
**Private Nonresidential Building and Apartment Prices**

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**Abstract:**

In a previous paper, Loebach (2005), I examined the feasibility of using a data base of contracts from F.W. Dodge to construction nonresidential building price indexes for a single state. This paper is an extension of that research that explores price indexes for seven types of nonresidential buildings and apartments using a national data set for the time period 1995 to 2004. Both annual and quarterly price indexes are generated and analyzed. It is found that the hedonic price measures do not increase faster than those indexes currently used in the NIPA's and many hedonic price measure increase 0.5% to 2% per year less than those currently used. Some suggestions are made as to how the procedures used in this paper can be used in an on-going production framework.

Private Nonresidential Building And Apartment Prices

**Section 1: Introduction:**

In a previous pilot study, Loebach (2005), I examined the feasibility of using a data base of nonresidential and apartment building contracts from F.W. Dodge to construct nonresidential building and apartment prices for several types of nonresidential buildings and apartments for a single state. I found that the hedonic methodology produced quite feasible indexes and that further research on a nationwide scale would be the next step in this line of research. This paper is that next step as it examines nonresidential building and apartment prices on a national level using a larger data set from Dodge.

The rest of this paper is as follows. Section 2 reviews the tortured history of nonresidential building deflators. Section 3 describes the data and explores different hedonic approaches for a single building type. The various approaches are compared and a single formulation is chosen as the "best" formulation for hedonic pricing. Section 4 describes the nonresidential price indexes for the eight nonresidential building types and apartments in the Dodge data set for a ten year span of annual and quarterly prices. Section 5 concludes with suggestions for further research and a description of how these building prices can be produced in an ongoing fashion.

**Section 2: Background:**

The deflation of construction expenditures has a long and difficult history. This history goes back to the 1961 NBER Price Statistics Review Committee which commented that BEA's structures deflators are "defective in almost every possible way." Work by Gordon (1968) and Musgrave (1969) led to major revisions in the deflation of construction as described in BEA (1974). The most notable improvement was the introduction of a price index for the construction of single family homes. That index was based on hedonic regressions that provide a better way to control for differences in the characteristics across homes.

The issue was raised again some years later by Pieper (1989) who, once again, pointed

out the deficiencies in construction deflation, particularly for nonresidential types of construction. Some improvement was made with work by de Leeuw (1991a) and de Leeuw (1993) which introduced an hedonic price index for multi-family housing. This unpublished index is computed annually by the Census Bureau and is used by BEA.

For other structures, in the most recent (2003) comprehensive revision BEA introduced nonresidential building price indexes for warehouses, office buildings, factories, and schools for 1997 forward. These indexes are based on hedonic regressions of costs and square footage using data from R.S. Means Company's *Square Foot Costs* publication. Though the indexes are cost based measures, they represent a closer match to output-based indexes than the previous deflators. (See BEA (2003) for details.)

De Leeuw (1991b) used data from the major projects file from F.W. Dodge to construct hedonic price indexes for six types of nonresidential buildings. These building types are elementary schools, middle and high schools, office buildings, department stores, food stores, and shopping centers. Indexes for the years 1986 to 1990 were estimated. De Leeuw concluded that although the estimated price indexes did diverge widely, their average tracked closely with the BEA deflator. This observation, along with the observation that the Dodge data set is lacking in other potentially important "quality" variables, led de Leeuw to reject the hedonic approach using the Dodge data set as an improvement over the then-current BEA index.

This paper revisits the usefulness of the Dodge data for constructing indexes and extends the research in my previous paper, Loebach (2005), in light of several developments over the last decade. The primary development is the adoption of chained-type quantity indexes as the featured measure for real expenditures in the National Income and Product Accounts (NIPA's). For the constant dollar measures that BEA used until 1995, the use of an average deflator for nonresidential buildings might not have much impact on the aggregate estimates of real investment or real GDP. However, that cannot necessarily be said for real measures based on the Fisher formula where variations in the component prices and quantities that comprise the index can have a measurable effect on the behavior of the aggregate index. Secondarily, although the indexes based on the limited data in the Dodge data set may be upwardly biased due to a lack of important "quality" characteristics - energy efficiency being a commonly cited characteristic -

other data sources can be used to estimate the magnitude of these biases and then adjust the base index. The energy consumption surveys conducted periodically by the Energy Information Administration (EIA) are an example of supplementary data that could be used to improve a base index based on the Dodge data set. It should be noted, however, that none of the indexes in current use adjust for energy efficiency either. Finally, Pieper (1985) also qualitatively examined the use of hedonics and found them to be promising.

The next section describes the data set and various hedonic forms for hedonic pricing. Results are then provided for a single type of building and a "best" hedonic formulation is chosen.

**Section 3: Data Set and Hedonic Forms:**

The data set used in this paper is a universe of projects compiled by F.W. Dodge.[1] The complete Dodge file comprises construction projects nationwide, classified by type of construction, type of owner (private or public), location of the project, and some major characteristics of the project. The data used for this paper is a ten year span of projects for eight different types fo buildings. The building types chosen are:

1. Stores
2. Shopping centers
3. Food and beverage stores
4. Warehouses
5. Office buildings
6. Manufacturing buildings
7. Schools (private)
8. Apartment buildings

and the time span is from 1995 to 2004. Table 1 describes the data fields for each project record. The data of most importance to this paper are the types of structures, dates, project value, square footage, and number of stories. Only those projects that were classified as New construction or Addition were included in the regression results as these were the only project types that included square footage as well as contract value. Other project classification such as Alteration or Major Improvement were not included as they do not have square footage associated with them.

[1] See http://dodge.construction.com/Analytics/MarketMeasurement/CAS.asp for a description.

In general, an hedonic pricing function takes the following functional form

$$P_{i,t} = F_t(X_{i,t}) \tag{1}$$

where $P_{i,t}$ is the contract price for the $i^{th}$ project in time period $t$, $F_t$ is the hedonic function for time period $t$, and $X_{i,t}$ is the vector of characteristics for the $i^{th}$ project in time period $t$.

There are many approaches to using (1) to construction price indexes. Table 2 below summarizes the 5 functional forms that will be explored in this section.

The first formulation follows many hedonic studies where the time index is dropped and time dummies are included in the characteristics vector. Such is the case for the current deflators described in BEA (2003). The time index in Formula (1) presupposes the existence of separate hedonic regression for each time period $t$. This could be annual regressions for the estimation of annual indexes or quarterly regressions for quarterly indexes. In general, this could allow the coefficients on the quality characteristics to vary for each time period. The "Fixed-Fixed" formula in Table 2 approach constrains the coefficients of the hedonic function to be the same for all time periods. Another formulation of the "Fixed-Fixed" approach is

$$\begin{aligned} P_i &= F(X_i) + \sum_{j=1}^{n} \alpha_j D_j + \varepsilon_i \\ \hat{P} &= F(X_i) + \sum_{j=1}^{n} \alpha_j D_j \end{aligned} \tag{2}$$

where there is a single set of coefficients for the quality characteristics and the presence of time dummies for each time period under study. This essentially imposes a fixed set of coefficients for a fixed set of characteristics over the time period of the function, attributing only time as affecting the price variable.

The second formulation for constructing price indexes from (1) is to estimate hedonic functions for each time period (say annually) and use a fixed set of characteristics to estimate the price over time. This "Fixed characteristics" approach was used in De Leeuw (1993) in his study of multi-family structure prices. In this case, the coefficients are allowed to change over time as the value of the characteristics changes over time. Equation (3) illustrates.

$$
\begin{array}{lll}
t=0: & P_i = F_0(X_i) + \varepsilon_i & \hat{P}_0 = F_0(\bar{X}) \\
t=1: & P_i = F_1(X_i) + \varepsilon_i & \hat{P}_1 = F_1(\bar{X}) \\
\vdots & \vdots & \vdots \\
t=t: & P_i = F_t(X_i) + \varepsilon_i & \hat{P}_t = F_t(\bar{X})
\end{array}
\tag{3}
$$

In this case, an hedonic regression is estimated for each time period (year or quarter) and then a fixed set of characteristics is inserted into the hedonic to obtain a price estimate. The deflation of the $F_t(\bullet)$ term with $F_0(\bullet)$ is simply a normalization step.

The third formulation is what I call an "Extrapolation" approach. It is similar to the "Fixed characteristics" approach in that a separate hedonic regressions is estimated for each time period. However, instead of using a fixed set of characteristics with which to estimate $\hat{P}$, the average characteristics for each time period are used.

$$
\begin{array}{lll}
t=0: & P_i = F_0(X_i) + \varepsilon_i & \hat{P}_0 = F_0(\bar{X}_0) \\
t=1: & P_i = F_1(X_i) + \varepsilon_i & \hat{P}_1 = F_1(\bar{X}_1) \\
\vdots & \vdots & \vdots \\
t=t: & P_i = F_t(X_i) + \varepsilon_i & \hat{P}_t = F_t(\bar{X}_t)
\end{array}
\tag{4}
$$

In essence this is a simple measure of average hedonic prices for each time period and then extrapolated forward from some base period; almost like a "list-price" approach.

The final two formulations are "Chain-type" indexes explored by Crone, Nakamure, and Voith (2004) in their study of housing service prices. When estimating an hedonic function of the general formulation of equation (1), only two items can change from one period to the next, the hedonic function $F_t$ or the characteristics, $X_t$. Examining Chain-type 1 closely,

$$\frac{\hat{P}}{\hat{P}_{-1}} = \sqrt{\underbrace{\frac{F_t(X_t)}{F_{t-1}(X_t)}}_{Paasche} \bullet \underbrace{\frac{F_t(X_{t-1})}{F_{t-1}(X_{t-1})}}_{Laspeyres}} \tag{5}$$

the term $F_t(X_t)/F_{t-1}(X_t)$ can be thought of as "Paasche" type in characteristics since the current period characteristics are the same for both the numerator and the denominator. The term $F_t(X_{t-1})/F_{t-1}(X_{t-1})$ can be thought of as "Laspeyres" type in characteristics since the prior period characteristic are the same for both the numerator and the denominator. Examining Chain-type 2 closes yields a similar analysis only the characteristics are allowed to change from on period to the next.

$$\frac{\hat{P}}{\hat{P}_{-1}} = \sqrt{\underbrace{\frac{F_t(X_t)}{F_t(X_{t-1})}}_{Paasche} \bullet \underbrace{\frac{F_{t-1}(X_{t-1})}{F_{t-1}(X_t)}}_{Laspeyres}} \tag{6}$$

The term $F_t(X_t)/F_t(X_{t-1})$ can be thought of as "Paasche" type in hedonic function since the current period hedonic function is the same for both the numerator and the denominator. Term $F_{t-1}(X_t)/F_{t-1}(X_{t-1})$ can be thought of as "Laspeyres" type in hedonic function since the prior period hedonic is the same for both the numerator and the denominator. The geometric average of these ratios is, naturally, a Fisher chain type index. It should be noted that the product of index forms 4 and 5 yield 3. As will be shown below, one of the chain-type indexes is a price measure where the other is a quantity measure.

The specification of equation (1) follows that used in de Leeuw (1991a). The general form of the hedonic function is

$$P_i = AS_i^{\alpha} \prod_{j=1}^{n} e^{\beta_j x_i^j} \prod_{t=1}^{T} e^{\tau_t d_i^t} e^{\varepsilon_i} \tag{7}$$

where $P_i$ is the project value for a particular type of structure, $S_i$ is the square footage of the project, $x_i^j$ are other quality characteristics, $d_j^t$ are year dummies, and $\varepsilon_i$ is an error term. The quality characteristics included in the regressions reported here are number of stories of the building and a dummy variable with a value of 1 if the project is an addition/alteration project and 0 if it is new construction. In log form, the estimating equation becomes

$$\ln P_i = \alpha_1 + \alpha_3 \ln S_i + \beta_1 x_i^1 + \beta_2 x_i^2 + \sum_{t=1}^{T} \gamma_i^t d_i^t + \varepsilon_i \qquad (8)$$

where $x^1$ is the number of stories of the building, $x^2$ is the add/alt dummy, and the *d's* are the year dummies. The variable for number of stories enters in linearly for the simple fact that some projects classified as "Additions" have a zero for the number of stories. Thus, the stories variable cannot enter in log form.

Table 3 shows the regression results for (3) for Stores for the time period 1995 to 2004. The full sample regression has time dummies for the years 1996 to 2004, where the annual regressions do not include time dummies. All variables are significant at 1% or greater. The coefficient on the square footage are all below unity suggesting that there are economies of scale for construction activity for this type of structure. The R-squares for the regressions are very high at around 0.9 and the standard errors are quite consistent at around 0.4. Tests for heteroskedasticity are shown and none were found. Also shown is a set of Wald tests on the coefficient for square footage, $\alpha_3$ in equation (3). As was shown in Loebach (2005), the square footage variable has the most explanatory power. The Wald tests were performed to test the hypothesis that the coefficient for square footage in the annual regressions was statistically the same as for the full sample regression. Only the 2003 coefficient is found to have a high probability of being the same as the full sample period. These tests show that the elasticity of square footage on price does vary from year to year. Finally, the values for the average price, square footage, stories, and percent of alterations are shown.

Table 4 shows the value for the five index formulation derived from the regression results. Figure 1 shows all five indexes in the same graph. Though a little cluttered it does show

that the extrapolation index is the most varied reaching a low of 94.1 in 1996 and a high of 181.1 in 2004. It is also of interest to note that the chain-type 2 index is the only other index to drop below 100 over the time period. The other three indexes tend to follow each other fairly closely, thus suggesting that there is something particular about the other two that warrant special attention.

Figure 2 plots the extrapolation index and the average contract price on the same graph. While not exact, the two graphs do track each other quite closely. The 74.2% increase in the average contract price over the 1995-2004 period also compares well with the 81.0% increase in the extrapolation index. This suggests that the extrapolation index is more a restatement of the average contract price and that both measures may tend to overstate the rate of price change in nonresidential building prices.

Figure 3 plots the chain-type 2 index with average square footage per contract. The two measures track each other quite closely, in much the same manner as the extrapolation index and the average contract price. The 35.8% increase in average square footage also compares well with the 30.7% increase in the index. This may seem to suggest that the chain-type 2 index is a quantity measure. The work of Crone, Nakamure, and Voith (2004) suggests that chain-type indexes of the form of #2 are in fact quantity measures. In this case, the chain-type 2 index is a measure of the changing square footage of building contracts.

To put it another way; construction activity can be thought of as to evolve along two margins, an extensive margin and an intensive margin. This is analogous to the measurement of labor input. Labor input is typically measured in hours of work. Hours of work can change in two ways; by how many workers are working, the extensive margin; and by how many hours each worker works, the intensive margin. In much the same way, building activity evolves along two similar margins; how many buildings are built, the extensive margin; and how big they are, the intensive margin. As to constructing a deflator for building activity, the extensive margin is automatically accounted for by a natural focus on the average contract price, whether directly or through use of an hedonic equation. However, as was shown above, the average contract price (or its hedonic equivalent in the extrapolation index) can tend to overstate price changes since it does not account for changing building size. The other three indexes account for these changes,

though in varying degrees.

The next question is then, which of three remaining formulations; the Fix-fix, the Fixed characteristics, or the chained-type index; is most appropriate. While all three indexes tend to give similar results, it is my opinion that the chained-type index is marginally superior to the other two. The chained-type index can account for variations in the elasticity of square footage on price (and on coefficient variations of the other variables as well) which the Fix-fix formulation cannot. The chained-type index can also account for variations in characteristics over time which the Fixed characteristics formulation cannot. It is also a nice property that the product of the two chained-type indexes yields an hedonic measure of the average contract price for a given year suggesting that the chained-type price measure fully accounts for variations in the square footage. Finally, the chained-type formulation has nice features that make it easy to use in an ongoing production basis where the price index is constantly updated over time. For these reasons, the chained-type formula is used for the rest of this paper.

The next section describes the indexes for the eight building types described above.

**4. Price Indexes:**

Annual indexes constructed using the chained-type 1 formulation are shown in Table 5. Annual regression results are also shown in Table 5. Figure 5 shows graphically the annual indexes.

In general, the annual indexes have quite similar patterns over the time period. All the indexes increase from 1995 to 1996 with most of them either dropping or flattening over the 1997 to 1998 period. All the indexes then begin a steady increase in the 1999 to 2004 period. Shopping centers show the largest increase over the period with a 40.6% increase while office buildings show the smallest increase over the period with a 21.6% increase.

A vast majority of the coefficients are significant at 1% with only a handful of coefficients for number of stories and the alteration dummy variable not significant at 1% (not marked). Across the years for each type of structure, the coefficients are roughly consistent with each other. The constant terms tend to rise over the time period reflecting the generally

increasing prices. The coefficient on square footage are roughly stable in the .85 to .95 range for with a few instances where it is outside the range and only three instances where it is equal to or slightly greater than unity. Elasticities below unity suggest increasing returns to scale while values at unity reflect constant returns to scale. The regression results suggest that there is a slight increasing returns to scale for nonresidential building activity. The explanatory power of the regressions is high with $R^2$'s in the .85 to .95 range with Food and Beverage stores being the exception with $R^2$'s in the .70 to .80 range.

Quarterly indexes constructed using the chained-type 1 formulation are shown in Table 6. Quarterly regression results are also shown in Table 6. Figure 6 shows graphically the quarterly indexes.

In general, the quarterly indexes follow the annual but have quite varying patterns over the time period. In addition, the indexes appear to have a much higher volatility than the annual indexes. Table A, below, summarizes the percent change in the annual and quarterly indexes with the quarterly percent changes expressed at annual rates.

Table A - Percent Changes in the Annual and Quarterly Indexes

| | Max | Min | Avg. | St. dev. |
|---|---|---|---|---|
| **Annual Indexes** | | | | |
| Stores | 9.3 | -0.5 | 3.7 | 2.9 |
| Shopping centers | 7.1 | -5.7 | 2.8 | 3.7 |
| Food & bev. Stores | 8.3 | -4.5 | 2.3 | 4.3 |
| Warehouses | 6.8 | -3.8 | 2.3 | 3.6 |
| Offices | 10.5 | -0.8 | 3.8 | 3.5 |
| Manufacturing | 6.2 | 1.7 | 3.9 | 1.5 |
| Schools (pvt.) | 7.4 | -0.7 | 3.7 | 3.2 |
| Apartments | 7.3 | -1.9 | 2.9 | 2.6 |
| **Quarterly Indexes** | | | | |
| Stores | 22.2 | -16.3 | 4.1 | 9.0 |
| Shopping centers | 24.7 | -29.0 | 2.7 | 11.8 |
| Food & bev. Stores | 36.2 | -35.4 | 2.3 | 16.0 |
| Warehouses | 21.5 | -36.1 | 3.1 | 11.5 |
| Offices | 53.0 | -41.7 | 3.7 | 19.6 |
| Manufacturing | 49.2 | -33.5 | 5.4 | 19.8 |
| Schools (pvt.) | 32.4 | -20.2 | 4.0 | 11.0 |
| Apartments | 30.6 | -24.5 | 3.3 | 13.1 |

It is quite apparent that the quarterly indexes are some three to five times more volatile than the annual indexes depending on the type of structure. There also does not seem to be any consistent pattern in the quarterly indexes that might be caused by seasonality. Running the quarterly indexes through the X-12 seasonal adjustment program showed that, with a single exception, none of the indexes had any seasonality in the quarterly movements. Only shopping centers showed any type of seasonality. Figure 7 shows the seasonally adjusted and non-seasonally adjusted indexes with very little difference in the overall quarterly pattern.

An alternate method to derive quarterly indexes is a distribution of smoothed quarterly values that are controlled to the annual index values. This can be accomplished by a numerical optimization of the form

$$\min_{x_1 \ldots x_{4n}} \sum_{i=2}^{4n} (x_i - x_{i-1})^2 \quad s.t. \sum_{i=1,4} x_i = A_1, \ldots, \sum_{i=4n-3,4n} x_i = A_n \tag{4}$$

where $x_i$ are the quarterly values and $A_n$ are the annual controls. Figure 8 shows graphically the quarterly indexes. Table B, below, summarizes the percent change in the annual and quarterly indexes with the quarterly percent changes expressed at annual rates.

Table B - Percent Changes in the Annual and Quarterly Indexes

| | Max | Min | Avg. | St. dev. |
|---|---|---|---|---|
| **Annual Indexes** | | | | |
| Stores | 9.3 | -0.5 | 3.7 | 2.9 |
| Shopping centers | 7.1 | -5.7 | 2.8 | 3.7 |
| Food & bev. Stores | 8.3 | -4.5 | 2.3 | 4.3 |
| Warehouses | 6.8 | -3.8 | 2.3 | 3.6 |
| Offices | 10.5 | -0.8 | 3.8 | 3.5 |
| Manufacturing | 6.2 | 1.7 | 3.9 | 1.5 |
| Schools (pvt.) | 7.4 | -0.7 | 3.7 | 3.2 |
| Apartments | 7.3 | -1.9 | 2.9 | 2.6 |
| **Quarterly Indexes** | | | | |
| Stores | 12.0 | -3.7 | 3.6 | 3.1 |
| Shopping centers | 9.8 | -12.0 | 2.7 | 4.4 |
| Food & bev. Stores | 14.6 | -10.9 | 2.2 | 5.8 |
| Warehouses | 12.0 | -9.8 | 2.3 | 4.4 |

| | | | | |
|---|---|---|---|---|
| Offices | 15.9 | -5.0 | 3.8 | 4.4 |
| Manufacturing | 8.5 | -0.2 | 3.7 | 1.9 |
| Schools (pvt.) | 9.5 | -3.5 | 3.7 | 3.6 |
| Apartments | 9.4 | -4.3 | 2.8 | 2.9 |

A quick look at the standard deviations of percent change show that these alternate indexes are much more in line with the annual values.

To summarize, the indexes computed here use a chain-type formulation where the index between two time periods can be expressed by the formula

$$\frac{I_t}{I_{t-1}} = \sqrt{\frac{F_t(X_t)}{F_{t-1}(X_t)} \bullet \frac{F_t(X_{t-1})}{F_{t-1}(X_{t-1})}} \tag{9}$$

where $I_t$ is the price index, $F_t(\bullet)$ is the hedonic function for period $t$, and $X_t$ are average characteristics for the structure for period $t$. The regressions were quite good with high $R^2$'s, significant coefficients, and generally expected results. The regressions do show that construction activity has slight increasing returns to scale as evidenced by the elasticity of price to square footage in the 0.9 range. Quarterly indexes were also computed with the same general results. However the quarterly indexes showed much more volatility, in the three to five times range, than the annual indexes.

The next section concludes with a comparison of the indexes computed here with the published NIPA indexes and some thoughts on how the procedure used here can used in an on-going production framework. Some suggestions for future work are also considered.

**5. Conclusion:**

A natural question to ask is "How do the Dodge indexes compare to published estimates?" Figure 9 shows a graphical comparison between the indexes computed here and those used in the NIPA's. It should be noted that there is a break in the definition of the types of structures used in the NIPA's with a single overlap year in 1997. For 1997 to 2004, the current set of definitions are used in Figure 9. The closest analogs were used to backcast the NIPA

indexes to 1995. The NIPA indexes were then rebased to 1995=100 for ease of comparison. The NIPA indexes for Multimerchandise stores, Food and Beverage stores, and Warehouses were back cast using the Commercial Building index, the index for Offices was backcast using the index for Offices including Medical Buildings, and the indexes for Manufacturing, Educational buildings, and Multifamily residential buildings are consistent across the two sets of definitions.

The price indexes for Stores, Shopping Centers, and Schools, the Dodge indexes track the published reasonably well with the same approximate increase over the time period. The price index for Food and Beverage Stores also tracks the published with a drop in the Dodge index from 1996 to 1997. This drop is probably due to the fact that the average square footage increased from 3710 sq-ft to 4340 sq-ft, an increase of 17%, between 1996 and 1997 while the average contract value increased from $348.4 thousand to $398.0 thousand, an increase of 14%. This one year decrease caused the price index for Food and Beverage Stores to increase some 12% less over the time period than its NIPA counterpart. The price indexes for Warehouses, Offices, Manufacturing, and Apartments all increased less over the time period than their NIPA counterparts with Warehouses increasing 10% less, Offices increasing 20% less, Manufacturing increasing 15% less, and Apartments increasing about 7% less. These results seem to suggest, at least for these types of structures, that hedonic based price indexes have a lower rate of increase of between 0.5% and 2% per year over the indexes currently used.

Finally, some observations can be made as to how the procedures used here could be used to set up an on-going production framework for the generation of price indexes. At the conclusion of a calendar quarter an hedonic formula, such as equation (3) above, is estimated for a chosen type of structure and the coefficients and average characteristics are added to a database of previous coefficient and average characteristics. Formula (5) is then used to generate the current period price index. The use of the chain-type formula has a primary benefits that no previous observations are incorporated into the current period hedonic so no previous index values need be changed as more projects are observed. At the conclusion of a calendar year, an annual index value is computed in the standard fashion and the quarters interpolated to the annual value. Seasonal adjustment could then be applied to the interpolated quarterly index as needed.

As always, a few areas of further research can be pursued. Of primary concern is the excessive volatility of the quarterly indexes. This may possibly be due to the inherent nature of construction activity where there is such heterogeneity in construction projects that this shows up in the price indexes. It should also be noted that construction expenditures as tabulated by the Census Bureau's Value-put-in-place report is on a "put-in-place" basis where expenditures for a given project are distributed over the time it takes to complete the project. While it is certainly possible for the value of projects to be quite erratic, the distribution of expenditures over time most likely leads to a smoothing out of expenditures. The price indexes computed for the current paper are technically price indexes of construction starts. It is possible that the incorporation of distribution weights that would transform these price indexes from construction starts to construction put-in-place may reduce the volatility seen in the quarterly indexes.

Nevertheless, the use of this data for the construction of true output price indexes for nonresidential and apartment construction shows much promise.

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Table 1 - Description of Data Fields for each Project

| Field Name | Field Description | Example |
|---|---|---|
| MO | Month | 8 |
| YEAR | Year | 2004 |
| YEARMO | Year:Month | 2004:08 |
| STC | Dodge Structure Code | 3 |
| STCNAME | Dodge Structure Code Name | Warehouses (Non-Refrig.) |
| STG | Dodge Structure Group code | 2 |
| STGNAME | Dodge Structure Group Name | Warehouses (ex. mfg. owned) |
| STHNAME | Dodge Structure Header (Nonres, Res, NonBuilding) | Nonres. |
| NAAMN | New/Add/Alt (goes farther back in history than NAA4) | NEW |
| NAA4 | New/Add/Alt/Add & Alt Code | 1 |
| NAA4NAME | New/Add/Alt/Add & Alt Name | New |
| OWN | Owner Code | 1 |
| OWNNAME | Owner Code Name (Private, Public) | PRIVATE |
| STRYS | Number of Storys | 1 |
| AREA | Square Footage of the building in thous. | 10 |
| VALUE | Construction contract value in thous. | 400 |
| STAMN | State code | MD |
| FIPS | FIPS county code (a few exceptions) | 24015 |
| FIPSNAME | County Name | CECIL, MD |

Table 2 - Hedonic Formulations for Price Indexes

| | Name | Formulation |
|---|---|---|
| 1. | Fixed-Fixed | $\hat{P} = \overline{F}(\overline{X})$ |
| 2. | Fixed Characteristic | $\hat{P} = F_t(\overline{X}) / F_0(\overline{X})$ |
| 3. | Extrapolation | $\hat{P} = F_t(X_t) / F_{t-1}(X_{t-1})$ |
| 4. | Chain-type 1 | $\hat{P} = \sqrt{\frac{F_t(X_t)}{F_{t-1}(X_t)} \bullet \frac{F_t(X_{t-1})}{F_{t-1}(X_{t-1})}}$ |
| 5. | Chain-type 2 | $\hat{P} = \sqrt{\frac{F_t(X_t)}{F_t(X_{t-1})} \bullet \frac{F_{t-1}(X_t)}{F_{t-1}(X_{t-1})}}$ |

## Table 3 - Regression Results for Stores

| | Full | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Coefficient estimates: | | | | | | | | | | | |
| (Standard errors in parenthesis) | | | | | | | | | | | |
| Constant | 3.894 | 3.929 | 3.959 | 3.995 | 4.052 | 4.022 | 4.025 | 4.014 | 4.066 | 4.146 | 4.213 |
| | (0.006) | (0.017) | (0.016) | (0.014) | (0.013) | (0.013) | (0.013) | (0.014) | (0.012) | (0.012) | (0.012) |
| LOG(SQ) | 0.911 | 0.904 | 0.917 | 0.888 | 0.890 | 0.916 | 0.932 | 0.927 | 0.868 | 0.913 | 0.929 |
| | (0.001) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.004) | (0.004) | (0.003) |
| STRY | 0.113 | 0.097 | 0.088 | 0.145 | 0.127 | 0.145 | 0.085 | 0.128 | 0.285 | 0.098 | 0.041 |
| | (0.003) | (0.015) | (0.014) | (0.012) | (0.011) | (0.011) | (0.010) | (0.012) | (0.012) | (0.008) | (0.007) |
| D_ALT | 0.070 | 0.051 | 0.050 | 0.066 | 0.078 | 0.065 | 0.109 | 0.097 | 0.033 | 0.084 | 0.139 |
| | (0.004) | (0.011) | (0.012) | (0.012) | (0.012) | (0.012) | (0.013) | (0.014) | (0.014) | (0.014) | (0.013) |
| D1996 | 0.047 | - | - | - | - | - | - | - | - | - | - |
| | (0.006) | - | - | - | - | - | - | - | - | - | - |
| D1997 | 0.084 | - | - | - | - | - | - | - | - | - | - |
| | (0.006) | - | - | - | - | - | - | - | - | - | - |
| D1998 | 0.126 | - | - | - | - | - | - | - | - | - | - |
| | (0.006) | - | - | - | - | - | - | - | - | - | - |
| D1999 | 0.169 | - | - | - | - | - | - | - | - | - | - |
| | (0.006) | - | - | - | - | - | - | - | - | - | - |
| D2000 | 0.156 | - | - | - | - | - | - | - | - | - | - |
| | (0.006) | - | - | - | - | - | - | - | - | - | - |
| D2001 | 0.176 | - | - | - | - | - | - | - | - | - | - |
| | (0.006) | - | - | - | - | - | - | - | - | - | - |
| D2002 | 0.214 | - | - | - | - | - | - | - | - | - | - |
| | (0.006) | - | - | - | - | - | - | - | - | - | - |
| D2003 | 0.243 | - | - | - | - | - | - | - | - | - | - |
| | (0.006) | - | - | - | - | - | - | - | - | - | - |
| D2004 | 0.294 | - | - | - | - | - | - | - | - | - | - |
| | (0.006) | - | - | - | - | - | - | - | - | - | - |
| R-sq | 0.910 | 0.910 | 0.904 | 0.895 | 0.900 | 0.911 | 0.916 | 0.914 | 0.897 | 0.913 | 0.921 |
| S.E. | 0.387 | 0.394 | 0.391 | 0.394 | 0.393 | 0.388 | 0.377 | 0.383 | 0.405 | 0.372 | 0.357 |
| # Obs. | 79139 | 7992 | 7827 | 8786 | 8949 | 8921 | 8307 | 7417 | 6847 | 6817 | 7276 |
| White Heteroskedasticity Test: | | | | | | | | | | | |
| F-stat | 328.1 | 60.6 | 58.3 | 162.4 | 108.7 | 71.2 | 86.8 | 106.7 | 110.6 | 134.1 | 58.6 |
| (prob) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Obs*R2 | 4342.2 | 292.2 | 281.4 | 743.6 | 512.8 | 342.7 | 412.7 | 498.0 | 512.0 | 611.0 | 281.9 |
| (prob) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Wald-test for LOG(SQ) coefficient: | | | | | | | | | | | |
| Chi-sq | - | 4.834 | 2.405 | 46.18 | 42.22 | 2.224 | 42.94 | 20.91 | 100.2 | 0.177 | 29.84 |
| (prob) | - | (0.028) | (0.121) | (0.000) | (0.000) | (0.136) | (0.000) | (0.000) | (0.000) | (0.674) | (0.000) |
| Other statistics: | | | | | | | | | | | |
| Avg.Pr. | 1185.4 | 906.6 | 867.2 | 867.3 | 1030.2 | 1164.7 | 1307.9 | 1342.6 | 1407.5 | 1554.8 | 1579.5 |
| Avg.Sqft. | 24.55 | 21.58 | 18.96 | 19.04 | 22.49 | 23.70 | 27.06 | 27.39 | 28.01 | 30.71 | 29.31 |
| Avg.Sty. | 0.994 | 1.049 | 1.043 | 0.976 | 0.981 | 0.970 | 1.000 | 0.973 | 0.877 | 0.998 | 1.070 |
| % D_ALT | 15.1 | 21.6 | 18.4 | 16.8 | 15.4 | 15.4 | 12.1 | 12.0 | 14.2 | 12.0 | 12.0 |

Table 4 - Indexes for Stores

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|---|---|---|
| Fix-fix | 100.0 | 104.8 | 108.8 | 113.5 | 118.4 | 116.9 | 119.2 | 123.8 | 127.5 | 134.2 |
| Fix char. | 100.0 | 105.1 | 108.3 | 113.3 | 118.4 | 116.8 | 119.1 | 127.2 | 127.4 | 134.7 |
| Extrap. | 100.0 | 100.9 | 109.4 | 130.2 | 138.1 | 150.4 | 155.7 | 171.6 | 196.2 | 193.7 |
| Chain 1 | 100.0 | 104.7 | 108.8 | 113.8 | 118.8 | 117.2 | 119.5 | 125.3 | 128.1 | 135.3 |
| Chain 2 | 100.0 | 96.3 | 100.5 | 114.4 | 116.3 | 128.3 | 130.3 | 136.9 | 153.2 | 143.1 |

Table 5 - Annual Indexes and Regression Results for Selected Nonresidential Buildings and Apartments

| | Stores | Shopping Centers | Foodbev Stores | Ware-houses | Offices | Mfg. | Schools | Apartments |
|---|---|---|---|---|---|---|---|---|
| Annual Indexes | | | | | | | | |
| 1995 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 |
| 1996 | 106.049 | 106.113 | 102.342 | 104.898 | 106.816 | 103.282 | 110.474 | 104.340 |
| 1997 | 107.255 | 108.942 | 96.504 | 106.710 | 102.764 | 98.591 | 110.169 | 103.767 |
| 1998 | 112.416 | 112.915 | 101.013 | 109.307 | 106.948 | 104.670 | 114.499 | 107.538 |
| 1999 | 120.334 | 117.703 | 102.585 | 111.952 | 111.158 | 107.050 | 119.855 | 109.148 |
| 2000 | 120.512 | 121.359 | 105.723 | 116.942 | 114.473 | 108.793 | 120.505 | 112.098 |
| 2001 | 122.207 | 123.426 | 107.222 | 125.446 | 114.655 | 117.816 | 126.309 | 114.224 |
| 2002 | 121.407 | 131.060 | 111.524 | 126.911 | 111.376 | 113.628 | 125.242 | 118.608 |
| 2003 | 128.953 | 136.504 | 119.436 | 124.486 | 115.574 | 120.634 | 131.184 | 126.000 |
| 2004 | 138.461 | 140.580 | 127.004 | 128.683 | 121.645 | 121.745 | 138.990 | 137.741 |

Regression Results

STORES

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|---|---|---|
| Constant | 3.929 | 3.959 | 3.995 | 4.053 | 4.021 | 4.024 | 4.015 | 4.064 | 4.147 | 4.213 |
| | (0.017) | (0.016) | (0.014) | (0.013) | (0.013) | (0.013) | (0.014) | (0.012) | (0.012) | (0.012) |
| LOG(SQ) | 0.904 | 0.917 | 0.888 | 0.890 | 0.916 | 0.932 | 0.927 | 0.869 | 0.912 | 0.929 |
| | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.004) | (0.004) | (0.003) |
| STRY | 0.097 | 0.088 | 0.145 | 0.127 | 0.145 | 0.085 | 0.128 | 0.284 | 0.099 | 0.041 |
| | (0.015) | (0.014) | (0.012) | (0.011) | (0.011) | (0.010) | (0.012) | (0.012) | (0.008) | (0.007) |
| D_ALT | 0.051 | 0.050 | 0.066 | 0.077 | 0.066 | 0.111 | 0.095 | 0.034 | 0.081 | 0.139 |
| | (0.011) | (0.012) | (0.012) | (0.012) | (0.013) | (0.013) | (0.014) | (0.014) | (0.014) | (0.013) |
| R-sq | 0.910 | 0.904 | 0.895 | 0.900 | 0.911 | 0.916 | 0.914 | 0.897 | 0.912 | 0.922 |
| S.E. | 0.394 | 0.391 | 0.394 | 0.393 | 0.388 | 0.377 | 0.383 | 0.403 | 0.374 | 0.357 |
| # Obs. | 7991 | 7826 | 8784 | 8947 | 8915 | 8307 | 7416 | 6847 | 6817 | 7289 |

SHOPPING CENTERS

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|---|---|---|
| Constant | 3.815 | 3.809 | 3.920 | 3.855 | 3.957 | 3.826 | 3.915 | 3.864 | 3.915 | 4.148 |
| | (0.055) | (0.055) | (0.046) | (0.044) | (0.040) | (0.051) | (0.044) | (0.053) | (0.050) | (0.035) |
| LOG(SQ) | 0.972 | 0.981 | 0.975 | 0.960 | 0.984 | 0.984 | 0.981 | 1.005 | 1.004 | 0.985 |
| | (0.011) | (0.012) | (0.010) | (0.010) | (0.010) | (0.010) | (0.010) | (0.014) | (0.011) | (0.009) |
| STRY | 0.112 | 0.103 | 0.075 | 0.215 | 0.064 | 0.195 | 0.163 | 0.153 | 0.158 | 0.032 |
| | (0.040) | (0.042) | (0.036) | (0.033) | (0.025) | (0.043) | (0.032) | (0.041) | (0.040) | (0.021) |
| D_ALT | 0.057 | 0.253 | 0.076 | 0.180 | 0.150 | 0.335 | 0.127 | 0.349 | 0.229 | 0.326 |
| | (0.042) | (0.044) | (0.040) | (0.042) | (0.039) | (0.042) | (0.043) | (0.048) | (0.043) | (0.038) |
| R-sq | 0.908 | 0.900 | 0.912 | 0.912 | 0.914 | 0.916 | 0.922 | 0.883 | 0.902 | 0.913 |
| S.E. | 0.462 | 0.471 | 0.449 | 0.449 | 0.426 | 0.406 | 0.398 | 0.435 | 0.379 | 0.355 |
| # Obs. | 839 | 898 | 996 | 1025 | 1098 | 940 | 892 | 825 | 950 | 1156 |

Table 5 - Annual Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

FOOD & BEVERAGE STORES

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|---|---|---|
| Constant | 4.590 | 4.612 | 4.368 | 4.187 | 4.216 | 4.152 | 4.232 | 4.294 | 4.714 | 4.856 |
| | (0.031) | (0.030) | (0.022) | (0.026) | (0.026) | (0.032) | (0.028) | (0.018) | (0.017) | (0.016) |
| LOG(SQ) | 0.833 | 0.851 | 0.945 | 0.954 | 0.987 | 0.995 | 0.959 | 0.809 | 0.885 | 0.890 |
| | (0.007) | (0.007) | (0.010) | (0.010) | (0.010) | (0.010) | (0.011) | (0.011) | (0.010) | (0.008) |
| STRY | 0.118 | 0.093 | 0.154 | 0.360 | 0.291 | 0.378 | 0.372 | 0.613 | 0.104 | -0.001 |
| | (0.030) | (0.030) | (0.018) | (0.023) | (0.023) | (0.030) | (0.027) | (0.016) | (0.010) | (0.011) |
| D_ALT | -0.087 | -0.066 | -0.098 | 0.027 | 0.021 | 0.002 | -0.020 | -0.060 | -0.096 | 0.082 |
| | (0.014) | (0.014) | (0.021) | (0.024) | (0.024) | (0.025) | (0.025) | (0.020) | (0.022) | (0.020) |
| R-sq | 0.818 | 0.843 | 0.739 | 0.762 | 0.760 | 0.754 | 0.724 | 0.782 | 0.754 | 0.834 |
| S.E. | 0.332 | 0.315 | 0.414 | 0.416 | 0.415 | 0.385 | 0.398 | 0.344 | 0.361 | 0.305 |
| # Obs. | 4687 | 4085 | 3872 | 3733 | 3845 | 3773 | 3530 | 3346 | 3195 | 3079 |

WAREHOUSES

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|---|---|---|
| Constant | 3.769 | 3.681 | 3.818 | 3.876 | 3.948 | 3.878 | 3.866 | 3.862 | 3.767 | 3.742 |
| | (0.013) | (0.015) | (0.021) | (0.020) | (0.018) | (0.022) | (0.021) | (0.023) | (0.019) | (0.019) |
| LOG(SQ) | 0.916 | 0.933 | 0.901 | 0.896 | 0.899 | 0.903 | 0.933 | 0.930 | 0.950 | 0.969 |
| | (0.003) | (0.003) | (0.004) | (0.004) | (0.005) | (0.004) | (0.005) | (0.005) | (0.004) | (0.004) |
| STRY | 0.027 | 0.102 | 0.104 | 0.070 | 0.017 | 0.106 | 0.061 | 0.095 | 0.095 | 0.074 |
| | (0.011) | (0.013) | (0.016) | (0.014) | (0.008) | (0.015) | (0.014) | (0.016) | (0.014) | (0.015) |
| D_ALT | -0.012 | 0.011 | 0.003 | 0.046 | 0.020 | 0.039 | 0.078 | 0.023 | 0.007 | 0.070 |
| | (0.009) | (0.009) | (0.014) | (0.015) | (0.016) | (0.015) | (0.017) | (0.018) | (0.015) | (0.015) |
| D_REF | 0.091 | 0.046 | -0.106 | 0.131 | 0.252 | 0.139 | 0.135 | 0.216 | 0.093 | 0.067 |
| | (0.018) | (0.017) | (0.024) | (0.029) | (0.034) | (0.035) | (0.042) | (0.043) | (0.035) | (0.030) |
| R-sq | 0.937 | 0.947 | 0.908 | 0.904 | 0.901 | 0.906 | 0.907 | 0.904 | 0.926 | 0.918 |
| S.E. | 0.329 | 0.312 | 0.383 | 0.380 | 0.379 | 0.381 | 0.386 | 0.388 | 0.364 | 0.392 |
| # Obs. | 7558 | 7122 | 4616 | 4493 | 4383 | 4623 | 4093 | 3461 | 3946 | 4759 |

OFFICES

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|---|---|---|
| Constant | 4.318 | 4.350 | 4.254 | 4.264 | 4.261 | 4.263 | 4.286 | 4.324 | 4.327 | 4.343 |
| | (0.006) | (0.005) | (0.006) | (0.005) | (0.005) | (0.005) | (0.006) | (0.008) | (0.008) | (0.007) |
| LOG(SQ) | 0.887 | 0.919 | 0.933 | 0.949 | 0.964 | 0.967 | 0.960 | 0.922 | 0.935 | 0.948 |
| | (0.003) | (0.002) | (0.003) | (0.002) | (0.002) | (0.002) | (0.003) | (0.004) | (0.004) | (0.003) |
| STRY | 0.055 | 0.025 | 0.046 | 0.043 | 0.037 | 0.037 | 0.046 | 0.079 | 0.059 | 0.037 |
| | (0.003) | (0.002) | (0.003) | (0.002) | (0.002) | (0.002) | (0.003) | (0.003) | (0.003) | (0.002) |
| D_ALT | 0.030 | 0.035 | 0.007 | 0.010 | 0.001 | 0.084 | 0.061 | 0.019 | 0.030 | 0.170 |
| | (0.007) | (0.007) | (0.008) | (0.007) | (0.008) | (0.008) | (0.009) | (0.010) | (0.010) | (0.010) |
| D_BANK | 0.429 | 0.401 | 0.442 | 0.323 | 0.384 | 0.435 | 0.367 | 0.397 | 0.518 | 0.554 |
| | (0.009) | (0.008) | (0.011) | (0.009) | (0.009) | (0.009) | (0.010) | (0.010) | (0.010) | (0.009) |
| R-sq | 0.919 | 0.936 | 0.915 | 0.939 | 0.945 | 0.945 | 0.930 | 0.901 | 0.902 | 0.914 |
| S.E. | 0.329 | 0.308 | 0.377 | 0.350 | 0.337 | 0.324 | 0.348 | 0.361 | 0.360 | 0.344 |
| # Obs. | 10979 | 11993 | 13191 | 14505 | 13839 | 13499 | 11151 | 9608 | 9205 | 10234 |

Table 5 - Annual Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

MANUFACTURING

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|---|---|---|
| Constant | 3.753 | 3.729 | 3.674 | 3.800 | 3.665 | 3.654 | 3.713 | 3.814 | 3.705 | 3.829 |
| | (0.022) | (0.022) | (0.017) | (0.016) | (0.021) | (0.026) | (0.025) | (0.030) | (0.030) | (0.038) |
| LOG(SQ) | 0.947 | 0.963 | 0.961 | 0.988 | 0.982 | 0.964 | 1.007 | 0.947 | 0.998 | 0.987 |
| | (0.005) | (0.005) | (0.005) | (0.005) | (0.006) | (0.007) | (0.008) | (0.010) | (0.009) | (0.009) |
| STRY | 0.178 | 0.181 | 0.185 | 0.025 | 0.189 | 0.260 | 0.143 | 0.240 | 0.204 | 0.112 |
| | (0.016) | (0.016) | (0.012) | (0.005) | (0.015) | (0.019) | (0.014) | (0.024) | (0.024) | (0.025) |
| D_ALT | 0.019 | 0.011 | 0.042 | 0.045 | 0.083 | 0.143 | 0.086 | 0.047 | 0.091 | 0.151 |
| | (0.014) | (0.014) | (0.013) | (0.014) | (0.017) | (0.020) | (0.021) | (0.024) | (0.024) | (0.027) |
| R-sq | 0.900 | 0.914 | 0.908 | 0.910 | 0.922 | 0.908 | 0.918 | 0.896 | 0.921 | 0.902 |
| S.E. | 0.467 | 0.444 | 0.433 | 0.427 | 0.430 | 0.446 | 0.426 | 0.443 | 0.423 | 0.466 |
| # Obs. | 4354 | 4030 | 4727 | 3874 | 2943 | 2356 | 1872 | 1430 | 1311 | 1327 |

SCHOOLS (private)

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|---|---|---|
| Constant | 4.183 | 4.248 | 4.092 | 4.126 | 4.120 | 4.166 | 4.169 | 4.302 | 4.410 | 4.530 |
| | (0.026) | (0.026) | (0.026) | (0.027) | (0.022) | (0.023) | (0.027) | (0.028) | (0.031) | (0.031) |
| LOG(SQ) | 0.891 | 0.926 | 0.958 | 0.958 | 1.000 | 0.970 | 0.976 | 0.976 | 0.896 | 0.936 |
| | (0.010) | (0.009) | (0.011) | (0.012) | (0.009) | (0.010) | (0.011) | (0.012) | (0.012) | (0.012) |
| STRY | 0.243 | 0.189 | 0.235 | 0.233 | 0.192 | 0.226 | 0.244 | 0.148 | 0.286 | 0.139 |
| | (0.019) | (0.020) | (0.017) | (0.018) | (0.015) | (0.014) | (0.016) | (0.012) | (0.017) | (0.019) |
| D_ALT | 0.071 | 0.126 | 0.180 | 0.203 | 0.166 | 0.166 | 0.184 | 0.129 | 0.127 | 0.181 |
| | (0.024) | (0.023) | (0.025) | (0.025) | (0.021) | (0.022) | (0.025) | (0.025) | (0.029) | (0.031) |
| R-sq | 0.897 | 0.902 | 0.892 | 0.879 | 0.915 | 0.898 | 0.884 | 0.871 | 0.874 | 0.874 |
| S.E. | 0.421 | 0.409 | 0.448 | 0.476 | 0.421 | 0.435 | 0.489 | 0.490 | 0.508 | 0.508 |
| # Obs. | 1316 | 1401 | 1442 | 1557 | 1764 | 1785 | 1718 | 1607 | 1380 | 1256 |

APARTMENTS

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|---|---|---|
| Constant | 3.949 | 3.976 | 3.924 | 3.927 | 3.977 | 4.063 | 4.005 | 4.072 | 4.097 | 4.183 |
| | (0.010) | (0.010) | (0.008) | (0.008) | (0.009) | (0.010) | (0.008) | (0.008) | (0.009) | (0.009) |
| LOG(SQ) | 0.954 | 0.962 | 0.966 | 0.976 | 0.967 | 0.948 | 0.969 | 0.958 | 0.970 | 0.973 |
| | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) |
| STRY | 0.030 | 0.022 | 0.037 | 0.034 | 0.033 | 0.041 | 0.039 | 0.045 | 0.040 | 0.036 |
| | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.001) |
| R-sq | 0.955 | 0.956 | 0.944 | 0.949 | 0.943 | 0.932 | 0.945 | 0.946 | 0.942 | 0.945 |
| S.E. | 0.318 | 0.314 | 0.340 | 0.348 | 0.376 | 0.404 | 0.376 | 0.384 | 0.382 | 0.349 |
| # Obs. | 4682 | 4660 | 7760 | 7990 | 8219 | 7448 | 8331 | 8846 | 8587 | 8303 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments

| | Stores | Shopping Centers | Foodbev Stores | Ware-houses | Offices | Mfg. | Schools | Apartments |
|---|---|---|---|---|---|---|---|---|
| Quarterly Indexes | | | | | | | | |
| 1995 | | | | | | | | |
| Q1 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 |
| Q2 | 101.870 | 107.612 | 97.350 | 99.224 | 104.368 | 99.111 | 100.554 | 102.418 |
| Q3 | 102.777 | 105.308 | 100.136 | 104.152 | 103.936 | 99.702 | 98.672 | 102.886 |
| Q4 | 103.308 | 110.298 | 103.059 | 104.049 | 106.827 | 100.905 | 95.708 | 103.997 |
| 1996 | | | | | | | | |
| Q1 | 105.139 | 101.062 | 100.052 | 106.678 | 108.283 | 107.853 | 105.676 | 105.529 |
| Q2 | 108.307 | 113.480 | 102.488 | 107.123 | 110.705 | 103.643 | 110.080 | 105.544 |
| Q3 | 109.204 | 122.312 | 102.430 | 105.914 | 111.775 | 102.053 | 108.972 | 108.610 |
| Q4 | 109.398 | 118.173 | 104.249 | 107.949 | 113.198 | 102.260 | 106.442 | 107.387 |
| 1997 | | | | | | | | |
| Q1 | 110.316 | 115.328 | 96.679 | 110.692 | 106.485 | 98.568 | 106.920 | 105.557 |
| Q2 | 107.996 | 124.789 | 94.934 | 109.850 | 103.019 | 97.840 | 103.269 | 103.011 |
| Q3 | 111.292 | 118.009 | 98.600 | 109.796 | 107.914 | 102.475 | 116.945 | 107.903 |
| Q4 | 108.934 | 114.619 | 94.868 | 105.141 | 110.797 | 95.341 | 109.146 | 107.747 |
| 1998 | | | | | | | | |
| Q1 | 111.668 | 123.416 | 98.614 | 113.176 | 113.077 | 103.977 | 111.048 | 107.166 |
| Q2 | 112.514 | 127.251 | 101.723 | 110.759 | 110.863 | 104.273 | 113.533 | 110.718 |
| Q3 | 116.852 | 121.330 | 104.923 | 112.404 | 110.980 | 102.410 | 118.361 | 113.749 |
| Q4 | 119.528 | 122.888 | 99.408 | 111.815 | 110.539 | 102.614 | 112.423 | 109.119 |
| 1999 | | | | | | | | |
| Q1 | 122.128 | 119.274 | 101.888 | 112.914 | 114.256 | 104.325 | 116.633 | 109.091 |
| Q2 | 122.269 | 130.691 | 103.557 | 112.846 | 115.886 | 105.738 | 117.789 | 113.407 |
| Q3 | 121.627 | 132.327 | 102.796 | 116.559 | 115.677 | 107.856 | 120.472 | 112.329 |
| Q4 | 126.921 | 136.330 | 102.098 | 117.105 | 117.036 | 109.652 | 122.938 | 111.870 |
| 2000 | | | | | | | | |
| Q1 | 123.615 | 134.485 | 104.617 | 113.474 | 116.730 | 105.487 | 117.775 | 112.903 |
| Q2 | 123.599 | 136.945 | 107.252 | 121.172 | 119.425 | 105.195 | 122.768 | 114.435 |
| Q3 | 120.848 | 128.899 | 105.821 | 120.620 | 119.177 | 114.154 | 119.189 | 113.200 |
| Q4 | 125.930 | 136.165 | 104.458 | 124.656 | 121.872 | 109.992 | 121.053 | 118.902 |
| 2001 | | | | | | | | |
| Q1 | 123.851 | 132.650 | 105.469 | 126.208 | 118.771 | 116.862 | 119.109 | 119.078 |
| Q2 | 128.352 | 137.146 | 109.298 | 132.831 | 119.942 | 120.980 | 127.926 | 116.029 |
| Q3 | 124.197 | 135.623 | 108.917 | 124.692 | 120.585 | 115.772 | 124.097 | 115.990 |
| Q4 | 123.314 | 138.053 | 105.091 | 132.076 | 116.491 | 112.978 | 133.635 | 117.930 |
| 2002 | | | | | | | | |
| Q1 | 120.030 | 139.145 | 110.830 | 125.864 | 117.288 | 117.945 | 119.694 | 121.731 |
| Q2 | 129.265 | 145.630 | 112.265 | 133.549 | 120.032 | 116.924 | 123.539 | 121.301 |
| Q3 | 122.722 | 145.384 | 110.630 | 132.548 | 109.188 | 106.565 | 122.947 | 122.087 |
| Q4 | 124.974 | 142.808 | 109.371 | 128.829 | 115.047 | 114.963 | 128.066 | 121.816 |
| 2003 | | | | | | | | |
| Q1 | 124.519 | 139.603 | 112.299 | 128.347 | 114.812 | 117.993 | 121.071 | 120.871 |
| Q2 | 126.728 | 151.606 | 115.187 | 130.993 | 118.951 | 121.712 | 126.384 | 127.110 |
| Q3 | 136.979 | 151.923 | 122.289 | 126.376 | 122.708 | 121.546 | 138.819 | 134.168 |
| Q4 | 136.844 | 158.152 | 125.529 | 124.428 | 122.645 | 123.584 | 144.191 | 135.984 |
| 2004 | | | | | | | | |
| Q1 | 141.109 | 145.836 | 122.686 | 125.657 | 122.160 | 122.239 | 143.040 | 137.594 |
| Q2 | 139.576 | 151.956 | 124.437 | 131.222 | 127.574 | 124.220 | 137.633 | 138.789 |
| Q3 | 141.820 | 156.928 | 125.977 | 137.020 | 128.058 | 120.617 | 140.522 | 142.506 |
| Q4 | 145.342 | 160.475 | 128.305 | 135.232 | 132.914 | 120.834 | 137.257 | 147.813 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

STORES

| | 1995q1 | 1995q2 | 1995q3 | 1995q4 | 1996q1 | 1996q2 | 1996q3 | 1996q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.911 | 3.961 | 3.903 | 3.804 | 3.918 | 3.954 | 3.966 | 3.992 |
| | (0.046) | (0.025) | (0.046) | (0.045) | (0.030) | (0.037) | (0.031) | (0.040) |
| LOG(SQ) | 0.896 | 0.907 | 0.906 | 0.905 | 0.919 | 0.904 | 0.927 | 0.916 |
| | (0.007) | (0.006) | (0.006) | (0.007) | (0.008) | (0.007) | (0.006) | (0.007) |
| STRY | 0.114 | 0.059 | 0.124 | 0.229 | 0.092 | 0.139 | 0.060 | 0.071 |
| | (0.043) | (0.019) | (0.043) | (0.041) | (0.022) | (0.033) | (0.027) | (0.038) |
| D_ALT | 0.079 | 0.038 | 0.050 | 0.037 | 0.063 | 0.018 | 0.069 | 0.045 |
| | (0.023) | (0.021) | (0.021) | (0.024) | (0.026) | (0.025) | (0.021) | (0.022) |
| R-sq | 0.912 | 0.912 | 0.912 | 0.903 | 0.898 | 0.906 | 0.906 | 0.903 |
| S.E. | 0.389 | 0.393 | 0.393 | 0.401 | 0.409 | 0.394 | 0.388 | 0.376 |
| # Obs. | 1792 | 2221 | 2170 | 1808 | 1690 | 1849 | 2289 | 1998 |

| | 1997q1 | 1997q2 | 1997q3 | 1997q4 | 1998q1 | 1998q2 | 1998q3 | 1998q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.897 | 4.014 | 3.986 | 3.969 | 4.115 | 3.996 | 4.047 | 3.994 |
| | (0.042) | (0.025) | (0.026) | (0.029) | (0.024) | (0.029) | (0.031) | (0.026) |
| LOG(SQ) | 0.896 | 0.895 | 0.885 | 0.872 | 0.877 | 0.877 | 0.885 | 0.911 |
| | (0.007) | (0.007) | (0.007) | (0.007) | (0.007) | (0.007) | (0.007) | (0.006) |
| STRY | 0.226 | 0.084 | 0.179 | 0.212 | 0.072 | 0.194 | 0.160 | 0.158 |
| | (0.039) | (0.020) | (0.023) | (0.027) | (0.017) | (0.026) | (0.027) | (0.024) |
| D_ALT | 0.039 | 0.092 | 0.065 | 0.078 | 0.070 | 0.114 | 0.073 | 0.076 |
| | (0.026) | (0.024) | (0.024) | (0.025) | (0.026) | (0.025) | (0.026) | (0.023) |
| R-sq | 0.896 | 0.892 | 0.896 | 0.898 | 0.897 | 0.894 | 0.888 | 0.919 |
| S.E. | 0.388 | 0.406 | 0.394 | 0.382 | 0.398 | 0.401 | 0.400 | 0.370 |
| # Obs. | 1804 | 2354 | 2371 | 2254 | 1943 | 2289 | 2282 | 2433 |

| | 1999q1 | 1999q2 | 1999q3 | 1999q4 | 2000q1 | 2000q2 | 2000q3 | 2000q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.934 | 3.998 | 4.018 | 4.034 | 4.099 | 3.962 | 3.914 | 4.046 |
| | (0.030) | (0.030) | (0.030) | (0.021) | (0.022) | (0.031) | (0.029) | (0.034) |
| LOG(SQ) | 0.917 | 0.904 | 0.897 | 0.943 | 0.924 | 0.925 | 0.942 | 0.925 |
| | (0.007) | (0.006) | (0.007) | (0.006) | (0.007) | (0.007) | (0.006) | (0.007) |
| STRY | 0.216 | 0.200 | 0.195 | 0.076 | 0.045 | 0.165 | 0.137 | 0.109 |
| | (0.027) | (0.028) | (0.027) | (0.016) | (0.013) | (0.026) | (0.027) | (0.031) |
| D_ALT | 0.100 | 0.074 | 0.073 | 0.060 | 0.063 | 0.170 | 0.142 | 0.087 |
| | (0.027) | (0.025) | (0.025) | (0.024) | (0.025) | (0.028) | (0.025) | (0.029) |
| R-sq | 0.912 | 0.905 | 0.899 | 0.927 | 0.913 | 0.900 | 0.926 | 0.926 |
| S.E. | 0.380 | 0.397 | 0.401 | 0.366 | 0.371 | 0.403 | 0.364 | 0.360 |
| # Obs. | 2053 | 2423 | 2359 | 2080 | 1997 | 2252 | 2356 | 1702 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

| | 2001q1 | 2001q2 | 2001q3 | 2001q4 | 2002q1 | 2002q2 | 2002q3 | 2002q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.936 | 3.957 | 4.075 | 4.016 | 4.029 | 4.066 | 4.065 | 4.083 |
| | (0.032) | (0.038) | (0.024) | (0.023) | (0.026) | (0.023) | (0.025) | (0.024) |
| LOG(SQ) | 0.936 | 0.938 | 0.927 | 0.888 | 0.847 | 0.892 | 0.846 | 0.884 |
| | (0.007) | (0.007) | (0.006) | (0.008) | (0.010) | (0.008) | (0.009) | (0.008) |
| STRY | 0.157 | 0.176 | 0.061 | 0.247 | 0.364 | 0.237 | 0.353 | 0.217 |
| | (0.027) | (0.034) | (0.017) | (0.024) | (0.027) | (0.022) | (0.026) | (0.020) |
| D_ALT | 0.159 | 0.060 | 0.074 | 0.104 | 0.063 | 0.025 | 0.041 | -0.008 |
| | (0.032) | (0.029) | (0.026) | (0.028) | (0.033) | (0.027) | (0.027) | (0.029) |
| R-sq | 0.914 | 0.910 | 0.919 | 0.917 | 0.884 | 0.907 | 0.894 | 0.906 |
| S.E. | 0.397 | 0.389 | 0.374 | 0.368 | 0.439 | 0.388 | 0.396 | 0.384 |
| # Obs. | 1673 | 1921 | 2097 | 1725 | 1665 | 1813 | 1798 | 1571 |

| | 2003q1 | 2003q2 | 2003q3 | 2003q4 | 2004q1 | 2004q2 | 2004q3 | 2004q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.079 | 4.023 | 4.222 | 4.172 | 4.264 | 4.223 | 4.224 | 4.110 |
| | (0.027) | (0.026) | (0.021) | (0.024) | (0.024) | (0.026) | (0.021) | (0.027) |
| LOG(SQ) | 0.861 | 0.867 | 0.930 | 0.936 | 0.916 | 0.921 | 0.930 | 0.952 |
| | (0.008) | (0.008) | (0.006) | (0.007) | (0.007) | (0.006) | (0.006) | (0.007) |
| STRY | 0.295 | 0.339 | 0.008 | 0.033 | 0.034 | 0.038 | 0.034 | 0.083 |
| | (0.022) | (0.025) | (0.011) | (0.016) | (0.011) | (0.017) | (0.013) | (0.018) |
| D_ALT | 0.059 | 0.144 | 0.078 | 0.083 | 0.112 | 0.169 | 0.076 | 0.201 |
| | (0.032) | (0.030) | (0.023) | (0.027) | (0.027) | (0.028) | (0.024) | (0.027) |
| R-sq | 0.897 | 0.904 | 0.932 | 0.930 | 0.916 | 0.913 | 0.931 | 0.928 |
| S.E. | 0.399 | 0.395 | 0.331 | 0.331 | 0.365 | 0.382 | 0.330 | 0.344 |
| # Obs. | 1605 | 1815 | 1829 | 1568 | 1655 | 2051 | 1978 | 1605 |

SHOPPING CENTERS

| | 1995q1 | 1995q2 | 1995q3 | 1995q4 | 1996q1 | 1996q2 | 1996q3 | 1996q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.648 | 3.923 | 3.765 | 3.911 | 3.689 | 3.815 | 3.953 | 3.695 |
| | (0.124) | (0.160) | (0.084) | (0.112) | (0.142) | (0.117) | (0.084) | (0.110) |
| LOG(SQ) | 0.963 | 0.951 | 0.986 | 0.984 | 0.935 | 0.965 | 1.020 | 1.000 |
| | (0.023) | (0.025) | (0.020) | (0.022) | (0.026) | (0.025) | (0.018) | (0.025) |
| STRY | 0.230 | 0.081 | 0.114 | 0.034 | 0.300 | 0.145 | -0.106 | 0.147 |
| | (0.095) | (0.143) | (0.052) | (0.080) | (0.118) | (0.090) | (0.065) | (0.076) |
| D_ALT | 0.162 | 0.248 | -0.069 | -0.083 | 0.193 | 0.330 | 0.138 | 0.329 |
| | (0.087) | (0.095) | (0.071) | (0.084) | (0.098) | (0.093) | (0.078) | (0.085) |
| R-sq | 0.911 | 0.885 | 0.922 | 0.919 | 0.886 | 0.877 | 0.934 | 0.899 |
| S.E. | 0.468 | 0.513 | 0.421 | 0.435 | 0.525 | 0.508 | 0.388 | 0.458 |
| # Obs. | 193 | 206 | 233 | 207 | 185 | 243 | 262 | 208 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

| | 1997q1 | 1997q2 | 1997q3 | 1997q4 | 1998q1 | 1998q2 | 1998q3 | 1998q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.766 | 3.886 | 3.911 | 4.061 | 3.976 | 3.795 | 3.944 | 3.845 |
| | (0.113) | (0.085) | (0.080) | (0.112) | (0.116) | (0.089) | (0.096) | (0.083) |
| LOG(SQ) | 0.968 | 1.005 | 0.961 | 0.969 | 0.955 | 0.967 | 0.935 | 0.978 |
| | (0.023) | (0.019) | (0.018) | (0.023) | (0.024) | (0.023) | (0.020) | (0.017) |
| STRY | 0.235 | 0.034 | 0.125 | -0.065 | 0.120 | 0.254 | 0.215 | 0.154 |
| | (0.091) | (0.058) | (0.063) | (0.103) | (0.099) | (0.050) | (0.083) | (0.069) |
| D_ALT | -0.047 | 0.096 | 0.115 | 0.021 | 0.192 | 0.267 | 0.120 | 0.124 |
| | (0.089) | (0.073) | (0.069) | (0.099) | (0.092) | (0.090) | (0.080) | (0.081) |
| R-sq | 0.919 | 0.909 | 0.912 | 0.905 | 0.897 | 0.899 | 0.915 | 0.927 |
| S.E. | 0.409 | 0.433 | 0.467 | 0.476 | 0.498 | 0.477 | 0.415 | 0.417 |
| # Obs. | 178 | 289 | 302 | 226 | 212 | 260 | 255 | 298 |

| | 1999q1 | 1999q2 | 1999q3 | 1999q4 | 2000q1 | 2000q2 | 2000q3 | 2000q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.036 | 3.928 | 3.954 | 3.864 | 3.745 | 3.897 | 3.929 | 3.718 |
| | (0.078) | (0.079) | (0.101) | (0.074) | (0.127) | (0.103) | (0.095) | (0.089) |
| LOG(SQ) | 0.966 | 0.998 | 0.991 | 0.987 | 0.993 | 0.978 | 0.969 | 1.005 |
| | (0.019) | (0.018) | (0.022) | (0.019) | (0.024) | (0.021) | (0.020) | (0.019) |
| STRY | 0.005 | 0.048 | 0.054 | 0.182 | 0.243 | 0.165 | 0.124 | 0.239 |
| | (0.038) | (0.062) | (0.082) | (0.044) | (0.112) | (0.084) | (0.079) | (0.078) |
| D_ALT | 0.039 | 0.160 | 0.201 | 0.213 | 0.349 | 0.424 | 0.330 | 0.258 |
| | (0.085) | (0.065) | (0.086) | (0.077) | (0.088) | (0.090) | (0.082) | (0.082) |
| R-sq | 0.913 | 0.923 | 0.889 | 0.933 | 0.893 | 0.912 | 0.914 | 0.941 |
| S.E. | 0.429 | 0.406 | 0.467 | 0.384 | 0.433 | 0.403 | 0.427 | 0.355 |
| # Obs. | 259 | 303 | 293 | 243 | 225 | 238 | 255 | 222 |

| | 2001q1 | 2001q2 | 2001q3 | 2001q4 | 2002q1 | 2002q2 | 2002q3 | 2002q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.829 | 4.041 | 3.815 | 4.050 | 3.675 | 4.099 | 3.885 | 3.671 |
| | (0.089) | (0.090) | (0.081) | (0.092) | (0.100) | (0.100) | (0.122) | (0.116) |
| LOG(SQ) | 0.980 | 0.975 | 0.994 | 0.976 | 0.991 | 0.981 | 1.028 | 0.995 |
| | (0.023) | (0.021) | (0.018) | (0.020) | (0.029) | (0.026) | (0.033) | (0.024) |
| STRY | 0.225 | 0.078 | 0.217 | 0.052 | 0.368 | 0.039 | 0.053 | 0.360 |
| | (0.058) | (0.063) | (0.064) | (0.076) | (0.093) | (0.058) | (0.100) | (0.101) |
| D_ALT | 0.111 | 0.128 | 0.032 | 0.283 | 0.298 | 0.291 | 0.361 | 0.419 |
| | (0.099) | (0.085) | (0.075) | (0.085) | (0.098) | (0.085) | (0.111) | (0.091) |
| R-sq | 0.909 | 0.904 | 0.941 | 0.933 | 0.910 | 0.871 | 0.856 | 0.895 |
| S.E. | 0.420 | 0.424 | 0.373 | 0.360 | 0.414 | 0.430 | 0.483 | 0.404 |
| # Obs. | 225 | 249 | 229 | 187 | 175 | 217 | 198 | 235 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

| | 2003q1 | 2003q2 | 2003q3 | 2003q4 | 2004q1 | 2004q2 | 2004q3 | 2004q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.886 | 3.827 | 4.017 | 3.929 | 4.027 | 4.145 | 4.177 | 4.153 |
| | (0.113) | (0.107) | (0.090) | (0.088) | (0.079) | (0.077) | (0.063) | (0.073) |
| LOG(SQ) | 0.986 | 1.025 | 0.993 | 1.016 | 0.964 | 0.983 | 0.991 | 1.000 |
| | (0.025) | (0.024) | (0.019) | (0.022) | (0.020) | (0.018) | (0.018) | (0.018) |
| STRY | 0.199 | 0.155 | 0.117 | 0.142 | 0.176 | 0.036 | 0.010 | -0.011 |
| | (0.101) | (0.088) | (0.069) | (0.064) | (0.063) | (0.059) | (0.025) | (0.055) |
| D_ALT | 0.073 | 0.372 | 0.181 | 0.318 | 0.221 | 0.243 | 0.199 | 0.692 |
| | (0.100) | (0.091) | (0.065) | (0.090) | (0.069) | (0.077) | (0.079) | (0.077) |
| R-sq | 0.888 | 0.897 | 0.914 | 0.917 | 0.921 | 0.909 | 0.916 | 0.916 |
| S.E. | 0.424 | 0.419 | 0.332 | 0.331 | 0.349 | 0.373 | 0.339 | 0.340 |
| # Obs. | 227 | 237 | 260 | 226 | 250 | 314 | 294 | 298 |

FOOD & BEVERAGE STORES

| | 1995q1 | 1995q2 | 1995q3 | 1995q4 | 1996q1 | 1996q2 | 1996q3 | 1996q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.572 | 4.649 | 4.530 | 4.624 | 4.627 | 4.669 | 4.565 | 4.601 |
| | (0.064) | (0.062) | (0.052) | (0.069) | (0.056) | (0.084) | (0.063) | (0.055) |
| LOG(SQ) | 0.842 | 0.795 | 0.857 | 0.849 | 0.834 | 0.841 | 0.869 | 0.853 |
| | (0.014) | (0.013) | (0.012) | (0.013) | (0.016) | (0.014) | (0.011) | (0.013) |
| STRY | 0.117 | 0.092 | 0.151 | 0.089 | 0.081 | 0.053 | 0.111 | 0.121 |
| | (0.063) | (0.059) | (0.050) | (0.068) | (0.053) | (0.083) | (0.062) | (0.054) |
| D_ALT | -0.033 | -0.146 | -0.091 | -0.054 | -0.081 | -0.075 | -0.037 | -0.077 |
| | (0.030) | (0.028) | (0.025) | (0.027) | (0.033) | (0.030) | (0.024) | (0.028) |
| R-sq | 0.819 | 0.782 | 0.840 | 0.838 | 0.812 | 0.828 | 0.871 | 0.849 |
| S.E. | 0.328 | 0.361 | 0.312 | 0.321 | 0.353 | 0.324 | 0.286 | 0.306 |
| # Obs. | 1044 | 1267 | 1260 | 1116 | 856 | 990 | 1211 | 1028 |

| | 1997q1 | 1997q2 | 1997q3 | 1997q4 | 1998q1 | 1998q2 | 1998q3 | 1998q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.369 | 4.125 | 4.386 | 4.329 | 4.097 | 4.154 | 4.293 | 4.194 |
| | (0.081) | (0.056) | (0.035) | (0.045) | (0.051) | (0.055) | (0.052) | (0.050) |
| LOG(SQ) | 0.988 | 0.917 | 0.994 | 0.857 | 0.958 | 0.967 | 0.913 | 0.967 |
| | (0.022) | (0.020) | (0.020) | (0.021) | (0.021) | (0.020) | (0.020) | (0.020) |
| STRY | 0.113 | 0.404 | 0.085 | 0.308 | 0.402 | 0.372 | 0.362 | 0.320 |
| | (0.075) | (0.054) | (0.024) | (0.040) | (0.045) | (0.052) | (0.046) | (0.044) |
| D_ALT | -0.203 | 0.115 | -0.135 | -0.038 | 0.133 | 0.056 | -0.035 | -0.028 |
| | (0.044) | (0.048) | (0.040) | (0.041) | (0.048) | (0.049) | (0.049) | (0.045) |
| R-sq | 0.741 | 0.735 | 0.761 | 0.734 | 0.776 | 0.780 | 0.753 | 0.743 |
| S.E. | 0.396 | 0.412 | 0.413 | 0.416 | 0.404 | 0.412 | 0.412 | 0.427 |
| # Obs. | 830 | 1078 | 1004 | 960 | 806 | 935 | 935 | 1057 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

| | 1999q1 | 1999q2 | 1999q3 | 1999q4 | 2000q1 | 2000q2 | 2000q3 | 2000q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.187 | 4.084 | 4.125 | 4.259 | 4.217 | 4.094 | 4.127 | 4.158 |
| | (0.059) | (0.059) | (0.057) | (0.042) | (0.061) | (0.066) | (0.064) | (0.062) |
| LOG(SQ) | 0.917 | 0.991 | 1.002 | 1.024 | 0.985 | 0.998 | 0.996 | 1.006 |
| | (0.022) | (0.021) | (0.019) | (0.020) | (0.020) | (0.022) | (0.020) | (0.020) |
| STRY | 0.406 | 0.433 | 0.361 | 0.186 | 0.329 | 0.444 | 0.402 | 0.341 |
| | (0.056) | (0.057) | (0.054) | (0.031) | (0.059) | (0.064) | (0.059) | (0.058) |
| D_ALT | 0.159 | 0.021 | 0.038 | -0.039 | -0.097 | 0.058 | 0.027 | 0.025 |
| | (0.052) | (0.047) | (0.053) | (0.044) | (0.050) | (0.050) | (0.049) | (0.050) |
| R-sq | 0.722 | 0.764 | 0.765 | 0.792 | 0.759 | 0.745 | 0.744 | 0.770 |
| S.E. | 0.439 | 0.401 | 0.404 | 0.406 | 0.388 | 0.384 | 0.403 | 0.361 |
| # Obs. | 930 | 955 | 1071 | 889 | 929 | 942 | 1039 | 863 |

| | 2001q1 | 2001q2 | 2001q3 | 2001q4 | 2002q1 | 2002q2 | 2002q3 | 2002q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.192 | 4.230 | 4.281 | 4.252 | 4.286 | 4.273 | 4.365 | 4.247 |
| | (0.061) | (0.070) | (0.059) | (0.045) | (0.035) | (0.033) | (0.036) | (0.039) |
| LOG(SQ) | 0.987 | 0.952 | 1.021 | 0.871 | 0.794 | 0.818 | 0.776 | 0.849 |
| | (0.024) | (0.021) | (0.022) | (0.021) | (0.020) | (0.020) | (0.022) | (0.023) |
| STRY | 0.357 | 0.405 | 0.235 | 0.485 | 0.649 | 0.633 | 0.594 | 0.585 |
| | (0.058) | (0.067) | (0.055) | (0.042) | (0.033) | (0.032) | (0.031) | (0.033) |
| D_ALT | -0.073 | 0.003 | 0.036 | -0.057 | -0.035 | -0.033 | -0.088 | -0.089 |
| | (0.051) | (0.057) | (0.048) | (0.048) | (0.041) | (0.037) | (0.044) | (0.042) |
| R-sq | 0.725 | 0.727 | 0.699 | 0.763 | 0.814 | 0.807 | 0.744 | 0.759 |
| S.E. | 0.399 | 0.400 | 0.411 | 0.370 | 0.335 | 0.326 | 0.347 | 0.367 |
| # Obs. | 808 | 935 | 1032 | 755 | 787 | 874 | 905 | 780 |

| | 2003q1 | 2003q2 | 2003q3 | 2003q4 | 2004q1 | 2004q2 | 2004q3 | 2004q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.303 | 4.568 | 4.866 | 4.844 | 4.991 | 4.800 | 4.789 | 4.867 |
| | (0.038) | (0.041) | (0.024) | (0.051) | (0.051) | (0.055) | (0.035) | (0.029) |
| LOG(SQ) | 0.810 | 0.817 | 0.873 | 0.905 | 0.843 | 0.905 | 0.898 | 0.898 |
| | (0.022) | (0.023) | (0.014) | (0.015) | (0.017) | (0.014) | (0.014) | (0.017) |
| STRY | 0.628 | 0.342 | 0.000 | -0.008 | -0.075 | 0.025 | 0.053 | -0.008 |
| | (0.036) | (0.032) | (0.009) | (0.047) | (0.045) | (0.053) | (0.029) | (0.012) |
| D_ALT | -0.129 | -0.097 | -0.014 | 0.029 | 0.006 | 0.050 | 0.117 | 0.178 |
| | (0.043) | (0.051) | (0.038) | (0.036) | (0.039) | (0.039) | (0.039) | (0.048) |
| R-sq | 0.772 | 0.715 | 0.822 | 0.840 | 0.826 | 0.859 | 0.843 | 0.802 |
| S.E. | 0.354 | 0.396 | 0.294 | 0.293 | 0.312 | 0.286 | 0.306 | 0.313 |
| # Obs. | 826 | 752 | 849 | 768 | 682 | 803 | 867 | 727 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

WAREHOUSES

| | 1995q1 | 1995q2 | 1995q3 | 1995q4 | 1996q1 | 1996q2 | 1996q3 | 1996q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.684 | 3.811 | 3.755 | 3.695 | 3.615 | 3.710 | 3.681 | 3.701 |
| | (0.043) | (0.022) | (0.020) | (0.036) | (0.039) | (0.031) | (0.024) | (0.027) |
| LOG(SQ) | 0.898 | 0.906 | 0.924 | 0.927 | 0.927 | 0.937 | 0.933 | 0.933 |
| | (0.006) | (0.006) | (0.005) | (0.005) | (0.006) | (0.005) | (0.005) | (0.005) |
| STRY | 0.140 | -0.009 | 0.036 | 0.079 | 0.178 | 0.060 | 0.092 | 0.099 |
| | (0.041) | (0.017) | (0.017) | (0.034) | (0.035) | (0.028) | (0.022) | (0.024) |
| D_ALT | -0.011 | -0.010 | -0.022 | -0.002 | 0.018 | 0.023 | 0.009 | -0.007 |
| | (0.020) | (0.019) | (0.016) | (0.018) | (0.021) | (0.019) | (0.016) | (0.018) |
| D_REF | 0.119 | 0.054 | 0.096 | 0.104 | 0.065 | 0.060 | 0.057 | -0.012 |
| | (0.043) | (0.038) | (0.033) | (0.035) | (0.042) | (0.030) | (0.029) | (0.039) |
| R-sq | 0.930 | 0.926 | 0.946 | 0.944 | 0.936 | 0.948 | 0.957 | 0.945 |
| S.E. | 0.340 | 0.352 | 0.306 | 0.317 | 0.339 | 0.315 | 0.281 | 0.319 |
| # Obs. | 1605 | 1913 | 2033 | 2007 | 1542 | 1661 | 2063 | 1856 |

| | 1997q1 | 1997q2 | 1997q3 | 1997q4 | 1998q1 | 1998q2 | 1998q3 | 1998q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.739 | 3.793 | 3.796 | 3.952 | 3.856 | 3.835 | 3.929 | 3.862 |
| | (0.044) | (0.040) | (0.045) | (0.043) | (0.047) | (0.039) | (0.039) | (0.040) |
| LOG(SQ) | 0.921 | 0.917 | 0.883 | 0.863 | 0.892 | 0.888 | 0.896 | 0.907 |
| | (0.009) | (0.009) | (0.008) | (0.009) | (0.010) | (0.008) | (0.008) | (0.009) |
| STRY | 0.140 | 0.069 | 0.182 | 0.076 | 0.120 | 0.127 | 0.021 | 0.043 |
| | (0.035) | (0.027) | (0.036) | (0.031) | (0.034) | (0.026) | (0.026) | (0.026) |
| D_ALT | -0.010 | -0.005 | 0.014 | -0.001 | 0.026 | 0.068 | 0.056 | 0.031 |
| | (0.027) | (0.030) | (0.027) | (0.031) | (0.033) | (0.027) | (0.029) | (0.030) |
| D_REF | -0.201 | 0.102 | 0.151 | 0.019 | 0.045 | 0.042 | 0.231 | 0.204 |
| | (0.032) | (0.070) | (0.064) | (0.062) | (0.066) | (0.048) | (0.059) | (0.060) |
| R-sq | 0.933 | 0.904 | 0.902 | 0.889 | 0.905 | 0.912 | 0.904 | 0.896 |
| S.E. | 0.352 | 0.391 | 0.378 | 0.396 | 0.383 | 0.356 | 0.386 | 0.391 |
| # Obs. | 1074 | 1143 | 1296 | 1103 | 890 | 1142 | 1292 | 1169 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

| | 1999q1 | 1999q2 | 1999q3 | 1999q4 | 2000q1 | 2000q2 | 2000q3 | 2000q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.864 | 3.955 | 4.009 | 3.921 | 3.897 | 3.963 | 3.852 | 3.807 |
| | (0.038) | (0.033) | (0.036) | (0.045) | (0.044) | (0.042) | (0.044) | (0.044) |
| LOG(SQ) | 0.894 | 0.891 | 0.903 | 0.901 | 0.895 | 0.890 | 0.906 | 0.918 |
| | (0.009) | (0.009) | (0.009) | (0.011) | (0.009) | (0.009) | (0.009) | (0.009) |
| STRY | 0.088 | 0.033 | -0.037 | 0.044 | 0.062 | 0.086 | 0.126 | 0.144 |
| | (0.026) | (0.011) | (0.015) | (0.026) | (0.033) | (0.027) | (0.032) | (0.031) |
| D_ALT | 0.091 | -0.045 | -0.011 | 0.069 | 0.069 | 0.037 | -0.004 | 0.065 |
| | (0.029) | (0.029) | (0.031) | (0.036) | (0.030) | (0.030) | (0.030) | (0.031) |
| D_REF | 0.089 | 0.274 | 0.297 | 0.292 | 0.133 | 0.143 | 0.159 | 0.122 |
| | (0.072) | (0.067) | (0.061) | (0.079) | (0.071) | (0.062) | (0.079) | (0.069) |
| R-sq | 0.911 | 0.903 | 0.901 | 0.890 | 0.909 | 0.899 | 0.907 | 0.909 |
| S.E. | 0.346 | 0.378 | 0.382 | 0.407 | 0.375 | 0.383 | 0.388 | 0.372 |
| # Obs. | 1060 | 1212 | 1177 | 934 | 1046 | 1227 | 1246 | 1104 |

| | 2001q1 | 2001q2 | 2001q3 | 2001q4 | 2002q1 | 2002q2 | 2002q3 | 2002q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.844 | 3.872 | 3.973 | 0.918 | 3.847 | 3.811 | 3.913 | 3.859 |
| | (0.038) | (0.041) | (0.046) | (0.045) | (0.044) | (0.050) | (0.044) | (0.045) |
| LOG(SQ) | 0.934 | 0.938 | 0.903 | 0.382 | 0.931 | 0.940 | 0.917 | 0.931 |
| | (0.009) | (0.009) | (0.010) | (0.010) | (0.010) | (0.011) | (0.010) | (0.011) |
| STRY | 0.057 | 0.067 | 0.054 | 0.067 | 0.079 | 0.125 | 0.106 | 0.080 |
| | (0.023) | (0.027) | (0.031) | (0.031) | (0.029) | (0.036) | (0.031) | (0.032) |
| D_ALT | 0.105 | 0.062 | 0.032 | 0.126 | -0.002 | -0.001 | 0.051 | 0.048 |
| | (0.033) | (0.031) | (0.035) | (0.035) | (0.035) | (0.037) | (0.035) | (0.036) |
| D_REF | 0.167 | 0.110 | 0.105 | 0.190 | 0.117 | 0.334 | 0.174 | 0.214 |
| | (0.079) | (0.072) | (0.090) | (0.100) | (0.100) | (0.093) | (0.088) | (0.073) |
| R-sq | 0.920 | 0.910 | 0.884 | 0.918 | 0.913 | 0.900 | 0.902 | 0.903 |
| S.E. | 0.355 | 0.376 | 0.420 | 0.382 | 0.367 | 0.408 | 0.388 | 0.382 |
| # Obs. | 992 | 1155 | 1113 | 833 | 808 | 851 | 972 | 830 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

| | 2003q1 | 2003q2 | 2003q3 | 2003q4 | 2004q1 | 2004q2 | 2004q3 | 2004q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.869 | 3.885 | 3.804 | 3.643 | 3.812 | 3.737 | 3.636 | 3.775 |
| | (0.047) | (0.046) | (0.036) | (0.032) | (0.043) | (0.032) | (0.039) | (0.041) |
| LOG(SQ) | 0.932 | 0.933 | 0.946 | 0.962 | 0.947 | 0.970 | 0.981 | 0.975 |
| | (0.011) | (0.011) | (0.008) | (0.008) | (0.010) | (0.008) | (0.008) | (0.009) |
| STRY | 0.065 | 0.072 | 0.067 | 0.156 | 0.046 | 0.066 | 0.152 | 0.051 |
| | (0.034) | (0.029) | (0.029) | (0.024) | (0.033) | (0.022) | (0.032) | (0.034) |
| D_ALT | 0.037 | 0.000 | 0.015 | -0.021 | 0.043 | 0.087 | 0.131 | 0.020 |
| | (0.036) | (0.037) | (0.028) | (0.026) | (0.031) | (0.030) | (0.031) | (0.031) |
| D_REF | 0.253 | 0.147 | 0.082 | -0.008 | 0.025 | 0.034 | 0.106 | 0.063 |
| | (0.081) | (0.082) | (0.065) | (0.058) | (0.062) | (0.063) | (0.049) | (0.076) |
| R-sq | 0.910 | 0.911 | 0.927 | 0.935 | 0.903 | 0.919 | 0.925 | 0.925 |
| S.E. | 0.369 | 0.381 | 0.361 | 0.344 | 0.427 | 0.386 | 0.376 | 0.373 |
| # Obs. | 783 | 791 | 1185 | 1187 | 1125 | 1322 | 1247 | 1065 |

OFFICES

| | 1995q1 | 1995q2 | 1995q3 | 1995q4 | 1996q1 | 1996q2 | 1996q3 | 1996q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.259 | 4.295 | 4.365 | 4.285 | 4.343 | 4.348 | 4.329 | 4.368 |
| | (0.016) | (0.012) | (0.011) | (0.013) | (0.013) | (0.011) | (0.009) | (0.009) |
| LOG(SQ) | 0.851 | 0.890 | 0.884 | 0.899 | 0.910 | 0.923 | 0.917 | 0.921 |
| | (0.007) | (0.006) | (0.005) | (0.006) | (0.006) | (0.005) | (0.004) | (0.004) |
| STRY | 0.124 | 0.066 | 0.030 | 0.076 | 0.021 | 0.022 | 0.046 | 0.020 |
| | (0.012) | (0.007) | (0.005) | (0.008) | (0.005) | (0.004) | (0.005) | (0.004) |
| D_ALT | 0.050 | 0.032 | -0.011 | 0.051 | 0.044 | 0.004 | 0.056 | 0.028 |
| | (0.016) | (0.013) | (0.014) | (0.014) | (0.017) | (0.015) | (0.012) | (0.012) |
| D_BANK | 0.464 | 0.432 | 0.408 | 0.422 | 0.423 | 0.384 | 0.392 | 0.412 |
| | (0.021) | (0.017) | (0.018) | (0.018) | (0.022) | (0.018) | (0.014) | (0.016) |
| R-sq | 0.912 | 0.926 | 0.914 | 0.928 | 0.917 | 0.934 | 0.941 | 0.943 |
| S.E. | 0.342 | 0.314 | 0.339 | 0.315 | 0.344 | 0.323 | 0.289 | 0.288 |
| # Obs. | 2431 | 2893 | 3005 | 2650 | 2305 | 2682 | 3682 | 3324 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

| | 1997q1 | 1997q2 | 1997q3 | 1997q4 | 1998q1 | 1998q2 | 1998q3 | 1998q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.266 | 4.225 | 4.265 | 4.267 | 4.278 | 4.270 | 4.280 | 4.238 |
| | (0.013) | (0.013) | (0.012) | (0.011) | (0.012) | (0.012) | (0.012) | (0.008) |
| LOG(SQ) | 0.925 | 0.926 | 0.926 | 0.946 | 0.956 | 0.944 | 0.936 | 0.948 |
| | (0.006) | (0.006) | (0.006) | (0.005) | (0.006) | (0.005) | (0.005) | (0.004) |
| STRY | 0.046 | 0.048 | 0.058 | 0.035 | 0.024 | 0.046 | 0.056 | 0.062 |
| | (0.006) | (0.006) | (0.006) | (0.005) | (0.004) | (0.005) | (0.005) | (0.005) |
| D_ALT | -0.029 | 0.031 | 0.008 | 0.010 | -0.008 | 0.005 | -0.007 | 0.044 |
| | (0.016) | (0.018) | (0.015) | (0.014) | (0.017) | (0.015) | (0.017) | (0.012) |
| D_BANK | 0.540 | 0.424 | 0.427 | 0.411 | 0.398 | 0.322 | 0.368 | 0.251 |
| | (0.024) | (0.023) | (0.020) | (0.019) | (0.021) | (0.018) | (0.019) | (0.013) |
| R-sq | 0.916 | 0.889 | 0.924 | 0.930 | 0.933 | 0.935 | 0.935 | 0.948 |
| S.E. | 0.358 | 0.421 | 0.367 | 0.352 | 0.357 | 0.359 | 0.373 | 0.315 |
| # Obs. | 2646 | 3463 | 3442 | 3640 | 2931 | 3579 | 3463 | 4532 |

| | 1999q1 | 1999q2 | 1999q3 | 1999q4 | 2000q1 | 2000q2 | 2000q3 | 2000q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.250 | 4.256 | 4.281 | 4.253 | 4.246 | 4.247 | 4.262 | 4.294 |
| | (0.010) | (0.010) | (0.010) | (0.011) | (0.011) | (0.011) | (0.009) | (0.010) |
| LOG(SQ) | 0.959 | 0.967 | 0.962 | 0.967 | 0.965 | 0.969 | 0.968 | 0.964 |
| | (0.005) | (0.005) | (0.005) | (0.005) | (0.005) | (0.005) | (0.005) | (0.005) |
| STRY | 0.046 | 0.039 | 0.031 | 0.041 | 0.038 | 0.039 | 0.040 | 0.033 |
| | (0.004) | (0.004) | (0.003) | (0.005) | (0.004) | (0.004) | (0.005) | (0.004) |
| D_ALT | 0.022 | -0.024 | -0.002 | 0.012 | 0.102 | 0.098 | 0.032 | 0.111 |
| | (0.014) | (0.015) | (0.016) | (0.016) | (0.017) | (0.016) | (0.013) | (0.015) |
| D_BANK | 0.368 | 0.397 | 0.348 | 0.429 | 0.394 | 0.474 | 0.420 | 0.452 |
| | (0.017) | (0.017) | (0.019) | (0.019) | (0.020) | (0.020) | (0.017) | (0.018) |
| R-sq | 0.944 | 0.947 | 0.944 | 0.944 | 0.936 | 0.941 | 0.952 | 0.951 |
| S.E. | 0.325 | 0.329 | 0.349 | 0.344 | 0.346 | 0.341 | 0.297 | 0.311 |
| # Obs. | 3616 | 3495 | 3530 | 3198 | 3199 | 3282 | 3762 | 3256 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

| | 2001q1 | 2001q2 | 2001q3 | 2001q4 | 2002q1 | 2002q2 | 2002q3 | 2002q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.276 | 4.303 | 4.260 | 4.317 | 4.313 | 4.323 | 4.342 | 4.325 |
| | (0.012) | (0.014) | (0.011) | (0.015) | (0.013) | (0.016) | (0.016) | (0.018) |
| LOG(SQ) | 0.953 | 0.963 | 0.977 | 0.917 | 0.928 | 0.932 | 0.845 | 0.928 |
| | (0.006) | (0.006) | (0.005) | (0.008) | (0.008) | (0.008) | (0.009) | (0.009) |
| STRY | 0.061 | 0.031 | 0.032 | 0.097 | 0.094 | 0.074 | 0.193 | 0.051 |
| | (0.005) | (0.005) | (0.004) | (0.008) | (0.007) | (0.006) | (0.010) | (0.005) |
| D_ALT | 0.051 | 0.040 | 0.070 | 0.082 | 0.005 | 0.042 | 0.001 | 0.029 |
| | (0.017) | (0.018) | (0.016) | (0.021) | (0.017) | (0.020) | (0.019) | (0.022) |
| D_BANK | 0.394 | 0.358 | 0.381 | 0.325 | 0.315 | 0.417 | 0.400 | 0.435 |
| | (0.020) | (0.020) | (0.017) | (0.023) | (0.018) | (0.021) | (0.020) | (0.023) |
| R-sq | 0.952 | 0.926 | 0.931 | 0.902 | 0.925 | 0.908 | 0.894 | 0.879 |
| S.E. | 0.312 | 0.357 | 0.333 | 0.385 | 0.318 | 0.359 | 0.359 | 0.391 |
| # Obs. | 2639 | 2805 | 3259 | 2448 | 2462 | 2370 | 2447 | 2329 |

| | 2003q1 | 2003q2 | 2003q3 | 2003q4 | 2004q1 | 2004q2 | 2004q3 | 2004q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.308 | 4.321 | 4.374 | 4.323 | 4.415 | 4.305 | 4.340 | 4.323 |
| | (0.018) | (0.018) | (0.015) | (0.015) | (0.017) | (0.014) | (0.013) | (0.015) |
| LOG(SQ) | 0.892 | 0.936 | 0.936 | 0.931 | 0.906 | 0.955 | 0.946 | 0.978 |
| | (0.010) | (0.008) | (0.006) | (0.007) | (0.007) | (0.006) | (0.006) | (0.006) |
| STRY | 0.157 | 0.063 | 0.024 | 0.066 | 0.039 | 0.045 | 0.042 | 0.024 |
| | (0.010) | (0.006) | (0.004) | (0.007) | (0.004) | (0.005) | (0.004) | (0.004) |
| D_ALT | -0.023 | -0.062 | 0.081 | 0.107 | 0.126 | 0.186 | 0.180 | 0.165 |
| | (0.022) | (0.022) | (0.018) | (0.018) | (0.020) | (0.019) | (0.018) | (0.019) |
| D_BANK | 0.431 | 0.526 | 0.531 | 0.543 | 0.548 | 0.572 | 0.561 | 0.528 |
| | (0.024) | (0.021) | (0.017) | (0.017) | (0.020) | (0.016) | (0.016) | (0.019) |
| R-sq | 0.889 | 0.903 | 0.911 | 0.913 | 0.896 | 0.918 | 0.922 | 0.922 |
| S.E. | 0.390 | 0.371 | 0.334 | 0.328 | 0.373 | 0.335 | 0.326 | 0.337 |
| # Obs. | 2154 | 2148 | 2425 | 2478 | 2418 | 2748 | 2750 | 2318 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

MANUFACTURING

| | 1995q1 | 1995q2 | 1995q3 | 1995q4 | 1996q1 | 1996q2 | 1996q3 | 1996q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.813 | 3.697 | 3.710 | 3.696 | 3.665 | 3.774 | 3.717 | 3.728 |
| | (0.042) | (0.048) | (0.052) | (0.041) | (0.055) | (0.042) | (0.038) | (0.047) |
| LOG(SQ) | 0.951 | 0.927 | 0.939 | 0.966 | 0.977 | 0.950 | 0.974 | 0.954 |
| | (0.011) | (0.010) | (0.010) | (0.010) | (0.011) | (0.010) | (0.009) | (0.010) |
| STRY | 0.106 | 0.285 | 0.234 | 0.182 | 0.221 | 0.182 | 0.156 | 0.198 |
| | (0.025) | (0.037) | (0.044) | (0.029) | (0.046) | (0.030) | (0.027) | (0.036) |
| D_ALT | 0.031 | 0.015 | 0.026 | 0.005 | 0.041 | 0.016 | -0.022 | 0.014 |
| | (0.031) | (0.029) | (0.028) | (0.028) | (0.033) | (0.029) | (0.027) | (0.028) |
| R-sq | 0.897 | 0.898 | 0.898 | 0.908 | 0.914 | 0.917 | 0.914 | 0.909 |
| S.E. | 0.473 | 0.479 | 0.466 | 0.448 | 0.461 | 0.438 | 0.440 | 0.438 |
| # Obs. | 947 | 1166 | 1151 | 1090 | 791 | 981 | 1204 | 1054 |

| | 1997q1 | 1997q2 | 1997q3 | 1997q4 | 1998q1 | 1998q2 | 1998q3 | 1998q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.675 | 3.646 | 3.699 | 3.682 | 3.709 | 3.668 | 3.892 | 3.659 |
| | (0.038) | (0.037) | (0.032) | (0.034) | (0.035) | (0.039) | (0.036) | (0.035) |
| LOG(SQ) | 0.970 | 0.963 | 0.969 | 0.936 | 0.978 | 0.977 | 0.965 | 0.977 |
| | (0.010) | (0.010) | (0.009) | (0.010) | (0.011) | (0.011) | (0.011) | (0.010) |
| STRY | 0.153 | 0.212 | 0.168 | 0.213 | 0.134 | 0.167 | 0.010 | 0.166 |
| | (0.025) | (0.028) | (0.024) | (0.023) | (0.024) | (0.028) | (0.006) | (0.027) |
| D_ALT | 0.043 | 0.011 | 0.047 | 0.078 | 0.064 | 0.105 | 0.017 | 0.098 |
| | (0.028) | (0.028) | (0.025) | (0.026) | (0.029) | (0.029) | (0.030) | (0.028) |
| R-sq | 0.910 | 0.907 | 0.916 | 0.897 | 0.918 | 0.910 | 0.893 | 0.922 |
| S.E. | 0.432 | 0.451 | 0.407 | 0.437 | 0.395 | 0.421 | 0.461 | 0.407 |
| # Obs. | 991 | 1189 | 1259 | 1288 | 885 | 975 | 998 | 1016 |

| | 1999q1 | 1999q2 | 1999q3 | 1999q4 | 2000q1 | 2000q2 | 2000q3 | 2000q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.726 | 3.607 | 3.661 | 3.649 | 3.674 | 3.638 | 3.694 | 3.594 |
| | (0.043) | (0.044) | (0.039) | (0.043) | (0.059) | (0.052) | (0.049) | (0.047) |
| LOG(SQ) | 0.964 | 0.967 | 0.996 | 0.998 | 0.960 | 0.958 | 0.974 | 0.962 |
| | (0.012) | (0.012) | (0.011) | (0.013) | (0.016) | (0.013) | (0.013) | (0.013) |
| STRY | 0.189 | 0.275 | 0.151 | 0.160 | 0.225 | 0.279 | 0.220 | 0.325 |
| | (0.028) | (0.035) | (0.028) | (0.029) | (0.045) | (0.037) | (0.036) | (0.036) |
| D_ALT | 0.037 | 0.123 | 0.074 | 0.111 | 0.142 | 0.099 | 0.172 | 0.171 |
| | (0.033) | (0.034) | (0.031) | (0.039) | (0.046) | (0.037) | (0.037) | (0.035) |
| R-sq | 0.912 | 0.911 | 0.940 | 0.925 | 0.882 | 0.913 | 0.909 | 0.930 |
| S.E. | 0.426 | 0.450 | 0.381 | 0.457 | 0.513 | 0.427 | 0.451 | 0.376 |
| # Obs. | 766 | 841 | 703 | 634 | 563 | 601 | 654 | 538 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

| | 2001q1 | 2001q2 | 2001q3 | 2001q4 | 2002q1 | 2002q2 | 2002q3 | 2002q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.560 | 3.705 | 3.775 | 3.725 | 3.773 | 3.813 | 3.904 | 3.749 |
| | (0.049) | (0.053) | (0.044) | (0.059) | (0.061) | (0.063) | (0.066) | (0.049) |
| LOG(SQ) | 1.009 | 1.009 | 1.010 | 0.976 | 0.940 | 0.975 | 0.883 | 0.979 |
| | (0.013) | (0.016) | (0.013) | (0.018) | (0.023) | (0.020) | (0.021) | (0.018) |
| STRY | 0.267 | 0.177 | 0.070 | 0.197 | 0.338 | 0.157 | 0.334 | 0.198 |
| | (0.036) | (0.028) | (0.020) | (0.037) | (0.056) | (0.039) | (0.054) | (0.046) |
| D_ALT | 0.126 | 0.076 | 0.058 | 0.114 | 0.076 | 0.069 | 0.024 | 0.017 |
| | (0.038) | (0.042) | (0.040) | (0.049) | (0.053) | (0.050) | (0.049) | (0.042) |
| R-sq | 0.941 | 0.899 | 0.927 | 0.906 | 0.891 | 0.882 | 0.873 | 0.935 |
| S.E. | 0.372 | 0.465 | 0.402 | 0.450 | 0.451 | 0.466 | 0.458 | 0.376 |
| # Obs. | 467 | 532 | 500 | 373 | 339 | 387 | 366 | 338 |

| | 2003q1 | 2003q2 | 2003q3 | 2003q4 | 2004q1 | 2004q2 | 2004q3 | 2004q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.688 | 3.717 | 3.758 | 3.780 | 3.524 | 3.823 | 3.806 | 3.889 |
| | (0.055) | (0.060) | (0.062) | (0.087) | (0.140) | (0.056) | (0.081) | (0.077) |
| LOG(SQ) | 0.976 | 0.985 | 1.010 | 1.001 | 0.973 | 1.001 | 0.982 | 0.985 |
| | (0.019) | (0.022) | (0.016) | (0.017) | (0.025) | (0.016) | (0.015) | (0.019) |
| STRY | 0.272 | 0.276 | 0.116 | 0.116 | 0.424 | 0.072 | 0.152 | 0.085 |
| | (0.044) | (0.055) | (0.041) | (0.070) | (0.119) | (0.034) | (0.061) | (0.044) |
| D_ALT | 0.113 | 0.020 | 0.082 | 0.159 | 0.203 | 0.206 | 0.123 | 0.077 |
| | (0.049) | (0.054) | (0.045) | (0.047) | (0.069) | (0.047) | (0.046) | (0.055) |
| R-sq | 0.923 | 0.915 | 0.932 | 0.917 | 0.859 | 0.919 | 0.921 | 0.903 |
| S.E. | 0.430 | 0.465 | 0.375 | 0.415 | 0.565 | 0.425 | 0.415 | 0.462 |
| # Obs. | 340 | 324 | 323 | 324 | 291 | 372 | 358 | 306 |

SCHOOLS (PRIVATE)

| | 1995q1 | 1995q2 | 1995q3 | 1995q4 | 1996q1 | 1996q2 | 1996q3 | 1996q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.126 | 4.221 | 4.206 | 4.091 | 4.160 | 4.254 | 4.244 | 4.344 |
| | (0.052) | (0.054) | (0.044) | (0.060) | (0.056) | (0.061) | (0.037) | (0.061) |
| LOG(SQ) | 0.905 | 0.899 | 0.888 | 0.859 | 0.936 | 0.889 | 0.957 | 0.892 |
| | (0.019) | (0.021) | (0.017) | (0.022) | (0.020) | (0.021) | (0.014) | (0.022) |
| STRY | 0.263 | 0.188 | 0.234 | 0.380 | 0.207 | 0.242 | 0.163 | 0.173 |
| | (0.040) | (0.034) | (0.034) | (0.047) | (0.045) | (0.049) | (0.025) | (0.052) |
| D_ALT | 0.080 | 0.130 | 0.047 | -0.024 | 0.163 | 0.200 | 0.059 | 0.100 |
| | (0.047) | (0.050) | (0.042) | (0.055) | (0.052) | (0.049) | (0.035) | (0.052) |
| R-sq | 0.931 | 0.858 | 0.911 | 0.898 | 0.915 | 0.855 | 0.935 | 0.889 |
| S.E. | 0.360 | 0.486 | 0.386 | 0.413 | 0.390 | 0.460 | 0.351 | 0.424 |
| # Obs. | 261 | 402 | 382 | 271 | 274 | 382 | 444 | 301 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

| | 1997q1 | 1997q2 | 1997q3 | 1997q4 | 1998q1 | 1998q2 | 1998q3 | 1998q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.039 | 4.066 | 4.063 | 4.192 | 4.094 | 4.173 | 4.132 | 4.089 |
| | (0.065) | (0.048) | (0.048) | (0.051) | (0.060) | (0.064) | (0.047) | (0.048) |
| LOG(SQ) | 0.963 | 0.930 | 0.987 | 0.958 | 0.966 | 0.913 | 0.993 | 0.962 |
| | (0.027) | (0.022) | (0.021) | (0.023) | (0.028) | (0.026) | (0.022) | (0.020) |
| STRY | 0.248 | 0.258 | 0.239 | 0.192 | 0.250 | 0.284 | 0.180 | 0.236 |
| | (0.041) | (0.030) | (0.032) | (0.034) | (0.037) | (0.041) | (0.030) | (0.039) |
| D_ALT | 0.190 | 0.222 | 0.235 | 0.043 | 0.114 | 0.212 | 0.209 | 0.233 |
| | (0.059) | (0.045) | (0.046) | (0.052) | (0.054) | (0.054) | (0.047) | (0.048) |
| R-sq | 0.885 | 0.877 | 0.902 | 0.903 | 0.883 | 0.818 | 0.895 | 0.906 |
| S.E. | 0.454 | 0.461 | 0.443 | 0.425 | 0.449 | 0.539 | 0.464 | 0.436 |
| # Obs. | 261 | 432 | 431 | 318 | 289 | 417 | 438 | 413 |

| | 1999q1 | 1999q2 | 1999q3 | 1999q4 | 2000q1 | 2000q2 | 2000q3 | 2000q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.134 | 4.115 | 4.141 | 4.087 | 4.173 | 4.196 | 4.130 | 4.164 |
| | (0.057) | (0.040) | (0.041) | (0.043) | (0.043) | (0.055) | (0.043) | (0.046) |
| LOG(SQ) | 0.984 | 1.000 | 1.004 | 1.013 | 0.996 | 0.952 | 0.961 | 0.970 |
| | (0.024) | (0.017) | (0.017) | (0.019) | (0.019) | (0.023) | (0.019) | (0.021) |
| STRY | 0.188 | 0.203 | 0.175 | 0.201 | 0.155 | 0.255 | 0.273 | 0.226 |
| | (0.043) | (0.025) | (0.031) | (0.030) | (0.024) | (0.032) | (0.028) | (0.029) |
| D_ALT | 0.199 | 0.115 | 0.159 | 0.215 | 0.136 | 0.178 | 0.140 | 0.197 |
| | (0.052) | (0.037) | (0.038) | (0.044) | (0.040) | (0.044) | (0.042) | (0.047) |
| R-sq | 0.882 | 0.919 | 0.914 | 0.936 | 0.918 | 0.860 | 0.905 | 0.907 |
| S.E. | 0.473 | 0.404 | 0.424 | 0.382 | 0.373 | 0.480 | 0.440 | 0.426 |
| # Obs. | 373 | 488 | 540 | 363 | 410 | 493 | 492 | 390 |

| | 2001q1 | 2001q2 | 2001q3 | 2001q4 | 2002q1 | 2002q2 | 2002q3 | 2002q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.193 | 4.262 | 4.077 | 4.149 | 4.371 | 4.372 | 4.259 | 4.190 |
| | (0.050) | (0.060) | (0.048) | (0.057) | (0.050) | (0.056) | (0.054) | (0.062) |
| LOG(SQ) | 0.951 | 0.925 | 0.998 | 1.026 | 0.934 | 0.934 | 0.945 | 1.033 |
| | (0.021) | (0.025) | (0.021) | (0.024) | (0.024) | (0.025) | (0.024) | (0.024) |
| STRY | 0.248 | 0.297 | 0.256 | 0.184 | 0.185 | 0.182 | 0.238 | 0.097 |
| | (0.026) | (0.037) | (0.033) | (0.028) | (0.031) | (0.029) | (0.029) | (0.016) |
| D_ALT | 0.136 | 0.180 | 0.171 | 0.226 | 0.027 | 0.122 | 0.143 | 0.211 |
| | (0.046) | (0.052) | (0.045) | (0.053) | (0.050) | (0.049) | (0.048) | (0.056) |
| R-sq | 0.920 | 0.850 | 0.880 | 0.900 | 0.890 | 0.849 | 0.879 | 0.874 |
| S.E. | 0.400 | 0.560 | 0.484 | 0.451 | 0.446 | 0.514 | 0.500 | 0.469 |
| # Obs. | 347 | 509 | 523 | 339 | 380 | 462 | 459 | 306 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

| | 2003q1 | 2003q2 | 2003q3 | 2003q4 | 2004q1 | 2004q2 | 2004q3 | 2004q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.377 | 4.378 | 4.556 | 4.371 | 4.574 | 4.390 | 4.721 | 4.389 |
| | (0.069) | (0.060) | (0.058) | (0.068) | (0.064) | (0.063) | (0.061) | (0.059) |
| LOG(SQ) | 0.845 | 0.880 | 0.914 | 0.916 | 0.922 | 0.931 | 0.924 | 0.969 |
| | (0.032) | (0.027) | (0.020) | (0.024) | (0.026) | (0.023) | (0.023) | (0.024) |
| STRY | 0.369 | 0.327 | 0.167 | 0.315 | 0.158 | 0.226 | 0.018 | 0.177 |
| | (0.044) | (0.031) | (0.031) | (0.043) | (0.033) | (0.040) | (0.038) | (0.035) |
| D_ALT | 0.098 | 0.074 | 0.160 | 0.179 | 0.168 | 0.220 | 0.225 | 0.107 |
| | (0.063) | (0.054) | (0.053) | (0.060) | (0.064) | (0.055) | (0.064) | (0.059) |
| R-sq | 0.849 | 0.874 | 0.884 | 0.893 | 0.888 | 0.873 | 0.846 | 0.911 |
| S.E. | 0.524 | 0.504 | 0.505 | 0.474 | 0.483 | 0.513 | 0.552 | 0.424 |
| # Obs. | 319 | 391 | 384 | 286 | 265 | 372 | 371 | 248 |

APARTMENTS

| | 1995q1 | 1995q2 | 1995q3 | 1995q4 | 1996q1 | 1996q2 | 1996q3 | 1996q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.003 | 3.907 | 3.944 | 3.928 | 3.962 | 3.978 | 3.971 | 3.989 |
| | (0.023) | (0.021) | (0.018) | (0.021) | (0.022) | (0.022) | (0.018) | (0.019) |
| LOG(SQ) | 0.943 | 0.956 | 0.951 | 0.962 | 0.966 | 0.956 | 0.969 | 0.959 |
| | (0.007) | (0.006) | (0.006) | (0.006) | (0.007) | (0.007) | (0.006) | (0.006) |
| STRY | 0.016 | 0.043 | 0.039 | 0.032 | 0.017 | 0.027 | 0.021 | 0.024 |
| | (0.004) | (0.006) | (0.004) | (0.006) | (0.004) | (0.004) | (0.004) | (0.004) |
| R-sq | 0.949 | 0.956 | 0.956 | 0.957 | 0.959 | 0.954 | 0.962 | 0.947 |
| S.E. | 0.334 | 0.313 | 0.314 | 0.311 | 0.317 | 0.326 | 0.309 | 0.308 |
| # Obs. | 1036 | 1158 | 1358 | 1130 | 913 | 1041 | 1271 | 1489 |

| | 1997q1 | 1997q2 | 1997q3 | 1997q4 | 1998q1 | 1998q2 | 1998q3 | 1998q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.888 | 3.927 | 3.890 | 3.968 | 3.967 | 3.950 | 3.905 | 3.895 |
| | (0.018) | (0.017) | (0.015) | (0.016) | (0.018) | (0.015) | (0.019) | (0.015) |
| LOG(SQ) | 0.978 | 0.957 | 0.973 | 0.958 | 0.957 | 0.976 | 0.991 | 0.977 |
| | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.005) | (0.006) | (0.005) |
| STRY | 0.028 | 0.037 | 0.049 | 0.038 | 0.036 | 0.026 | 0.031 | 0.042 |
| | (0.003) | (0.004) | (0.004) | (0.004) | (0.004) | (0.003) | (0.004) | (0.004) |
| R-sq | 0.955 | 0.937 | 0.949 | 0.939 | 0.940 | 0.951 | 0.947 | 0.954 |
| S.E. | 0.321 | 0.358 | 0.317 | 0.353 | 0.349 | 0.338 | 0.366 | 0.341 |
| # Obs. | 1398 | 2028 | 2107 | 2227 | 1892 | 2134 | 1708 | 2256 |

Table 6 - Quarterly Indexes and Regression Results for Selected Nonresidential Buildings and Apartments (Cont.)

| | 1999q1 | 1999q2 | 1999q3 | 1999q4 | 2000q1 | 2000q2 | 2000q3 | 2000q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.970 | 4.010 | 3.956 | 3.968 | 4.039 | 4.061 | 4.078 | 4.084 |
| | (0.018) | (0.017) | (0.017) | (0.018) | (0.019) | (0.020) | (0.019) | (0.023) |
| LOG(SQ) | 0.961 | 0.967 | 0.975 | 0.964 | 0.956 | 0.945 | 0.940 | 0.951 |
| | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.007) | (0.007) |
| STRY | 0.038 | 0.026 | 0.031 | 0.044 | 0.031 | 0.046 | 0.043 | 0.042 |
| | (0.004) | (0.003) | (0.003) | (0.004) | (0.004) | (0.003) | (0.004) | (0.003) |
| R-sq | 0.943 | 0.944 | 0.942 | 0.943 | 0.937 | 0.935 | 0.929 | 0.927 |
| S.E. | 0.378 | 0.370 | 0.369 | 0.385 | 0.383 | 0.389 | 0.407 | 0.436 |
| # Obs. | 1910 | 2175 | 2110 | 2025 | 1926 | 1901 | 1936 | 1685 |

| | 2001q1 | 2001q2 | 2001q3 | 2001q4 | 2002q1 | 2002q2 | 2002q3 | 2002q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 3.963 | 4.013 | 4.066 | 3.949 | 4.072 | 4.056 | 4.055 | 4.108 |
| | (0.018) | (0.017) | (0.016) | (0.016) | (0.014) | (0.015) | (0.016) | (0.018) |
| LOG(SQ) | 0.985 | 0.965 | 0.943 | 0.987 | 0.958 | 0.962 | 0.963 | 0.948 |
| | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) |
| STRY | 0.036 | 0.038 | 0.052 | 0.033 | 0.046 | 0.043 | 0.046 | 0.047 |
| | (0.003) | (0.003) | (0.004) | (0.003) | (0.003) | (0.003) | (0.003) | (0.004) |
| R-sq | 0.949 | 0.944 | 0.933 | 0.954 | 0.945 | 0.952 | 0.943 | 0.940 |
| S.E. | 0.364 | 0.377 | 0.397 | 0.358 | 0.375 | 0.359 | 0.396 | 0.408 |
| # Obs. | 1751 | 2101 | 2346 | 2133 | 2426 | 2203 | 2204 | 2013 |

| | 2003q1 | 2003q2 | 2003q3 | 2003q4 | 2004q1 | 2004q2 | 2004q3 | 2004q4 |
|---|---|---|---|---|---|---|---|---|
| Constant | 4.156 | 4.122 | 4.047 | 4.032 | 4.241 | 4.134 | 4.111 | 4.248 |
| | (0.018) | (0.017) | (0.018) | (0.017) | (0.019) | (0.017) | (0.019) | (0.019) |
| LOG(SQ) | 0.931 | 0.957 | 0.997 | 1.001 | 0.947 | 0.982 | 0.994 | 0.972 |
| | (0.007) | (0.006) | (0.006) | (0.006) | (0.006) | (0.005) | (0.006) | (0.006) |
| STRY | 0.052 | 0.044 | 0.031 | 0.035 | 0.043 | 0.035 | 0.034 | 0.032 |
| | (0.004) | (0.003) | (0.003) | (0.002) | (0.003) | (0.002) | (0.002) | (0.002) |
| R-sq | 0.933 | 0.935 | 0.949 | 0.953 | 0.939 | 0.947 | 0.947 | 0.949 |
| S.E. | 0.417 | 0.416 | 0.346 | 0.323 | 0.379 | 0.337 | 0.339 | 0.333 |
| # Obs. | 2093 | 2425 | 2051 | 2018 | 2016 | 2235 | 2122 | 1929 |

Figure 1 - Indexes for Stores

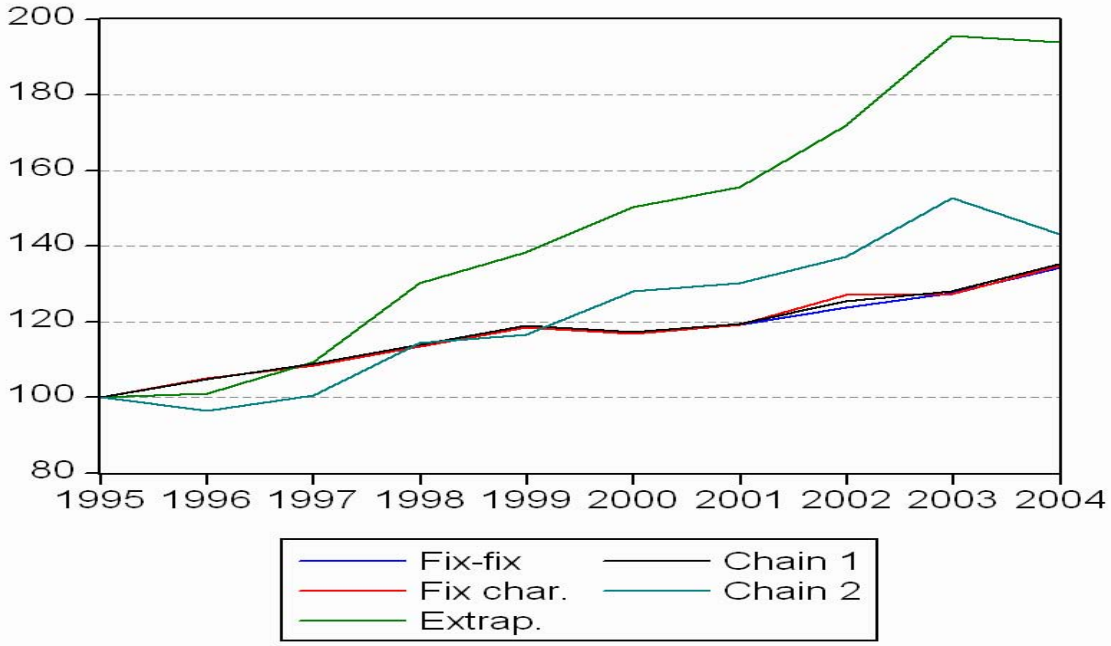



Figure 2 - Extrapolation Index and Avg. Contract Price

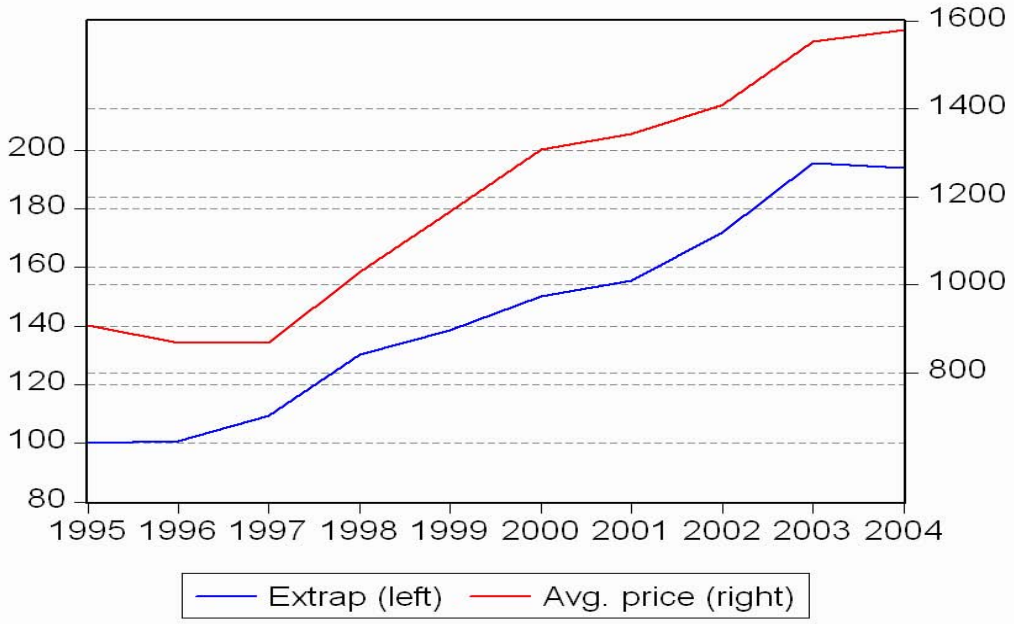


Figure 3 - Chain Index #2 and Avg. Sq. Footage

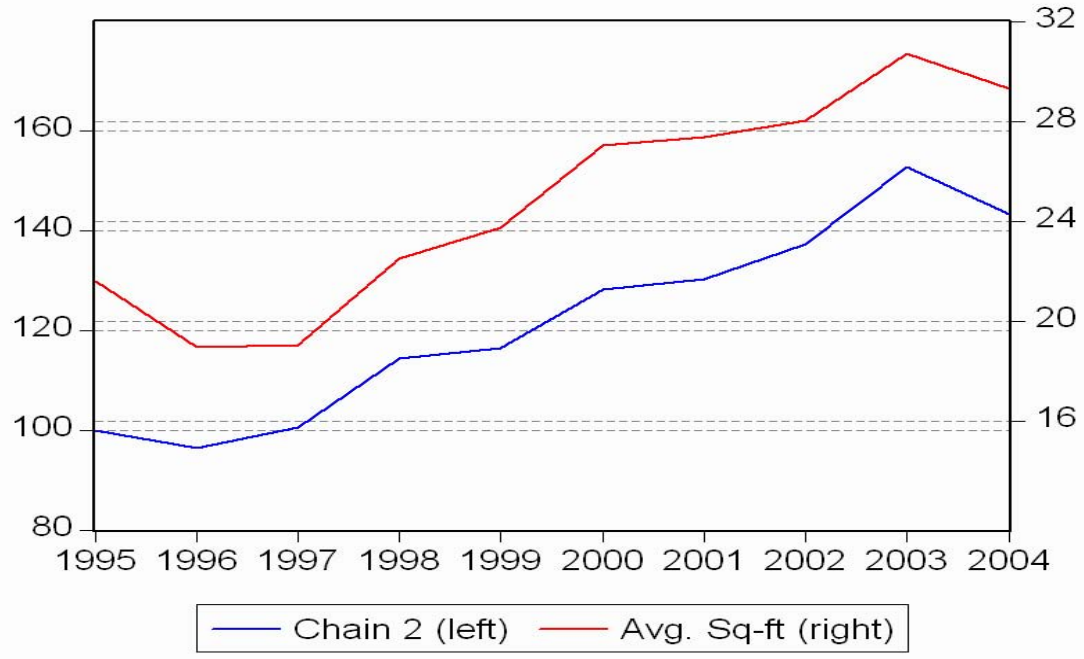
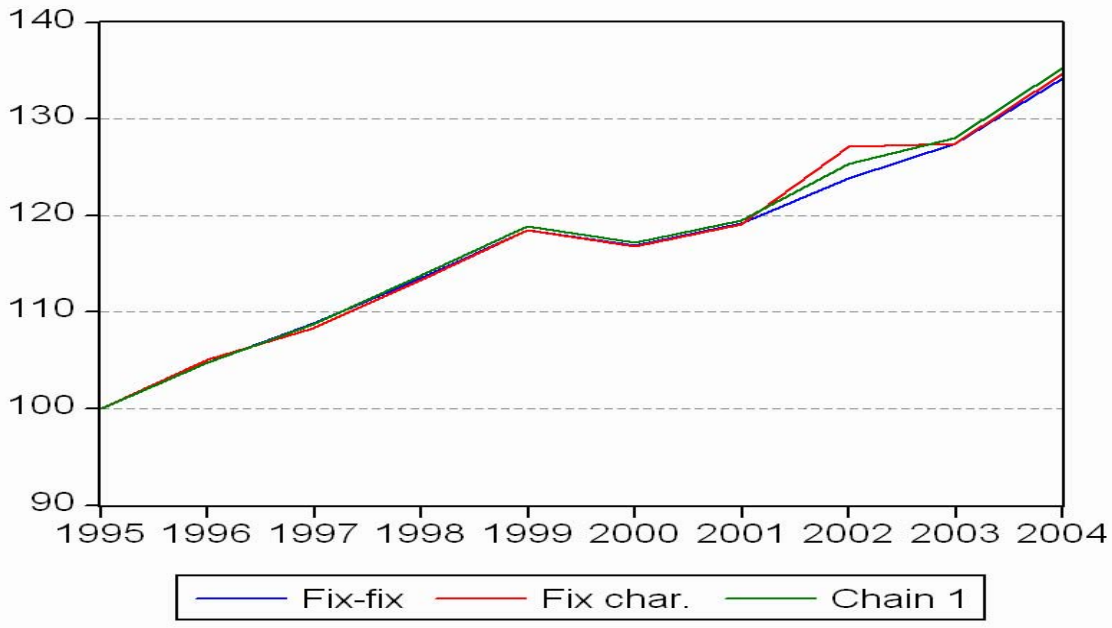



Figure 4 - Price Indexes for Stores



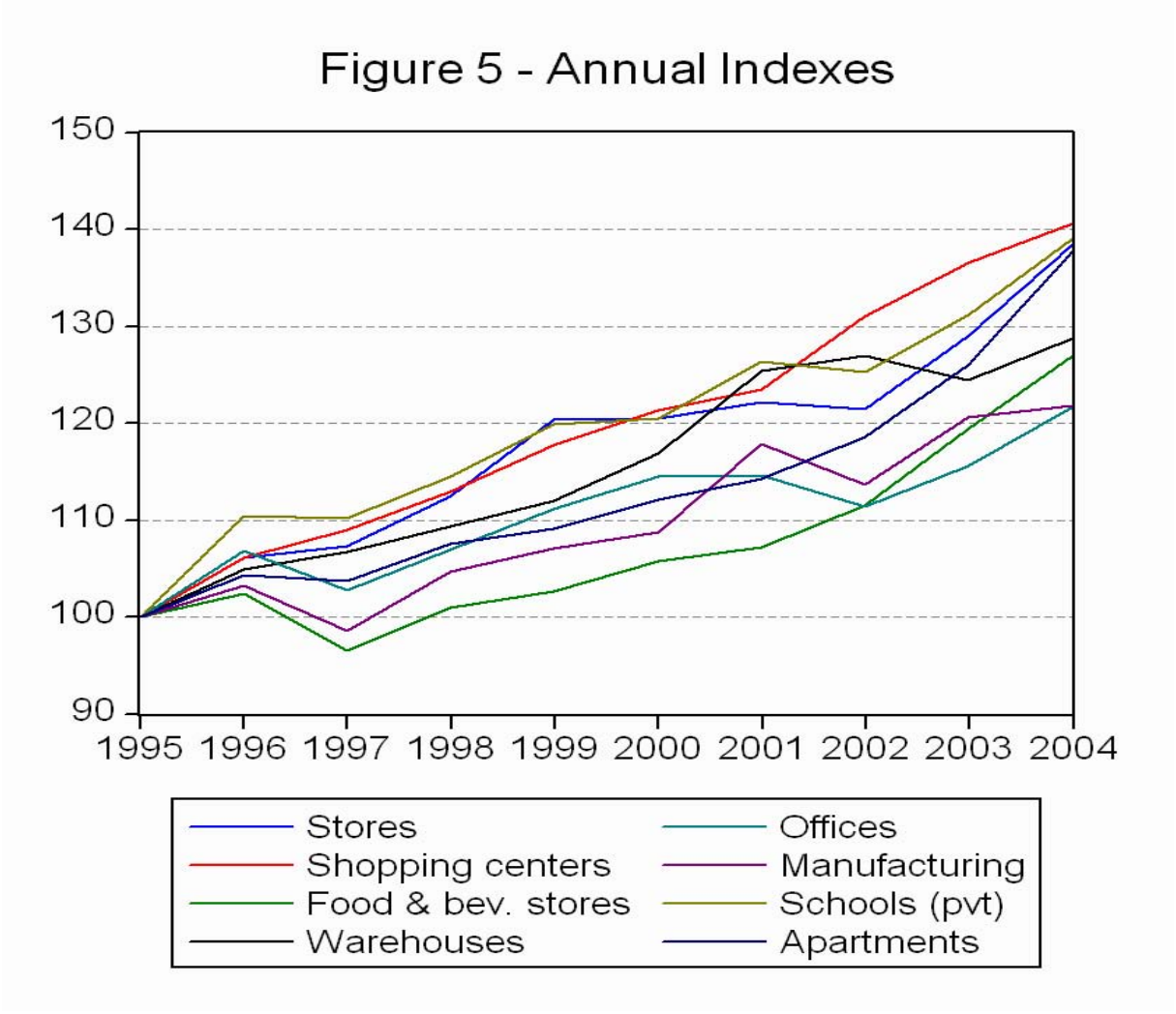


Figure 5 - Annual Indexes
150
140
130
120
110
100
90
1995 1996 1997 1998 1999 2000 2001 2002 2003 2004
Stores
Shopping centers
Food & bev. stores
Warehouses
Offices
Manufacturing
Schools (pvt)
Apartments

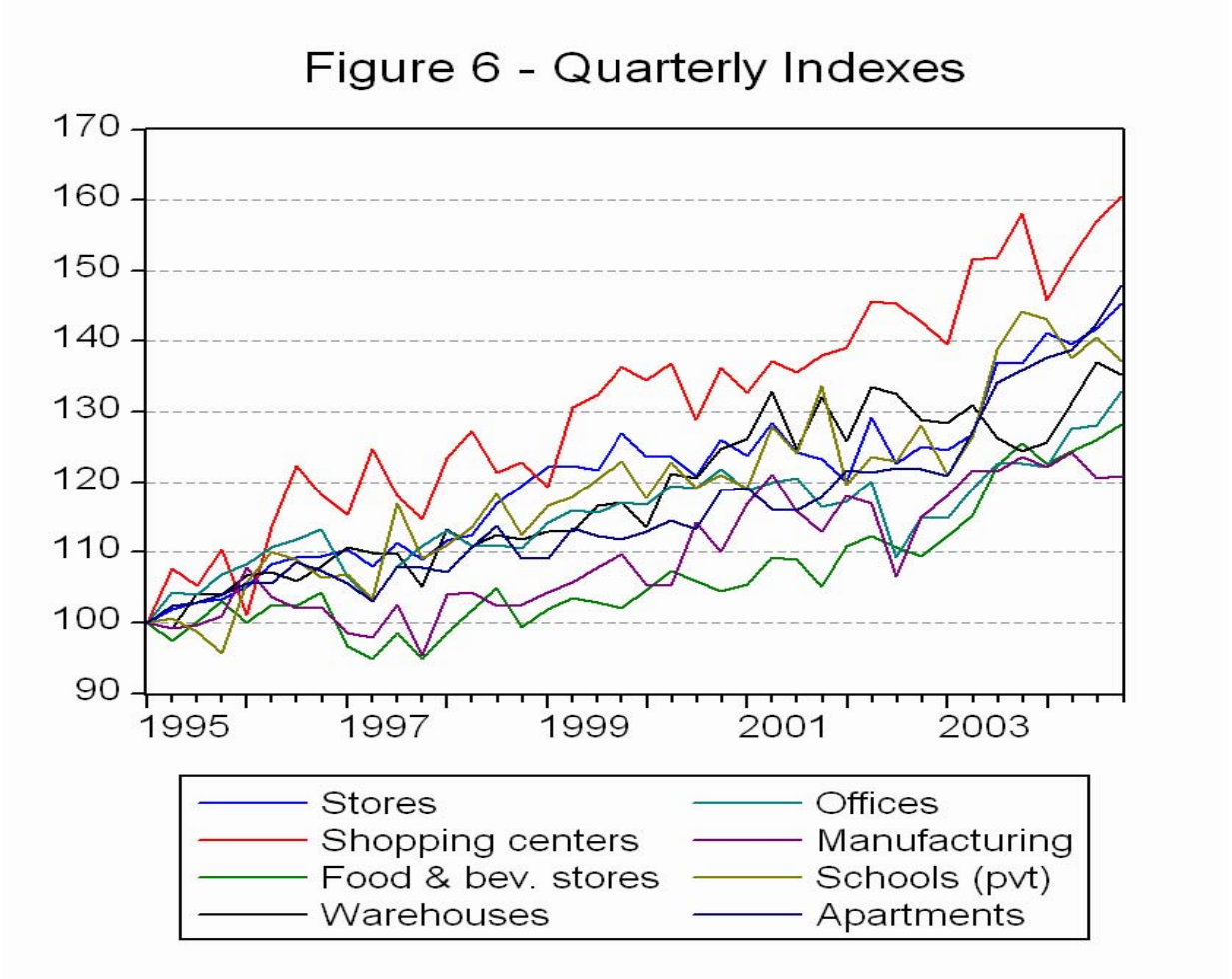


Figure 6 - Quarterly Indexes
170
160
150
140
130
120
110
100
90
1995
1997
1999
2001
2003
Stores
Shopping centers
Food & bev. stores
Warehouses
Offices
Manufacturing
Schools (pvt)
Apartments

Figure 7 - SA and NSA Indexes for Shopping Centers

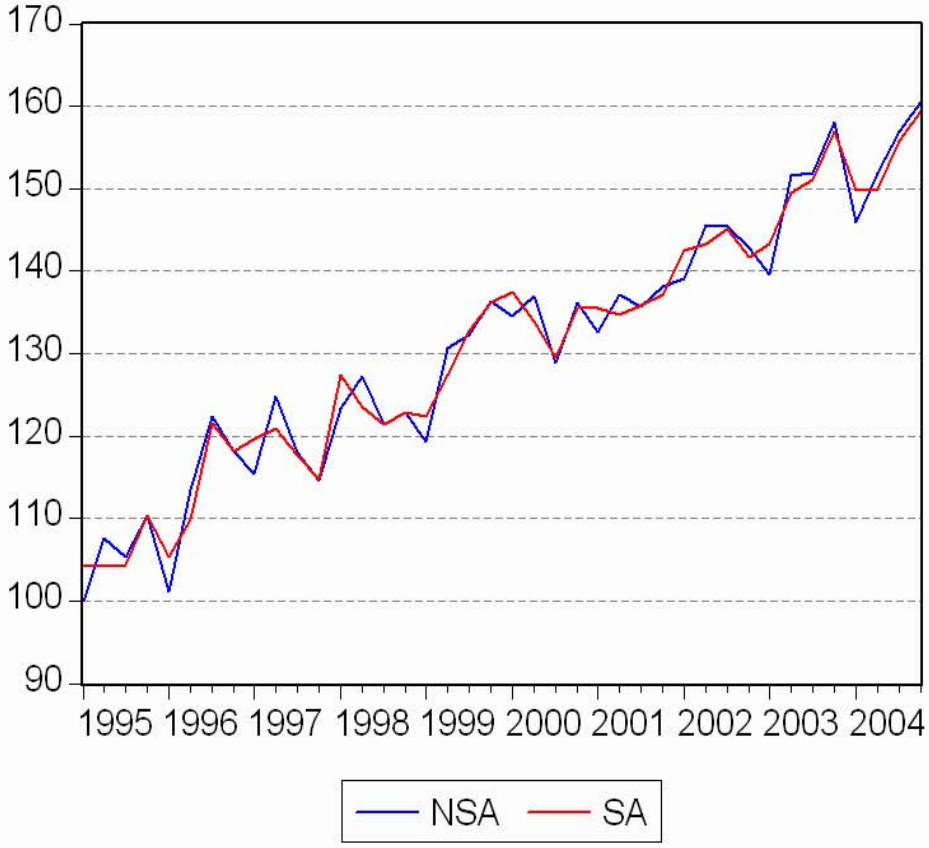


Figure 8 - Alternate Quarterly Indexes

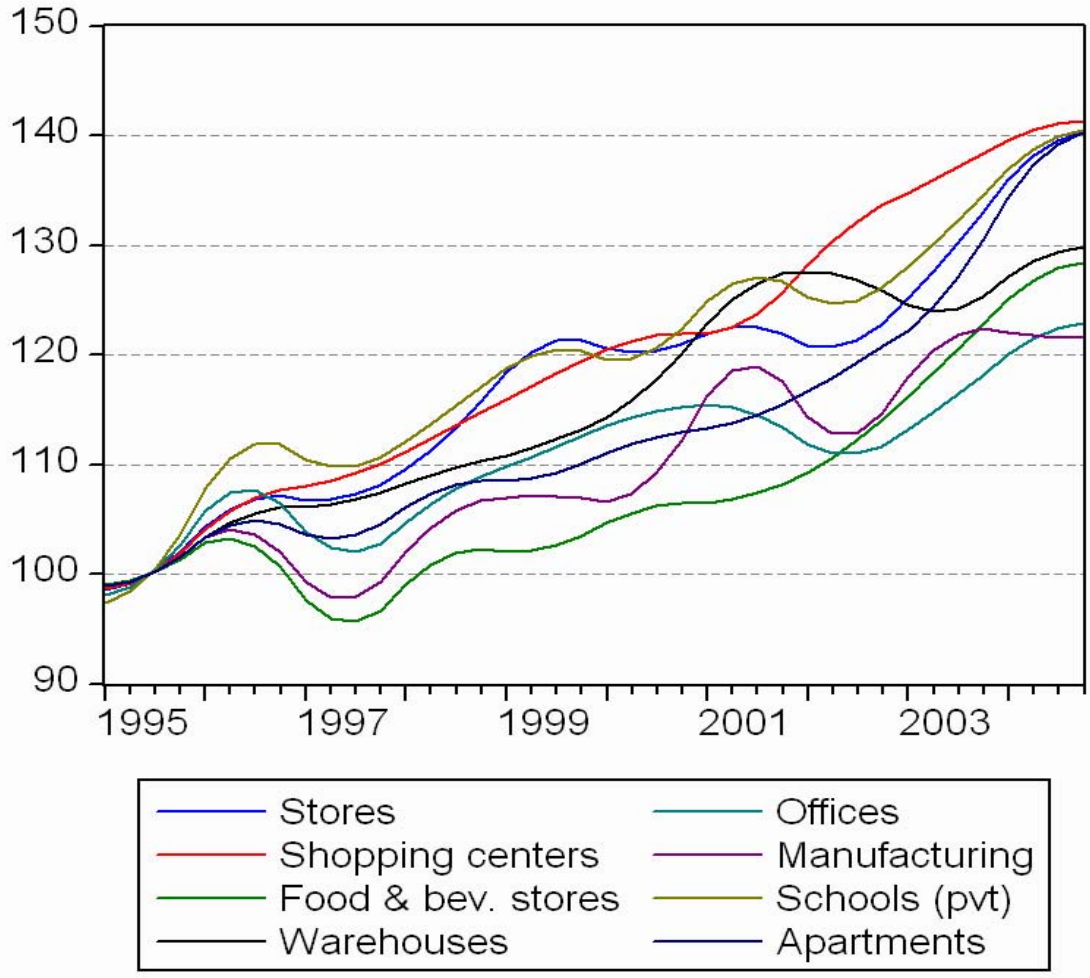
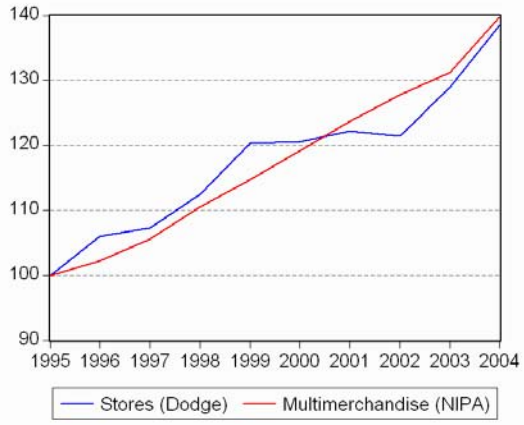
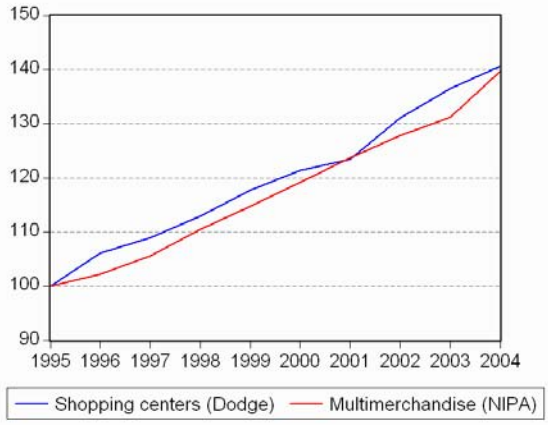
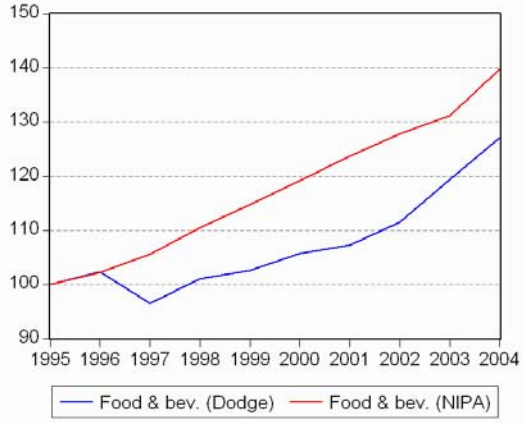


Figure 9 - Comparison Dodge and NIPA Indexes



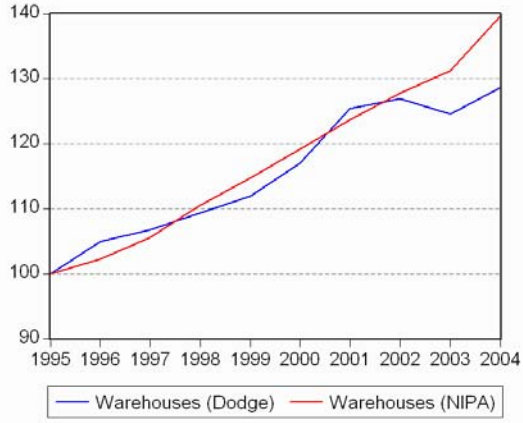



Figure 9 - Comparison Dodge and NIPA Indexes (Cont.)