DOMINANCE IN THE NEW YORK CLEARINGHOUSE: CITIBANK VERSUS CHASE

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ABSTRACT

The purpose of this paper was to determine the relative financial strength of the two leading New York financial institutions, Chase Manhattan Corporation and Citigroup (Citibank=s most recent corporate name). A related goal was to establish the outlook for future relative success for these two premier financial titans.
To accomplish these tasks the authors applied several well-known market structure devices and financial measures, as well as some lesser-known and subtler arguments, in order to characterize the two leading competing financial institutions. The principal relative advantages are summarized In Table VI in the section Summary Comments/Conclusions. As can be noted Chase enjoys relative advantage on the issue of risk exposure while Citigroup enjoys relative advantage on the issues of concentration/market share, earnings quality (mergers) and earnings quality (non performing assets). Subsequent to the writing of this paper the merger between Chase Manhattan Corporation and J.P. Morgan and Company was approved. The first endnote deals with the impact of this merger on the issue of relative advantage.

INTRODUCTION

The present paper in the latest in a series of works dating back to the late 1980's [1, 2, 3, 4] and is particularly closely tied in with the fourth of these papers. In that paper the authors examined the overall competitive position of the Chase Manhattan Corporation in the wake of its merger with Chemical Banking Corporation. This merger was important in that it completed the combination of America=s traditional third (Chase), fourth (Manufacturer=s Hanover), and sixth (Chemical) largest commercial banking entities. All of these banks, prior to recent merger, were separate major players in the New York Clearinghouse, a term traditionally used to describe Citibank, J.P. Morgan, Banker=s Trust, The Bank of New York, and the Irving Trust in addition to the above referenced combination.

Ever since the time of the Great Depression, prior to which the House of Morgan ruled supreme within the New York Clearinghouse, Citigroup and the Chase Manhattan Corporation have battled over each others turf and for banking dominance within the world=s preeminent financial center. In so doing each bank has exhibited its own unique personality, for better or for worse. The personality of Citigroup is a little easier to describe than that of Chase given its less complicated merger history. Briefly stated, Citibank, the lead commercial bank of Citigroup Incorporated, has been known at least since the days of its legendary CEO, Mr. Walter B. Wriston, as an aggressive bank notable for its product innovation and willingness to assume high levels of risk, if necessary, to achieve its corporate objective. Its leadership (if J.P. Morgan is ignored) in the area of foreign expansion and its work in the area of consumer lending (e.g., Visa cards) could be cited as

prime examples of this set of characteristics, as could its recent merger with Travelers Group, especially when one remembers that the latter includes the old Solomon Brothers (known for its bond market expertise) and Smith Barney (a name historically associated with premier investment research). This overall combination of businesses ranks among the first to offer its customer a virtually complete line of financial services.

Having said this, it is still worth remembering that the very same corporate personality that has made Citigroup Incorporated a distinguished world leader in financial services does not sport a completely unblemished record of achievement. Like other aggressively managed institutions, Citigroup Incorporated has at times suffered significant increases in non-performing asset categories and has made mistakes in judgement (e.g., opening a Citibank branch in Saigon only weeks prior to the capitulation of the city to the North Vietnamese army). In its 1998 annual report John S. Reed and Sanford I. Weill state, true to the corporation=s historical form: AThose goals are straightforward... to double our earnings every five years with a 20 percent target return on equity.@ This statement forecasts a target earnings growth rate of 14 percent compounded over the period. This figure reminds one of First Pennsylvania=s CEO, J.R. Bunting, who established what at the time were considered to be aggressive earnings growth targets (15 percent earnings growth per year) only to see them and the bank which he headed (the proud successor of The Bank of North America, our nations oldest bank dating back to 1781) fall apart. Economies the size of the United States or the world economy simply do not grow indefinitely by 14 percent per annum. The historical caveat here should be obvious.

The personality of The Chase Manhattan Corporation tends to be more cautious and prudent. Long known for its ties to the Rockefeller family and their oil and gas interests (David Rockefeller served for a considerable period as Chases's CEO), the bank's political clout can only be described as unique and powerful regardless of which political party rules in Washington. When the times called for foreign expansion Chase proceeded cautiously (e.g., its foreign employees were assigned on average to 6 year terms so that they could establish contacts in depth and know the customers of their assigned country - most banks including Citibank turned their foreign employees over after two year terms). Further, Chase has long been known for its dedication to and sponsorship of minority business interests, an arguably smart move given the growing diversity in America and the dawning of "one world" banking.

All this being as it may, Chase Manhattan Corporation has long come in for criticism related to its relative lack of aggressiveness. Its detractors have argued that management (David Rockefeller was a particular scapegoat) was too long run focused and ignored short run earnings targets and goals to the great detriment of long run financial strength and market position. The Chase Manhattan Corporation has also been cited as being financially lax (e.g., the high default rates on some minority lending have been cited as has the above average labor intensity of the Chase operation). There is also an unpleasant history, especially at the Chemical Bank subsidiary, of trading losses, suspected to reflect a lack of proper internal controls and supervision. Finally, given the extent of mergers in its recent past questions have been raised regarding the dangers of blending diverse corporate cultures. It must be stated, in fairness, that Citigroup Incorporated could also be attacked, though on a less broad scale, on this particular point.

In this paper the authors are going to ignore the undoubted presence of corporate personality for both Citigroup Inc. and Chase Manhattan Corporation. This decision stems not from the authors' rejection of the validity of corporate personality as a success or failure factor but rather from acceptance of the obvious impossibility of measuring something this inherently vague and intangible. Our analysis shall be undertaken against a background of

unknowable political, legal, and merger/restructuring uncertainty.[1] It shall be done using financial data obtained primarily from the annual reports and 10K=s of the two commercial banking entities as well as other related industry data as appropriate.

THE CORPORATE FINANCIAL POSITION OF CITIGROUP INCORPORATED WITH THE CHASE MANHATTAN CORPORATION

In this section we shall break the analysis down into three categories: balance sheet issues, income statement/cash flow issues, and other issues.

Balance Sheet Issues

As a point of departure the reader=s attention is directed to Table I.

Table I
Comparative Balance Sheets of the Chase Manhattan Corporation and Citigroup Inc.
(Based on December 31, 1998 data)

Asset Categories	CMB[2]	CCI[3]
Cash	6.6%	3.8%
Securities		
Trading	15.8%	17.9%
Investment	17.6%	15.5%
Loans	47.2%	33.1%
Total Assets (TA)	100.0%	100.0%
Liability Categories:		
Deposits	58.1%	34.2%
Long Term Debt	4.4%	7.3%
Total Liabilities (TL)	93.5%	94.0%
Total Liabilities + Equity (TL+E)	100.0%	100.0%

Source: Company Financial Statements

Please note that Table I has been expressed in percentage terms rather than in dollar amounts for ease of understanding. This procedure was suggested, if not dictated, by the fact that the numbers involved are huge (Chase Manhattan Corporation is a $365,875,000,000 bank in terms of its total assets while Citigroup Incorporated is a $668,641,000,000 bank in terms of its total assets). At this size both entities boast the critical mass and probable associated economies of scale to compete in the international marketplace Aceteris paribus@.[4]

As to the New York Clearinghouse, our research produced a market share for CMB (NYSE ticker symbols shall be used henceforth in place of full names) of 24.5 percent versus one for CCI of 44.8 percent.[5] Based on this differential alone it could be argued that CMB, as presently constituted, operates at a severe disadvantage in terms of overall economies of scale with all that this implies.[6]

The comparison is not unlike that which existed in the 1950's between General Motors Corporation and Ford Motor Company prior to the advent of significant foreign competition (servicing difficulties had effectively limited foreign penetration of the United States domestic market). In those days GM=s market share was effectively set at 55 percent of the United States market for new automobiles by the latent threat of antitrust action

against the company. As to Ford, their market share ranged between 25 percent and 30 percent of the same market depending on total new automobile sales volume and GM=s existing capacity constraints. Thus, in terms of relative market share Ford=s ranged between 45.5 percent and 55.5 percent of GM=s. This range does not differ materially from Chases current 54.7 percent relative market share versus CCI. The correspondence of these cases is particularly striking when it is noted that good times (like the present) were required for Ford to ordinarily achieve the upper limits of its market share relative to G.M.

Small players used to exist (e.g. Chrysler Corporation and American Motors Corporation) in the case of Ford and GM and certainly do in the case of CMB and CCI.[7] In neither case, based on past history, have these smaller market share participants ever posed a serious threat to the more dominant firms. To conclude, just as Ford spent decades trying to overtake GM it could be argued that, given existing conditions, CMB is faced with a similar outlook relative to CCI.

Table I when viewed as a "common-size" or A100% statement@ clearly hints at the different corporate personalities discussed in the introductory section. The aggressive risk taking character of CCI is evidenced by its loan to deposit (L/D) ratio. CCI on the last day of its 1998 fiscal year carried a L/D ratio of 97.1 percent. By comparison CMB sported a L/D ratio of 81.3 percent.[8] While both of there ratios fall in the high risk category that of CCI implies a fully committed lending posture implying future difficulty in expanding earnings beyond current levels.[9]

To look at this growth matter from another angle it was decided to compute the internal rate of growth (IRG) for CCI. The appropriate formula follows:

IRG = ROE x RR
where ROE = Rate of Return on Owners Equity; RR = Retention Rate

Performing the necessary calculations yielded a figure of 9.27 percent, a far cry from the figure routinely assumed at present by some leading Wall Street financial analysts.[10] In contrast, CMB sports a calculated internal rate of growth of 10.45 percent. Given the above mentioned L/D ratios for both banking entities as well as their equity ratios of 6.0 percent for CCI and 6.5 percent for CMB one would be tempted to argue that these internal rate of growth (IRG) figures are likely to represent somewhere close to a maximum attainable growth rate figure, especially so in the case of CCI.

The related but unstated problem which may inhibit a growth scenario is the leverage problem. International banking standards as laid down by the Bank for International Settlements (BIS) require an 8.0 percent equity capital cushion. The crude calculations of the authors, derived as they are from major and unsegmented balance sheet categories, are undoubtedly more stringent on the leverage issue than BIS internally administered formulas. Still the raw numbers (6.0 percent for CCI and 6.5 percent for CMB) hold only minimum hope for future earnings growth generated by additional leveraging.

While the leverage problem applies to both CCI and CMB the latter also sports an "earnings quality" problem. It is well known that CMB made a huge acquisition when it acquired Chemical Banking Corporation on March 31, 1996. The transaction, recorded as a "pooling of interests" opened the way for material overstatement of net income in future years. To what extent this happened one can only speculate but the mere possibility raises some serious questions regarding future growth rates. It will be necessary to return to this matter in the income statement section that follows in due course.

Another balance sheet related issue which carries implications for future lending as

well as institutional solvency concerns the matter of net long term asset exposure. This exposure is clarified in Table II.

Table II
Net Long Term Asset Exposure: The Chase Manhattan Corporation Versus Citigroup Incorporated
(based on December 31, 1998 data - figures in millions of $)

	MB	CCI
Long Term Assets (LTA):		
Securities Maturing in 10 Years or Longer[11]	$44287	$ 33674
Residential Mortgage Loans	$43298	$ 29962
Real Estate Loans[12]	$ 3366	$ 1792
Bank Premises & Equipment[13]	$ 4055	$ 4474
otal LTA	$95006	$ 69902
Long Term Liabilities + Equity (LTL + E):		
Deposits[14]	$15802	$ 17008
Long Term Debt	$16187	$ 48671
Equity	$23838	$ 42708
otal LTL + E	$55827	$108387
et Long Term Assets (LTA - [LTL + E])	$39179	($38485)

Source: Company Financial Statements

Before proceeding to the discussion of Table II it must be emphasized that the numerical values contained therein constitute at best a patchwork affair. The reader is strongly advised to consult footnotes 11-14 before reaching any conclusions relative to the matters presented.

Having issued this caveat it is the authors= firm opinion, based on years of study of financial institutions, that whatever errors exist in the exact figures presented, they are insufficient to invalidate the clear message of Table II which is that CMB has a positive net long term asset figure of some material magnitude while CCI has a negative net long term asset figure of similar material magnitude. This means that CMB is deploying more funds long term than it is raising long term. Thus, CMB is clearly placing a significant bet on the continuation of a positive sloping yield curve. Such a bet, if wrong, not only carries negative earnings implications but also reminds those of a conservative persuasion that no lender of other peoples money can remain in business indefinitely by borrowing short term and lending long term. The reader should remember, in this regard, that CMB=s net long term asset exposure is arguably understated given that the analysis assumes that all loans carried in every other category by CMB are short term in character. Lest too much be made of this last point, however, it should be pointed out that CMB=s equity and loan loss reserves constitute a not inconsiderable 69.9 percent of its net long term asset exposure, a sizable pool indeed when it comes to gradually writing off past errors of judgment. It must also be recognized that, except for a brief appearance in October 1998, an "inverted" yield curve has not been present on the banking scene in the United States since the early 1980's and has over the years constituted an anomaly when it has made an appearance.

It is this last point that makes Citigroup Incorporated=s NEGATIVE net long term asset balance of $38,485,000,000 so very interesting. It would seem that CCI is placing the

opposite operating bet to CMB. That is CCI is in effect betting on the emergence of a negative sloping (Ainverted@) yield curve implying the belief that long term interest rates will rise less than short term interest rates. This could imply a belief that the Federal Reserve plans to tighten the reins on credit over the intermediate term while CMB, as stated, appears to be betting on a continuation of Aeasy money@. Whatever the future of interest rates, either CMB or CCI is going to gain financial strength relative to the other based on these divergent bets.

Income Statement/Cash Flow Issues

The March 31, 1996 merger between the Chemical Banking Corporation (henceforth to be identified by its old ticker symbol CHL) and CMB raised interesting questions concerning the earnings quality of the latter which, though already mentioned briefly in the preceding section, now must be addressed in more depth. In our recent paper [4] [15]

Table III
The Earnings Impact of Two Mergers on The Chase Manhattan Corporation
(Earnings stated in per share amounts)

	The December 31, 1991 Merger (MHC[16] into CHL):
Mean Earnings (1974-1990):	
MHC	$3.70
CHL	$3.16
Total Combined	$6.86
Pooled Earnings (1991)	$ .11
Apparent Dilution	96.5%
	The March 31, 1996 Merger (CHL into CMB):
Adjusted Earnings (1995)	$6.66
Pooled Earnings (1996)	$4.94
Apparent Dilution	25.8%

Source: Company Financial Statements

Without going back and quoting extensively from this earlier work the reader should note that both of Chase Manhattan's 1990's mergers were "dilative" and in that sense unproductive, long term structural effects being ignored. This is the first point that needs to be considered.

The second point, given the above as background, is that CMB=s fiscal year end 1998 earnings ($4.24 on a fully diluted basis) when adjusted to $8.48 reflecting the corporations midyear 1998 2 for 1 common stock split have only advanced since 1974 (a quarter of a century ago) by 60.6% when 1974 earnings of CMB, CHL, and MHC are combined and adjusted for pooling (the adjusted 1974 combined earnings figure being $5.28). This works out to a compounded rate of earnings growth of approximately 2.0 percent per annum. Obviously all this is a far cry from the internal rate of growth (IRG) of 10.45 percent reported in the preceding section of the paper. It=s decidedly negative historical implications certainly reemphasize the growth problems facing CMB. And this does not state the worst case scenario. For if 1998 earnings per share are adjusted in Areal terms@ to reflect inflation=s impact a negative figure emerges, derived using the following formula:

1998 Deflated Earnings = 1998 Earnings x (1974 CPI / 1998 CPI)
where CPI = all terms consumer price index[17]

1998 Deflated Earnings = $8.48 x 49.3 / 166.0
1998 Deflated Earnings = $2.56

Thus, "real earnings" have declined over the twenty five year period by 69.8 percent.

Looking at this matter from yet another angle (that of fund raising) if the more moderate 2 percent growth rate scenario is assumed the justifiable price to earnings ratio of CMB is limited to 12.5 x earnings. This figure was derived using Benjamin Graham=s classic formula:[18]

justifiable P/E = 8.5 + (2x Rho)
where Rho = secular growth rate stated as a whole number

If the worst case scenario with its negative growth rate is applied the justifiable P/E ratio is reduced to single digits. Fund raising by means of common stock issue would be severely limited in either case due to the pressure of such a low justifiable P/E ratio.[19] Problems would also exist for CMB should it decide to proceed with a program of "pooling of interests" mergers due to the potential for dilution implied in these low justifiable P/E ratios. When the economies of scale problem, addressed in the early part of this section of the paper is recalled, this situation could have serious long term competitive implications for the CMB versus CCI face-off.

Regarding CCI, its earnings growth record, viewed long term, is not outstanding either. However, it has the advantage of having the economies of scale in place and thus enjoys the long term strategic advantages associated with being in this relative position.

A further :earnings quality" related issue concerns the matter of non-performing assets. This is addressed in Table IV which compares the overall situation at CMB with that at CCI using 1998 fiscal year-end figures.

Table IV
Non-Performing Assets -The Chase Manhattan Corporation
Versus Citigroup Incorporated
(figures expressed in millions of $)

	MB	CCI
Non-Performing Assets	$ 1568	$ 1754
Total Cross Border Exposure:		
Latin America	$11300	$10400
Asia	$ 8400	N.A.
Japan	$ 6900	$12900
Total Risk Assets	$28128	$25054
Risk Assets/Loan Loss Reserves + Equity	109.0%	53.3%

Source: Company Financial Statements

At superficial glance it appears that while both CMB and CCI are exposed to a variety of risks CMB is in by far the more tenuous position relative to this exposure. Unfortunately, the numbers presented in Table IV are not really comparable. This is because while CMB includes all its cross border exposure in Latin America CCI only includes its exposure to Mexico and Brazil. And this is not all. CCI has chosen not to break

out its substantial cross border exposure in Asia excluding Japan. Were such countries as Indonesia, the Philippines, Malaysia, China, Thailand, and Korea included there can be little doubt that CCI=s cross border exposure would register materially higher figures. In fact in 1997 when Citicorp (CCI=s predecessor company) did break out these figures their inclusion would have added $4,700,000,000 in Latin American cross border exposure and $5,000,000,000 in Asia cross border exposure. If one were to assume that there exposures had remained constant in 1998 CCI=s ratio of risk assets to loan loss reserves plus equity would have risen from Table IV=s stated figure of 53.3 percent to 73.9 percent. Nonetheless, even after this necessary adjustment in order to proxy a more nearly comparable figure for CCI it is clear that on the issue of "earnings quality" CCI enjoys a definite competitive advantage over CMB.

Other Issues

The matter of off-balance sheet lending exposure requires brief attention and is addressed in Table V.

Table V
Off-Balance Sheet Lending-Related Exposure of
The Chase Manhattan Corporation Versus Citigroup Incorporated
(Figures in millions of $ reflecting December 31, 1998 balance)

Credit Card Lines	$ 80763	$227800
Other Commitments to Extend Credit	$144519	$132600
Standby Letters of Credit and Guarantees	$ 32277	---------
Other Letters of Credit	$ 3740	---------
Customer Securities Lent	$ 58592	$119206

Source: Company Financial Statements

As a technical point regarding Table V, CCI aggregates its credit card lines and letters of credit in one figure which is reported under credit card lines. When theoretical loan to deposit ratios are figured from the above table CMB=s L/D ratio (reported earlier in the paper as 81.3 percent) becomes a theoretical 231.9 percent assuming that all credit lines reported in Table V are called upon. As to CCI its L/D ratio (reported earlier in the paper as 97.1 percent) becomes a theoretical 306.8 percent. Having said this, it is manifest nonsense to assume that the simultaneous draw down of credit lines could ever occur. In normal times such an event is totally unthinkable and even in times of world financial panic such an event is, practically speaking, impossible given that the funds simply don=t exist for either CMB or CCI to meet its theoretical lending commitments. Should such circumstances ever arise both CMB and CCI would be forced to incur financial penalties as a result of their need to withdraw credit lines otherwise assumed to be guaranteed.

The absolute size of both CMB=s and CCI=s off-balance sheet lending related exposure is testimony to the extent to which United States commercial banks have become dependent on fee income rather than simply on the more traditional interest rate spreads to generate income. The relative size of CCI=s theoretical L/D ratio when compared against CMB=s can be argued to be a further reflection upon the formers more aggressive financial personality. However, the absolute size of both theoretical L/D ratios implies risk for the banks involved. Given the scale of each of the respective banks the relative strength advantage here is regarded as too close to call.

SUMMARY COMMENTS/CONCLUSIONS

This paper has constituted a comparison of the relative financial strength of two of Americas leading financial institutions, CMB and CCI, which happen to be pitted against each other in the New York Clearinghouse. During the course of the paper probable future dominance, an obvious intangible, was discussed with reference to the following categories enumerated in Table VI.

Table VI
The Dominance Question: The Chase Manhattan Corporation Versus Citigroup Incorporated

Dominance Categories:	Relative Advantage
Personality	None
Balance Sheet Issues:	
Concentration/Market Share	CCI
Risk Exposure (L/D)	CMB
Leverage	None
Earnings Quality (Mergers)	CCI
Net Long Term Asset Exposure	Unknown
Income Statement/Cash Flow Issues:	
Earnings Growth	None
Earnings Quality (Non-Performing Assets)	CCI
Other: Off-balance sheet lending	None

Table VI reveals that CCI appears to hold an advantage over CMB in three categories examined while CMB appears to hold an advantage in one. Most of this advantage appears to the authors to be the direct or in some cases the indirect result of the significant economies of scale advantage clearly enjoyed by CCI. CMB=s advantage on "risk exposure (L/D)" could be argued to stem as much from its more conservative corporate personality as from anything else. Given these things, one is tempted to conclude that CMB is in desperate need of another merger partner (Perhaps J.P. Morgan as rumored in some quarters of Wall Street currently). Yet all this assumes that CMB=s questionable past record in mergers will not preclude a favorable outcome should further corporate restructuring be attempted. The unanswered question, that remains for future papers, is how both CMB and CCI fare when it comes to integrating past acquisitions. This is the great imponderable which negates any overwhelmingly clear resolution of the principal question posed in this investigation.

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END NOTES

1. In December 2000 a merger between Chase Manhattan Corporation (CMB) and J.P. Morgan and Company Incorporated (JPM) was approved. While not altering the overall thrust and conclusions of our study this event is not without consequences. In this regard, there are both positive and negative implications for the merger partners. The positive implications are:

1. The CCI relative advantage in concentration/market share is narrowed. On the basis of total assets (a measure of scale) the approved combination now constitutes 90.03 percent of the size of Citigroup based on audited 1999 fiscal year data.
2. JPM brings to the table its vast international exposure and premier standing in the area of trust investments.

The negative implications are:

1. The merger opens up evem greater issues of earnings quality (mergers) accentuating CCI's relative advantage on this point.
2. The merger creates a significant relative advantage for CCI on the issue of leverage where none existed before. JPM's net worth to total asset ratio of .0438 is simply unacceptable in terms of international standards promulgated by the Bank for International Settlements.
3. The problem of integrating the divergent corporate personalities of JPM, CHL, MHC and CMB should not be underestimated. It is our feeling that a case may exist, at the margin, for declaring a relative advantage for CCI on this issue but personality remains too close to call.

In short, the comments in the summary sectio stand as written subject to the arguments just cited. No material change in the conclusions is relating to CMB's profit growth seem warranted at this time.

2. CMB is the New York Stock Exchange (NYSE) ticker symbol for Chase Manhattan Corporation. For a complete list of NYSE ticker symbols see the current issue of Stock Guide published by Standard & Poors, Publishers, 25 Broadway, New York, New York 10004.

3. CCI is the NYSE ticker symbol for Citigroup Incorporated. See endnote 2 above for further information.

4. In this regard it should be noted that banks of comparable or greater size (some exceeding twice the size of Citigroup Incorporated) have long existed on the international scene in both Europe and in the Far East. Scale motivated mergers and restructuring among these rival institutions cannot be ruled out and the strategy implications for both Chase Manhattan Corporation and Citigroup Incorporated could prove material in their

influence on the CMB/CCI rivalry.

5. Both market share ratios are based on total assets rather than on total net revenues. The former usually tend to produce a more stable relative market share since the latter are subject to relatively more accounting manipulation and price level change.

6. An advantage in economies of scale normally implies lower costs of services as well as greater price setting abilities and wider and more stable profit margins.

7. Bankers Trust NY Corporation and The Bank of New York Company Incorporated along with its well respected Irving Trust Company subsidiary could be cited.

8. As a standard of comparison the traditional standard for maximum prudent lending exposure is a L/D ratio of 70 percent for large commercial banking entities. In 1929 the all commercial bank L/D ratio reached 80 percent just prior to the autumn crash.

9. Given historical mid-single digit growth rates for both the United States and the world economies it is difficult to conceive of long term growth materially in excess of these figures unless excess lending capacity is present.

10. This calls into serious question the growth targets (14 percent compound earnings growth and 20 percent rate of return on owner equity) stated by Mr. Reed and Mr. Weill in CCI's 1998 annual report to shareholders.

11. This figure was based on amortized cost which does not differ materially from its related fair market value figures ($44,610,000,000 for CMB and $35,065,000,000 for CCI).

12. In the case of CMB construction loans, amounting to $955,000,000 are excluded from this figure since they are deemed short term in character. CCI does not separately break out the construction loan component so that a total real estate loan figure is tilized. If one were to assume that construction loans made up the same percentage of real estate loans at CCI as they do at CMB the CCI figure would be adjusted downward to read $1,386,000,000.

13. In the case of CCI the company did not consider the traditional figure for bank premises and equipment to be material in 1998 and so reported it as a part of its $62,747,000,000 "other assets" category. Given this fact the authors decided to use CCI's fiscal 1997 year figure (which had been declining) as a proxy for fiscal 1998, a year in which a merger with Travelers Group had been consummated, undoubtedly raising the premises and equipment figure. It is the authors premise that the Traveler's gain probably serves to wash out the clearly declining secular trend otherwise present. Thus, the 1997 fiscal year figure was inserted for better or for worse.

14. The figure for CMB was derived by computing Chemical Banking Corporation's audited 1994 fiscal year figure for percentage of deposits maturing in over 5 years and applying the same percentage to its merger partner CMB (which does not release this detailed type of breakdown). This percentage while outdated is arguably in the ballpark. Like CMB its historic rival does not release this detailed type of information. Thus, the authors determined that the same percentage could be applied to CCI as to CMB.

15. This paper was presented at the 1999 meetings of SWFAD in Houston, Texas.

16. MHC used to be the NYSE ticker symbol for Manufacturers Hanover Corporation.

17. These numbers were obtained from the 1999 Economic Report of the President.

18. For more on this see Security Analysis by Graham, Dodd, and Cottle 4th Edition, McGraw-Hill Inc., New York, New York.

19. This of course precludes market mania conditions where underlying values become irrelevant.