features

abstract

Of the 320,000 rental apartments converted to cooperative ownership over the past 20 years, approximately 77% were under a non-eviction plan. Under such a plan, tenants who were protected by the highly restrictive rent stabilization laws at the time of conversion remain protected for as long as they choose to remain in occupancy. The proper valuation of this property type requires an understanding of the complexities of New York City's rent stabilization guidelines, as well as knowledge of the nuances of the cooperative apartment market. This article explores the two methods of estimating the market value of these occupied blocks.

The Appraisal of Occupied Cooperative Apartments in New York City by John Cicero, MAI

Ver the past 20 years, more than 320,000 rental units have been converted to cooperative or condominium ownership in New York City.¹ Approximately 77% of these units were converted under a non-eviction plan. Under a non-eviction plan, the tenants in occupancy prior to the conversion are legally entitled to renew their leases, if they were protected by some form of rent control at the time of conversion. The motivation of the conversion plan is clear. With tenants enjoying a significant lease-hold advantage in their apartments as a function of New York City's highly restrictive rent control laws, cooperative conversion gives the sponsor of the cooperative plan (the lessor) the ability to immediately cash out of the investment. The lessor can then place an underlying mortgage on the building and sell any vacant units on the open market rather than rent them at the prescribed, regulated rent. Although the bulk of the conversion activity took place during the mid 1980s, many lessors find themselves still holding large blocks of occupied units. The valuation of these blocks poses particular challenges for even the most experienced appraiser.

As the vast majority of buildings were converted to cooperative rather than condominium ownership, and since co-op apartments in New York City outnumber condominiums by nearly 6 to 1, this discussion focuses on the valuation of a block of occupied, rent stabilized cooperative units. To truly understand the liability (from the lessor's perspective) of having a co-op unit occupied by a tenant protected by some form of rent control, an overview of these complex regulations is warranted.

Rent Stabilization and Rent Control

There are two types of rent control in New York City: *rent control* and *rent stabilization. Rent control* is the older and more restrictive of the two. Dating back to 1947 rent control was a means of protecting tenants from the severe housing shortage following WWII. For a unit to be rent controlled, the building must have been constructed prior to 1947. In addition, the tenant must have been in continuous occupancy prior to July 1, 1971.² The rent is a func-

^{1.} NYC Rent Guidelines Board, 2001 Housing Supply Report (June 5, 2001): 16.

NYS DHCR, Rent Administration, Operations and Services <http://www.dhcr.state.ny.us/ora/progs/ oraprogs.htm>.

tion of the maximum base rent (MBR) system, which is a function of the initial filing when the law went into effect. A rent controlled apartment rents for a fraction of market rent, typically generating insufficient rent for even basic building services. Due to the significant leasehold advantage created by the rent control guidelines, apartments seldom turn over (in most cases only upon the tenant's demise). There were 52,562 rent controlled apartments in New York City as of 1999,³ the most recent year for which such statistics were reported. As very few rent controlled apartments exist in converted cooperative buildings, a focus on rent-stabilized units is warranted.

Rent stabilization is the more common of the two forms of rent control, regulating approximately 1.02 million units in New York City (as of 1999), or about 48% of New York City's entire housing stock.⁴ Rent stabilization affects all apartments in buildings with six or more units constructed between February 1, 1947 and December 31, 1973. Buildings constructed after this time may be rent stabilized if they are receiving tax benefits. Rental increases are set by the Rent Guidelines Board for either oneor two- year leases at the tenant's choice. (These increases are currently 4% for a one-year lease and 6% for a two-year lease.) However, the Rent Regulation Reform Act of 1997 provided greater opportunity for landlords to realize an upside in rent stabilized units, with a 20% increase permitted upon turnover of the unit (plus 0.6% per year if the unit has been occupied for more than eight years) and a "luxury decontrol" provision. This act allows the landlord to file for deregulation if the unit becomes vacant and has a legal rent of \$2,000 per month or if it is occupied, has a legal rent of \$2,000 per month, and the occupants earned in excess of \$175,000 for two successive years prior to the petition to deregulate.

Although there are exceptions and additional provisions for possible increases not discussed here, it is clear that the rent controls that exist are highly complex and preserve rent levels well below market. As a result, leases for rent-stabilized units are highly coveted and act as a significant disincentive for the lessee to ever vacate the apartment. The tenant may have to pay ten times the rent for a comparable apartment that is not rent stabilized. With the average price of a cooperative apartment in Manhattan increasing 51% from 1995– 2000,⁵ and with a greater opportunity for deregulation due to luxury decontrol, there has been renewed demand by investors for blocks of occupied cooperatives.

Valuation Methodology

There are two methods of valuing blocks of cooperatives. The first method, the "as-if-vacant" ratio (AIV ratio) method, employs elements of the sales comparison approach. This method was briefly described by Eleanor Gunn, MAI, and John Simpson, MAI, in terms of the cents-on-the-dollar returned in their book, *Cooperative Apartment Appraisal.*⁶ The second approach is a discounted cash flow model akin to the developer's method. But, the method primarily used by market participants in New York City is the AIV ratio, with a cash flow model serving as additional support.

"As-If-Vacant" Ratio

The AIV ratio method is a two-step process. In the first step the appraiser estimates the gross sellout value of all apartments in aggregate in the block being appraised. The gross sellout value represents the aggregate of each unit's gross sales price, defined by the Dictionary of Real Estate Appraisal as the total consideration paid before professional fees, commissions, advertising, or other marketing expenses are deducted.⁷ Note that this gross sellout value, by itself, is a hypothetical value representing what the units would be expected to sell for if they were all vacant, in marketable condition, and available for sale as of the date of value. The estimation of the gross sellout value is accomplished through an analysis of individual co-op apartment sales. Ideally there would have been sufficient third-party sales activity within the co-op building containing the block of units being appraised from which to reasonably infer an aggregate gross sellout value for the subject.

Once the gross sellout value has been established, the second step is to extract an AIV Ratio from the market. This is accomplished by researching sales of blocks of occupied cooperatives. Such blocks should consist of a similar number of units as the subject so that they reflect the actions of a similar class of investors. This, in and of itself, is no easy task, given that

^{3. 2001} Housing Supply Report, Ibid.

^{4. 2001} Housing Supply Report, Ibid.

^{5.} Miller Samuel, Inc., Douglas Elliman Manhattan Market Report 1991–2000, A Ten Year Study (Year End 2000): 7.

^{6.} Eleanor Gunn and John Simpson, Cooperative Apartment Appraisal (Chicago: Appraisal Institute, 1997): 43.

^{7.} Appraisal Institute, The Dictionary of Real Estate Appraisal, 3rd ed. (Chicago: Appraisal Institute, 1993): 165.

By dividing the actual price paid for the block of apartments by the aggregate gross sellout value, an AIV ratio is determined.

co-op apartments are not real estate, but rather a stock transfer of shares within the cooperative corporation, entitling shareholders a proprietary lease for a specific unit purchased, and, therefore, are not publicly recorded. However, there are brokers who specialize in this property type (occupied co-ops), and managing agents of co-op buildings would certainly be aware of any such transactions. Articles in local trade papers and even lenders active in the placement of cooperative underlying mortgages are additional sources of such sales information.

For each comparable sale, the AIV ratio is determined by first estimating the gross sellout value of all of the apartments in aggregate. In many instances, a party to the transaction will be able to report the buyer's estimate of the gross sellout value as if vacant. By dividing the actual price paid for the block of apartments by the aggregate gross sellout value, an AIV ratio is determined.

Just as the gross income multiplier (GIM) is not adjusted in a conventional apartment complex appraisal, neither is the AIV ratio adjusted. However, the appropriate ratio to be applied to the subject is a function of seven variables, each of which impacts the risk associated with the subject as an investment. These variables are cash flow, location, number of vacant units in the block, physical condition of the units, financial health of the corporation, tenant incentives, and demographic profile.

Cash Flow. Perhaps the most critical issue affecting the ratio applied is whether or not the units, in aggregate, cover the monthly maintenance charges. The monthly maintenance of a cooperative includes the building's operating costs, real estate taxes, and debt service on the underlying mortgage. If the below-market, stabilized rent is insufficient to cover the normal monthly maintenance charge, the average shortfall per unit should be compared to that of the comparables. (Note that many blocks of occupied co-ops in New York City have a shortfall. This does

not necessarily render the block of units unmarketable, but the additional monthly outlay is factored into the investor's purchase price. An investor acquiring a block of units with vacancies may opt to rent out the vacant units at market to subsidize the shortfall on the occupied units.)

Location. It is hardly a new concept that location affects property value, but it is particularly important to remember here that the acquisition of a block of occupied co-ops is a long-term investment. Due to the positive leasehold advantage noted above, it may be 10–20 years or more before the block is liquidated. A strong, desirable location would add to the security of the investment over the long term.

Number of Vacant Units in Block. Since vacant units can be immediately resold or rented at market, they are far more valuable than occupied, rent stabilized units.

Physical Condition of the Units. Many units with a long-term, below-market tenancy are quite dated, requiring a complete renovation on turnover.

Financial Health of Co-op Corporation. It is important to review the financials for the cooperative corporation to understand potential for maintenance increases or special assessments (temporary charges assessed on shareholders to pay for a capital improvement project). For example, an inadequate reserve fund indicates the building does not have the means to pay for any capital work without imposing additional charges on the shareholders. For a holder of a large block of units, this could require a significant cash outlay. Another item to investigate is the terms of the underlying mortgage. A near-term maturity of a below-market mortgage (often put in place by the sponsor to artificially reduce the maintenance during the sales period) may necessitate a maintenance increase once it balloons.

Tenant Incentives. It is likely that the occupying tenants have been offered some financial incentive to vacate their apartments at some point since the building converted. Insider discounts are the norm upon conversion, and additional cash incentives may have been offered periodically. An understanding of the types of incentives offered and the tenants' responses will give the investor (and the appraiser) some insight into the tenants' commitment to remain in occupancy.

Demographic Profile. Since some units will turn over only in the event of a tenant's death, an investor is more inclined to purchase an apartment occupied by a 98-year-old woman with emphysema than by a 55-year-old active tennis player. Similarly, some landlords and investors retain the services of a private investigator to determine if a unit is occupied illegally (e.g., an illegal sublet) which would permit initiation of eviction proceedings.

Researching all the variables in a comparable sale admittedly produce a high level of detail which will not always be available in analyzing a sale or even in analyzing the subject block of units, but as is true with any other appraisal analysis, the greater the level of detail, the greater the validity of the analysis. Clearly, the verification with a party to the transaction is critical in such valuations. Only in such an interview can the appraiser learn the investor's perceptions of the risk in the acquisition and which of the variables discussed above were instrumental in underwriting the acquisition. Such information will also result in more reliable assumptions being factored into the discounted cash flow model, which is discussed later.

Case Study

To illustrate the AIV ratio analysis, a hypothetical example is presented.⁸ The subject consists of 70 cooperative apartments in a 193-unit building on Manhattan's Upper East Side. Five of the units have already turned over and are vacant; the remaining 65 units are all occupied and rent stabilized. The apartments in aggregate produce an average shortfall of \$43 per unit per month. The co-op corporation is healthy with adequate reserves and no nearterm loan maturities. Beyond the initial insider discount of 20% when the building converted to cooperative ownership in 1990, there have been no additional financial incentives offered to tenants to vacate. There is no information available on the demographic profile of the existing tenancy.

There has been sufficient sales activity within the building to estimate an average gross sellout value of \$450 per square foot, or \$24,412,500 based on the aggregate 54,250+ square feet. Table 1 shows the bulk sales comparables which were discovered during the course of our research. A simple summary grid, with plusses (+) and minuses (–), is used to indicate the relationship between the variable in each comparable and the same variable in the subject.

By making comparisons between the comparables and the subject, it can be seen that the subject is most similar to Sales 1, 4, and 5 which have a narrow AIV ratio range of 20.3%–26.8%. Ultimately Sales 1 and 5 are emphasized, and an AIV ratio of 23% is concluded, resulting in the following value opinion:

| Sale # | Subject | 1 | 2 | 3 | 4 | 5 |
|-----------------------------|------------------------|--------------|--------------|--------------|--------------|--------------|
| Total units/vacant units | 70/5 | 53/13 | 92/2 | 24/10 | 62/6 | 81/7 |
| Gross sellout value | \$24,412,500 | \$16,090,800 | \$43,350,000 | \$11,970,900 | \$27,810,825 | \$35,290,000 |
| Purchase price | | \$3,878,000 | \$5,635,500 | \$5,135,500 | \$7,453,300 | \$7,180,000 |
| AIV ratio | | 24.1% | 13.0% | 42.9% | 26.8% | 20.3% |
| Interest conveyed | Leasehold ⁹ | Leasehold | Leasehold | Leasehold | Leasehold | Leasehold |
| Conditions of sale | Normal | Normal | Normal | Normal | Normal | Normal |
| Date of sale | | | | | | |
| (market conditions) | 1/02 | 9/01 | 3/01 | 5/01 | 11/01 | 10/01 |
| Location | Very good | Good/+ | Very good/= | Excellent/– | Very good/= | Good/+ |
| % of units vacant | 7% | 13%/- | 2%/+ | 40%/ | 10%/= | 9%/= |
| Average cash flow/shortfall | | | | | | |
| unit/mo | (\$43) | \$7/- | (\$117)/++ | \$253/ | (\$65)/= | (\$54)/= |
| Physical condition | Very good | Good/+ | Very good/= | Average/+ | Excellent/- | Very good/= |
| Financial health of Co-op | Stable | Stable/= | Stable/= | Stable/= | Inferior/+ | Stable/= |
| Tenant incentives | None | None/= | Offered/+ | Offered/+ | None/= | None/= |
| Demographic profile | N/A | N/A | N/A | N/A | N/A | N/A |

Table 1 Bulk Sales Comparables

^{8.} The subject and the comparables in this example are hypothetical, but modeled after a recent assignment. In that case, the comparables were provided by one of Manhattan's leading sales brokers of occupied cooperatives. The gross sellout value and the average monthly cash flow (or shortfall) was also reported by the broker, based on the investor's estimate. The reported gross sellout value was checked by the appraiser against recent sales of individual apartments with a residential brokerage firm.

The leasehold estate created in a cooperative is described by Jon Simpson, MAI in his article "Valuing Sponsor Shares in a Cooperative Apartment," The Appraisal Journal (July 1993): 323–331.

Gross Sellout Value × AIV Ratio = Value Opinion \$24,412,500 × 23% = \$5,614,875 \$5,610,000 (rounded)

Discounted Cash Flow Model

Implicit in the AIV ratio applied to the gross sellout value in the preceding analysis is the risk incurred by the investor in holding occupied units until they are vacant and can be renovated and sold at market value or rented at a market rent. The benefit to the investor, therefore, is a blend of rental and sales proceeds until all of the units are sold or rented at market. A number of assumptions are necessarily built into this model, the most important of which is the attrition rate of the occupied units. The appraiser can use historical attrition as a guide or even actuarial tables based on the demographic profile of the occupying tenants, if available.

In the discounted cash flow analysis, which is modeled after a conventional subdivision analysis, the investor reflects all costs associated with maintaining the investment. The following costs are associated with the rental units as well as the apartments upon sale.

Rental units:

- *Monthly maintenance.* This charge is specified by the cooperative corporation.
- *Management.* The management of the entire building is included in the maintenance fee; therefore, this cost addresses the management of the rental units only, e.g., rent collection, repairs, etc.
- *Repairs.* As a co-op, the units are privately owned, but the investor is obligated to provide basic services to the tenants, including appliance repairs and painting.
- *Miscellaneous costs*. Additional costs such as professional fees are considered in this category.

Upon sale:

- *Gut renovation.* A moderate to extensive renovation is often required.
- *Sales cost.* This includes the broker's commission and advertising costs.
- *Legal and closing costs.* This category includes attorney fees and transfer tax.
- *Profit.* Profit upon sale of each unit must be considered because it represents the primary motivation for the investor.

The following cash flow model assumes that the five vacant units are sold in the first year, with the 65 remaining rent stabilized units turning over at a rate of four per year. Thus, the block will be completely liquidated in 17 years. Note that apartments which turn over are assumed to vacate in the beginning of the year and sell at the end of the year in recognition of the time required to renovate the unit, find a buyer, and close the sale. This results in no revenue for the vacated units for the year, but full maintenance charges are still incurred by the investor. Three percent average annual growth is projected for the rental income, which reflects a blend of oneand two-year lease renewals over the long term. Moderate inflationary growth of 3.0% is also projected for the sellout price of the renovated apartments. The average apartment size is 775± square feet.

The following additional assumptions are incorporated into the model:

| Rental ass | umptions |
|-------------------------------|--|
| Average rent (stabilized apt) | \$660 per unit per month |
| Average rent (market) | \$3,200 per unit per month |
| Monthly maintenance/unit | \$885 per unit per month |
| Management | 2% of effective gross income (EGI) |
| Repairs/miscellaneous | \$600 per unit per year |
| Sales assu | mptions |
| Average sale price/unit | \$348,750 (avg. unit size of 775 SF × \$450/SF) |
| Renovation cost/unit | \$18,000 per unit upon turnover |
| Sales cost | 4% of sale price |
| Legal and closing | 2% of sale price |
| Profit | 10% of sale price |

In the book *Cooperative Apartment Appraisal*, the authors discount the net rental and sales revenue at different rates to reflect the additional risk associated with the attrition and eventual sale of the units.¹⁰ In this instance, the rental units produce an annual shortfall, and, therefore, all proceeds are a function of the unit sales.

In the discounted cash flow analysis shown in Table 2, a profit of 10% of the sale price was deducted upon sale of each unit and the resulting cash

^{10.} Eleanor Gunn and John Simpson, Cooperative Apartment Appraisal (Chicago: Appraisal Institute, 1997): 38.

Table 2 Discounted Cash Flow Analysis

| Avg monthly RS rent | \$660.00 | \$679.80 | \$700.19 | \$721.20 | \$742.84 | \$765.12 | \$788.07 | \$811.72 | \$836.07 | \$861.15 | \$886.98 | \$913.59 | \$941.00 | \$969.23 | \$998.31 | \$1,028.26 | \$1,059.11 |
|------------------------|-------------|-----------|-----------|-----------|-----------|------------|------------|---------------|------------|------------|------------|------------|------------|------------|-------------|------------|------------|
| maintenance | \$885.00 | \$911.55 | \$938.90 | \$967.06 | \$996.08 | \$1,025.96 | \$1,056.74 | \$1,088.44 \$ | \$1,121.09 | \$1,154.72 | \$1,189.37 | \$1,225.05 | \$1,261.80 | \$1,299.65 | \$1,338.64 | \$1,378.80 | \$1,420.17 |
| Management | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Annual repairs/ | | | | | | | | | | | | | | | | | |
| misc | \$600.00 | \$618.00 | \$636.54 | \$655.64 | \$675.31 | \$695.56 | \$716.43 | \$737.92 | \$760.06 | \$782.86 | \$806.35 | \$830.54 | \$855.46 | \$881.12 | \$907.55 | \$934.78 | \$962.82 |
| Avg sale price | \$348,750 | \$359,213 | \$369,989 | \$381,089 | \$392,521 | \$404,297 | \$416,426 | \$428,919 | \$441,786 | \$455,040 | \$468,691 | \$482,752 | \$497,234 | \$512,151 | \$527,516 | \$543,341 | \$559,641 |
| Renovation cost | \$18,000 | \$18,540 | \$19,096 | \$19,669 | \$20,259 | \$20,867 | \$21,493 | \$22,138 | \$22,802 | \$23,486 | \$24,190 | \$24,916 | \$25,664 | \$26,434 | \$27,227 | \$28,043 | \$28,885 |
| Sales cost | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Legal & closing | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Profit | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% |
| Growth rate | 3.0% | | | | | | | | | | | | | | | | |
| Year | - | 2 | ŝ | 4 | 5 | 9 | 7 | 8 | 6 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| Beginning invento | iry 70 | 65 | 61 | 57 | 53 | 49 | 45 | 41 | 37 | 33 | 29 | 25 | 21 | 17 | 13 | 6 | 5 |
| # Units sold | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| Ending inventory | 65 | 61 | 57 | 53 | 49 | 45 | 41 | 37 | 33 | 29 | 25 | 21 | 17 | 13 | 6 | 5 | 0 |
| Rental revenue | 514,800 | 497,614 | 478,933 | 458,683 | 436,787 | 413,165 | 387,733 | 360,402 | 331,083 | 299,680 | 266,095 | 230,226 | 191,964 | 151,200 | 107,817 | 61,696 | 0 |
| Maintenance | (743,400) (| (211,009) | (687,272) | (661,471) | (633,504) | (603,263) | (570,638) | (535,512) (| (497,765) | (457,271) | (413,899) | (367,514) | (317,973) | (265,129) | (208,828) | (148,911) | (85,210) |
| Management | (10,296) | (9,952) | (9,579) | (9,174) | (8,736) | (8,263) | (7,755) | (7,208) | (6,622) | (5,994) | (5,322) | (4,605) | (3,839) | (3,024) | (2,156) | (1,234) | 0 |
| Repairs/misc | (39,000) | (37,698) | (36,283) | (34,749) | (33,090) | (31,300) | (29,374) | (27,303) | (25,082) | (22,703) | (20,159) | (17,441) | (14,543) | (11,455) | (8,168) | (4,674) | 0 |
| Rental income | (277,896) (| (261,046) | (254,201) | (246,711) | (238,542) | (229,661) | (220,033) | (209,621) (| (198,385) | (186,287) | (173,285) | (159,334) | (144,391) | (128,407) | (111,335) | (93,123) | (85,210) |
| Sales revenue | 1,743,7501 | ,436,850 | 1,479,956 | 1,524,354 | 1,570,085 | 1,617,187 | 1,665,703 | 1,715,674 1 | 1,767,144 | 1,820,159 | 1,874,763 | 1,931,006 | 1,988,936 | 2,048,605 | 2,110,063 . | 2,173,365 | 2,798,207 |
| Renovation costs | (000'06) | (74,160) | (76,385) | (78,676) | (81,037) | (83,468) | (85,972) | (88,551) | (91,207) | (93,944) | (96,762) | (99,665) | (102,655) | (105,734) | (108,906) | (112,174) | (144,424) |
| Sales costs | (69,750) | (57,474) | (59,198) | (60,974) | (62,803) | (64,687) | (66,628) | (68,627) | (70,686) | (72,806) | (74,991) | (77,240) | (79,557) | (81,944) | (84,403) | (86,935) | (111,928) |
| Legal & closing | (34,875) | (28,737) | (29,599) | (30,487) | (31,402) | (32,344) | (33,314) | (34,313) | (35,343) | (36,403) | (37,495) | (38,620) | (39,779) | (40,972) | (42,201) | (43,467) | (55,964) |
| Profit | (174,375) (| (143,685) | (147,996) | (152,435) | (157,008) | (161,719) | (166,570) | (171,567) (| (176,714) | (182,016) | (187,476) | (193,101) | (198,894) | (204,860) | (211,006) | (217,336) | (279,821) |
| Net sale proceeds | 1,374,750 1 | 1,132,794 | 1,166,778 | 1,201,781 | 1,237,835 | 1,274,970 | 1,313,219 | 1,352,615 | 1,393,194 | 1,434,990 | 1,478,039 | 1,522,380 | 1,568,052 | 1,615,093 | 1,663,546 | 1,713,453 | 2,206,070 |
| Total annual rev. | 1,096,854 | 871,748 | 912,577 | 955,070 | 999,292 | 1,045,308 | 1,093,185 | 1,142,995 | 1,194,808 | 1,248,702 | 1,304,755 | 1,363,046 | 1,423,661 | 1,486,686 | 1,552,211 | 1,620,330 | 2,120,860 |
| NPV at 18.0% | \$5,664,774 | | | | | | | | | | | | | | | | |
| Rounded \$ | 5, 660,000 | | | | | | | | | | | | | | | | |

flows were discounted at 18%. Alternatively, the model could be developed without any deduction for profit if a higher overall yield rate were used. At a minimum, the value that results from this model should be used to check the implied pre-profit yield rate for its reasonableness. By adding the profit back into the cash flow, based on the implied value of \$5.66 million the appraiser can then solve for yield. In this instance, the pre-profit yield rate is 20.9%, which represents the entire return of and return on the investment. This appears to be a reasonable return given the risks discussed previously.

Conclusion

The AIV ratio and discounted cash flow model result in similar value conclusions, \$5.61 million and \$5.66 million respectively. The discounted cash flow model serves best as a general check on the AIV ratio, which is the method predominantly used by buyers and brokers for this type of property. Because of the number of assumptions necessarily built into the cash flow model, its reliability as a valuation tool is diminished. It is most useful, however, when there are few meaningful sales of occupied co-op units from which to infer an AIV ratio.

As stated in 2001 Housing Supply Report, published by the NYC Rent Guidelines Board:

While the total number of units converted to co-ops or condos has dropped overall in recent years, residual effects remain because of the time lag in the impact of conversions on the housing market...Thus, thousands of renter-occupied units are being converted as tenants under non-eviction plans move out, even as the number of units accepted for conversion have declined in recent years.¹¹

Therefore, while the pool of occupied blocks of co-ops may continue to decline in future years, this property type will by no means disappear. As long as rent controls continue and demand for owner-occupancy exists, the valuation of occupied blocks of these units will present opportunities for the appraiser.

References

Appraisal Institute. *The Dictionary of Real Estate* Appraisal, 3rd ed. (Chicago: Appraisal Institute, 1993).

Gunn, Eleanor, MAI, and John Simpson, MAI. *Cooperative Apartment Appraisal* (Chicago: Appraisal Institute, 1997).

Miller Samuel, Inc., Douglas Elliman Manhattan Market Report 1991–2000, *A Ten Year Study*, Year End 2000. http://www.millersamuel.com>.

New York State Division of Housing and Community Renewal (DHCR) <http://www.dhcr. state.ny.us/ora/progs/oraprogs.htm>.

NYC Rent Guidelines Board, 2001 Housing Supply Report (June 5, 2001) <http://www. housingnyc.com>.

Simpson, John, MAI. "Valuing Sponsor Shares in a Cooperative Apartment." *The Appraisal Journal* (July 1993): 323–331.

John Cicero, MAI, has been vice president of Joseph J. Blake & Associates, Inc., in their New York office since 1992. He is responsible for appraising commercial real estate throughout the region, specializing in New York City. He is also an adjunct lecturer in real estate appraisal at Baruch College, City University of New York. Contact: 16 East 40th Street, New York, NY 10016.

^{11. 2001} Housing Supply Report, Ibid.