS	-0.172	0.116	0.627	0.030

Ratios	Component			
	1	2	3	4
X41 CORE DEP \ TOT AST	0.541	0.044	0.609	-0.153
X35 AST PER EMPLOYEE (\$MILLION)	0.483	0.080	0.571	-0.062
X36 YIELD ON TOT LN&LS (TE)	0.092	-0.011	-0.437	-0.231
X1 INT INC (TE) \ AVR AST	0.127	0.250	0.107	0.858
X3 NET INT INC (TE) \ AVR AST	0.036	0.210	-0.354	0.840
X15 NET INT INC-TE \ AVR EARN AST	-0.030	0.154	-0.323	0.829
X13 INT INC (TE) \ AVR EARN AST	0.031	0.168	0.142	0.820
X20 LN&LS ALLOW \ TOT LN&LS	-0.288	-0.217	0.058	0.714
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.275	-0.229	0.066	0.712

Ratio	Components				
	1	2	3	4	5
X43 NET S T NCORE FUND DEPENDENCE	0.270	0.880	0.143	0.082	0.021
X22 NET NCORE FUND DEPENDENCE	0.289	0.840	0.176	0.136	-0.034
X46 S T AST \ S T LIABS	-0.214	-0.802	-0.197	-0.182	-0.056
X39 S T INV \ TOT AST	-0.337	-0.768	-0.109	-0.076	-0.051
X47 NET S T LIAB \ TOT AST	0.155	0.743	0.071	0.059	0.256
X42 S T NCORE FUNDING \ TOT AST	0.028	0.721	0.123	0.118	-0.069
X49 NET LN&LS \ CORE DEP	0.190	0.481	0.393	0.415	-0.216
X3 NET INT INC (TE) \ AVR AST	0.018	0.162	0.942	0.100	0.068
X15 NET INT INC-TE \ AVR EARN AST	-0.008	0.174	0.934	0.087	0.082
X1 INT INC (TE) \ AVR AST	0.103	0.285	0.811	0.375	0.124
X13 INT INC (TE) \ AVR EARN AST	0.072	0.305	0.799	0.364	0.143
X4 NONINT INC \ AVR AST	0.336	0.080	0.422	-0.080	0.029
X48 NET LS&LS \ DEP	0.258	0.358	0.417	0.402	-0.172
X38 COST OF ALL INT-BEARING FUNDS	-0.149	0.121	0.159	0.791	-0.146
X2 INT EXP \ AVR AST	0.240	0.348	0.127	0.770	0.133
X14 INT EXP \ AVR EARN AST	0.225	0.363	0.109	0.764	0.143
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.423	-0.030	0.421	0.535	0.286
X23 NET LN&LS \ AST	0.468	0.396	0.313	0.512	-0.060
X36 YIELD ON TOT LN&LS (TE)	-0.174	-0.145	0.262	0.465	-0.109
X20 LN&LS ALLOW \ TOT LN&LS	-0.071	0.059	0.111	0.001	0.935
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.068	0.064	0.114	0.000	0.935

Rotated Component Matrix Small De Novo 38R 2003

Ratio	Components				
	1	2	3	4	5
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.951	0.218	0.093	-0.073	-0.077
X7 PRETAX OPER INC (TE) \ AVR AST	0.951	0.221	0.091	-0.072	-0.075
X9 NET OPER INC \ AVR AST	0.947	0.237	0.106	-0.057	-0.063
X10 NET INC \ AVR AST	0.945	0.238	0.108	-0.059	-0.061
X5 NONINT EXP \ AVR AST	-0.873	-0.313	0.173	-0.105	0.044
X53 NET INC \ AVR TOT EQ	0.840	0.046	0.286	-0.264	-0.137
X26 RETAIN EARNS \ AVR TOT EQ	0.840	0.046	0.286	-0.264	-0.137
X24 TIER ONE LEVERAGE CAP	-0.836	-0.299	0.094	-0.229	-0.162
X33 EFFICIENCY RATIO	-0.803	-0.352	-0.408	-0.115	-0.003
X55 TIER ONE RBC \ RISK-WGT AST	-0.725	-0.376	-0.142	-0.449	-0.109
X56 TOT RBC \ RISK-WGT AST	-0.724	-0.376	-0.137	-0.453	-0.104
X41 CORE DEP \ TOT AST	0.721	-0.023	-0.048	0.383	0.285
X12 AVR INT-BEARING FUNDS \ AVR AST	0.644	0.379	-0.078	0.475	0.222
X34 AVR PERSONNEL EXP PER EMPL(\$000)	-0.632	-0.134	0.086	-0.162	0.118
X35 AST PER EMPLOYEE (\$MILLION)	0.471	0.315	-0.135	0.331	0.143
X11 AVR EARN AST \ AVR AST	0.212	-0.076	0.181	0.117	-0.093
X45 S T INV \ S T NCORE FUND	-0.229	-0.895	-0.102	-0.097	-0.021

Rotated Component Matrix Small De Novo 38R 2004

Ratios	Components					
	1	2	3	4	5	6
X33 EFFICIENCY RATIO	-0.873	0.156	-0.327	0.049	-0.054	-0.133
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.832	-0.467	0.230	-0.026	-0.102	0.001
X9 NET OPER INC \ AVR AST	0.831	-0.463	0.239	-0.037	-0.069	-0.010
X10 NET INC \ AVR AST	0.831	-0.463	0.239	-0.037	-0.069	-0.010
X7 PRETAX OPER INC (TE) \ AVR AST	0.831	-0.467	0.232	-0.026	-0.103	0.000

Ratios	Components					
	1	2	3	4	5	6
X26 RETAIN EARN \ AVR TOT EQ	0.810	-0.298	0.140	-0.151	0.216	0.039
X53 NET INC \ AVR TOT EQ	0.810	-0.298	0.140	-0.151	0.216	0.039
X5 NONINT EXP \ AVR AST	-0.804	0.517	-0.199	-0.009	0.133	-0.014
X55 TIER ONE RBC \ RISK-WGT AST	-0.775	0.017	-0.314	-0.274	0.289	0.035
X56 TOT RBC \ RISK-WGT AST	-0.774	0.020	-0.312	-0.275	0.293	0.036
X35 AST PER EMPLOYEE (\$MILLION)	0.706	0.042	-0.121	0.214	-0.054	-0.052
X24 TIER ONE LEVERAGE CAP	-0.692	0.462	-0.280	-0.146	0.321	0.076
X41 CORE DEP \ TOT AST	0.648	-0.175	-0.058	0.287	-0.230	-0.491
X23 NET LN&LS \ AST	0.623	0.046	0.128	0.221	-0.415	0.428
X12 AVR INT-BEARING FUNDS \ AVR AST	0.621	-0.240	0.226	0.435	-0.252	-0.178
X34 AVR PERSONNEL EXP PER EMPL(\$000)	-0.480	0.459	-0.318	-0.100	0.038	0.004
X13 INT INC (TE) \ AVR EARN AST	-0.263	0.935	0.020	0.058	-0.010	-0.026
X15 NET INT INC-TE \ AVR EARN AST	-0.294	0.918	-0.008	-0.106	0.047	0.027
X1 INT INC (TE) \ AVR AST	-0.170	0.913	-0.068	0.167	0.154	0.178
X3 NET INT INC (TE) \ AVR AST	-0.217	0.889	-0.091	-0.045	0.201	0.215
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.290	0.744	-0.152	0.216	0.198	0.244
X36 YIELD ON TOT LN&LS (TE)	-0.222	0.634	-0.063	-0.224	-0.327	-0.019
X11 AVR EARN AST \ AVR AST	0.300	-0.481	-0.173	0.176	0.311	0.393
X45 S T INV \ S T N CORE FUND	-0.214	0.033	-0.902	0.000	-0.075	-0.037
X43 NET S T N CORE FUND DEPENDENCE	0.262	0.066	0.887	0.087	-0.103	0.030
X46 S T AST \ S T LIABS	-0.152	0.215	-0.840	0.008	-0.210	0.008
X39 S T INV \ TOT AST	-0.208	-0.033	-0.838	-0.030	-0.039	0.006
X22 NET N CORE FUND DEPENDENCE	0.336	0.053	0.835	0.145	-0.092	0.031
X47 NET S T LIAB \ TOT AST	0.049	-0.061	0.786	0.148	0.000	0.005
X42 S T N CORE FUNDING \ TOT AST	0.211	-0.113	0.675	0.018	0.007	0.116
X4 NONINT INC \ AVR AST	-0.125	-0.177	0.436	-0.047	0.191	0.098
X2 INT EXP \ AVR AST	0.260	0.044	0.140	0.914	-0.050	-0.105
X14 INT EXP \ AVR EARN AST	0.163	0.106	0.205	0.881	-0.134	-0.145
X38 COST OF ALL INT-BEARING FUNDS	-0.187	-0.098	-0.043	0.763	0.183	0.159
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.155	0.147	0.165	-0.003	0.894	-0.152

Ratios	Components					
	1	2	3	4	5	6
X20 LN&LS ALLOW \ TOT LN&LS	-0.156	0.149	0.165	-0.005	0.893	-0.152
X48 NET LS&LS \ DEP	0.002	0.161	0.105	-0.060	-0.156	0.936
X49 NET LN&LS \ CORE DEP	-0.016	0.178	0.171	-0.046	-0.182	0.934

Rotated Component Matrix Small De Novo 38R 2005

Ratios	Components				
	1	2	3	4	5
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.942	0.186	-0.148	0.016	0.118
X7 PRETAX OPER INC (TE) \ AVR AST	0.942	0.186	-0.149	0.016	0.118
X10 NET INC \ AVR AST	0.935	0.217	-0.145	0.045	0.139
X9 NET OPER INC \ AVR AST	0.935	0.219	-0.146	0.045	0.141
X53 NET INC \ AVR TOT EQ	0.921	0.093	0.138	-0.062	0.016
X26 RETAIN EARN \ AVR TOT EQ	0.920	0.093	0.138	-0.062	0.016
X33 EFFICIENCY RATIO	-0.856	-0.236	-0.150	-0.194	-0.107
X5 NONINT EXP \ AVR AST	-0.807	-0.301	0.384	-0.130	-0.061
X24 TIER ONE LEVERAGE CAP	-0.543	-0.308	0.536	-0.223	-0.314
X55 TIER ONE RBC \ RISK-WGT AST	-0.535	-0.400	0.247	-0.445	-0.448
X56 TOT RBC \ RISK-WGT AST	-0.534	-0.398	0.246	-0.445	-0.451
X34 AVR PERSONNEL EXP PER EMPL(\$000)	-0.524	-0.219	0.256	-0.092	-0.104
X35 AST PER EMPLOYEE (\$MILLION)	0.519	0.340	-0.081	0.095	0.038
X11 AVR EARN AST \ AVR AST	0.233	0.035	0.075	0.126	-0.200
X45 S T INV \ S T N CORE FUND	-0.239	-0.919	-0.050	-0.078	-0.097
X46 S T AST \ S T LIABS	-0.123	-0.889	0.099	0.069	0.003
X43 NET S T N CORE FUND DEPENDENCE	0.306	0.849	0.047	0.227	0.087
X22 NET N CORE FUND DEPENDENCE	0.303	0.831	-0.001	0.229	0.107
X47 NET S T LIAB \ TOT AST	0.106	0.811	0.026	0.047	0.063
X39 S T INV \ TOT AST	-0.262	-0.795	-0.102	-0.146	-0.074
X42 S T N CORE FUNDING \ TOT AST	0.163	0.754	-0.065	0.008	0.089
X15 NET INT INC-TE \ AVR EARN AST	-0.086	-0.072	0.941	0.095	-0.151
X3 NET INT INC (TE) \ AVR AST	-0.031	-0.062	0.936	0.121	-0.191

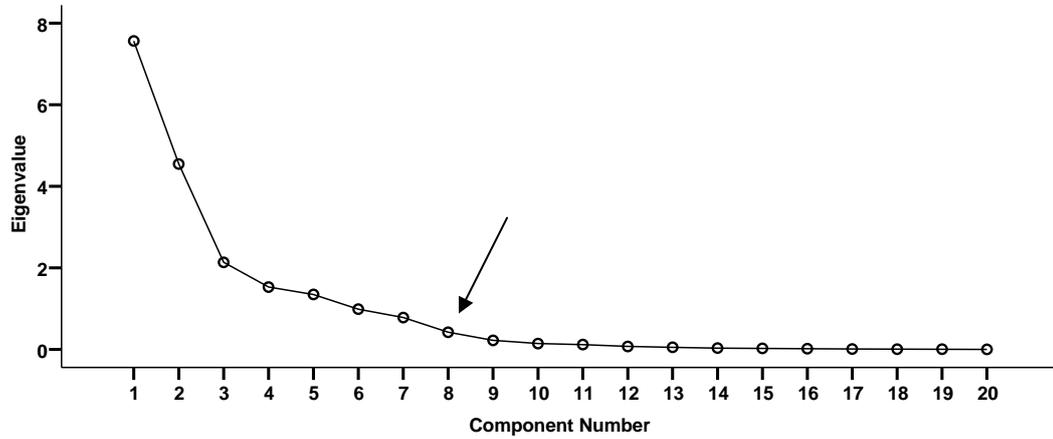
Ratios	Components				
	1	2	3	4	5
X13 INT INC (TE) \ AVR EARN AST	-0.107	0.076	0.926	0.128	0.185
X1 INT INC (TE) \ AVR AST	-0.036	0.084	0.924	0.161	0.121
X48 NET LS&LS \ DEP	0.246	0.164	0.187	0.791	-0.058
X49 NET LN&LS \ CORE DEP	0.206	0.282	0.188	0.790	-0.057
X23 NET LN&LS \ AST	0.436	0.174	-0.108	0.757	0.256
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.224	0.142	0.398	0.734	0.118
X36 YIELD ON TOT LN&LS (TE)	0.062	-0.419	0.228	0.628	0.215
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.240	0.020	-0.194	0.513	-0.460

Ratios	Components				
	1	2	3	4	5
X20 LN&LS ALLOW \ TOT LN&LS	-0.236	0.024	-0.197	0.512	-0.472
X14 INT EXP \ AVR EARN AST	0.058	0.375	-0.140	0.102	0.841
X2 INT EXP \ AVR AST	0.095	0.383	-0.129	0.130	0.816
X12 AVR INT-BEARING FUNDS \ AVR AST	0.464	0.253	-0.369	0.209	0.566
X41 CORE DEP \ TOT AST	0.396	-0.227	-0.483	0.190	0.511
X4 NONINT INC \ AVR AST	0.106	-0.148	0.079	-0.021	0.482
X38 COST OF ALL INT-BEARING FUNDS	-0.402	0.192	0.121	-0.092	0.444

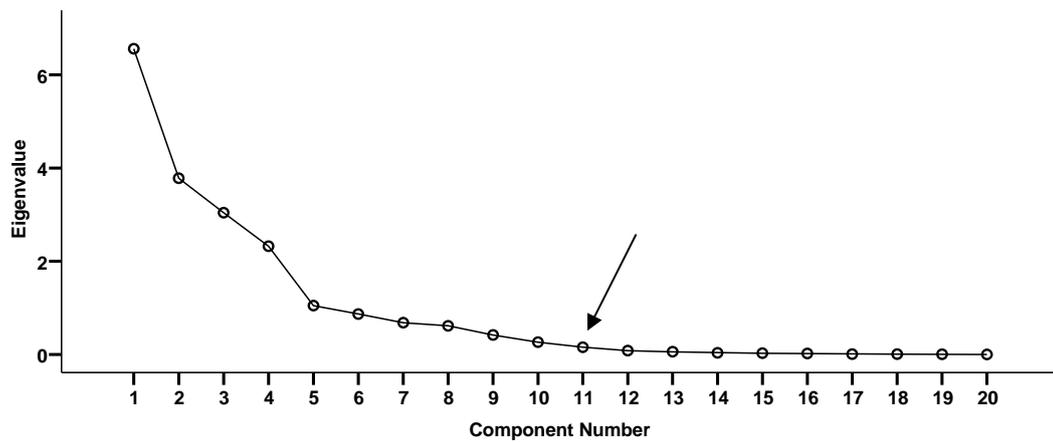
APPENDIX 8.3: Results for small De Novo banks 2001-2005 (20 ratios)

Cattell's scree plots for small De Novo banks 2001-2005 (20 ratios)

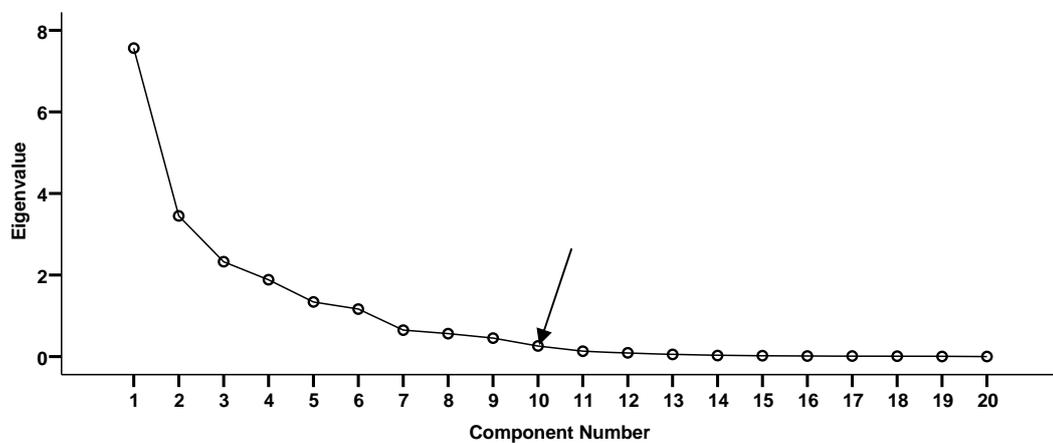
Cattell's Scree Plot for Small De Novo Banks 2001 (20 Ratios)



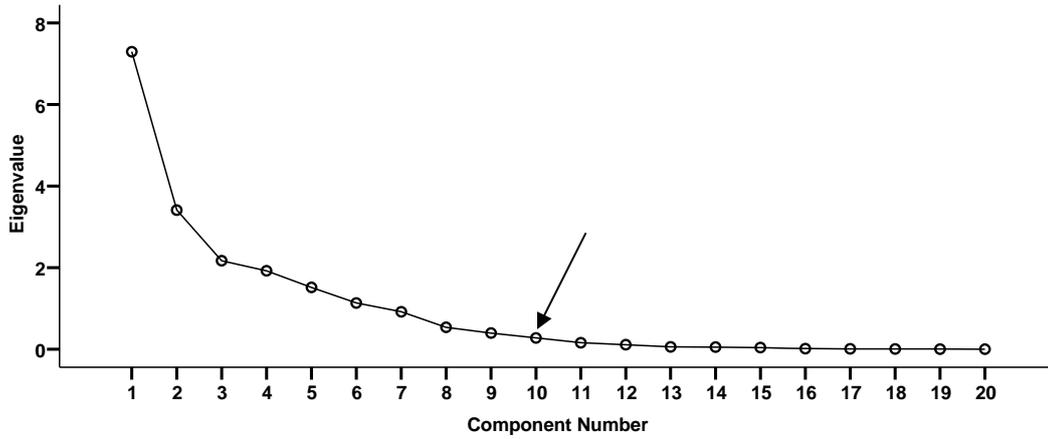
Cattell's Scree Plot for Small De Novo Banks 2002 (20 Ratios)



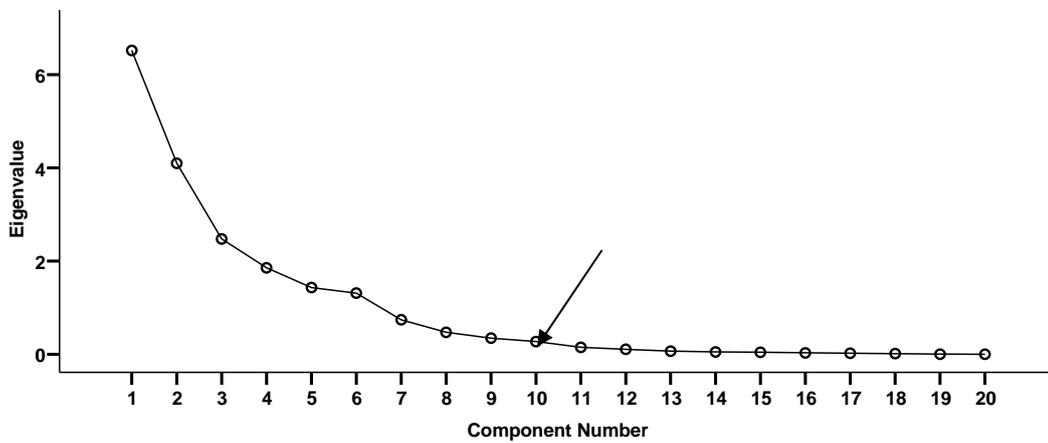
Cattell's Scree Plot for Small De Novo Banks 2003 (20 Ratios)



Cattell's Scree Plot for Small De Novo Banks 2004 (20 Ratios)



Cattell's Scree Plot for Small De Novo Banks 2005 (20 Ratios)



Factorability results for small De Novo banks 2001-2005 (20 ratios)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.747
Bartlett's Test of Sphericity	Approx. Chi-Square	4637.686
	df	190
	Sig.	.000

Parallel analysis outouts for small De Novo banks 2001-2005 (20 ratios)

SMALL DE NOVO BANKS 20 RATIOS

PARALLEL ANALYSIS: 2001

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 99
 Nvars 20
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	7.564220	1.900225	2.077965
2.000000	4.548303	1.719177	1.853925
3.000000	2.134717	1.584521	1.688777
4.000000	1.528332	1.472816	1.562222
5.000000	1.345882	1.373454	1.451652
6.000000	.985008	1.281970	1.351341
7.000000	.780484	1.198530	1.263711
8.000000	.421402	1.117986	1.179507
9.000000	.221159	1.047025	1.107972
10.000000	.143104	.977477	1.038084
11.000000	.117885	.909912	.967770
12.000000	.069745	.846068	.906612
13.000000	.050488	.782116	.840591
14.000000	.031624	.720831	.778485
15.000000	.024029	.660165	.713646
16.000000	.015921	.601193	.654920
17.000000	.008494	.543723	.597817
18.000000	.004834	.486215	.543824
19.000000	.004369	.423106	.482912
20.000000	.000000	.353490	.416702

----- END MATRIX -----

PARALLEL ANALYSIS: 2002

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 75
 Nvars 20
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	6.562346	2.064858	2.303259
2.000000	3.782986	1.837686	1.985338
3.000000	3.042137	1.675511	1.801600
4.000000	2.323026	1.541285	1.645804
5.000000	1.046040	1.425161	1.517942
6.000000	.866972	1.319546	1.409375
7.000000	.680946	1.221972	1.300881
8.000000	.615272	1.128965	1.196808
9.000000	.419018	1.043226	1.113350
10.000000	.264108	.963378	1.032270
11.000000	.156142	.885786	.958417
12.000000	.081514	.813091	.877593
13.000000	.058893	.740999	.804145
14.000000	.033434	.670669	.735048
15.000000	.027822	.605374	.666683
16.000000	.020848	.541575	.604831
17.000000	.007355	.477415	.537184
18.000000	.006468	.415262	.475036
19.000000	.004672	.350584	.414535
20.000000	.000000	.277656	.342602

----- END MATRIX -----

PARALLEL ANALYSIS:2003

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 97
 Nvars 20
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	7.564909	1.914515	2.099553
2.000000	3.448823	1.728541	1.854586
3.000000	2.326146	1.589682	1.690099
4.000000	1.884612	1.476723	1.561542
5.000000	1.336980	1.374675	1.452110
6.000000	1.164485	1.285977	1.360163
7.000000	.648780	1.200268	1.268854
8.000000	.562652	1.121078	1.182898
9.000000	.452965	1.047307	1.108807
10.000000	.259885	.976706	1.037661
11.000000	.132429	.907332	.963131
12.000000	.089773	.840166	.894183
13.000000	.051287	.780126	.835280
14.000000	.024479	.717437	.774000
15.000000	.022431	.654536	.709747
16.000000	.011823	.597709	.649665
17.000000	.010562	.538855	.591137
18.000000	.006452	.480068	.531739
19.000000	.000524	.419159	.478361
20.000000	.000000	.349140	.411539

----- END MATRIX -----

PARALLEL ANALYSIS: 2004

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 99
 Nvars 20
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	7.295936	1.908353	2.091883
2.000000	3.410603	1.719435	1.851948
3.000000	2.168791	1.582874	1.689592
4.000000	1.920435	1.467051	1.560879
5.000000	1.515693	1.370129	1.449035
6.000000	1.132096	1.281138	1.351278
7.000000	.917034	1.198391	1.264471
8.000000	.534213	1.118886	1.181232
9.000000	.393833	1.045716	1.107717
10.000000	.276702	.976313	1.036943
11.000000	.157322	.912165	.968235
12.000000	.108492	.846504	.902678
13.000000	.055805	.784259	.839405
14.000000	.049223	.722888	.779922
15.000000	.037799	.662591	.718484
16.000000	.013274	.602494	.660521
17.000000	.007570	.543764	.597627
18.000000	.004975	.485006	.540591
19.000000	.000205	.422222	.481432
20.000000	.000000	.349821	.413953

----- END MATRIX -----

----- END MATRIX -----

PARALLEL ANALYSIS: 2005

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 127
 Nvars 20
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prntyle
1.000000	6.521705	1.784586	1.938608
2.000000	4.099624	1.626595	1.725444
3.000000	2.473224	1.516280	1.608793
4.000000	1.855808	1.419010	1.495706
5.000000	1.431439	1.331668	1.400756
6.000000	1.311230	1.251147	1.312852
7.000000	.737881	1.179054	1.237206
8.000000	.472309	1.111353	1.164803
9.000000	.344995	1.047480	1.101061
10.000000	.270518	.984721	1.036898
11.000000	.148534	.923875	.973653
12.000000	.105388	.867973	.919356
13.000000	.067387	.812481	.860920
14.000000	.049859	.757389	.803278
15.000000	.042358	.701719	.749178
16.000000	.028848	.649517	.700228
17.000000	.022145	.595967	.645311
18.000000	.015189	.541134	.591179
19.000000	.001519	.482743	.535022
20.000000	.000041	.415309	.472892

Rotated component matrices for small De Novo banks 2001-2005 (20 ratios)

Rotated Component Matrix Small De Novo 20 Ratios 2001

Ratios	Component		
	1	2	3
X23 NET LN&LS \ AST	0.909	0.055	0.159
X43 NET S T NCORE FUND DEPENDENCE	0.861	-0.022	-0.103
X56 TOT RBC \ RISK-WGT AST	-0.857	0.154	0.032
X49 NET LN&LS \ CORE DEP	0.810	0.230	0.181
X48 NET LS&LS \ DEP	0.790	0.260	0.171
X39 S T INV \ TOT AST	-0.750	-0.072	0.093
X24 TIER ONE LEVERAGE CAP	-0.719	0.505	-0.115
X46 S T AST \ S T LIABS	-0.712	0.048	-0.062
X10 NET INC \ AVR AST	0.617	-0.590	0.444
X6 PROVISION: LN&LS LOSSES \ AVR AST	0.050	0.895	-0.095
X19 LN&LS ALLOW \ LN&LS NOT HFS	0.152	0.843	0.107
X20 LN&LS ALLOW \ TOT LN&LS	0.142	0.842	0.108
X36 YIELD ON TOT LN&LS (TE)	0.178	0.693	0.129
X3 NET INT INC (TE) \ AVR AST	-0.194	0.624	-0.336
X15 NET INT INC-TE \ AVR EARN AST	-0.180	0.619	-0.352
X7 PRETAX OPER INC (TE) \ AVR AST	0.596	-0.598	0.454
X2 INT EXP \ AVR AST	0.273	-0.136	-0.837
X38 COST OF ALL INT-BEARING FUNDS	-0.057	-0.013	-0.830
X26 RETAIN EARN \ AVR TOT EQ	0.407	-0.440	0.542
X53 NET INC \ AVR TOT EQ	0.407	-0.440	0.542

Rotated Component Matrix Small De Novo 20 ratios 2002

Ratios	Component			
	1	2	3	4
X23 NET LN&LS \ AST	0.837	0.216	-0.047	0.402
X43 NET S T NCORE FUND DEPENDENCE	0.833	0.207	0.047	-0.206
X49 NET LN&LS \ CORE DEP	0.806	-0.067	0.073	0.485
X39 S T INV \ TOT AST	-0.798	-0.145	-0.120	0.193
X48 NET LS&LS \ DEP	0.762	-0.076	0.106	0.526
X46 S T AST \ S T LIABS	-0.721	-0.204	0.119	0.149
X56 TOT RBC \ RISK-WGT AST	-0.635	-0.572	0.220	0.137
X7 PRETAX OPER INC (TE) \ AVR AST	0.182	0.968	-0.036	0.087
X10 NET INC \ AVR AST	0.216	0.959	-0.026	0.075
X26 RETAIN EARNNS \ AVR TOT EQ	0.047	0.903	0.152	0.136
X53 NET INC \ AVR TOT EQ	0.047	0.903	0.152	0.136
X24 TIER ONE LEVERAGE CAP	-0.372	-0.673	0.356	0.059
X6 PROVISION: LN&LS LOSSES \ AVR AST	0.556	-0.601	0.238	-0.050
X3 NET INT INC (TE) \ AVR AST	0.242	0.011	0.845	-0.274
X15 NET INT INC-TE \ AVR EARN AST	0.201	-0.012	0.835	-0.252
X2 INT EXP \ AVR AST	0.346	0.303	-0.723	-0.119
X38 COST OF ALL INT-BEARING FUNDS	0.058	-0.154	-0.710	-0.089
X20 LN&LS ALLOW \ TOT LN&LS	-0.099	-0.191	0.226	-0.863
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.104	-0.175	0.222	-0.863
X36 YIELD ON TOT LN&LS (TE)	-0.202	-0.001	0.113	0.599

Rotated Component Matrix Small De Novo 20 ratios 2003

Ratios	Component			
	1	2	3	4
X23 NET LN&LS \ AST	0.893	0.173	0.176	-0.078
X49 NET LN&LS \ CORE DEP	0.854	-0.039	0.196	-0.145
X48 NET LS&LS \ DEP	0.815	-0.028	0.220	-0.131
X56 TOT RBC \ RISK-WGT AST	-0.757	-0.498	-0.017	-0.053

Ratios	Component			
	1	2	3	4
X43 NET S T NCORE FUND DEPENDENCE	0.686	0.338	0.040	0.133
X2 INT EXP \ AVR AST	0.654	-0.070	-0.563	0.115
X46 S T AST \ S T LIABS	-0.639	-0.276	-0.059	-0.066
X39 S T INV \ TOT AST	-0.635	-0.389	0.008	-0.137
X7 PRETAX OPER INC (TE) \ AVR AST	0.382	0.890	0.033	-0.068
X10 NET INC \ AVR AST	0.408	0.879	0.050	-0.055
X53 NET INC \ AVR TOT EQ	0.219	0.830	0.173	-0.149
X26 RETAIN EARNNS \ AVR TOT EQ	0.219	0.830	0.173	-0.149
X24 TIER ONE LEVERAGE CAP	-0.509	-0.720	0.134	-0.134
X6 PROVISION: LN&LS LOSSES \ AVR AST	0.412	-0.655	0.290	0.262
X36 YIELD ON TOT LN&LS (TE)	0.260	-0.421	-0.102	-0.061
X15 NET INT INC-TE \ AVR EARN AST	0.388	0.012	0.805	0.084
X3 NET INT INC (TE) \ AVR AST	0.417	0.017	0.797	0.073
X38 COST OF ALL INT-BEARING FUNDS	0.383	-0.409	-0.662	-0.111
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.001	-0.098	0.065	0.970
X20 LN&LS ALLOW \ TOT LN&LS	-0.005	-0.101	0.068	0.969

Rotated Component Matrix Small De Novo 20 ratios 2004

Ratios	Component				
	1	2	3	4	5
X3 NET INT INC (TE) \ AVR AST	0.926	-0.095	0.068	0.029	0.072
X15 NET INT INC-TE \ AVR EARN AST	0.898	-0.142	0.042	0.028	0.034
X6 PROVISION: LN&LS LOSSES \ AVR AST	0.793	-0.344	-0.044	0.022	0.190
X24 TIER ONE LEVERAGE CAP	0.693	-0.417	-0.215	0.374	-0.110
X36 YIELD ON TOT LN&LS (TE)	0.666	0.014	-0.013	0.220	-0.058
X53 NET INC \ AVR TOT EQ	-0.054	0.970	0.066	-0.105	0.059
X26 RETAIN EARNNS \ AVR TOT EQ	-0.054	0.970	0.066	-0.105	0.059
X10 NET INC \ AVR AST	-0.453	0.821	0.161	-0.267	0.056
X7 PRETAX OPER INC (TE) \ AVR AST	-0.470	0.798	0.185	-0.266	0.061

Ratios	Component				
	1	2	3	4	5
X19 LN&LS ALLOW \ LN&LS NOT HFS	0.223	-0.124	-0.859	-0.115	-0.068
X20 LN&LS ALLOW \ TOT LN&LS	0.224	-0.125	-0.859	-0.115	-0.070
X49 NET LN&LS \ CORE DEP	0.335	-0.044	0.758	-0.250	-0.136
X48 NET LS&LS \ DEP	0.326	-0.028	0.753	-0.205	-0.161
X23 NET LN&LS \ AST	-0.088	0.314	0.735	-0.341	0.183
X43 NET S T N CORE FUND DEPENDENCE	-0.097	0.106	0.171	-0.903	0.046
X39 S T INV \ TOT AST	0.121	-0.046	-0.026	0.887	0.032
X46 S T AST \ S T LIABS	0.085	-0.327	0.022	0.727	-0.009
X56 TOT RBC \ RISK-WGT AST	0.368	-0.351	-0.343	0.525	-0.225
X2 INT EXP \ AVR AST	-0.036	0.186	0.082	-0.201	0.908
X38 COST OF ALL INT-BEARING FUNDS	0.136	-0.020	-0.058	0.108	0.831

Rotated Component Matrix Small De Novo 38R 2005

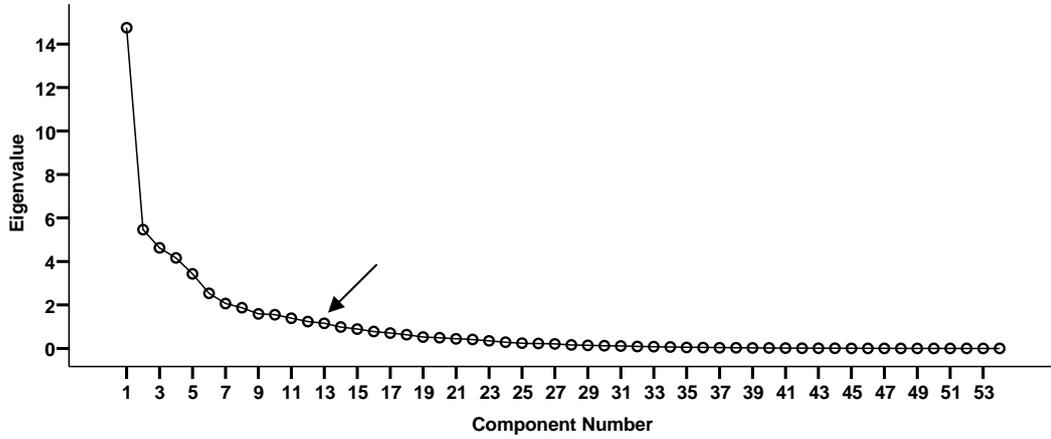
Ratios	Component				
	1	2	3	4	5
X53 NET INC \ AVR TOT EQ	0.947	0.048	0.039	0.104	-0.118
X26 RETAIN EARN \ AVR TOT EQ	0.946	0.048	0.039	0.104	-0.118
X10 NET INC \ AVR AST	0.908	0.072	-0.292	0.199	-0.065

Ratios	Component				
	1	2	3	4	5
X7 PRETAX OPER INC (TE) \ AVR AST	0.894	0.064	-0.318	0.194	-0.084
X36 YIELD ON TOT LN&LS (TE)	0.024	0.811	0.071	-0.305	0.116
X23 NET LN&LS \ AST	0.278	0.764	-0.221	0.381	0.062
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.248	0.744	0.311	0.164	0.181
X48 NET LS&LS \ DEP	0.162	0.742	0.125	0.407	0.168
X49 NET LN&LS \ CORE DEP	0.131	0.735	0.102	0.476	0.159
X15 NET INT INC-TE \ AVR EARN AST	-0.041	0.260	0.881	-0.037	-0.038
X3 NET INT INC (TE) \ AVR AST	-0.028	0.265	0.879	0.005	-0.032
X24 TIER ONE LEVERAGE CAP	-0.441	-0.144	0.743	-0.281	-0.052
X2 INT EXP \ AVR AST	-0.004	0.387	-0.611	0.181	-0.413
X56 TOT RBC \ RISK-WGT AST	-0.409	-0.429	0.521	-0.419	0.110
X43 NET S T N CORE FUND DEPENDENCE	0.245	0.156	-0.104	0.880	-0.059
X39 S T INV \ TOT AST	-0.218	-0.100	0.031	-0.867	0.068
X46 S T AST \ S T LIABS	-0.004	-0.109	0.157	-0.786	0.016
X20 LN&LS ALLOW \ TOT LN&LS	-0.178	0.251	-0.027	-0.038	0.888
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.182	0.255	-0.030	-0.041	0.885
X38 COST OF ALL INT-BEARING FUNDS	-0.373	0.310	-0.225	0.014	-0.374

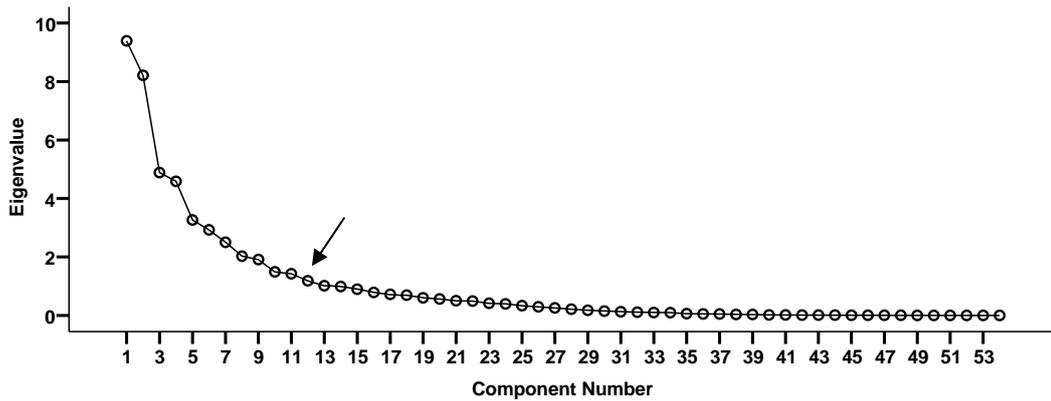
APPENDIX 8.4: Results for 2001 De Novo banks in following years (54 ratios)

Cattell's scree plots for 2001 De Novo banks 2002-2005 (54 ratios)

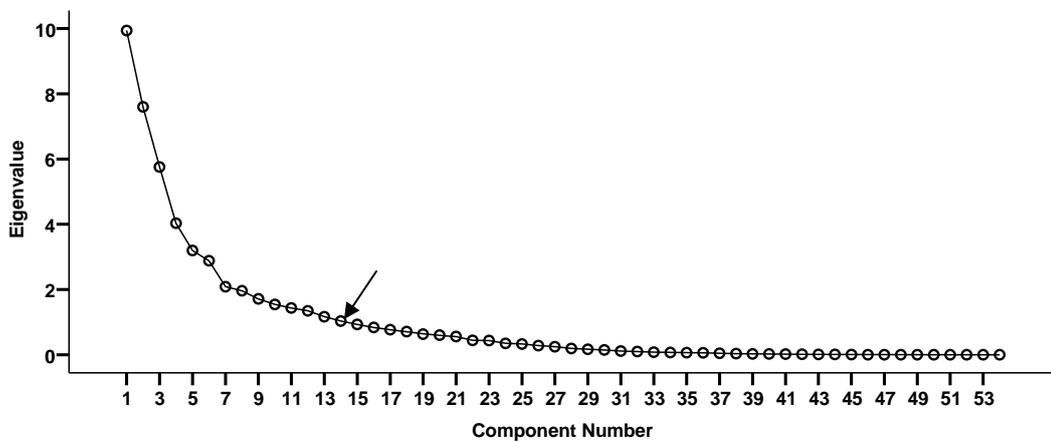
Cattell's Scree Plot for 2001 De Novo Banks in 2002 (54 Ratios)



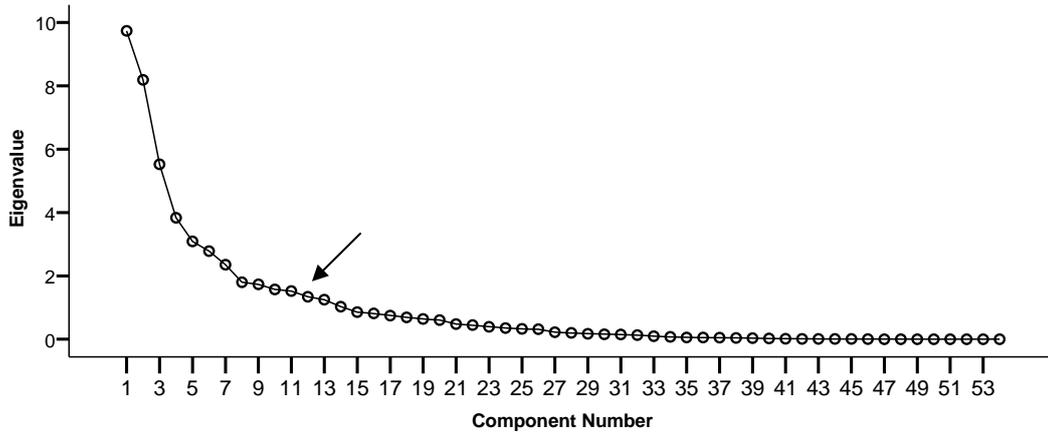
Cattell's Scree Plot for 2001 De Novo Banks in 2003 (54 Ratios)



Cattell's Scree Plot for 2001 De Novo Banks in 2004 (54 Ratios)



Cattell's Scree Plot for 2001 De Novo Banks in 2005 (54 Ratios)



Factorability results for 2001 De Novo banks in years 2002-2005 (54 ratios)

KMO and Bartlett's Test-2004

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.590
Bartlett's Test of Sphericity	Approx. Chi-Square	11011.756
	df	1431
	Sig.	.000

KMO and Bartlett's Test-2005

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.621
Bartlett's Test of Sphericity	Approx. Chi-Square	11589.492
	df	1431
	Sig.	.000

Parallel analysis outputs for 2001 De Novo banks in years 2002-2005 (54 ratios)

PARALLEL ANALYSIS FOR 2001 DE NOVO BANKS IN 2002 (54 RATIOS)				21.000000	.443231	1.103925	1.155764
Run MATRIX procedure:				22.000000	.406829	1.051778	1.105321
PARALLEL ANALYSIS:				23.000000	.351650	.998422	1.049799
Principal Components & Raw Data Permutation				24.000000	.282452	.949858	1.000140
Specifications for this Run:				25.000000	.241154	.901707	.949938
Ncases	84			26.000000	.222781	.855825	.900405
Nvars	54			27.000000	.208149	.810215	.858371
Ndatsets	1000			28.000000	.158319	.767187	.811508
Percent	95			29.000000	.141542	.724419	.765983
Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues				30.000000	.124077	.683396	.725768
Root	Raw Data	Means	Prcntyle	31.000000	.111666	.644369	.684975
1.000000	14.750837	3.020337	3.239386	32.000000	.089081	.605027	.644704
2.000000	5.465107	2.789254	2.962370	33.000000	.083944	.568616	.608608
3.000000	4.623234	2.620855	2.754753	34.000000	.069526	.533219	.570838
4.000000	4.160829	2.472232	2.590641	35.000000	.045303	.499576	.538804
5.000000	3.426867	2.344533	2.458039	36.000000	.043359	.466045	.506336
6.000000	2.534382	2.230343	2.329204	37.000000	.031986	.434700	.471039
7.000000	2.065322	2.123499	2.211043	38.000000	.031189	.403539	.438490
8.000000	1.872133	2.027142	2.112339	39.000000	.022740	.374083	.406065
9.000000	1.587939	1.934946	2.019251	40.000000	.022122	.345371	.376972
10.000000	1.553184	1.845912	1.923344	41.000000	.013023	.318032	.347602
11.000000	1.389635	1.764361	1.839906	42.000000	.010825	.291705	.320171
12.000000	1.238597	1.685160	1.756537	43.000000	.010367	.266362	.296314
13.000000	1.154037	1.607520	1.678167	44.000000	.006737	.242091	.269018
14.000000	.983971	1.536779	1.603529	45.000000	.001858	.218803	.245216
15.000000	.891862	1.467929	1.531139	46.000000	.001038	.196863	.220721
16.000000	.776672	1.399882	1.462775	47.000000	.000877	.176104	.199926
17.000000	.705133	1.337891	1.397731	48.000000	.000193	.155338	.176336
18.000000	.629444	1.276349	1.334484	49.000000	.000119	.136226	.157114
19.000000	.523027	1.218568	1.278201	50.000000	.000021	.117637	.138293
20.000000	.491611	1.159245	1.214870	51.000000	.000014	.100032	.119458
				52.000000	.000005	.083089	.101752
				53.000000	.000000	.065855	.082918
				54.000000	.000000	.047851	.063541

```

----- END MATRIX -----
PARALLEL ANALYSIS FOR 2001 DE NOVO BANKS IN 2003 (54 RATIOS)
Run MATRIX procedure:
PARALLEL ANALYSIS:
Principal Components & Raw Data Permutation

Specifications for this Run:
Ncases      97
Nvars       54
Ndatsets   1000
Percent     95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues
      Root      Raw Data      Means      Prcntyle
1.000000    9.393000    2.850264    3.054684
2.000000    8.214401    2.641680    2.782778
3.000000    4.886554    2.487979    2.613988
4.000000    4.590369    2.354934    2.477450
5.000000    3.265359    2.242719    2.338291
6.000000    2.927644    2.137145    2.229357
7.000000    2.502738    2.040128    2.123607
8.000000    2.027888    1.951790    2.027423
9.000000    1.909505    1.869102    1.943532
10.000000   1.486487    1.789119    1.862267
11.000000   1.422762    1.713507    1.783447
12.000000   1.183191    1.643192    1.712246
13.000000   1.014800    1.573512    1.636995
14.000000   .987701     1.509156    1.567623
15.000000   .897854     1.445174    1.505903
16.000000   .783109     1.383482    1.439723
17.000000   .718976     1.326710    1.379764
18.000000   .690920     1.270331    1.323633
19.000000   .601079     1.216312    1.267483
20.000000   .561637     1.162573    1.214228
21.000000   .501327     1.111393    1.160928
22.000000   .488903     1.061923    1.111200
23.000000   .412878     1.015286    1.064236
24.000000   .391790     .968900     1.015867
25.000000   .330929     .923983     .969575
26.000000   .293266     .880321     .926565
27.000000   .253933     .838845     .880735
28.000000   .212653     .797625     .836504
29.000000   .174099     .758749     .800686
30.000000   .148252     .720203     .761326
31.000000   .125435     .682143     .720540
32.000000   .110837     .645846     .686508
33.000000   .099413     .610822     .648254
34.000000   .096136     .576644     .614197
35.000000   .059501     .543082     .576312
36.000000   .048997     .511013     .543562
37.000000   .045041     .479898     .511100
38.000000   .033883     .450218     .481205
39.000000   .032363     .421475     .452122
40.000000   .018844     .393373     .426234
41.000000   .015791     .365876     .395181
42.000000   .012177     .339514     .369751
43.000000   .011159     .313763     .341356
44.000000   .008252     .289046     .317081
45.000000   .005020     .265048     .291639
46.000000   .001615     .242065     .266977
47.000000   .001068     .219834     .243925
48.000000   .000273     .198821     .221075
49.000000   .000148     .177984     .200725
50.000000   .000028     .157554     .177610
51.000000   .000011     .137866     .158339
52.000000   .000008     .118171     .137619
53.000000   .000000     .098017     .117405
54.000000   .000000     .075891     .094445
----- END MATRIX -----

```

PARALLEL ANALYSIS FOR 2001 DE NOVO BANKS IN 2004 (54 RATIOS)

Run MATRIX procedure:

PARALLEL ANALYSIS:

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 98
 Nvars 54
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prntyle
1.000000	9.734496	2.844231	3.050506
2.000000	8.191636	2.632324	2.772407
3.000000	5.524293	2.478404	2.605725
4.000000	3.837908	2.349045	2.457110
5.000000	3.088117	2.233541	2.334822
6.000000	2.783286	2.129434	2.217180
7.000000	2.354971	2.034638	2.119376
8.000000	1.801388	1.944592	2.027167
9.000000	1.733667	1.863424	1.940593
10.000000	1.571608	1.786997	1.854010
11.000000	1.522321	1.709801	1.774381
12.000000	1.343805	1.640901	1.707661
13.000000	1.251790	1.573465	1.634821
14.000000	1.029195	1.508185	1.567074
15.000000	.857464	1.444632	1.504525
16.000000	.815667	1.383077	1.437846
17.000000	.750159	1.325750	1.382946
18.000000	.691598	1.269849	1.322669
19.000000	.642576	1.217174	1.268837
20.000000	.605994	1.163657	1.213963
21.000000	.482388	1.113040	1.161899
22.000000	.449012	1.064018	1.113407

23.000000	.391524	1.016801	1.064576
24.000000	.356351	.969678	1.014838
25.000000	.328644	.924528	.968516
26.000000	.318220	.882134	.924785
27.000000	.226479	.840155	.881380
28.000000	.203735	.798566	.838161
29.000000	.174428	.758934	.798689
30.000000	.156064	.720723	.760809
31.000000	.149974	.682417	.720756
32.000000	.130476	.647475	.685160
33.000000	.098597	.612527	.650280
34.000000	.076782	.577196	.614093
35.000000	.056368	.544720	.579589
36.000000	.052180	.513348	.548135
37.000000	.048916	.482281	.514777
38.000000	.041149	.453203	.484092
39.000000	.036550	.423894	.455085
40.000000	.024932	.395838	.426363
41.000000	.017743	.368473	.397764
42.000000	.011578	.342431	.371371
43.000000	.011220	.317610	.345219
44.000000	.010036	.293357	.317667
45.000000	.007506	.268715	.294829
46.000000	.004922	.246615	.272132
47.000000	.001239	.224218	.248046
48.000000	.000810	.202304	.226325
49.000000	.000110	.181204	.202980
50.000000	.000062	.160672	.181382
51.000000	.000046	.140669	.159848
52.000000	.000010	.120642	.140207
53.000000	.000009	.100551	.121099
54.000000	.000000	.077944	.098158

----- END MATRIX -----

PARALLEL ANALYSIS FOR 2001 DE NOVO BANKS IN 2005 (54 RATIOS)

Run MATRIX procedure:

PARALLEL ANALYSIS:

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 100
 Nvars 54
 Ndatsets 1500
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prntyle
1.000000	9.943220	2.815765	3.011216
2.000000	7.603515	2.612021	2.764251
3.000000	5.759296	2.462048	2.585928
4.000000	4.032606	2.334441	2.447031
5.000000	3.195315	2.221614	2.322729
6.000000	2.880861	2.119939	2.209260
7.000000	2.089269	2.024993	2.106903
8.000000	1.963009	1.940016	2.017527
9.000000	1.713407	1.856598	1.929131
10.000000	1.543204	1.778327	1.845090
11.000000	1.434101	1.704865	1.768794
12.000000	1.347516	1.635501	1.698129
13.000000	1.168632	1.568388	1.629016
14.000000	1.034837	1.503427	1.561816
15.000000	.930550	1.440571	1.499876
16.000000	.837018	1.379692	1.434751
17.000000	.765718	1.322221	1.376041
18.000000	.707631	1.267901	1.320913
19.000000	.634281	1.214751	1.265309
20.000000	.602445	1.162180	1.214090
21.000000	.558152	1.112119	1.161428

22.000000	.440647	1.063804	1.112324
23.000000	.433595	1.017619	1.062899
24.000000	.346591	.971330	1.015393
25.000000	.329145	.926860	.972411
26.000000	.280577	.884167	.928263
27.000000	.246165	.842879	.883062
28.000000	.191467	.801981	.843478
29.000000	.167913	.763571	.803742
30.000000	.146472	.725932	.765415
31.000000	.114540	.688272	.727462
32.000000	.098886	.653690	.692486
33.000000	.079256	.619039	.658588
34.000000	.067350	.585289	.620261
35.000000	.063223	.552899	.587444
36.000000	.058853	.520447	.555427
37.000000	.045443	.489610	.523202
38.000000	.033989	.459772	.492601
39.000000	.027221	.430687	.461367
40.000000	.022103	.403015	.432776
41.000000	.020823	.375590	.403993
42.000000	.012627	.349392	.377372
43.000000	.010795	.323715	.351777
44.000000	.008460	.298823	.326854
45.000000	.004420	.274709	.300330
46.000000	.002743	.251927	.278406
47.000000	.001264	.229274	.254393
48.000000	.000488	.207443	.230627
49.000000	.000283	.186127	.209597
50.000000	.000034	.165826	.188397
51.000000	.000030	.145736	.167043
52.000000	.000007	.125368	.145217
53.000000	.000005	.105202	.125306
54.000000	.000000	.082628	.102527

----- END MATRIX -----

Rotated component matrices for 2001 De Novo banks in years 2002-2005 (54 ratios)

Rotated Component Matrix De Novo 54 ratios 2002

Ratios	Component					
	1	2	3	4	5	6
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.930	0.078	0.106	-0.151	0.179	0.102
X7 PRETAX OPER INC (TE) \ AVR AST	0.925	0.066	0.129	-0.166	0.194	0.098
X10 NET INC \ AVR AST	0.919	0.069	0.145	-0.160	0.151	0.117
X9 NET OPER INC \ AVR AST	0.919	0.069	0.145	-0.160	0.151	0.117
X53 NET INC \ AVR TOT EQ	0.899	0.012	0.121	0.043	0.180	0.072
X26 RETAIN EARNS \ AVR TOT EQ	0.898	0.000	0.133	0.041	0.161	0.075
X33 EFFICIENCY RATIO	-0.769	-0.223	-0.278	0.297	-0.206	0.050
X29 G R TIER ONE CAP	0.711	0.174	0.056	0.000	-0.094	0.123
X54 G R TOT EQCAP	0.703	0.229	0.035	0.002	-0.122	0.142
X5 NONINT EXP \ AVR AST	-0.673	-0.199	0.345	0.375	-0.067	-0.275
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.656	-0.015	0.455	-0.322	-0.005	-0.074
X30 G R NET LN&LS	-0.597	-0.231	0.033	0.175	-0.478	-0.036
X35 AST PER EMPLOYEE (\$MILLION)	0.542	-0.153	-0.335	-0.220	-0.277	0.312
X42 S T N CORE FUNDING \ TOT AST	0.401	0.370	0.290	0.285	-0.318	0.198
X45 S T INV \ S T N CORE FUND	-0.195	-0.800	-0.157	0.075	-0.035	-0.043
X39 S T INV \ TOT AST	-0.036	-0.761	-0.106	0.228	-0.150	-0.019
X47 NET S T LIAB \ TOT AST	0.215	0.728	-0.079	0.022	0.058	0.223
X43 NET S T N CORE FUND DEPENDENCE	0.265	0.717	0.369	0.010	-0.095	0.171
X46 S T AST \ S T LIABS	-0.098	-0.713	-0.024	-0.144	-0.073	-0.154
X22 NET N CORE FUND DEPENDENCE	0.305	0.653	0.435	0.049	0.030	0.205
X37 YIELD ON TOT INV SEC (TE)	-0.017	0.565	-0.437	0.002	0.080	-0.098
X34 AVR PERSONNEL EXP PER EMPL(\$000)	0.039	-0.479	0.052	0.287	-0.321	-0.003
X31 G R S T INV	0.256	-0.401	0.230	0.015	-0.091	0.374
X48 NET LS&LS \ DEP	-0.081	0.271	0.720	-0.199	0.072	0.011
X23 NET LN&LS \ AST	-0.039	0.172	0.703	-0.463	-0.020	0.003
X3 NET INT INC (TE) \ AVR AST	0.364	0.129	0.645	-0.047	0.249	-0.528
X13 INT INC (TE) \ AVR EARN AST	0.433	0.351	0.643	-0.193	0.359	-0.031
X44 BROK DEP \ DEP	0.166	-0.118	0.642	-0.135	-0.145	0.142
X49 NET LN&LS \ CORE DEP	-0.031	0.416	0.641	0.124	-0.113	0.116
X15 NET INT INC-TE \ AVR EARN AST	0.314	0.142	0.633	-0.033	0.246	-0.598
X1 INT INC (TE) \ AVR AST	0.486	0.320	0.619	-0.211	0.346	0.100
X4 NONINT INC \ AVR AST	-0.044	-0.167	0.562	0.108	0.014	0.082
X36 YIELD ON TOT LN&LS (TE)	0.248	0.059	0.417	0.225	0.347	-0.243
X50 TOT HTM SEC \ TOT SEC	0.038	-0.029	0.181	0.117	-0.119	0.011
X56 TOT RBC \ RISK-WGT AST	-0.295	-0.005	-0.246	0.852	0.000	-0.141
X55 TIER ONE RBC \ RISK-WGT AST	-0.290	-0.018	-0.264	0.850	-0.007	-0.155
X24 TIER ONE LEVERAGE CAP	-0.370	-0.070	0.015	0.779	0.017	-0.245
X41 CORE DEP \ TOT AST	-0.005	-0.352	-0.021	-0.717	0.128	-0.151
X52 PLEDGED SEC \ TOT SEC	0.189	0.299	0.029	-0.456	-0.041	0.045
X40 MARKETABLE EQ SEC \ TOT AST	0.130	-0.035	0.074	0.218	-0.052	-0.075
X20 LN&LS ALLOW \ TOT LN&LS	0.039	0.006	-0.084	-0.135	0.731	0.055
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.017	0.074	0.009	-0.065	0.698	0.106
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL	0.225	-0.126	0.219	0.143	0.696	0.110
X32 G R S T NON CORE FUNDING	-0.220	-0.065	0.051	-0.046	-0.643	0.018
X16 NET LOSS \ AVR TOT LN&LS	-0.059	0.135	0.112	-0.172	0.523	0.016
X21 NON-CUR LN&LS \ GRS LN&LS	0.184	-0.196	0.167	0.385	0.513	0.109
X28 G R AST	-0.425	-0.272	0.271	-0.124	-0.451	-0.012
X25 CASH DIV \ NET INC	0.277	0.171	-0.142	-0.030	0.338	-0.041
X51 TOT AFS SEC \ TOT SEC	0.032	0.104	-0.122	0.048	0.164	0.163

Ratios	Component					
	1	2	3	4	5	6
X2 INT EXP \ AVR AST	0.258	0.381	0.154	-0.207	0.206	0.780
X38 COST OF ALL INT-BEARING FUNDS	0.130	0.340	0.175	-0.005	0.215	0.767
X14 INT EXP \ AVR EARN AST	0.232	0.416	0.170	-0.200	0.217	0.739
X12 AVR INT-BEARING FUNDS \ AVR AST	0.348	0.387	0.120	-0.366	0.143	0.636
X11 AVR EARN AST \ AVR AST	0.260	-0.095	-0.044	-0.095	-0.022	0.548

Rotated Component Matrix De Novo 54 ratios 2003

Ratios	Component							
	1	2	3	4	5	6	7	8
X10 NET INC \ AVR AST	0.955	-0.035	0.122	0.079	-0.060	-0.042	-0.001	-0.006
X9 NET OPER INC \ AVR AST	0.955	-0.035	0.122	0.079	-0.060	-0.042	-0.001	-0.006
X53 NET INC \ AVR TOT EQ	0.953	0.004	0.100	0.079	-0.067	0.020	0.022	-0.021
X26 RETAIN EARN \ AVR TOT EQ	0.949	-0.008	0.101	0.063	-0.064	0.027	0.032	-0.021
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.944	0.025	0.174	0.109	0.035	-0.021	-0.081	-0.035
X7 PRETAX OPER INC (TE) \ AVR AST	0.943	0.023	0.181	0.086	0.027	-0.018	-0.076	-0.024
X33 EFFICIENCY RATIO	-0.873	-0.110	-0.215	-0.050	-0.064	-0.131	0.231	0.033
X29 G R TIER ONE CAP	0.721	-0.002	-0.079	-0.209	0.191	0.289	0.110	-0.016
X54 G R TOT EQCAP	0.700	-0.044	-0.119	-0.288	0.158	0.292	0.159	-0.004
X43 NET S T N CORE FUND DEPENDENCE	0.065	0.873	0.028	0.069	0.158	0.141	0.012	-0.067
X22 NET N CORE FUND DEPENDENCE	0.061	0.801	0.020	0.057	0.292	0.128	-0.059	-0.092
X45 S T INV \ S T N CORE FUND	0.004	-0.799	0.006	-0.131	-0.071	-0.173	0.014	0.184
X41 CORE DEP \ TOT AST	0.027	-0.759	0.094	-0.001	-0.157	0.283	0.124	-0.222
X42 S T N CORE FUNDING \ TOT AST	0.143	0.738	0.056	0.016	0.141	-0.011	-0.181	0.408
X49 NET LN&LS \ CORE DEP	0.033	0.682	0.166	-0.376	0.144	0.025	0.277	-0.272
X39 S T INV \ TOT AST	0.059	-0.673	0.024	-0.104	-0.048	-0.203	-0.069	0.398
X46 S T AST \ S T LIABS	0.062	-0.612	0.174	-0.225	-0.337	0.202	0.037	0.126
X47 NET S T LIAB \ TOT AST	0.013	0.533	-0.265	0.293	0.356	-0.230	-0.012	-0.180
X32 G R S T NON CORE FUNDING	-0.223	0.457	-0.084	-0.140	-0.018	0.065	-0.193	0.412
X51 TOT AFS SEC \ TOT SEC	-0.118	0.351	-0.135	0.189	-0.222	0.137	0.196	0.007
X25 CASH DIV \ NET INC	0.146	0.274	0.038	0.245	-0.077	-0.169	-0.211	-0.077
X13 INT INC (TE) \ AVR EARN AST	0.162	0.091	0.899	0.142	0.230	0.110	0.108	-0.155
X15 NET INT INC-TE \ AVR EARN AST	0.227	-0.128	0.886	-0.029	-0.295	-0.033	0.098	-0.045
X3 NET INT INC (TE) \ AVR AST	0.264	-0.132	0.884	-0.082	-0.212	-0.074	0.069	-0.013
X1 INT INC (TE) \ AVR AST	0.204	0.092	0.868	0.071	0.362	0.055	0.062	-0.109
X36 YIELD ON TOT LN&LS (TE)	0.047	-0.205	0.835	0.247	0.052	-0.038	-0.065	0.083
X44 BROK DEP \ DEP	0.037	0.222	0.388	-0.160	0.219	0.341	0.086	0.266
X30 G R NET LN&LS	-0.033	-0.022	-0.106	-0.830	0.043	0.039	-0.046	0.052
X20 LN&LS ALLOW \ TOT LN&LS	0.014	0.001	-0.007	0.707	0.172	0.129	-0.133	-0.002
X28 G R AST	0.004	-0.109	-0.022	-0.651	0.032	0.141	0.052	0.321
X19 LN&LS ALLOW \ LN&LS NOT HFS	0.031	0.038	-0.123	0.645	0.270	-0.007	0.185	-0.003
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL	0.115	0.143	0.168	0.636	0.136	0.182	0.138	0.077
X21 NON-CUR LN&LS \ GRS LN&LS	0.108	0.163	0.264	0.617	0.091	-0.109	0.082	0.318
X2 INT EXP \ AVR AST	-0.050	0.330	0.069	0.220	0.835	0.189	0.007	-0.146
X14 INT EXP \ AVR EARN AST	-0.071	0.340	0.090	0.259	0.792	0.217	0.030	-0.170
X38 COST OF ALL INT-BEARING FUNDS	-0.124	0.307	0.119	0.201	0.766	0.122	0.087	-0.150
X12 AVR INT-BEARING FUNDS \ AVR AST	0.088	0.331	-0.017	0.192	0.745	0.237	-0.120	-0.115
X11 AVR EARN AST \ AVR AST	0.164	0.001	-0.164	-0.292	0.507	-0.219	-0.183	0.184
X50 TOT HTM SEC \ TOT SEC	0.107	-0.306	0.049	-0.173	0.427	-0.227	-0.129	0.062
X56 TOT RBC \ RISK-WGT AST	-0.162	-0.019	-0.030	0.047	-0.058	-0.901	0.035	0.164
X55 TIER ONE RBC \ RISK-WGT AST	-0.169	-0.029	-0.020	0.039	-0.078	-0.901	-0.002	0.171

Ratios	Component							
	1	2	3	4	5	6	7	8
X24 TIER ONE LEVERAGE CAP	-0.170	-0.046	0.140	-0.157	-0.040	-0.780	0.148	-0.047
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.335	0.155	0.240	-0.171	0.147	0.486	0.174	0.104
X16 NET LOSS \ AVR TOT LN&LS	-0.282	0.177	0.293	0.245	-0.015	0.364	0.074	0.101
X4 NONINT INC \ AVR AST	0.333	-0.011	0.017	0.132	0.055	0.046	0.786	0.215
X5 NONINT EXP \ AVR AST	-0.397	-0.157	0.224	0.005	-0.107	-0.156	0.755	0.119
X35 AST PER EMPLOYEE (\$MILLION)	0.152	0.037	-0.215	-0.257	0.113	0.207	-0.716	0.278
X37 YIELD ON TOT INV SEC (TE)	0.040	0.100	0.239	0.195	0.286	-0.237	-0.415	0.071
X34 AVR PERSONNEL EXP PER EMPL(\$000)	-0.190	-0.091	0.068	-0.213	-0.137	0.160	-0.100	0.566
X40 MARKETABLE EQ SEC \ TOT AST	0.022	0.018	-0.031	0.050	-0.115	-0.020	0.085	0.485
X48 NET LS&LS \ DEP	0.118	0.434	0.218	-0.364	0.126	0.073	0.402	-0.482
X23 NET LN&LS \ AST	0.058	0.259	0.264	-0.444	0.057	0.234	0.417	-0.481
X52 PLEDGED SEC \ TOT SEC	0.063	0.198	0.031	0.026	0.034	0.210	-0.036	-0.470
X31 G R S T INV	0.200	-0.345	0.033	0.106	0.170	-0.151	0.126	0.393

Rotated Component Matrix De Novo 54 ratios 2004

Ratios	Component						
	1	2	3	4	5	6	7
X2 INT EXP \ AVR AST	0.835	-0.164	0.075	0.236	-0.059	0.189	0.222
X14 INT EXP \ AVR EARN AST	0.829	-0.183	0.100	0.221	-0.068	0.189	0.185
X22 NET N CORE FUND DEPENDENCE	0.822	0.005	0.072	0.138	0.245	-0.181	-0.019
X43 NET S T N CORE FUND DEPENDENCE	0.796	0.055	0.040	0.108	0.233	-0.252	-0.094
X12 AVR INT-BEARING FUNDS \ AVR AST	0.795	-0.066	-0.026	0.284	-0.105	-0.061	0.097
X38 COST OF ALL INT-BEARING FUNDS	0.741	-0.171	0.117	0.161	-0.015	0.286	0.238
X46 S T AST \ S T LIABS	-0.697	0.112	-0.031	0.114	0.026	0.193	0.244
X45 S T INV \ S T N CORE FUND	-0.680	-0.154	0.042	-0.097	-0.127	0.244	0.260
X49 NET LN&LS \ CORE DEP	0.642	0.261	0.139	-0.049	0.568	0.082	-0.010
X47 NET S T LIAB \ TOT AST	0.625	-0.115	-0.093	-0.158	-0.066	-0.263	-0.201
X42 S T N CORE FUNDING \ TOT AST	0.617	0.301	-0.022	-0.226	0.134	-0.190	0.141
X39 S T INV \ TOT AST	-0.579	-0.026	0.024	-0.246	-0.112	0.190	0.360
X41 CORE DEP \ TOT AST	-0.568	-0.162	0.116	0.525	-0.110	0.058	-0.023
X44 BROK DEP \ DEP	0.350	0.064	0.215	0.021	0.179	0.073	0.272
X10 NET INC \ AVR AST	-0.054	0.956	0.172	-0.018	0.090	0.007	-0.016
X7 PRETAX OPER INC (TE) \ AVR AST	0.003	0.952	0.147	0.011	0.014	0.033	0.008
X9 NET OPER INC \ AVR AST	-0.048	0.951	0.180	-0.021	0.094	0.028	-0.036
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.003	0.948	0.170	0.020	0.030	0.039	-0.014
X53 NET INC \ AVR TOT EQ	-0.062	0.931	0.053	0.135	0.067	0.067	-0.002
X33 EFFICIENCY RATIO	-0.163	-0.887	-0.052	-0.099	0.053	-0.016	-0.185
X26 RETAIN EARNS \ AVR TOT EQ	-0.083	0.868	0.082	0.128	0.129	0.092	0.063
X5 NONINT EXP \ AVR AST	-0.230	-0.533	0.496	-0.103	0.131	0.336	-0.296
X25 CASH DIV \ NET INC	0.105	0.403	-0.018	-0.014	-0.303	-0.183	-0.270
X13 INT INC (TE) \ AVR EARN AST	0.218	0.189	0.887	0.051	0.114	0.116	0.112
X15 NET INT INC-TE \ AVR EARN AST	-0.306	0.329	0.830	-0.092	0.155	-0.011	-0.018
X36 YIELD ON TOT LN&LS (TE)	-0.122	0.069	0.825	-0.076	-0.092	0.017	0.233
X3 NET INT INC (TE) \ AVR AST	-0.243	0.381	0.822	-0.035	0.186	-0.010	0.066
X1 INT INC (TE) \ AVR AST	0.314	0.238	0.820	0.128	0.145	0.116	0.222
X21 NON-CUR LN&LS \ GRS LN&LS	0.214	0.051	0.574	-0.112	-0.245	-0.112	0.121
X35 AST PER EMPLOYEE (\$MILLION)	0.047	0.359	-0.544	0.080	0.020	-0.159	0.524
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL	0.300	0.015	0.525	0.169	-0.345	0.031	-0.120
X16 NET LOSS \ AVR TOT LN&LS	0.160	-0.212	0.336	-0.001	-0.245	-0.220	0.138
X55 TIER ONE RBC \ RISK-WGT AST	-0.182	-0.144	-0.011	-0.888	-0.104	-0.009	0.025
X56 TOT RBC \ RISK-WGT AST	-0.175	-0.144	-0.013	-0.887	-0.110	0.004	0.031

Ratios	Component						
	1	2	3	4	5	6	7
X24 TIER ONE LEVERAGE CAP	-0.238	-0.078	0.066	-0.814	0.009	0.179	0.044
X37 YIELD ON TOT INV SEC (TE)	0.201	0.012	0.065	-0.359	-0.290	-0.302	0.342
X23 NET LN&LS \ AST	0.329	0.197	0.289	0.416	0.650	0.162	-0.034
X32 G R S T NON CORE FUNDING	0.148	0.017	0.021	-0.011	0.650	-0.072	0.163
X20 LN&LS ALLOW \ TOT LN&LS	-0.026	-0.007	0.117	-0.042	-0.636	0.377	0.233
X28 G R AST	-0.076	-0.013	-0.079	0.089	0.627	0.401	0.067
X19 LN&LS ALLOW \ LN&LS NOT HFS	0.069	-0.070	0.208	-0.087	-0.565	0.555	0.087
X48 NET LS&LS \ DEP	0.466	0.246	0.243	0.169	0.530	0.196	-0.122
X30 G R NET LN&LS	0.126	-0.013	-0.225	0.381	0.505	-0.210	0.129
X40 MARKETABLE EQ SEC \ TOT AST	-0.155	-0.029	-0.141	0.132	-0.261	0.030	-0.014
X29 G R TIER ONE CAP	-0.053	0.484	-0.198	-0.035	0.067	0.640	0.094
X54 G R TOT EQCAP	-0.072	0.481	-0.211	-0.067	0.052	0.625	0.115
X4 NONINT INC \ AVR AST	-0.059	-0.125	0.320	-0.016	-0.005	0.568	-0.249
X31 G R S T INV	-0.146	0.008	0.036	-0.027	-0.050	0.412	0.016
X50 TOT HTM SEC \ TOT SEC	0.025	0.100	0.140	-0.202	-0.074	-0.020	0.558
X6 PROVISION: LN&LS LOSSES \ AVR AST	0.100	-0.110	0.297	0.263	-0.014	0.278	0.554
X51 TOT AFS SEC \ TOT SEC	-0.042	-0.148	-0.250	0.302	0.000	-0.073	-0.533
X34 AVR PERSONNEL EXP PER EMPL(\$000)	-0.195	-0.041	-0.022	0.147	0.097	-0.029	0.418
X11 AVR EARN AST \ AVR AST	0.326	0.170	-0.180	0.262	0.111	0.006	0.367
X52 PLEDGED SEC \ TOT SEC	0.239	0.154	-0.137	0.204	-0.086	0.125	-0.352

Rotated Component Matrix De Novo 54 ratios 2005

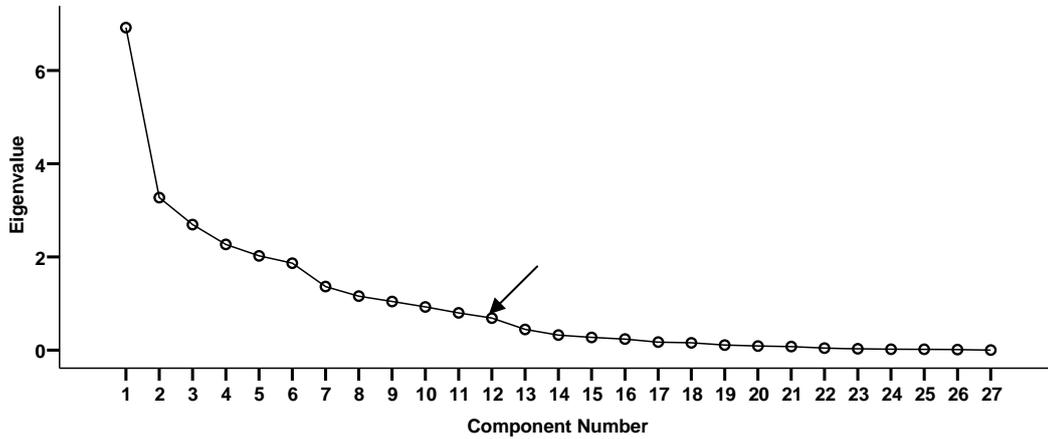
Ratios	Component					
	1	2	3	4	5	6
X8 PRETAX NET OPER INC (TE) \ AVR AST	0.971	0.070	0.086	-0.014	-0.014	-0.080
X7 PRETAX OPER INC (TE) \ AVR AST	0.971	0.072	0.085	-0.014	-0.013	-0.078
X9 NET OPER INC \ AVR AST	0.955	0.060	0.072	-0.059	-0.038	-0.102
X10 NET INC \ AVR AST	0.953	0.062	0.069	-0.055	-0.040	-0.105
X53 NET INC \ AVR TOT EQ	0.928	0.039	0.063	-0.053	-0.018	-0.211
X33 EFFICIENCY RATIO	-0.905	-0.086	-0.080	0.053	-0.177	-0.024
X26 RETAIN EARN S \ AVR TOT EQ	0.901	0.018	0.153	-0.055	-0.007	-0.172
X5 NONINT EXP \ AVR AST	-0.620	-0.092	0.328	0.274	-0.416	0.015
X29 G R TIER ONE CAP	0.424	-0.087	0.404	-0.268	0.022	-0.009
X43 NET S T N CORE FUND DEPENDENCE	0.114	0.852	0.004	-0.037	-0.030	-0.010
X45 S T INV \ S T N CORE FUND	-0.076	-0.816	0.111	-0.032	0.005	0.153
X22 NET N CORE FUND DEPENDENCE	0.110	0.786	0.041	-0.070	0.145	-0.040
X49 NET LN&LS \ CORE DEP	0.108	0.724	0.345	-0.265	0.269	0.143
X39 S T INV \ TOT AST	-0.027	-0.676	0.000	-0.078	0.074	0.344
X42 S T N CORE FUNDING \ TOT AST	0.170	0.670	-0.211	-0.097	0.138	0.383
X41 CORE DEP \ TOT AST	-0.095	-0.622	0.103	0.242	-0.182	-0.509
X46 S T AST \ S T LIABS	0.206	-0.567	0.416	-0.079	-0.195	0.075
X47 NET S T LIAB \ TOT AST	-0.212	0.545	-0.414	0.092	0.118	-0.027
X48 NET LS&LS \ DEP	0.039	0.535	0.534	-0.200	0.189	-0.223
X44 BROK DEP \ DEP	0.248	0.485	0.165	0.031	0.139	0.251
X31 G R S T INV	0.024	-0.433	0.078	-0.223	0.268	-0.049
X13 INT INC (TE) \ AVR EARN AST	0.221	0.271	0.850	0.241	-0.056	-0.006
X1 INT INC (TE) \ AVR AST	0.249	0.234	0.822	0.244	0.150	0.019
X3 NET INT INC (TE) \ AVR AST	0.267	-0.102	0.764	0.153	-0.370	0.173
X15 NET INT INC-TE \ AVR EARN AST	0.243	-0.081	0.756	0.146	-0.490	0.155
X36 YIELD ON TOT LN&LS (TE)	0.150	-0.052	0.639	0.339	-0.230	0.284
X23 NET LN&LS \ AST	0.064	0.440	0.621	-0.147	0.214	-0.310

Ratios	Component					
	1	2	3	4	5	6
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.145	-0.154	0.610	0.172	0.272	0.169
X54 G R TOT EQCAP	0.439	-0.109	0.449	-0.249	0.075	0.019
X37 YIELD ON TOT INV SEC (TE)	0.103	0.149	-0.365	0.075	0.045	0.023
X25 CASH DIV \ NET INC	0.255	0.144	-0.347	0.045	-0.110	-0.159
X30 G R NET LN&LS	0.062	0.057	0.274	-0.784	0.049	-0.047
X28 G R AST	0.175	-0.181	0.166	-0.776	0.025	-0.043
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.138	-0.206	0.039	0.693	-0.006	0.047
X16 NET LOSS \ AVR TOT LN&LS	-0.093	-0.056	0.221	0.625	0.123	0.262
X27 RESTR+NONAC+RE ACQ \ EQCAP+ALLL	0.002	0.154	0.261	0.595	0.135	-0.206
X20 LN&LS ALLOW \ TOT LN&LS	-0.105	-0.335	0.078	0.574	0.010	0.086
X21 NON-CUR LN&LS \ GRS LN&LS	-0.069	0.285	0.151	0.557	0.094	0.074
X32 G R S T NON CORE FUNDING	0.032	0.089	-0.027	-0.404	-0.195	0.178
X4 NONINT INC \ AVR AST	0.145	0.054	0.080	0.318	-0.149	-0.095
X2 INT EXP \ AVR AST	-0.051	0.511	0.065	0.119	0.772	-0.189
X14 INT EXP \ AVR EARN AST	-0.069	0.542	0.072	0.119	0.704	-0.208
X38 COST OF ALL INT-BEARING FUNDS	-0.071	0.479	0.136	0.082	0.701	-0.013
X12 AVR INT-BEARING FUNDS \ AVR AST	-0.029	0.427	-0.045	0.130	0.663	-0.369
X11 AVR EARN AST \ AVR AST	0.085	-0.083	-0.017	0.023	0.522	0.062
X35 AST PER EMPLOYEE (\$MILLION)	0.462	0.070	-0.146	-0.220	0.494	0.221
X50 TOT HTM SEC \ TOT SEC	0.185	-0.308	-0.217	0.067	0.407	0.262
X55 TIER ONE RBC \ RISK-WGT AST	-0.353	-0.050	-0.107	-0.058	-0.172	0.775
X56 TOT RBC \ RISK-WGT AST	-0.355	-0.053	-0.102	-0.052	-0.175	0.771
X24 TIER ONE LEVERAGE CAP	-0.278	-0.003	0.202	-0.144	-0.118	0.742
X52 PLEDGED SEC \ TOT SEC	0.004	0.008	-0.109	-0.070	-0.047	-0.353
X34 AVR PERSONNEL EXP PER EMPL(\$000)	0.056	0.037	0.086	0.155	0.137	0.353
X51 TOT AFS SEC \ TOT SEC	-0.179	0.217	0.113	-0.181	-0.313	-0.332
X40 MARKETABLE EQ SEC \ TOT AST	-0.120	-0.024	0.066	-0.034	-0.131	0.205

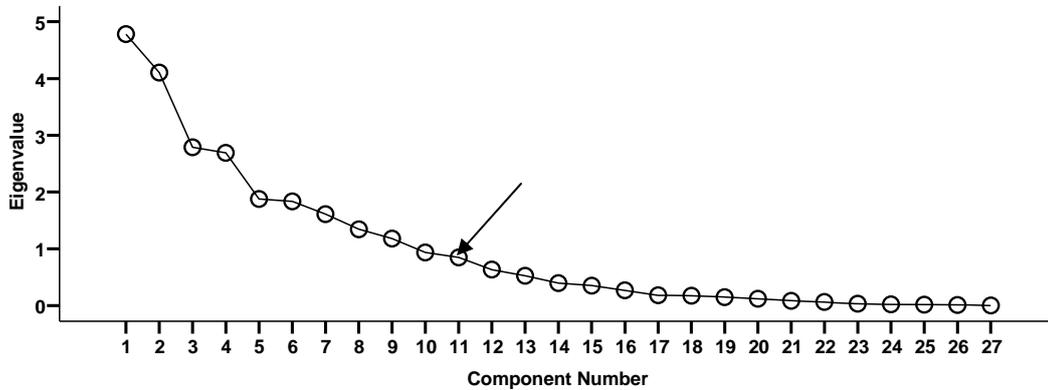
APPENDIX 8.5: Results for 2001 De Novo banks in following years (27 ratios)

Cattell's scree plots for 2001 De Novo banks in years 2002-2005 (27 ratios)

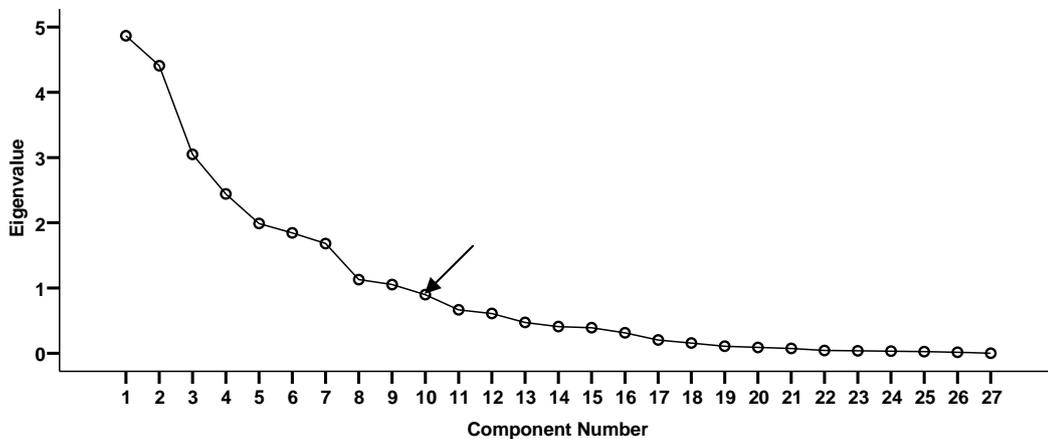
Cattell's Scree Plot for 2001 De Novo Banks in 2002 (27 Ratios)



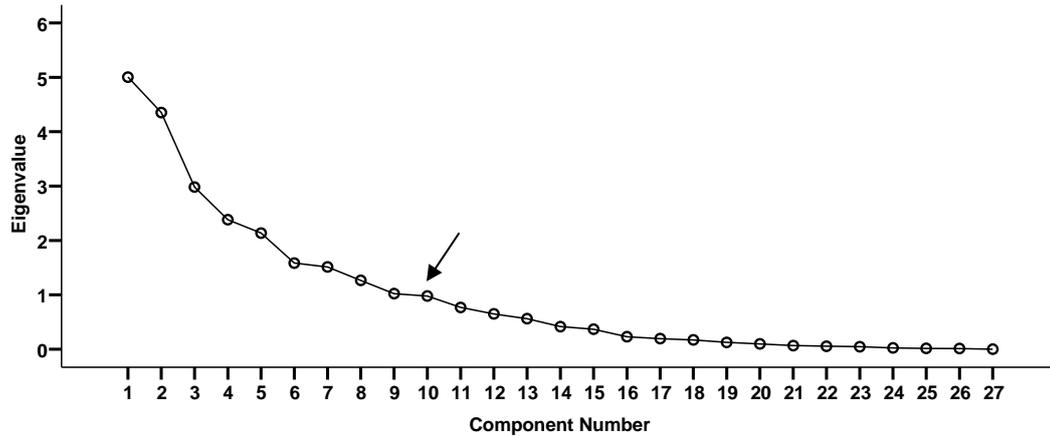
Cattell's Scree Plot for 2001 De Novo Banks in 2003 (27 Ratios)



Cattell's Scree Plot for 2001 De Novo Banks in 2004 (27 Ratios)



Cattell's Scree Plot for 2001 De Novo Banks in 2005 (27 Ratios)



Factorability results for 2001 De Novo banks in 2002-2005 (27 ratios)

KMO and Bartlett's Test-2002

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.588
Bartlett's Test of Sphericity	Approx. Chi-Square	3248.889
	df	351
	Sig.	.000

KMO and Bartlett's Test 2003

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.524
Bartlett's Test of Sphericity	Approx. Chi-Square	3331.283
	df	351
	Sig.	.000

KMO and Bartlett's Test 2004

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.571
Bartlett's Test of Sphericity	Approx. Chi-Square	3432.564
	df	351
	Sig.	.000

KMO and Bartlett's Test 2005

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.531
Bartlett's Test of Sphericity	Approx. Chi-Square	3579.347
	df	351
	Sig.	.000

Parallel analysis outputs for 2001 De Novo banks in years 2002-2005 (27 ratios)

	19.000000	.108386	.637000	.689438
PARALLEL ANALYSIS FOR 2001 DE NOVO BANKS IN 2002 (27 RATIOS)	20.000000	.086053	.587047	.637540
	21.000000	.074781	.537914	.585628
Run MATRIX procedure:	22.000000	.042153	.490986	.537720
	23.000000	.026810	.442303	.488890
PARALLEL ANALYSIS:	24.000000	.020264	.397067	.444529
	25.000000	.015380	.351610	.397204
Principal Components & Raw Data Permutation	26.000000	.009886	.305289	.350490
	27.000000	.000026	.251532	.296890

Specifications for this Run:

Ncases 93
 Nvars 27
 Ndatsets 1000
 Percent 95

----- END MATRIX -----

PARALLEL ANALYSIS FOR 2001 DE NOVO BANKS IN 2003 (27 RATIOS)

Run MATRIX procedure:

PARALLEL ANALYSIS:

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 100
 Nvars 27
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	PrCNTyle
1.000000	6.923264	2.161487	2.345110
2.000000	3.273497	1.963552	2.098458
3.000000	2.693004	1.819184	1.936335
4.000000	2.266493	1.701233	1.802663
5.000000	2.021958	1.593935	1.678491
6.000000	1.866646	1.498391	1.573835
7.000000	1.363375	1.409957	1.484121
8.000000	1.157107	1.326590	1.392444
9.000000	1.042507	1.249265	1.310593
10.000000	.926553	1.172269	1.230814
11.000000	.796573	1.102442	1.163613
12.000000	.686219	1.036189	1.093451
13.000000	.442733	.972692	1.028345
14.000000	.321920	.911304	.966172
15.000000	.272798	.853999	.906329
16.000000	.235499	.796361	.846481
17.000000	.170662	.742036	.793128
18.000000	.155454	.688367	.739986

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	PrCNTyle
1.000000	4.780926	2.111771	2.295600
2.000000	4.105926	1.925142	2.050114
3.000000	2.787690	1.790992	1.890386
4.000000	2.689403	1.674160	1.767995
5.000000	1.875541	1.572412	1.658780
6.000000	1.834720	1.479915	1.552930
7.000000	1.609747	1.394998	1.466477

8.000000	1.344266	1.315310	1.379226
9.000000	1.179150	1.240233	1.304532
10.000000	.934467	1.170951	1.232765
11.000000	.847915	1.102266	1.161104
12.000000	.632427	1.037233	1.093895
13.000000	.524297	.976529	1.030484
14.000000	.394380	.918171	.970515
15.000000	.350909	.861377	.916646
16.000000	.267554	.806295	.857229
17.000000	.180005	.752516	.802469
18.000000	.171823	.701931	.750461
19.000000	.146887	.651948	.698167
20.000000	.120208	.604450	.650595
21.000000	.083126	.555462	.602589
22.000000	.060978	.509769	.552928
23.000000	.030205	.463880	.508461
24.000000	.021487	.418139	.459764
25.000000	.015034	.372142	.415879
26.000000	.010917	.323589	.369265
27.000000	.000016	.268420	.318639

----- END MATRIX -----

PARALLEL ANALYSIS FOR 2001 DE NOVO BANKS IN 2004 (27 RATIOS)

Run MATRIX procedure:

PARALLEL ANALYSIS:

Principal Components & Raw Data Permutation

Specifications for this Run:

Ncases 103
 Nvars 27
 Ndatsets 1000
 Percent 95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prncntyle
1.000000	4.868013	2.095948	2.280607
2.000000	4.408493	1.912744	2.042714
3.000000	3.049127	1.776835	1.879929
4.000000	2.442178	1.667622	1.763531
5.000000	1.989425	1.565108	1.652001
6.000000	1.844536	1.471787	1.544832
7.000000	1.682833	1.387339	1.460659
8.000000	1.128941	1.311721	1.378509
9.000000	1.052962	1.238251	1.303208
10.000000	.897511	1.167916	1.228754
11.000000	.664676	1.100557	1.158627
12.000000	.608244	1.038232	1.094256
13.000000	.472281	.978945	1.032909
14.000000	.408632	.920257	.970294
15.000000	.389939	.865046	.916934
16.000000	.313772	.810308	.863626
17.000000	.203575	.757037	.804495
18.000000	.156820	.706270	.753641
19.000000	.106625	.656804	.705848
20.000000	.089357	.609564	.658513
21.000000	.072888	.561384	.606037
22.000000	.042076	.515893	.562569
23.000000	.036405	.471590	.514530
24.000000	.031092	.425117	.470887
25.000000	.025049	.379129	.425984
26.000000	.014531	.330894	.377794
27.000000	.000017	.277702	.328820

----- END MATRIX -----

PARALLEL ANALYSIS FOR 2001 DE NOVO BANKS IN 2005 (27 RATIOS)

Run MATRIX procedure:

```

PARALLEL ANALYSIS:
Principal Components & Raw Data Permutation

Specifications for this Run:
Ncases      104
Nvars       27
Ndatsets   1000
Percent     95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues
      Root      Raw Data      Means      Prcntyle
1.000000    5.005201    2.094801    2.284575
2.000000    4.354061    1.909673    2.031039
3.000000    2.983219    1.772644    1.876002
4.000000    2.379923    1.661955    1.748252
5.000000    2.136653    1.560647    1.641913
6.000000    1.582957    1.471873    1.544470
7.000000    1.513294    1.388880    1.461032
8.000000    1.264976    1.309373    1.374918

          9.000000    1.020405    1.238442    1.300121
         10.000000    .977810    1.167058    1.224952
         11.000000    .766708    1.101432    1.160503
         12.000000    .648691    1.039600    1.092543
         13.000000    .559066    .977609    1.030760
         14.000000    .415588    .921506    .975147
         15.000000    .367107    .865405    .913797
         16.000000    .228693    .810379    .861495
         17.000000    .193414    .758622    .806513
         18.000000    .170070    .706754    .755851
         19.000000    .123573    .656502    .701460
         20.000000    .096581    .610705    .656262
         21.000000    .065364    .564919    .610368
         22.000000    .053562    .518334    .562541
         23.000000    .043897    .472527    .517838
         24.000000    .023045    .426959    .471672
         25.000000    .014945    .381445    .426290
         26.000000    .011189    .333973    .378515
         27.000000    .000009    .277981    .326564

----- END MATRIX -----

```

Rotated Component Matrix 2001 in 2002 27 Ratios

Ratios	Component					
	1	2	3	4	5	6
X7 PRETAX OPER INC (TE) \ AVR AST	0.900	0.248	0.142	-0.023	0.097	0.098
X10 NET INC \ AVR AST	0.895	0.232	0.156	-0.017	0.075	0.072
X53 NET INC \ AVR TOT EQ	0.812	0.286	0.125	-0.083	0.035	0.103
X5 NONINT EXP \ AVR AST	-0.787	0.310	-0.090	0.105	-0.177	-0.137
X29 G R TIER ONE CAP	0.752	0.149	0.183	-0.038	-0.173	0.043
X54 G R TOT EQCAP	0.742	0.140	0.242	-0.127	-0.161	0.019
X24 TIER ONE LEVERAGE CAP	-0.614	0.301	-0.077	-0.266	-0.284	0.301
X56 TOT RBC \ RISK-WGT AST	-0.567	0.139	-0.010	-0.552	-0.280	0.233
X11 AVR EARN AST \ AVR AST	0.382	-0.365	0.152	0.088	0.148	0.020
X15 NET INT INC-TE \ AVR EARN AST	0.184	0.903	-0.013	0.267	0.134	0.010
X3 NET INT INC (TE) \ AVR AST	0.246	0.866	0.010	0.285	0.158	0.015
X36 YIELD ON TOT LN&LS (TE)	0.106	0.705	0.183	-0.185	0.050	-0.155
X38 COST OF ALL INT-BEARING FUNDS	0.271	-0.225	0.745	0.090	0.040	0.069
X43 NET S T N CORE FUND DEPENDENCE	0.232	0.225	0.732	0.191	-0.025	-0.090
X46 S T AST \ S T LIABS	0.012	-0.134	-0.728	0.208	-0.062	-0.041
X2 INT EXP \ AVR AST	0.448	-0.275	0.723	0.136	0.146	-0.001
X39 S T INV \ TOT AST	-0.120	-0.133	-0.684	-0.080	-0.096	-0.015
X23 NET LN&LS \ AST	0.153	0.200	0.146	0.827	-0.044	0.146
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.464	0.015	-0.042	0.730	0.158	-0.030
X49 NET LN&LS \ CORE DEP	0.057	0.254	0.322	0.623	-0.192	0.293
X28 G R AST	-0.223	-0.164	-0.210	0.599	-0.306	-0.060
X4 NONINT INC \ AVR AST	-0.024	0.284	0.152	0.322	-0.068	-0.113
X20 LN&LS ALLOW \ TOT LN&LS	0.037	0.030	0.008	-0.046	0.914	0.070
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.042	0.047	0.127	-0.015	0.881	0.025
X32 G R S T NON CORE FUNDING	-0.182	-0.280	-0.133	0.305	-0.458	-0.118
X50 TOT HTM SEC \ TOT SEC	-0.096	0.062	0.084	-0.078	-0.057	-0.883
X51 TOT AFS SEC \ TOT SEC	0.080	-0.095	0.119	-0.013	0.096	0.870

Rotated Component Matrix 2001 in 2003 27 Ratios

Ratios	Component						
	1	2	3	4	5	6	7
X53 NET INC \ AVR TOT EQ	0.935	-0.032	0.166	-0.039	0.007	-0.019	0.001
X10 NET INC \ AVR AST	0.933	-0.067	0.199	-0.071	-0.053	0.013	-0.008
X7 PRETAX OPER INC (TE) \ AVR AST	0.922	0.037	0.217	-0.095	-0.032	0.048	-0.041
X29 G R TIER ONE CAP	0.775	0.101	-0.140	0.210	0.288	0.175	0.133
X54 G R TOT EQCAP	0.751	0.025	-0.173	0.283	0.307	0.191	0.166
X2 INT EXP \ AVR AST	0.014	0.779	-0.136	-0.320	0.146	0.230	0.055
X38 COST OF ALL INT-BEARING FUNDS	-0.047	0.779	-0.089	-0.274	0.065	0.202	0.155
X43 NET S T N CORE FUND DEPENDENCE	0.077	0.760	-0.042	0.027	0.089	-0.269	-0.227
X49 NET LN&LS \ CORE DEP	0.094	0.736	0.008	0.502	-0.004	-0.096	0.119
X39 S T INV \ TOT AST	0.020	-0.621	0.028	0.038	-0.076	0.423	0.140
X46 S T AST \ S T LIABS	0.102	-0.545	0.099	0.263	0.209	0.158	0.138
X15 NET INT INC-TE \ AVR EARN AST	0.172	-0.103	0.941	0.140	0.000	-0.055	0.112
X3 NET INT INC (TE) \ AVR AST	0.208	-0.087	0.914	0.143	-0.033	0.033	0.113
X36 YIELD ON TOT LN&LS (TE)	-0.013	-0.022	0.858	-0.263	-0.005	0.149	0.005
X20 LN&LS ALLOW \ TOT LN&LS	0.016	0.141	0.026	-0.785	0.171	-0.003	0.025
X19 LN&LS ALLOW \ LN&LS NOT HFS	0.012	0.211	-0.087	-0.742	0.060	0.039	0.326
X23 NET LN&LS \ AST	0.118	0.519	0.174	0.565	0.172	-0.070	0.263
X28 G R AST	0.014	-0.117	-0.131	0.561	0.266	0.312	0.175
X56 TOT RBC \ RISK-WGT AST	-0.183	-0.108	-0.043	-0.002	-0.888	0.114	0.033

Ratios	Component						
	1	2	3	4	5	6	7
X24 TIER ONE LEVERAGE CAP	-0.161	0.052	0.104	0.183	-0.800	0.149	0.175
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.331	0.302	0.120	0.209	0.555	0.150	0.201
X50 TOT HTM SEC \ TOT SEC	0.049	-0.065	0.058	-0.009	-0.041	0.801	-0.057
X51 TOT AFS SEC \ TOT SEC	-0.054	0.151	-0.182	-0.068	-0.005	-0.696	0.157
X11 AVR EARN AST \ AVR AST	0.158	0.104	-0.309	-0.008	-0.177	0.479	-0.022
X4 NONINT INC \ AVR AST	0.300	0.027	0.032	-0.071	0.025	-0.122	0.801
X5 NONINT EXP \ AVR AST	-0.431	-0.124	0.247	0.078	-0.146	-0.125	0.741
X32 G R S T NON CORE FUNDING	-0.249	0.243	-0.155	0.163	0.157	0.055	-0.287

Rotated Component Matrix 2001 in 2004 27 Ratios

Ratios	Component						
	1	2	3	4	5	6	7
X2 INT EXP \ AVR AST	0.829	-0.140	-0.157	0.290	-0.071	0.054	-0.043
X43 NET S T N CORE FUND DEPENDENCE	0.776	-0.038	-0.013	-0.177	-0.200	0.059	-0.129
X38 COST OF ALL INT-BEARING FUNDS	0.765	-0.151	-0.113	0.315	0.011	0.123	0.026
X46 S T AST \ S T LIABS	-0.699	0.143	0.095	0.152	-0.067	0.247	-0.055
X49 NET LN&LS \ CORE DEP	0.693	0.282	0.161	-0.223	-0.007	0.279	0.058
X39 S T INV \ TOT AST	-0.558	-0.001	0.148	0.194	0.332	0.037	-0.026
X23 NET LN&LS \ AST	0.517	0.236	0.338	-0.131	-0.261	0.468	0.076
X11 AVR EARN AST \ AVR AST	0.390	0.192	-0.104	0.145	-0.017	0.148	-0.280
X53 NET INC \ AVR TOT EQ	-0.011	0.890	0.231	-0.086	-0.136	-0.078	-0.174
X7 PRETAX OPER INC (TE) \ AVR AST	0.063	0.883	0.283	-0.099	0.035	-0.192	-0.101
X10 NET INC \ AVR AST	0.022	0.880	0.327	-0.163	0.054	-0.161	-0.097
X54 G R TOT EQCAP	-0.187	0.744	-0.257	0.248	0.074	0.334	0.222
X29 G R TIER ONE CAP	-0.161	0.735	-0.253	0.256	0.064	0.361	0.203
X3 NET INT INC (TE) \ AVR AST	-0.126	0.231	0.911	0.041	0.016	0.124	0.068
X15 NET INT INC-TE \ AVR EARN AST	-0.209	0.182	0.908	0.008	0.019	0.089	0.128
X36 YIELD ON TOT LN&LS (TE)	-0.030	-0.015	0.792	0.236	0.176	-0.084	0.122
X20 LN&LS ALLOW \ TOT LN&LS	-0.151	-0.010	0.044	0.821	0.057	-0.273	-0.034
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.018	-0.004	0.040	0.802	0.089	-0.234	0.275
X6 PROVISION: LN&LS LOSSES \ AVR AST	0.122	-0.043	0.259	0.657	-0.060	0.349	-0.063
X56 TOT RBC \ RISK-WGT AST	-0.244	-0.079	-0.087	-0.144	0.808	-0.202	0.182
X24 TIER ONE LEVERAGE CAP	-0.256	0.014	0.015	-0.056	0.791	-0.079	0.240
X51 TOT AFS SEC \ TOT SEC	-0.135	-0.110	-0.302	-0.305	-0.625	-0.115	0.213
X50 TOT HTM SEC \ TOT SEC	0.073	0.032	0.224	0.343	0.540	0.144	-0.406
X28 G R AST	-0.038	-0.072	-0.015	-0.011	-0.083	0.841	-0.057
X32 G R S T NON CORE FUNDING	0.213	-0.022	0.099	-0.246	0.037	0.655	-0.129
X4 NONINT INC \ AVR AST	0.070	0.164	0.083	0.156	0.081	-0.113	0.817
X5 NONINT EXP \ AVR AST	-0.090	-0.348	0.304	0.029	0.089	0.022	0.816

Rotated Component Matrix 2001 in 2005 27 Ratios

Ratios	Component						
	1	2	3	4	5	6	7
X53 NET INC \ AVR TOT EQ	0.852	0.034	0.123	0.350	-0.141	0.093	0.136
X10 NET INC \ AVR AST	0.832	0.035	0.188	0.293	-0.196	0.131	0.135
X7 PRETAX OPER INC (TE) \ AVR AST	0.827	0.052	0.205	0.311	-0.171	0.162	0.148
X56 TOT RBC \ RISK-WGT AST	-0.728	-0.164	0.015	0.062	-0.175	0.210	0.181
X24 TIER ONE LEVERAGE CAP	-0.717	-0.009	0.207	0.278	-0.131	0.164	0.080
X5 NONINT EXP \ AVR AST	-0.531	-0.112	0.405	-0.331	0.146	-0.115	0.350
X2 INT EXP \ AVR AST	0.097	0.830	-0.302	-0.044	0.194	0.109	-0.107

Ratios	Component						
	1	2	3	4	5	6	7
X38 COST OF ALL INT-BEARING FUNDS	-0.035	0.804	-0.231	0.063	0.201	0.121	-0.044
X49 NET LN&LS \ CORE DEP	0.013	0.799	0.161	0.110	-0.337	-0.056	-0.096
X23 NET LN&LS \ AST	0.170	0.696	0.364	0.050	-0.130	-0.162	-0.196
X43 NET S T N CORE FUND DEPENDENCE	0.110	0.653	-0.034	-0.017	-0.219	-0.240	0.268
X39 S T INV \ TOT AST	-0.167	-0.509	0.152	-0.024	-0.018	0.441	-0.226
X3 NET INT INC (TE) \ AVR AST	0.105	-0.060	0.960	0.099	-0.022	-0.041	-0.038
X15 NET INT INC-TE \ AVR EARN AST	0.066	-0.112	0.944	0.140	-0.040	-0.124	0.098
X36 YIELD ON TOT LN&LS (TE)	-0.036	-0.015	0.768	0.104	0.174	0.031	0.203
X46 S T AST \ S T LIABS	0.127	-0.454	0.505	0.170	0.069	-0.020	-0.257
X6 PROVISION: LN&LS LOSSES \ AVR AST	-0.265	0.246	0.456	0.271	0.368	0.195	-0.231
X54 G R TOT EQCAP	0.186	0.074	0.206	0.888	0.035	0.015	0.057
X29 G R TIER ONE CAP	0.191	0.057	0.187	0.861	-0.007	-0.009	0.077
X28 G R AST	0.041	-0.124	-0.021	0.563	-0.474	-0.088	-0.324
X19 LN&LS ALLOW \ LN&LS NOT HFS	-0.162	-0.100	0.058	0.023	0.834	0.004	0.242
X20 LN&LS ALLOW \ TOT LN&LS	-0.146	-0.235	0.123	0.085	0.812	-0.008	-0.078
X32 G R S T NON CORE FUNDING	-0.144	-0.095	0.009	0.145	-0.546	0.005	0.058
X51 TOT AFS SEC \ TOT SEC	0.000	0.017	-0.005	0.014	-0.014	-0.891	-0.130
X50 TOT HTM SEC \ TOT SEC	0.038	-0.100	-0.160	0.035	0.002	0.857	-0.059
X4 NONINT INC \ AVR AST	0.134	0.091	0.119	-0.032	0.123	0.177	0.738
X11 AVR EARN AST \ AVR AST	0.157	0.219	0.002	-0.175	0.081	0.352	-0.568