

Effect of agency problems on RTC hotel appraisals

by Michael C. Dalbor

Agency problems that helped cause the banking crisis in the United States in the 1980s impacted hotel appraisals completed for the Resolution Trust Corporation (RTC). Lower appraised values would help make more bids acceptable, helping to sell more assets quickly. The results indicate appraised hotel values were much lower than sales prices in states with a high number of bank failures.

Agency problems such as moral hazard and regulatory forbearance contributed to the banking crises in the United States in the late 1980s and early 1990s. Moral hazard can generally be defined as agents taking actions to the detriment of their employers. In terms of the banking industry, this occurred as bank officials took actions that were not in the best interest of depositors. Regulatory forbearance was the practice of government regulators foregoing disciplinary actions against troubled banks in the hope that the banks would turn themselves around. The problems with the

banking industry were so severe that the Federal Savings and Loan Insurance Corporation (FSLIC) went bankrupt and the Federal Deposit Insurance Corporation (FDIC) experienced losses in the late 1980s.

Some of the major causes of the crises were practices used by many lenders at the time. In order for borrowers to qualify for a loan, an appraisal had to be completed. This led to a number of problems in the loan process. For one, commercial properties are often more specialized and complex than single-family residences, requiring more specialized skills and training. However, at the time, appraisers were designated by a wide variety of organizations that were not organized under the auspices of state governments. Therefore, the educational background and experience of these appraisers varied significantly.

Another major factor in the process was the ability of borrowers to hire appraisers directly. This

meant that the appraiser was working directly for the borrowers, who were primarily interested in seeing values that would justify the loans for their projects. While an appraiser's compensation was not based upon any particular value, appraisers were not compensated based upon accuracy either. Appraisers were (and still are) compensated at a flat rate. However, appraisers who presented values that were consistently too low for borrowers to qualify for loans were putting any future potential business in jeopardy.

RTC solves problems

This situation got out of hand by the late 1980s. An extreme example was the case of a parcel of vacant commercial land that was appraised a total of six times. The appraised values began at \$2 million and eventually rose to \$175 million on the same parcel. FSLIC later sold the property at auction for \$2.5 million.¹ Congress finally began to deal with the problem of cleaning up the banking mess through the Financial Institutions Reform, Recovery and Enforcement Act (FIRREA) of 1989. President Bush signed the bill that included a wide variety of reforms regarding the appraisal industry. A major provision of the act was the formation of the Resolution Trust Corporation (RTC), which was given the daunting task of selling a significant number of problem real and financial assets of failed banks in a timely manner.

The RTC was formed to help solve a problem with which many

politicians in Congress did not particularly want to deal. First, Congress passed legislation in 1980 that served to deregulate the savings and loans industry in order to help keep it competitive. Furthermore, this legislation increased deposit insurance to \$100,000 per account, which created a large moral hazard problem by allowing savings and loans to use greater amounts of brokered deposits.

By the time the RTC was formed, the problem was enormous, particularly in the southwestern United States. The FDIC tracked bank failures in the U.S. between 1980 and 1994. During this time, 599 banks, or more than 29 percent of total supply, failed in Texas alone. Failures in other states were also high: 44 percent of banks in Alaska failed along with 33 percent of banks in Oklahoma. The total for the U.S. and Puerto Rico was 1,614, or 9.1 percent of total supply, dwarfing the banking problems of the Great Depression.²

For years before the formation of the RTC, the costs of the cleanup were consistently underestimated. The problem was a large and growing one that needed to be taken care of in a timely manner in order to ensure the solvency of the banking system and have the smallest impact on the economy.

The nature of the problem was rather embarrassing for politicians, who were seen as part of the problem to begin with. Additionally, many in Congress did not want to raise taxes during a period of worsening economic conditions. There-

fore, the RTC was only intended to be a temporary government agency that would sell non-performing assets and loans to various bidders. Moreover, the government intended to monitor the operations of the RTC via the Government Accounting Office (GAO) which would make reports to Congress.

Asset sale is goal

Given the political sensitivity of the savings and loan cleanup and the limited funding of the RTC, one of the major goals of the RTC was the cumulative sale of assets.³ These sales and the ratio of sales price to appraised value were reported to Congress by the GAO. Although the RTC was also evaluated on the ratio of sales proceeds to book value, the sales goal was significant. For example, the RTC's sales goal in 1992 alone was approximately \$100 billion.⁴ This goal had an important effect on the operations of RTC officials.

Examples of the problems created by the book value reduction goal were revealed in a GAO report on RTC auctions held in the Washington/Baltimore area in 1992. The GAO concluded that the auctions were not planned or managed correctly in order to maximize revenues.⁵ Complete information was not always supplied to bidders and many times property information was inaccurate. It appears that the RTC was overwhelmed and unprepared for the task given to them. As the GAO concluded, "inadequacies occurred...because the staff was motivated to get sales done

quickly in order to meet the book value reduction goals."⁶

One of the major tools used by RTC officials in the auction process was a recent appraisal of the property. Since the RTC was generally not experienced in real estate management or valuation, it relied significantly upon experienced appraisers to help assist in selecting a winning bid on an asset. While recovery rates on book value were tracked and evaluated, removing properties from the books was a major priority. Therefore, if a hotel was appraised at a relatively high value, it would be possible that no bids could be accepted because they were too far below the appraised value. On the other hand, low appraised values would mean that the bids would be closer to the appraisals, perhaps even exceeding them. This would make more bids acceptable, helping to sell the assets faster. Moreover, it might make the RTC appear to be more "efficient" by accepting bids above appraised values.

Policies are established

At the end of 1992, the RTC issued a directive stating all of its auctions must be conducted in accordance with established policies and guidelines. By establishing policies and procedures and by gaining experience over time, the situation at the RTC began to improve. By 1993, the end was in sight for the RTC because there were fewer properties to sell. In May 1993 Congress passed the Resolution Trust Corporation Completion Act. This act

served to phase out the RTC beginning with a transition period in April 1994. The RTC had worked fast enough to allow Congress to move up the complete termination of the RTC from December 31, 1996, to December 31, 1995. Given the foregoing occurrences in 1993, there was clearly less political pressure to achieve book value reduction goals than in 1991 or 1992. RTC commercial real estate sales (not just hotels) totaled 7,031 between 1989 and 1993, with 5,814 occurring before 1993.⁷

Monitoring is ineffective

One of the major agency problems in the savings and loan crisis was ineffective monitoring. This was embodied in the policy engaged in by federal regulators known as regulatory forbearance. This is a policy where insolvent banking institutions were permitted to continue operating in the hope that conditions would improve enough for them to recover. Additionally, regulators feared that closing these institutions would have too much of a negative impact on the solvency of the deposit insurance fund. Research indicates that between 1980 and 1988, insolvent institutions remained open for an average of approximately 17 months after being declared insolvent. In one case, a bank that was declared insolvent in 1979 was still operating in 1988.⁸

The policy of regulatory forbearance only served to delay dealing with the problem. The delay helped increase the magnitude of the

problem the RTC had to deal with later. The increasing number of insolvent institutions served to deplete the deposit insurance more rapidly and increased the need to speed up the disposal of assets at insolvent institutions. This in turn led to the book value reduction goals previously discussed and the need for appraisals that could help accomplish that goal.

Given the evidence that "aggressive" appraisals contributed to the banking crisis of the 1980s, the literature on appraisal accuracy is surprisingly limited. Moreover, only a modest amount of research has focused on specific types of commercial real estate such as hotels. However, the appraisal accuracy literature generally supports the notion that appraised values are affected by the agency relationships in the process and the motivations of the parties involved.

Appraisal "accuracy" is generally measured as the difference between the sales price and the appraised value expressed as a percentage of the sales price. Accordingly, a negative difference indicates the appraised value is lower than the sales price. The earliest research examined mean absolute differences with only three hotels in the sample.⁹ However, the authors of this research recognized that the sign of the difference is of particular importance to real estate investors and updated their findings. The research disclosed a wide variety of differences across property types such as sales prices exceeding appraised values by

nearly 24 percent for apartments and appraised values exceeding sales prices for hotels by more than 5 percent.¹⁰ This indicated that these differences could vary across property types, region, and, perhaps, different years.

The first study that looked at signed differences over time revealed changes in percentage amounts across property types as well as during different phases of the real estate cycle. Since many of the differences were statistically different from zero, it is believed that certain properties were easier for appraisers to value than others.¹¹ Other real estate researchers argued that agency relationships in the appraisal process play a more important role than specific property characteristics or flaws in appraisal methodology.¹²

Research was subsequently completed involving hotels that examined the agency relationships involved in the process along with economic circumstances and hypothesized motivations of the parties involved. Using differences between sales prices and appraised values, the findings revealed changes in signs and percentages across time. Additionally, the research found that the time period when the appraisal was completed and the identity of the appraisal client (either the RTC or institutional lenders such as banks) had significant effects on the results.¹³

Existing literature has revealed that differences between appraised values and sales prices of hotels will change over time. The literature has

also lent support to the notion that the agency relationships and the motivations of the parties in the appraisal process can have an impact on appraised values. Accordingly, this research will examine the values of hotels appraised for the RTC to see if the results were impacted by the goals and motivations of the RTC.

FDIC supplied data

The data for this study were supplied by the FDIC. The data included hotel appraised values and sales prices from RTC auctions held between 1989 and 1994. The variable of interest is the percentage difference between the appraised value and the sales price which is calculated as (appraised value - sales price)/sales price. Therefore, positive differences represent appraised values exceeding sales prices while negative differences refer to sales prices exceeding appraised values. Sales prices were adjusted to the date of appraisal using the Cornell Index, a hedonic index based upon changes in key factors affecting hotel sales prices.¹⁴

Statistics compiled by the FDIC indicate a total of 1,617 FDIC-insured bank failures in the United States between 1980 and 1994, or 9.1 percent of total. High bank failure states are considered to be those in the upper quartile in terms of percentage of banks that failed, meaning a failure rate of approximately 12.5 percent and above. The states in this upper quartile included Alaska, Arizona, California, Connecticut, District of

Columbia, Louisiana, New Hampshire, Oklahoma, Oregon, Texas, and Wyoming. Hotels with sales prices below \$1 million were excluded to avoid inclusion of time-share properties and partial interest. The differences were subsequently examined for normality. One outlier was removed, leaving a total sample of 124 hotel appraisals, including 40 from high bank failure states. A breakdown of the samples by year is shown in Table 1.

Given the need for the RTC to dispose of non-performing assets quickly, particularly in states with a high number of bank failures, this study hypothesizes that appraisals in these states were lower than appraised values. As discussed earlier, lower appraised values would make bids more readily acceptable, meaning quicker sales and helping the RTC meet its asset reduction goals. The expectation is that the mean differences for hotel appraisals in the high bank failure

states are going to be significantly less than in other states.

As previously discussed, legislation was enacted in 1993 that dictated the eventual takeover of the RTC by the FDIC and the demise of the RTC altogether. By this time, a significant number of assets had been sold. Furthermore, economic conditions in the hotel industry were much improved as compared to 1991, one of the worst years for the U.S. lodging industry since the 1970s. With less pressure to sell properties quickly, this may not have forced appraised values lower as in the early years of RTC operations. Therefore, the expectation is that mean difference for hotel appraisals completed in 1993 will be higher than those before 1993.

The next step in the analysis is to examine the explanatory power of these factors in a regression model, which will utilize variables related to the factors previously discussed, appraisals completed in

Table 1
RTC hotel appraisals by year

Year	Total sample	Hotels in high bank failure states	Hotels in other
1989	3	1	2
1990	15	7	8
1991	38	12	26
1992	44	14	30
1993	23	5	18
1994	1	1	0

Note: The table shows the hotel appraisals used in the analysis. The first column lists the year; the second column details the number of appraisals in the entire sample; the third column lists the number of appraisals completed in the high bank failure states.

high bank failure states, and appraisals completed in 1993 or later. Additionally, a combination variable will be added to the model that represents those properties appraised in high bank failure states and in 1993 or later. This last variable is created by multiplying the high bank failure variable by the 1993 variable. This variable will also be tested for significance as there still may have been strong incentive to sell properties quickly in the high bank failure states even after 1993. Therefore, the full regression model is as follows: % Diff = Regression Intercept + High Failure + 1993 + (High Failure and 1993) + Error Term. Variations of this model will be examined to assess which model is the best.

Results show differences

Differences between appraised values and sales prices for hotels in

high bank failure states were compared to other observations in the sample using a t-test. Additionally, differences between appraised values and sales prices for hotels appraised in 1993 or later were also compared to other observations using the same test. The results are shown in Table 2.

T-test results lend support to the hypotheses. The mean difference in the high bank failure states was negative and significantly lower than the mean difference for appraisals completed in other states. Additionally, the mean difference for appraisals completed in 1993 or later was positive and significantly higher than the mean difference for appraisals completed in a prior period. Although the difference between appraised values and sales prices for all properties before 1993 was negative, the difference is very small (only -.7 percent) and not significantly different from zero.

Table 2
Two sample t-tests

Factor of interest	Mean difference of appraisals related to factor of interest	Mean difference of other appraisals in sample	T-test for significant differences
Hotels in high bank failure states	-8.3%	9.0%	3.85***
Hotels appraised in 1993 or later	18.9%	-.7%	-2.41**

Note: The table details the results of t-tests conducted on the sample. The first column lists the factor of interest. The second column provides the mean percentage difference between appraised value and sales price for those appraisals described in the first column. The third column represents the mean percentage differences for other appraisals in the sample. The fourth column lists the T-statistic from the test for significant differences between the second and third columns.

**Significant at the .05 level.

***Significant at the .01 level.

The results of the five different regression models are shown in Table 3. All of the variables were significant at a .05 level of significance or greater. The simple regression models with one independent variable are significant, but have only limited explanatory power. However, the coefficient of the high bank failure variable has a negative sign as expected. This means that appraised values of hotels in high bank failure states were less than sales prices. Conversely, the coefficient of the 1993 variable has a positive sign, also as expected.

The best model includes all three variables, including the interaction between high bank failure and 1993. The coefficient of this variable is significant and negative, meaning that appraised values were less than sales prices for those hotels located in high bank failure states and appraised in 1993 or

later. This lends support to the notion that the cleanup problem was particularly severe in high bank failure states and that the RTC may have continued to influence appraised values downward in those states even in 1993 and later.

The study hypothesized that the agency problems of moral hazard and regulatory forbearance that contributed to the banking crisis also had an impact on RTC operations. These problems may have led RTC officials to influence hotel appraised values downward in states with a high number of bank failures to make more bids acceptable and "get the assets off the books" quickly. The results tend to support this notion, with hotel appraised values being significantly less than market values in high bank failure states, even after the 1993 legislation that established guidelines and proposed the

Table 3
Regression results

Regression model	Intercept	High failure	1993	High failure and 1993	F*	Adjusted R2
(1)	9.03***	-17.36***			12.47***	8.5%
(2)	-.67		19.54***		11.94***	8.2%
(3)	4.82	-15.80***	17.70***		11.97***	15.1%
(4)	-.67		28.91***	-40.60***	12.88***	16.2%
(5)	3.03	-10.64**	25.21***	-29.96**	10.26***	18.4%

Note: The table details the results of t-tests conducted on the sample. The first column lists the factor of interest. The second column provides the mean percentage difference between appraised value and sales price for those appraisals described in the first column. The third column represents the mean percentage differences for other appraisals in the sample. The fourth column lists the T-statistic from the test for significant differences between the second and third columns.

**Significant at the .05 level.
***Significant at the .01 level.

takeover of RTC operations by the FDIC.

Further research could be completed regarding the interaction between agency problems such as moral hazard and regulatory forbearance and economic circumstances regarding their impact on appraised values of other types of real estate. Further investigation could also be conducted on how the lack of readily available information affects the hotel appraisal process. Overall, it appears that further research into agency relationships in the process may bring forth some interesting insights with respect to appraisal accuracy.

References

- ¹Stephen Pizzo, Mary Fricker, and Paul Muolo, *Inside Job: The Looting of America's Savings and Loans* (New York: McGraw-Hill, 1989), 322.
- ²Federal Deposit Insurance Corporation, *History of the Eighties: Lessons for the Future, An examination of the banking crises of the 1980s and early 1990s* (Washington, D.C.: Federal Deposit Insurance Corporation, 1997), 14-15.
- ³United States General Accounting Office, *Resolution Trust Corporation: Real estate recoveries, 1993: fact sheet for the Chairman, Subcommittee on General Oversight, Investigations and the Resolution of Representatives* (Washington, D.C.: U.S. Government Printing Office 1994).
- ⁴United States General Accounting Office, *Resolution Trust Corporation: 1992 Washington/Baltimore auctions planned and managed poorly: report to the Honorable Roger C. Altman, President and Chief Executive Officer* (Washington, D.C.: U.S. Government Printing Office, 1993), 6.
- ⁵*Ibid.*, 13.
- ⁶*Ibid.*
- ⁷General Accounting Office, 1994.
- ⁸Rebel Cole, "When are thrift institutions closed? An agency theoretic model," *Journal of Financial Services Research* 7 (1993): 283.
- ⁹Rebel Cole, David Guilkey, and Mike Miles, "Toward an assessment of the reliability of commercial appraisals," *The Appraisal Journal* 54 (1986): 422-432.
- ¹⁰Rebel Cole, David Guilkey, and Mike Miles, "Pension fund investment managers' unit values deserve confidence," *Real Estate Review* 17, no.1 (1987): 88.
- ¹¹R. Brian Webb, "On the reliability of commercial real estate appraisals. An analysis of properties sold from the NCREIF index (1978-1992)," *Real Estate Finance* 11 (1994): 64.
- ¹²Kerry Vandell, "Market Analysis: Can we do better?," *Appraisal Journal* 56 (1988): 344-350.
- ¹³Michael Dalbor, "The agency relationships involved in hotel appraisals completed for the Resolution Trust Corporation and institutional lenders," *Appraisal Journal* 69 (2001): 182-189.
- ¹⁴Jan DeRoos and John Corgel, "Measuring Lodging Property Performance," *Cornell Hotel and Restaurant Administration Quarterly* 35 (1996): 20-27.

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