

**Retail Sales and Retail Real Estate  
An Economic Analysis of the Trends in the Neighborhood and  
Community Shopping Center Market**

by

**John Joseph Fiore  
B.A., English, 1992  
Boston College**

Submitted to the Department of Architecture  
In Partial Fulfillment of the Requirements for the Degree of  
Master of Science in Real Estate Development

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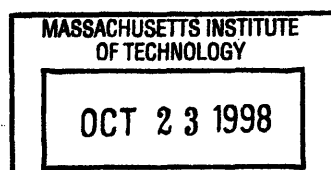
Department of Architecture  
August 18, 1998

Accepted by -----

William Wheaton  
Professor of Economics

Certified by --

William Wheaton  
Chairman,  
Interdepartmental Degree Program  
in Real Estate Development



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ABSTRACT

An economic analysis was carried out to determine trends and patterns in the neighborhood and community shopping center market. Economic analysis was performed to determine whether the current retail market is overbuilt. This analysis was based on sales performance of goods common to shopping centers, income per square foot performance of shopping center Real Estate Investment Trusts, and the movement of national sales as a share of personal income.

The results from a sales per square foot test of the retail market revealed that the relationship of sales per square foot is declining. Upon further analysis, the changes in sales per square foot over the changes in square footage reveal an inconsistency with the conclusion and that the retail market may not be overbuilt. Further, a sample of shopping center Real Estate Investment Trusts reveal that they are currently outperforming their respective markets on an income per square foot basis. Finally, results from the national sales as a percentage of personal income test conclude that purchases as a share of personal income have fallen more slowly in recent years.

Thesis Supervisor: William Wheaton  
Title: Professor of Economics

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# **Chapter 1**

## **Introduction**

There is a general fear among economists of declining sales and an overbuilt retail real estate market. This sense of fear is illustrated in a series of quotes within this thesis from an article entitled Real Estate 97, in which Jane Adler writes on the subject while quoting other real estate economists. First, Jane writes,

" 'There is gross overbuilding in retail,' says Lachman. 'Nobody knows the answer.' Most seem confounded about the future of retail properties. Will the market improve? Get Worse? Should Centers be sold? Are there any buyers out there?" (pg. 4)

In addition, in an article entitled Real Estate Professor Warns; Watch Supply, Not Demand, Professor William Wheaton of the MIT Center for Real Estate was quoted as saying in regard to the retail sector "It's hard to forecast supply, so retail investments are a huge risk" (pg. 1).

In order to shed light on this fear and indecision, the following thesis gathers and compares data relevant to shopping centers and the trends related to the neighborhood, community and regional center markets. It answers the following questions: Have purchases continued to fall as a share of personal income? Is the U.S. overbuilt? Has the stock of retail space continued to grow faster than retail sales? Has retail sales per square foot continued to decline? What is happening to the national sales of the types of goods sold by neighborhood, community and regional centers and how is this affecting their total sales performance? How have the shopping center

REITs been performing in terms of rent per square foot and how does this compare with the market?

In Chapter Two, Consumer Income Compared to Retail Sales, first a comparison will be made between personal income and sales in order to determine whether purchases have continued to fall as a share of personal income and whether there have been any trends or patterns displayed in the relationship between personal income and sales on a national scale. Second, the national sales of the goods most common to neighborhood, community, and regional centers will be analyzed to determine growth performance. Third, the total sales for the different center types will then be calculated by the percentage of type of goods they sell. The total sales performance of the different center types will then be compared and related to the performance of the goods they most commonly sell. Fourth, the total sales of those goods common to the various shopping center types will be compared to total national personal income to determine how much income Americans are spending on which type of goods. In these ways it will be determined how trends in purchases as a share of income (both nationally and by type of good) and growth in retail sales (both by center type and by the types of goods they sell) are related to neighborhood, community, or regional centers.

Chapter Three, Retail Supply Compared to Retail Sales, will look at retail space compared to retail sales. (After adjusting national retail sales by subtracting out variables such as automotive sales and fuel sales, and then deflating it using the



Consumer Price Index), a comparison will first be made between national retail sales and the total stock of shopping centers in order to determine whether the stock of retail space has continued to grow faster than retail sales and whether retail sales per square foot continues to decline. A second comparison will then be made between the change in the stock of retail space and the change in national retail sales in order to determine whether this comparison reveals a similar conclusion. Finally, an interpretation will be made as to which comparison proved to be the more accurate test.

In Chapter Four, Neighborhood, Community and Regional Centers Compared, a continuation will be made of the analysis presented in chapter three. Sales compared to stock (sales per square foot) and change in sales over change in stock will be determined for each center type in order to determine if any of these markets are overbuilt. It will first be determined if the stock of retail space for neighborhood centers has grown faster than neighborhood sales and what is happening to sales per square foot for neighborhood centers and then similar analysis will be done for community and regional centers. Moreover, for each center type a second comparison will be made between the change in sales and the change in stock. This will not only determine to what degree recessions in the last decade have effected each center type, (best, middle, worst), but also which shopping center types are, in fact, overbuilt.

Finally, Chapter Five, Income Compared to Rent Growth, will give a last perspective on whether the retail market is overbuilt. It will look at three sample shopping center

REITs and compare their rental income per square foot to the rental index in order to determine what is happening to income per square foot of REITs and how it compares with the rent index in terms of trends and long term growth.

**Chapter 2**  
**Consumer Income Compared to**  
**Retail Sales**

## 2.1 - Retail Sales Compared to Personal Income

Jane Adler continues in Real Estate 97 and writes,

"Another bad sign for retail could be a slower economy and less consumer spending. Gordon thinks... 'Last year was better than people thought it would be. There was no bad news, and no one got into big trouble. But if consumer confidence goes down, that could be bad,' he says." (pg. 4)

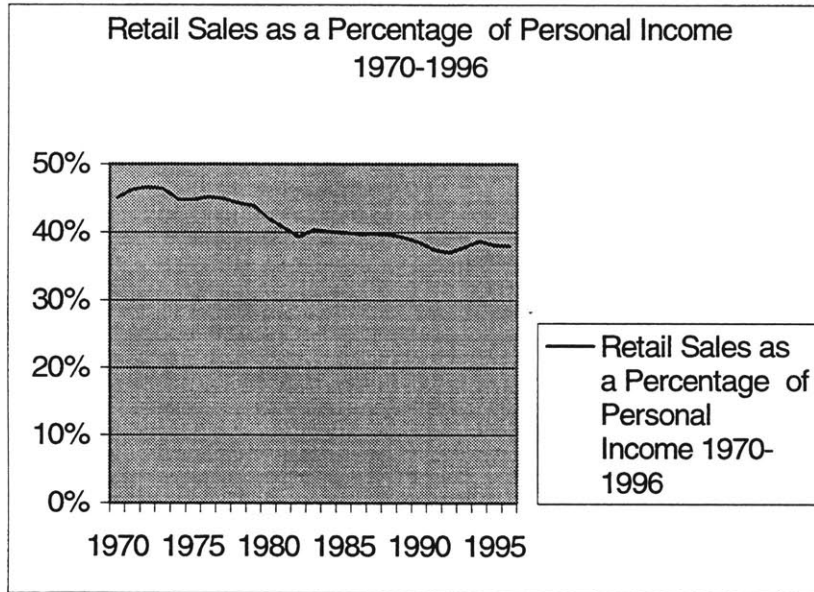
Have purchases continued to fall as a share of personal income? In a study by William Wheaton, Professor of Real Estate Economics at the MIT Center for Real Estate entitled Retail Sales and Retail Real Estate it was concluded based on data on retail sales of consumer goods that up to 1993, purchases had been gradually falling as a share of personal income. Below, Figure 2.1 confirms this decline.

It is evident that purchases (sales) as a share of personal income has indeed declined gradually by 7% from 1970 to 1993. Second, as figure 2.2 illustrates, it is evident that the steepest part of the decline was from 1970 to 1982. After 1982, it was much more steady and from 1993 to 1996 there was no decline at all. In 1994, purchases as a share of personal income held steady and even exhibited a 1% increase.

**Figure 2.1 – Nominal Retail Sales Compared to Personal Income**

<b>Retail Sales Compared to Personal Income</b>			
Source: U.S. CENSUS DATA			
	<b>Retail Sales</b>	<b>Personal Income Per Capita</b> <b>(current dollars)</b>	<b>Retail Sales as a Percentage</b> <b>of Personal Income 1970-1996</b>
1970	1,839	4,077	45%
1971	2,002	4,328	46%
1972	2,191	4,703	47%
1973	2,422	5,217	46%
1974	2,541	5,672	45%
1975	2,730	6,091	45%
1976	3,017	6,673	45%
1977	3,288	7,315	45%
1978	3,621	8,176	44%
1979	3,993	9,105	44%
1980	4,212	10,037	42%
1981	4,523	11,132	41%
1982	4,609	11,744	39%
1983	4,999	12,379	40%
1984	5,452	13,602	40%
1985	5,779	14,464	40%
1986	6,033	15,200	40%
1987	6,361	16,013	40%
1988	6,774	17,076	40%
1989	7,127	18,194	39%
1990	7,396	19,220	38%
1991	7,362	19,715	37%
1992	7,653	20,660	37%
1993	8,040	21,288	38%
1994	8,554	22,104	39%
1995	8,840	23,233	38%
1996	9,218	24,294	38%

**Figure 2.2 – Nominal Retail Sales Compared to Personal Income Per Capita**



## 2.2 – Food Sales

What is happening to the national sales of the types of goods sold by neighborhood, community and regional centers and how is this affecting their total sales performance? Neighborhood centers are dominated by the food industry, while regional centers sell mostly apparel and general merchandise. Community centers fall somewhere in between with more of an even mix of these categories. Appendix F tabulates the last ten years of sales for the six major categories of goods most common to neighborhood, community and regional centers. The following analysis illustrates the sales trends for the most pertinent categories of goods.

Food sales, which are important to neighborhood and community centers are one indicator of how these centers have been faring over the past ten years. Figure 2.3 indicates that after deflating food sales using the Consumer Price Index, they have had an overall growth of about \$5 billion from 1987-1997. Figure 2.4 illustrates that 1996 food sales were the highest they had been since 1992 and appear to be increasing which bodes well for neighborhood and to a lesser degree community centers.

If food sales are cyclical, and continue to mirror the surge which occurred between 1985-1990, it may be prudent for investors to develop smaller centers

and lock-in long term leases for anchor supermarkets before the turn of the century. Finally, figure 2.5 illustrates the change in food sales over the past ten years. After a major drop in 1991, this analysis uncovers no obvious trend in food sales with only minor up and down changes from 1992-1996.

**Figure - 2.3**

**Total Food Growth (typical of Neighborhood Centers)**

	Food (bil. dol.)	Food Growth (bil. dol.)
1985	\$285.10	
1986	\$297.00	\$11.90
1987	\$309.50	\$12.50
1988	\$326.50	\$17.00
1989	\$345.10	\$18.60
1990	\$368.30	\$23.20
1991	\$370.60	\$2.30
1992	\$377.00	\$6.40
1993	\$385.00	\$8.00
1994	\$399.00	\$14.00
1995	\$409.00	\$10.00
1996	\$423.30	\$14.30

	CPI Yearly percentage increase 1985 base year	Deflated Food Sales (bil. dol.)	Change in Deflated Food Sales (bil. dol.)
1985	1.000	\$285.10	
1986	1.019	\$291.46	\$6.36
1987	1.036	\$293.17	\$1.71
1988	1.041	\$297.10	\$3.92
1989	1.048	\$299.64	\$2.54
1990	1.054	\$303.40	\$3.76
1991	1.042	\$292.99	-\$10.41
1992	1.030	\$289.37	-\$3.62
1993	1.030	\$286.90	-\$2.47
1994	1.026	\$289.80	\$2.90
1995	1.028	\$288.97	-\$0.83
1996	1.030	\$290.36	\$1.39



Figure – 2.4

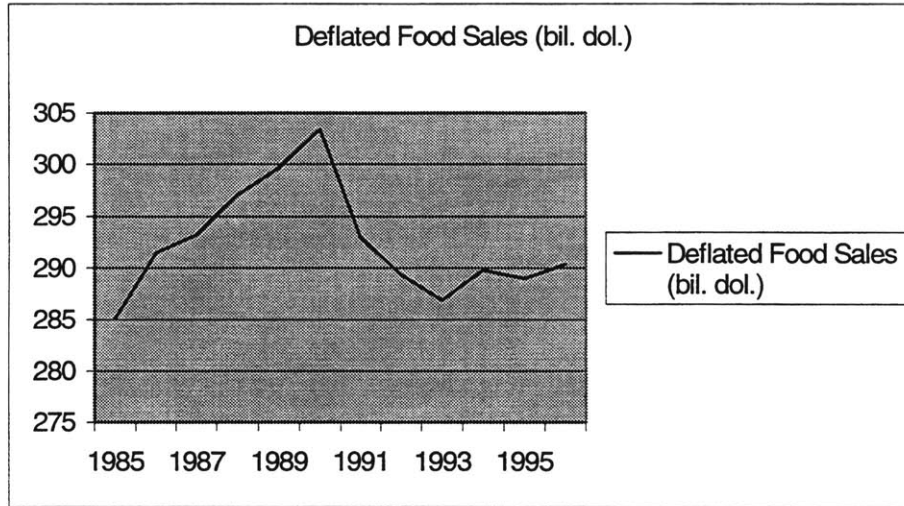
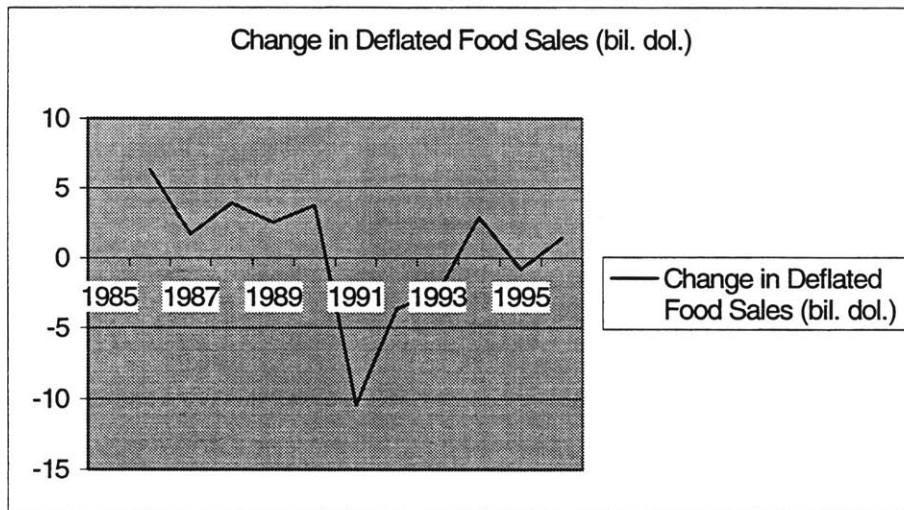


Figure – 2.5



## 2.3 – General Merchandise Sales

General merchandise is most common to regional and community centers. After deflating general merchandise sales, figure 2.6 shows that they have had an overall growth of \$56 billion over the past ten years. Figure 2.7 illustrates that this increase has taken the form of a steady incline. Although smooth, this gradual trend of growth appears to have the shape of an “S” in that there have been flat sections evenly dispersed about the sections which show an incline. The latest data shows that in 1996 general merchandise was entering another “flat” period possibly for the next 2-3 years. Thus, the more predictable, gradual upward trend of general merchandise sales contributes to the notion that larger centers are a solid, stable investment, although now is not the best period for their growth.

**Figure 2.6**

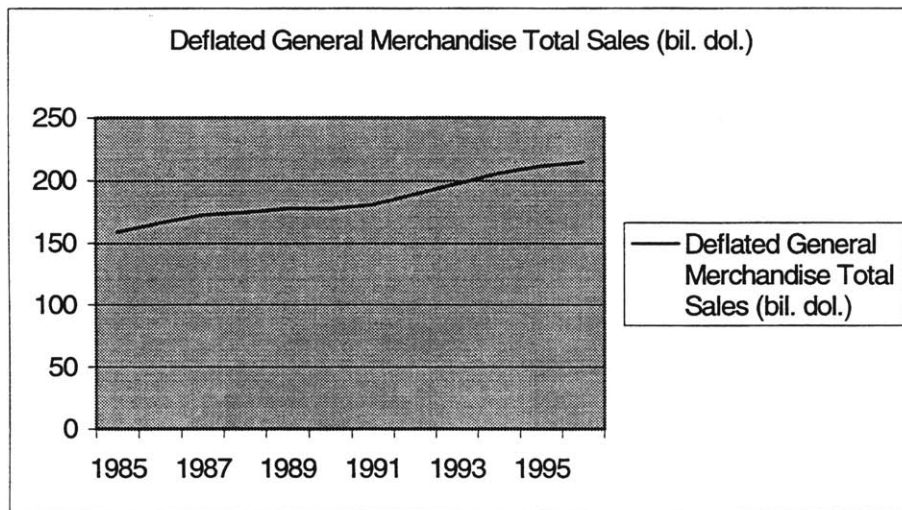
**General Merchandise Growth (most typical of Regional Centers)**

	Total Gen. Merchandise	Gen. Growth	General Merchandise Growth (Bil. Dol.)	Total Gen. Merch. (bil. dol.)
1985	\$158,600,000,000			\$158.60
1986	\$169,200,000,000	\$10,600,000,000	\$10.60	\$169.20
1987	\$182,000,000,000	\$12,800,000,000	\$12.80	\$182.00
1988	\$191,800,000,000	\$9,800,000,000	\$9.80	\$191.80
1989	\$204,400,000,000	\$12,600,000,000	\$12.60	\$204.40
1990	\$215,500,000,000	\$11,100,000,000	\$11.10	\$215.50
1991	\$228,500,000,000	\$13,000,000,000	\$13.00	\$228.50
1992	\$246,400,000,000	\$17,900,000,000	\$17.90	\$246.40
1993	\$264,600,000,000	\$18,200,000,000	\$18.20	\$264.60
1994	\$283,200,000,000	\$18,600,000,000	\$18.60	\$283.20
1995	\$299,200,000,000	\$16,000,000,000	\$16.00	\$299.20
1996	\$312,800,000,000	\$13,600,000,000	\$13.60	\$312.80

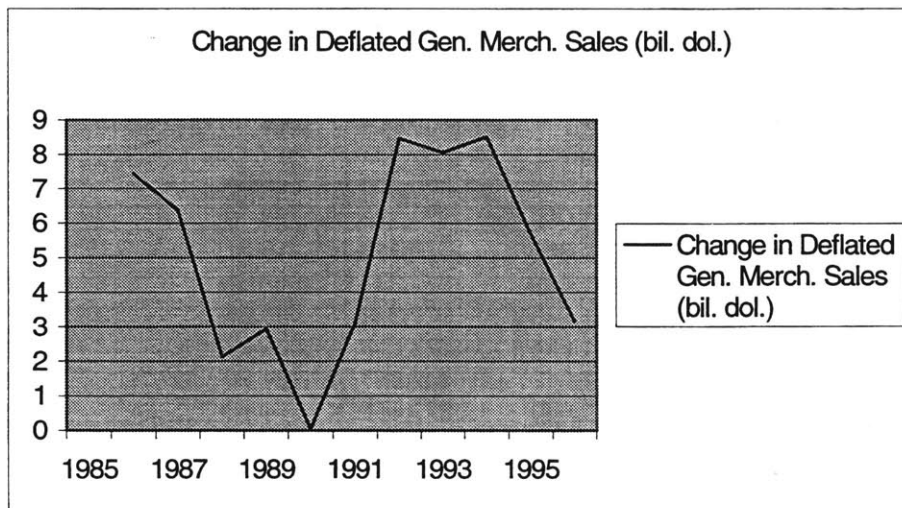
	CPI Yearly percentage increase 1985 base year	Deflated General Merchandise Total Sales (bil. dol.)	Change in Deflated Gen. Merch. Sales (bil. dol.)
1985	1.000	\$158.60	
1986	1.019	\$166.05	\$7.45
1987	1.036	\$172.40	\$6.35
1988	1.041	\$174.53	\$2.13
1989	1.048	\$177.47	\$2.95
1990	1.054	\$177.53	\$0.05
1991	1.042	\$180.65	\$3.12
1992	1.030	\$189.13	\$8.48
1993	1.030	\$197.18	\$8.05
1994	1.026	\$205.69	\$8.51
1995	1.028	\$211.39	\$5.70
1996	1.030	\$214.57	\$3.17

Finally, figure 2.8 represents the change in deflated general merchandise sales. The volatility shown here indicates no real trend. If a straight line were drawn at \$5 billion representing consistency in the long-run, it would mean that general merchandise sales have grown at a steady \$5 billion per year which would agree with figure 2.7.

**Figure 2.7**



**Figure 2.8**



## 2.4 - Apparel Sales

Figure 2.9 illustrates that deflated apparel sales, which are virtually dominated by the larger centers, indicate a growth of \$7 billion over the last decade. Figure 2.10 shows that surges in growth occurred in 1986, 1989 and 1992. However, after declining and recovering during the years which correspond to the real estate recession, apparel sales have recently fallen again and in 1996 have begun to stabilize from this fall. Figure 2.11, which illustrates the changes in apparel growth reflects the drop during the recession prominently in 1991-1992.

**Figure 2.9**

	Apparel	Apparel Growth
1985	\$70,200,000,000	
1986	\$75,600,000,000	\$5,400,000,000.00
1987	\$79,300,000,000	\$3,700,000,000.00
1988	\$84,900,000,000	\$5,600,000,000.00
1989	\$91,400,000,000	\$6,500,000,000.00
1990	\$95,800,000,000	\$4,400,000,000.00
1991	\$97,500,000,000	\$1,700,000,000.00
1992	\$104,200,000,000	\$6,700,000,000.00
1993	\$107,200,000,000	\$3,000,000,000.00
1994	\$109,900,000,000	\$2,700,000,000.00
1995	\$110,400,000,000	\$500,000,000.00
1996	\$113,700,000,000	\$3,300,000,000.00

	CPI Yearly percentage increase 1985 base year	Deflated Apparel Sales	Change in Deflated Apparel Sales
1985	1.000	\$70,200,000,000.00	
1986	1.019	\$74,190,382,728.16	\$3,990,382,728.16
1987	1.036	\$75,117,175,215.31	\$926,792,487.15
1988	1.041	\$77,254,363,962.53	\$2,137,188,747.22
1989	1.048	\$79,359,741,435.54	\$2,105,377,473.01
1990	1.054	\$78,918,522,638.82	-\$441,218,796.72
1991	1.042	\$77,081,531,394.23	-\$1,836,991,244.59
1992	1.030	\$79,979,044,772.50	\$2,897,513,378.27
1993	1.030	\$79,885,149,913.46	-\$93,894,859.04
1994	1.026	\$79,821,815,406.61	-\$63,334,506.86
1995	1.028	\$78,000,945,508.38	-\$1,820,869,898.23
1996	1.030	\$77,992,714,087.37	-\$8,231,421.01

Figure 2.10

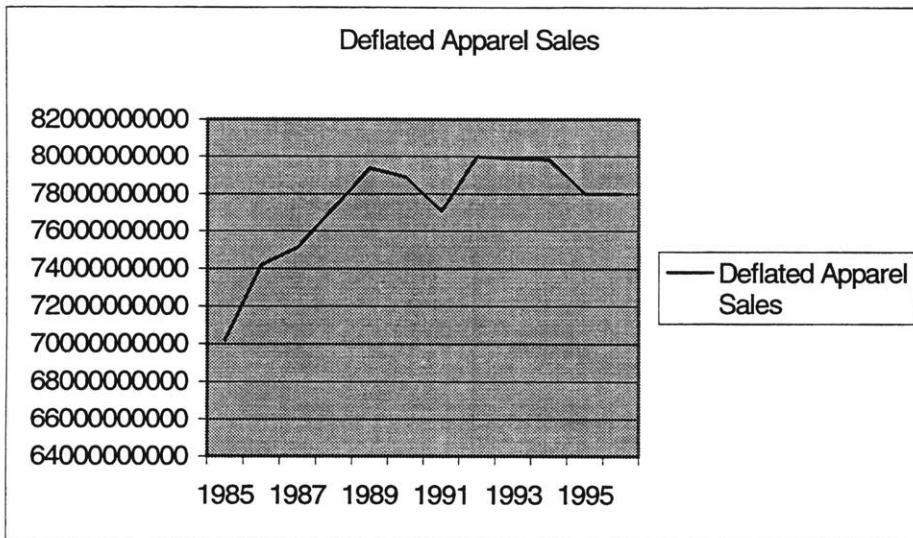
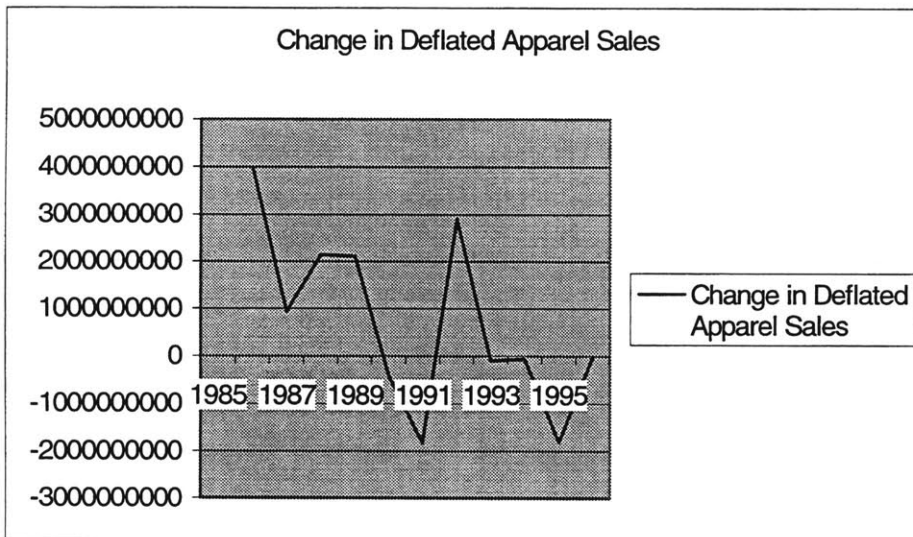


Figure 2.11



## 2.5 - Eating/Drinking Establishments Sales

Figure 2.12 illustrates a large \$35 billion increase in the sales of Eating and Drinking Establishments over the last decade. Figure 2.13 shows this growth in the form of a gradual incline and indicates that more Americans are going out for dinner and socializing. Food courts and restaurants are generally found in the larger retail centers and this trend may indicate a plus for regional centers. Figure 2.14 which reflects the changes in Eating and Drinking Establishment Sales relates to apparel sales in that the worst recession was from 1991-1992.

**Figure 2.12**

	Eat/Drink (bil. dol.)	Eat/Drink Growth (bil. dol.)	
1985	\$127.90		
1986	\$139.40	\$11.50	
1987	\$153.50	\$14.10	
1988	\$166.90	\$13.40	
1989	\$173.90	\$7.00	
1990	\$190.10	\$16.20	
1991	\$196.90	\$6.80	
1992	\$200.20	\$3.30	
1993	\$213.50	\$13.30	
1994	\$223.50	\$10.00	
1995	\$232.10	\$8.60	
1996	\$236.50	\$4.40	

	CPI Yearly percentage increase 1985 base year	Deflated Eat/Drink Sales (bil. dol.)	Change in Deflated Eat/Drink Sales (bil. dol.)
1985	1.000	\$127.90	
1986	1.019	\$136.80	\$8.90
1987	1.036	\$145.40	\$8.60
1988	1.041	\$151.87	\$6.47
1989	1.048	\$150.99	-\$0.88
1990	1.054	\$156.60	\$5.61
1991	1.042	\$155.67	-\$0.94
1992	1.030	\$153.66	-\$2.00
1993	1.030	\$159.10	\$5.44
1994	1.026	\$162.33	\$3.23
1995	1.028	\$163.99	\$1.65
1996	1.030	\$162.23	-\$1.76

Figure 2.13

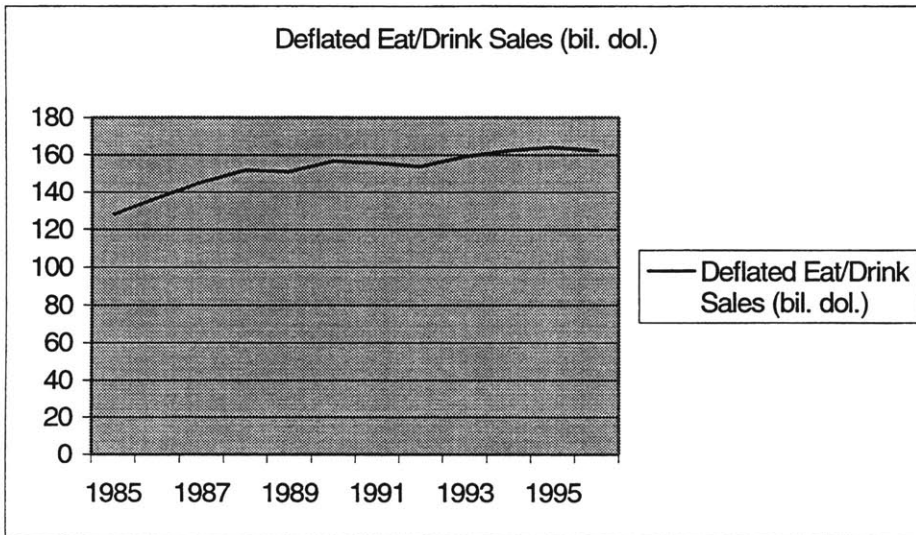
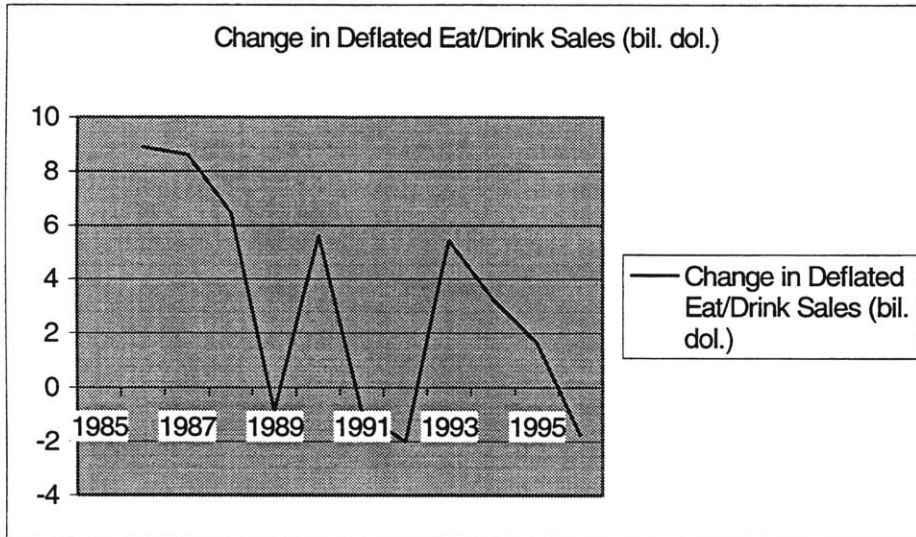


Figure 2.14



## 2.6 - Furniture Sales

In the last decade, deflated furniture sales went up by \$23 billion in the last decade, as indicated in figure 2.15. Figure 2.16 shows that Furniture have generally been stable with a gradual incline, but have begun to rise more dramatically in recent years.

Surprisingly, neighborhood centers have the greatest percentage of furniture sales of all the center types, however, furniture sales tend to be the product of stand-alone stores. Thus their recent increase may have less of an effect on the shopping center industry. Figure 2.17 indicates that recessions in furniture sales are somewhat cyclical and that furniture sales are generally stable.

**Figure 2.15**

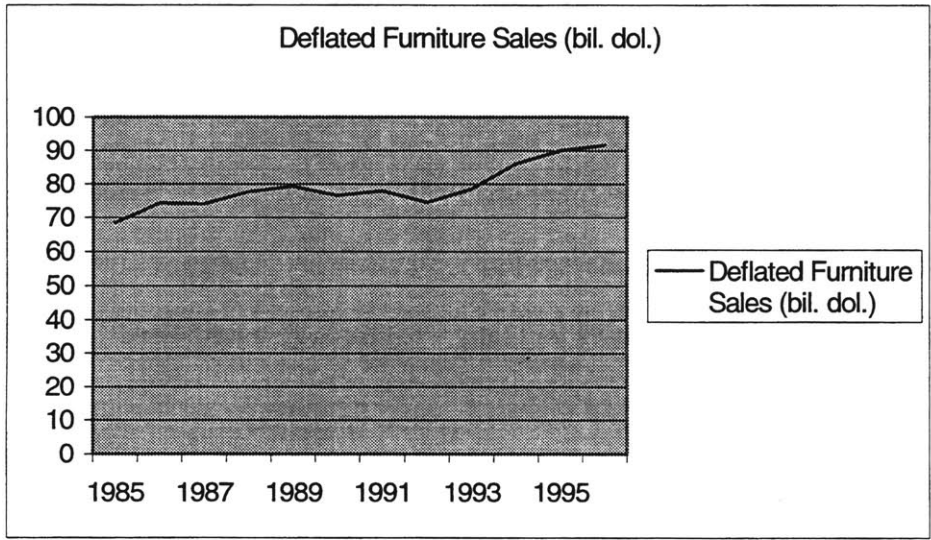
	Furniture (bil dol.)	Furniture Growth (bil. dol.)	
1985	\$68.30		
1986	\$75.70	\$7.40	
1987	\$78.10	\$2.40	
1988	\$85.40	\$7.30	
1989	\$91.50	\$6.10	
1990	\$93.00	\$1.50	
1991	\$98.60	\$5.60	
1992	\$97.00	-\$1.60	
1993	\$105.40	\$8.40	
1994	\$118.60	\$13.20	
1995	\$127.30	\$8.70	
1996	\$133.50	\$6.20	

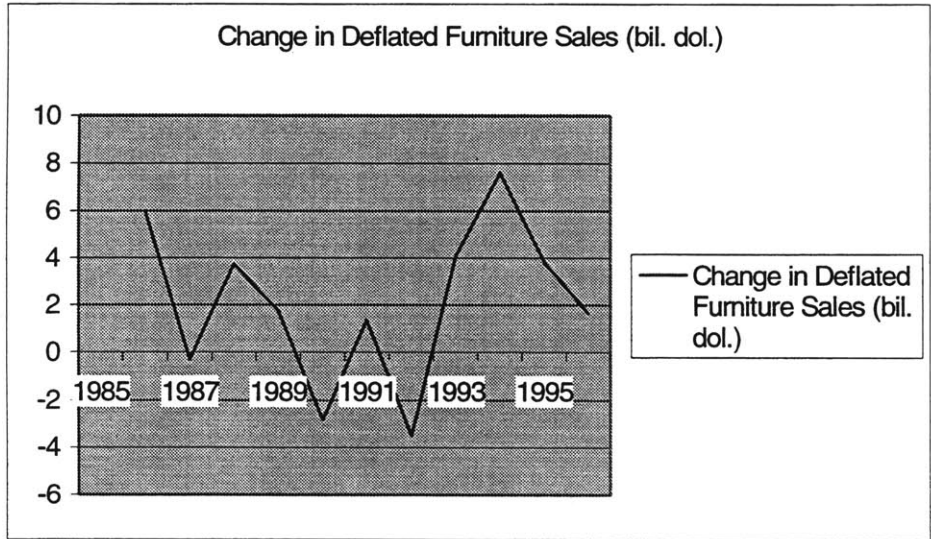
	CPI Yearly percentage increase 1985 base year	Deflated Furniture Sales (bil. dol.)	Change in Deflated Furniture Sales (bil. dol.)
1985	1.000	\$68.30	
1986	1.019	\$74.29	\$5.99
1987	1.036	\$73.98	-\$0.31
1988	1.041	\$77.71	\$3.73
1989	1.048	\$79.45	\$1.74
1990	1.054	\$76.61	-\$2.83
1991	1.042	\$77.95	\$1.34
1992	1.030	\$74.45	-\$3.50
1993	1.030	\$78.54	\$4.09
1994	1.026	\$86.14	\$7.60
1995	1.028	\$89.94	\$3.80
1996	1.030	\$91.57	\$1.63



**Figure 2.16**



**Figure 2.17**



## 2.7 - Building Material Sales

Another product of stand-alone stores (i.e. Home Depot, True Value), building material sales, after being deflated, have grown \$21 billion in the last 10 years as indicated in figure 2.18. Figure 2.19 shows this growth to be somewhat cyclical in nature, yet on the rise in recent years. Interestingly, figure 2.20, which illustrates the changes in building material sales, shows that they went through a long hard recession of nearly three years in the late eighties - early nineties. What is more interesting is that building materials are sold more commonly in small centers (small hardware stores) than regional centers.

**Figure 2.18**

	Build. Mat. (bil. dol.)	Build. Mat. Growth (bil. dol.)	
1985	\$71.20		
1986	\$77.10	\$5.90	
1987	\$83.50	\$6.40	
1988	\$91.20	\$7.70	
1989	\$92.70	\$1.50	
1990	\$94.60	\$1.90	
1991	\$95.20	\$0.60	
1992	\$100.80	\$5.60	
1993	\$109.40	\$8.60	
1994	\$122.30	\$12.90	
1995	\$125.80	\$3.50	
1996	\$134.50	\$8.70	

	CPI Yearly percentage increase 1985 base year	Deflated Build. Mat. Sales (bil. dol.)	Change in Deflated Build. Mat. Sales (bil. dol.)
1985	1.000	\$71.20	
1986	1.019	\$75.66	\$4.46
1987	1.036	\$79.10	\$3.43
1988	1.041	\$82.99	\$3.89
1989	1.048	\$80.49	-\$2.50
1990	1.054	\$77.93	-\$2.56
1991	1.042	\$75.26	-\$2.67
1992	1.030	\$77.37	\$2.11
1993	1.030	\$81.52	\$4.16
1994	1.026	\$88.83	\$7.30
1995	1.028	\$88.88	\$0.05
1996	1.030	\$92.26	\$3.38

Figure 2.19

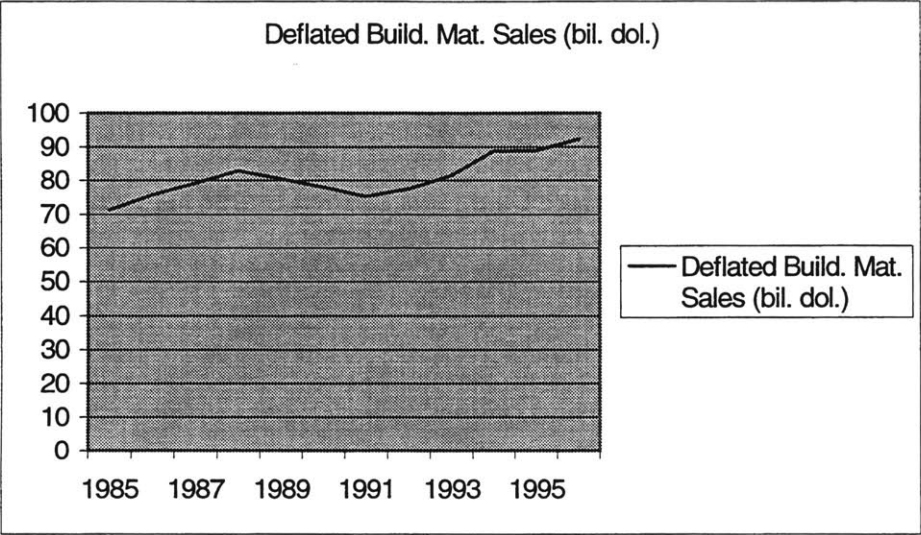
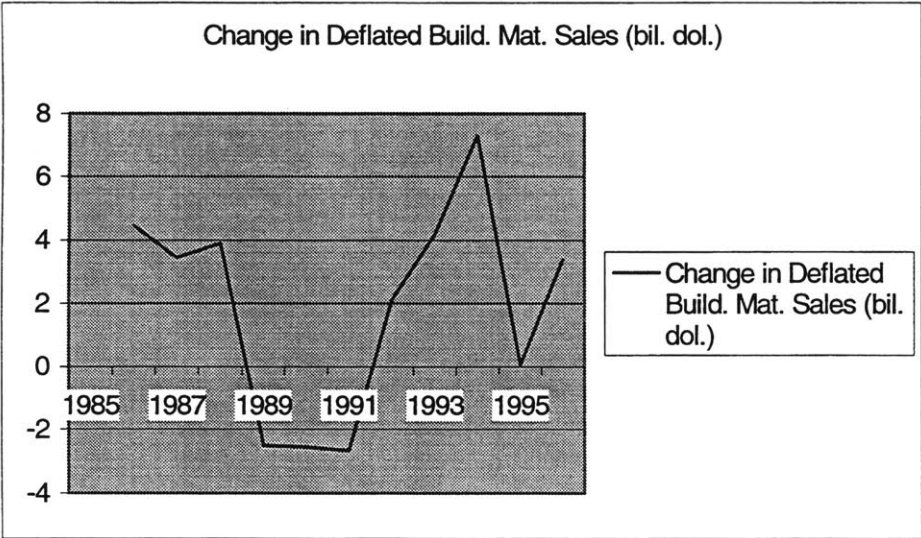


Figure 2.20



## 2.8 – Neighborhood Center Sales by Type of Good

How are neighborhood centers performing in terms of sales? One way to find out is to multiply the percentage of each type of good the neighborhood center sells with the total national sales for that type of good. Using this method for the six categories of goods in Appendix F, total neighborhood sales are tabulated for 1985-1996 based on percentage of types of goods sold. Neighborhood (NCSC) sales are then deflated and tabulated in the fourth column from the left at the bottom of figure 2.21.

**Figure 2.21**

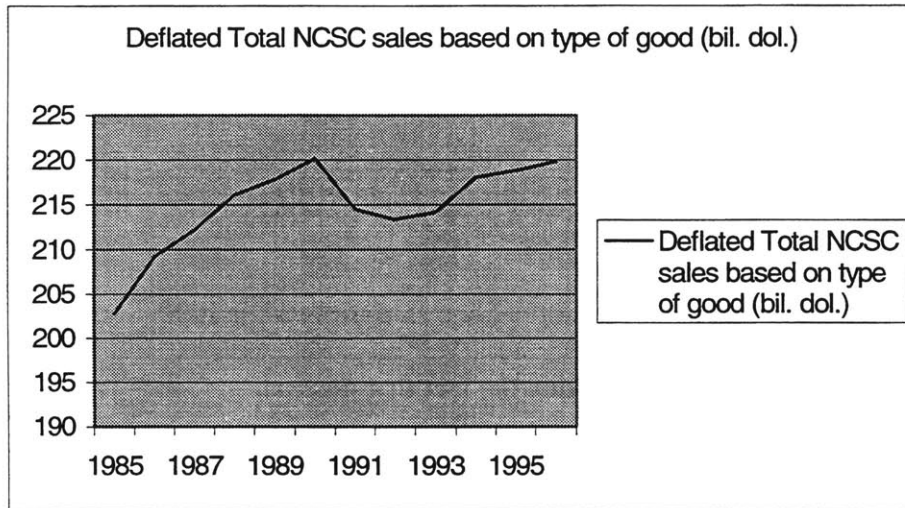
Neighborhood Community Shopping Center Sales and Types of Goods Sold						
	5.83% Build	10.83% Gen	8.83% Apparel	7.83% Furniture	53.83% Food	12.83% Eat/Drink
1985	\$4,150,960,000	\$17,176,380,000	\$6,198,660,000	\$5,347,880,000	\$153,469,330,000	\$16,409,570,000
1986	\$4,494,930,000	\$18,324,360,000	\$6,675,480,000	\$5,927,310,000	\$159,875,100,000	\$17,885,020,000
1987	\$4,868,050,000	\$19,710,600,000	\$7,002,190,000	\$6,115,230,000	\$166,603,850,000	\$19,694,050,000
1988	\$5,316,960,000	\$20,771,940,000	\$7,496,670,000	\$6,686,820,000	\$175,754,950,000	\$21,413,270,000
1989	\$5,404,410,000	\$22,136,520,000	\$8,070,620,000	\$7,164,450,000	\$185,767,330,000	\$22,311,370,000
1990	\$5,515,180,000	\$23,338,650,000	\$8,459,140,000	\$7,281,900,000	\$198,255,890,000	\$24,389,830,000
1991	\$5,550,160,000	\$24,746,550,000	\$8,609,250,000	\$7,720,380,000	\$199,493,980,000	\$25,262,270,000
1992	\$5,876,640,000	\$26,685,120,000	\$9,200,860,000	\$7,595,100,000	\$202,939,100,000	\$25,686,680,000
1993	\$6,378,020,000	\$28,656,180,000	\$9,465,760,000	\$8,252,820,000	\$207,245,500,000	\$27,392,060,000
1994	\$7,130,090,000	\$30,670,560,000	\$9,704,170,000	\$9,286,380,000	\$214,781,700,000	\$28,675,050,000
1995	\$7,334,140,000	\$32,403,360,000	\$9,748,320,000	\$9,967,590,000	\$220,487,680,000	\$29,778,430,000
1996	\$7,841,350,000	\$33,876,240,000	\$10,039,710,000	\$10,453,050,000	\$227,862,390,000	\$30,342,950,000
	Total NCSC Sales based on Types of Good (bil. dol.)	Growth in NCSC Sales (bil. dol.)	CPI Yearly percentage increase 1985 base year	Deflated Total NCSC sales based on type of good (bil. dol.)	Growth in Deflated NCSC Sales (bil. dol.)	
1985	\$202.70		1.000	\$202.70		
1986	\$213.18	\$10.48	1.019	\$209.21	\$6.51	
1987	\$223.99	\$10.81	1.036	\$212.18	\$2.97	
1988	\$237.44	\$13.45	1.041	\$216.06	\$3.88	
1989	\$250.85	\$13.41	1.048	\$217.81	\$1.75	
1990	\$267.24	\$16.39	1.054	\$220.15	\$2.34	
1991	\$271.38	\$4.14	1.042	\$214.55	-\$5.60	
1992	\$277.98	\$6.60	1.030	\$213.36	-\$1.18	
1993	\$287.39	\$9.41	1.030	\$214.16	\$0.80	
1994	\$300.24	\$12.85	1.026	\$218.07	\$3.91	
1995	\$309.71	\$9.47	1.028	\$218.82	\$0.75	
1996	\$320.41	\$10.70	1.030	\$219.79	\$0.97	

Based on the sales performance of the types of goods sold for a neighborhood center (i.e. 53.83% food, 8.83% apparel etc.), figure 2.22 shows total neighborhood sales and indicates an overall growth of \$17.5 billion in the last decade. As food sales rose dramatically up to the year 1990, it is little surprise that the sales performance did as well for neighborhood centers.

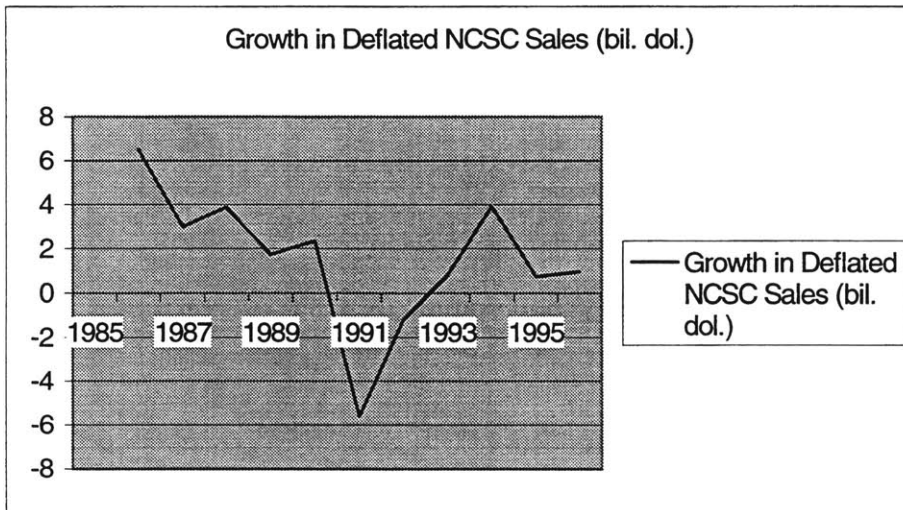
However, neighborhood sales did not decline as sharply after 1990 as did food sales. This is probably due the fact that general merchandise is one of the second highest products (percentage-wise) sold by neighborhood centers and, as previously shown, general merchandise has been steadily increasing over the past ten years.

In contrast, figure 2.23, which illustrates the changes in neighborhood sales mirrors the decline of food sales more dramatically after 1990. In either case, it is concluded that the sales performance of neighborhood centers often relate to the sales performance of the goods which they most commonly sell.

**Figure 2.22**



**Figure – 2.23**



## 2.9 – Community Center Sales by Type of Good

Community centers sell far more general merchandise than neighborhood centers.

This would suggest more and larger department stores and drug stores. They also sell a high percentage of food and like neighborhood centers often have an anchor supermarket. However, community centers do not sell nearly as many clothes as regional centers. Total community sales are tabulated for 1985-1996 based on percentage of types of goods sold. Community sales are then deflated and tabulated in the fourth column from the left in the middle of figure 2.24.

**Figure 2.24**

Community Shopping Center Sales and Percentage of Types of Good Sold					
	2.66% Build	39.66% Gen	14.66% Apparel	6.66% Furniture	27.66% Food
1985	\$1,893,920,000	\$62,900,760,000	\$10,291,320,000	\$4,548,780,000	\$78,868,660,000
1986	\$2,050,860,000	\$67,104,720,000	\$11,082,960,000	\$5,041,620,000	\$82,150,200,000
1987	\$2,221,100,000	\$72,181,200,000	\$11,625,380,000	\$5,201,460,000	\$85,607,700,000
1988	\$2,425,920,000	\$76,067,880,000	\$12,446,340,000	\$5,687,640,000	\$90,309,900,000
1989	\$2,465,820,000	\$81,065,040,000	\$13,399,240,000	\$6,093,900,000	\$95,454,660,000
1990	\$2,516,360,000	\$85,467,300,000	\$14,044,280,000	\$6,193,800,000	\$101,871,780,000
1991	\$2,532,320,000	\$90,623,100,000	\$14,293,500,000	\$6,566,760,000	\$102,507,960,000
1992	\$2,681,280,000	\$97,722,240,000	\$15,275,720,000	\$6,460,200,000	\$104,278,200,000
1993	\$2,910,040,000	\$104,940,360,000	\$15,715,520,000	\$7,019,640,000	\$106,491,000,000
1994	\$3,253,180,000	\$112,317,120,000	\$16,111,340,000	\$7,898,760,000	\$110,363,400,000
1995	\$3,346,280,000	\$118,662,720,000	\$16,184,640,000	\$8,478,180,000	\$113,295,960,000
1996	\$3,577,700,000	\$124,056,480,000	\$16,668,420,000	\$8,891,100,000	\$117,084,780,000

	Total Community Sales based on % of type of Good (bil. Dol.)	Change in Community Sales (bil. Dol.)	CPI Yearly percentage increase 1985 base year	Deflated Total Community Sales based on % of type of good (bil. dol.)	Change in Deflated Community Sales (bil. dol.)
1985	\$169.56		1	\$169.56	
1986	\$179.50	\$9.94	1.019	\$176.15	\$6.59
1987	\$190.12	\$10.62	1.036	\$180.09	\$3.94
1988	\$201.39	\$11.27	1.041	\$183.25	\$3.16
1989	\$213.53	\$12.14	1.048	\$185.40	\$2.15
1990	\$226.55	\$13.02	1.054	\$186.63	\$1.23
1991	\$233.57	\$7.02	1.042	\$184.66	-\$1.97
1992	\$243.75	\$10.18	1.030	\$187.09	\$2.44
1993	\$255.56	\$11.81	1.030	\$190.44	\$3.35
1994	\$269.29	\$13.73	1.026	\$195.59	\$5.15
1995	\$280.06	\$10.77	1.028	\$197.87	\$2.28
1996	\$290.75	\$10.69	1.030	\$199.44	\$1.57

8.66% Eat/Drink	
\$11,076,140,000	
\$12,072,040,000	
\$13,293,100,000	
\$14,453,540,000	
\$15,059,740,000	
\$16,462,660,000	
\$17,051,540,000	
\$17,337,320,000	
\$18,489,100,000	
\$19,355,100,000	
\$20,099,860,000	
\$20,480,900,000	

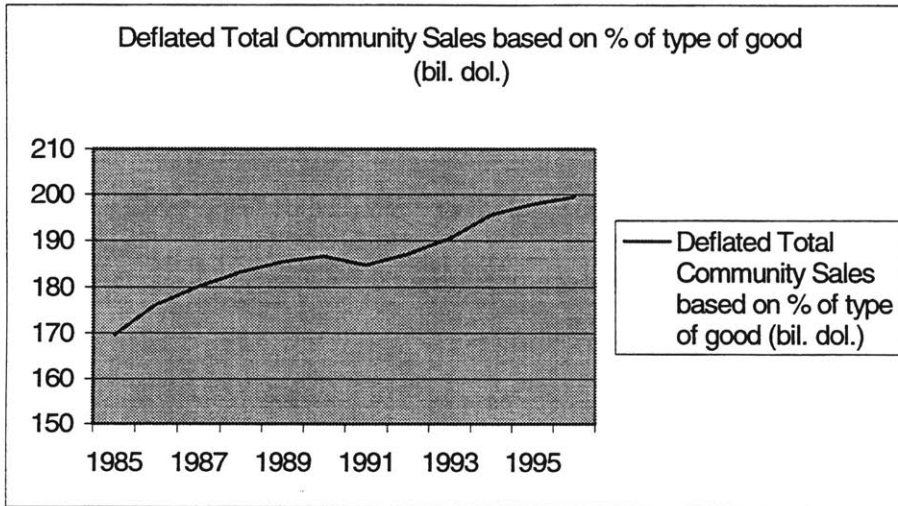
Based on the sales performance of the types of goods sold for a community center (i.e. 39.66% general merchandise, 27.66% food, 14.66% apparel etc.), figure 2.25 shows total community sales and indicates an overall growth of \$30 billion in the last decade.

Once again there is a relationship between a type of center's sales and the sales performance nationally of its most common type of good. Figure 2.25, which charts total sales for community centers is very similar to the total growth of general merchandise in that it displays a steady incline over the last decade interspersed with periods which are more flat. The fluctuations in this line, however, represent that not all sales are general merchandise - community centers also sell a great deal of food and this has impacted total sales by reflecting the volatility of food sales.

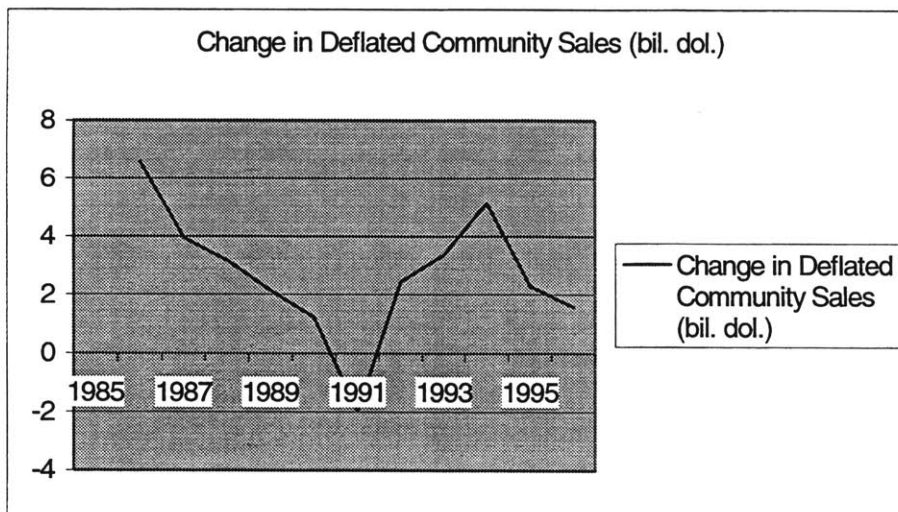
Figure 2.26 illustrates the change in community center sales. Because community centers sell a smaller percentage of food than neighborhood centers, there is less of a dramatic decline in the change in community sales in 1991 because there is less of a reflection of the decline in food sales during that period.



**Figure 2.25**



**Figure 2.26**



## 2.10 – Regional Center Sales by Type of Good

Regional centers sell the most clothing by far as well as general merchandise. It is very unlikely that someone will purchase food at a regional center (mall). Total regional sales are tabulated for 1985-1996 based on percentage of types of goods sold. Regional sales are then deflated and tabulated in the fourth column from the left at the bottom of figure 2.27.

**Figure 2.27**

**Regional Center Sales by Types of Goods Sold**

	2% Build	61% Gen	24% Apparel	6% Furniture	2% Food	5% Eat/Drink
1985	\$1,424,000,000	\$96,746,000,000	\$16,848,000,000	\$4,098,000,000	\$5,702,000,000	\$6,395,000,000
1986	\$1,542,000,000	\$103,212,000,000	\$18,144,000,000	\$4,542,000,000	\$5,940,000,000	\$6,970,000,000
1987	\$1,670,000,000	\$111,020,000,000	\$19,032,000,000	\$4,686,000,000	\$6,190,000,000	\$7,675,000,000
1988	\$1,824,000,000	\$116,998,000,000	\$20,376,000,000	\$5,124,000,000	\$6,530,000,000	\$8,345,000,000
1989	\$1,854,000,000	\$124,684,000,000	\$21,936,000,000	\$5,490,000,000	\$6,902,000,000	\$8,695,000,000
1990	\$1,892,000,000	\$131,455,000,000	\$22,992,000,000	\$5,580,000,000	\$7,366,000,000	\$9,505,000,000
1991	\$1,904,000,000	\$139,385,000,000	\$23,400,000,000	\$5,916,000,000	\$7,412,000,000	\$9,845,000,000
1992	\$2,016,000,000	\$150,304,000,000	\$25,008,000,000	\$5,820,000,000	\$7,540,000,000	\$10,010,000,000
1993	\$2,188,000,000	\$161,406,000,000	\$25,728,000,000	\$6,324,000,000	\$7,700,000,000	\$10,675,000,000
1994	\$2,446,000,000	\$172,752,000,000	\$26,376,000,000	\$7,116,000,000	\$7,980,000,000	\$11,175,000,000
1995	\$2,516,000,000	\$182,512,000,000	\$26,496,000,000	\$7,638,000,000	\$8,192,000,000	\$11,605,000,000
1996	\$2,690,000,000	\$190,808,000,000	\$27,288,000,000	\$8,010,000,000	\$8,466,000,000	\$11,825,000,000

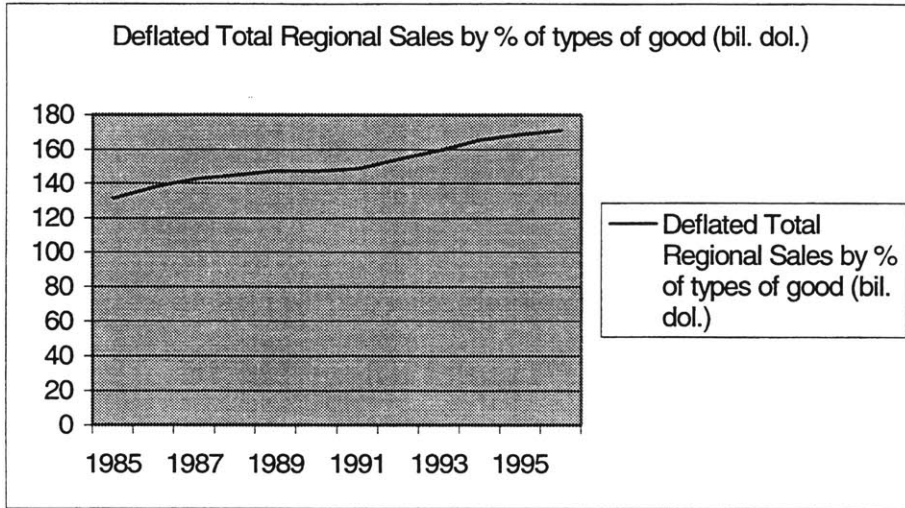
	Total Regional Sales by % of Types of Good (bil. Dol.)	Change in Regional Sales by % of type of good (bil. Dol.)	CPI Yearly percentage increase 1985 base year	Deflated Total Regional Sales by % of types of good (bil. dol.)	Change in Deflated Regional sales by % of type of good (bil. dol.)
1985	\$131.21		1.000	\$131.21	
1986	\$140.35	\$9.14	1.019	\$137.73	\$6.52
1987	\$150.27	\$9.92	1.036	\$142.34	\$4.61
1988	\$159.19	\$8.92	1.041	\$144.85	\$2.51
1989	\$169.56	\$10.37	1.048	\$147.22	\$2.37
1990	\$178.79	\$9.23	1.054	\$147.28	\$0.06
1991	\$187.86	\$9.07	1.042	\$148.52	\$1.23
1992	\$200.69	\$12.83	1.030	\$154.04	\$5.52
1993	\$214.02	\$13.33	1.030	\$159.49	\$5.45
1994	\$227.84	\$13.82	1.026	\$165.48	\$6.00
1995	\$238.95	\$11.11	1.028	\$168.83	\$3.34
1996	\$249.08	\$10.13	1.030	\$170.86	\$2.03

Based on the sales performance of the types of goods sold for a regional center (i.e. 61% general merchandise, 24% apparel, 2% food), figure 2.28 shows total regional sales and indicates an overall growth of approximately \$40 billion in the last decade.

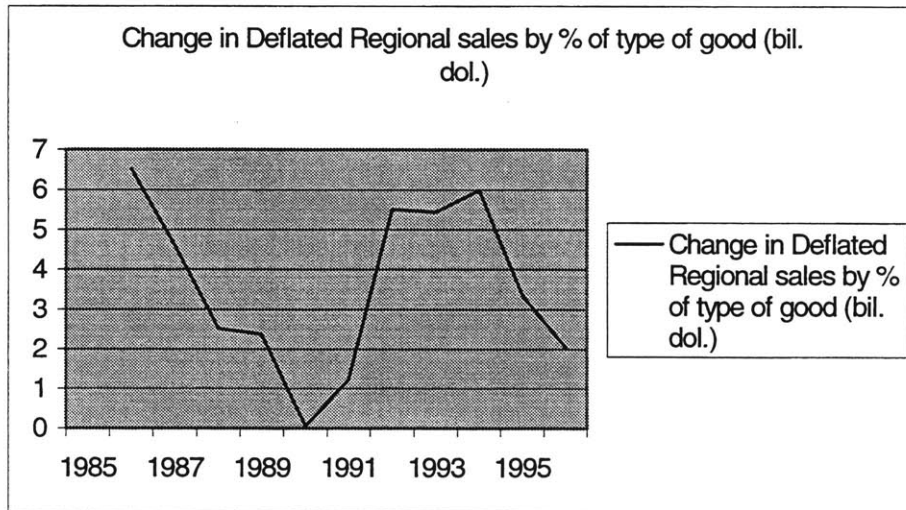
Total sales for regional centers are very closely related to the national sales performance of general merchandise as illustrated in figure 2.28. This relationship is almost identical because the volatility of food sales does not apply since food stores represent only 2% of a regional center's tenant mix.

Figure 2.29 illustrates an average growth of about \$4 billion per year over the last decade. In fact, the volatility of figure 2.29 represents a consistency in the long run which is represented in figure 2.28.

**Figure 2.28**



**Figure 2.29**



## 2.11 - Deflated Types of Goods vs. Deflated Total Personal Income 1990-1996

How much are Americans spending on different types of goods? Especially those sold in shopping centers. By relating sales broken down by types of good to national income, an assessment can be made of how certain types of centers should be performing in relation to others.

Figure 2.30 indicates that from 1990-1996, the amount of income Americans spent on food dropped by a full percentage point which would commonly be a bad thing for the small neighborhood center whose anchor store is the supermarket, although most anchor supermarkets do not pay a significant percentage rent and, food being a necessity, the effect of a drop in food sales as a percentage of personal income may be negligible.

Figure 2.31 shows that deflated general merchandise sales as a percentage of personal income, after growing from 1990-1994, has recently slipped off in terms of growth in the last year which may indicate that supply has recently caught up with the demand for this type of good. Does this indicate, for example, a saturation in the Wal-Mart-Osco Drug Store markets which are mainly located in community centers?

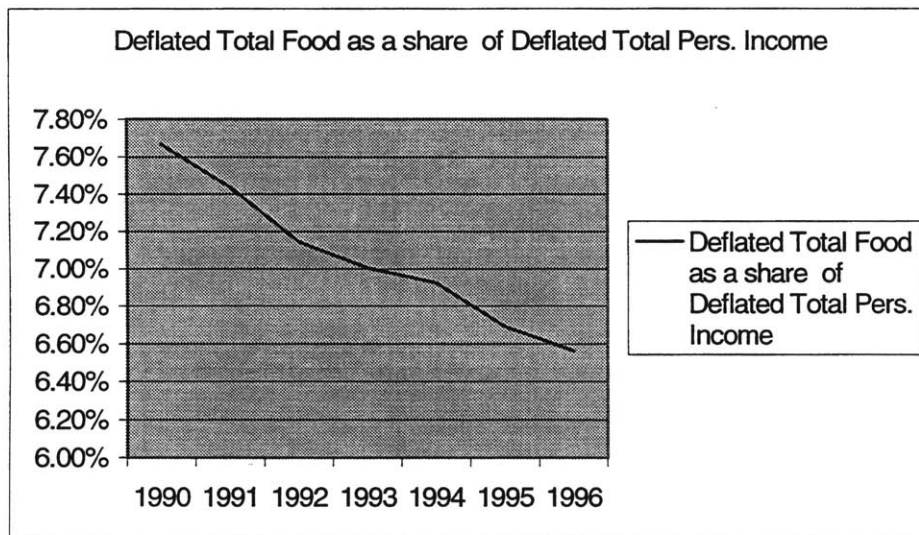
Figure 2.32 shows a significant decline in how much Americans are spending on Apparel. Although this may seem bad for regional centers, perhaps it is a result of

consumers buying less expensive clothes. This would shift consumption from the more up-scale regional centers to the large centers with more reasonably priced items.

Figure 2.33 shows a pronounced decline in how much Americans are spending at Eating and Drinking Establishments, while figures 2.34 and 2.35 show a marked increase in the level of income spent on furniture and building materials respectively. This may indicate a movement of the consumer to stay away from the food courts in regional centers, and yet a migration to purchase at stand-alone stores.

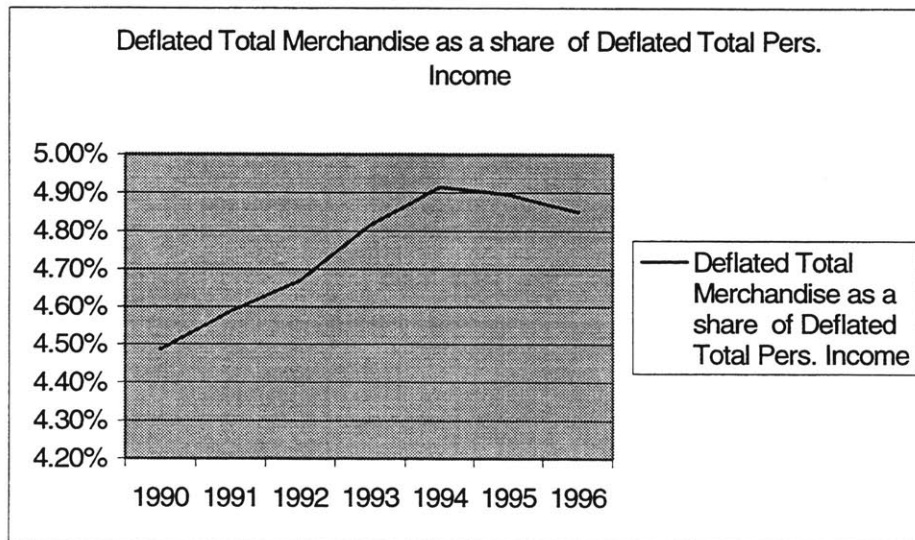
**Figure 2.30**

	Deflated Food Sales (bil. dol.)	Deflated Total Personal Income (bil. Dol.) 1985 base year	Deflated Total Food as a share of Deflated Total Pers. Income
1990	\$303.40	\$3,957.62	7.67%
1991	\$292.99	\$3,938.35	7.44%
1992	\$289.37	\$4,050.53	7.14%
1993	\$286.90	\$4,095.31	7.01%
1994	\$289.80	\$4,185.02	6.92%
1995	\$288.97	\$4,318.60	6.69%
1996	\$290.36	\$4,424.05	6.56%



**Figure 2.31**

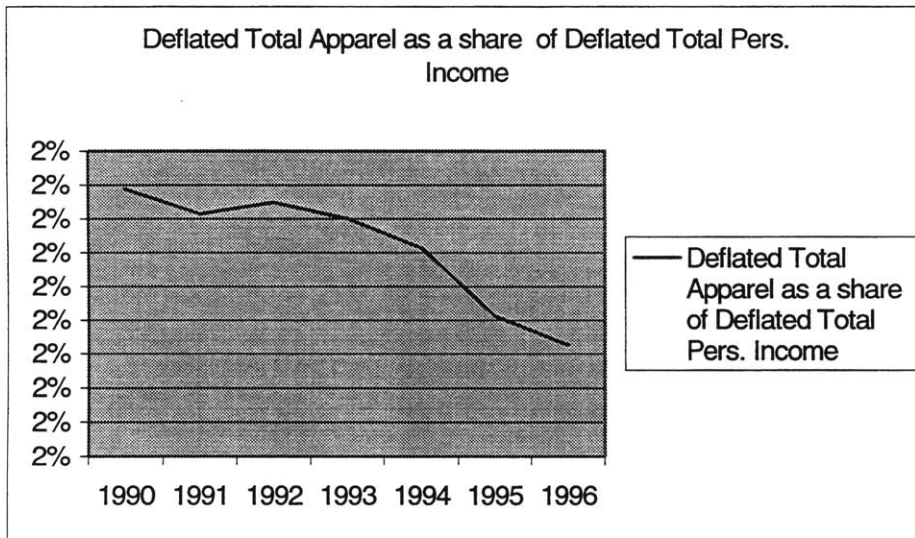
	Deflated Merch Sales (bil. dol.)	Deflated Total Personal Income (bil. Dol.) 1985 base year	Deflated Total Merchandise as a share of Deflated Total Pers. Income
1990	\$177.53	\$3,957.62	4.49%
1991	\$180.65	\$3,938.35	4.59%
1992	\$189.13	\$4,050.53	4.67%
1993	\$197.18	\$4,095.31	4.81%
1994	\$205.69	\$4,185.02	4.91%
1995	\$211.39	\$4,318.60	4.89%
1996	\$214.57	\$4,424.05	4.85%





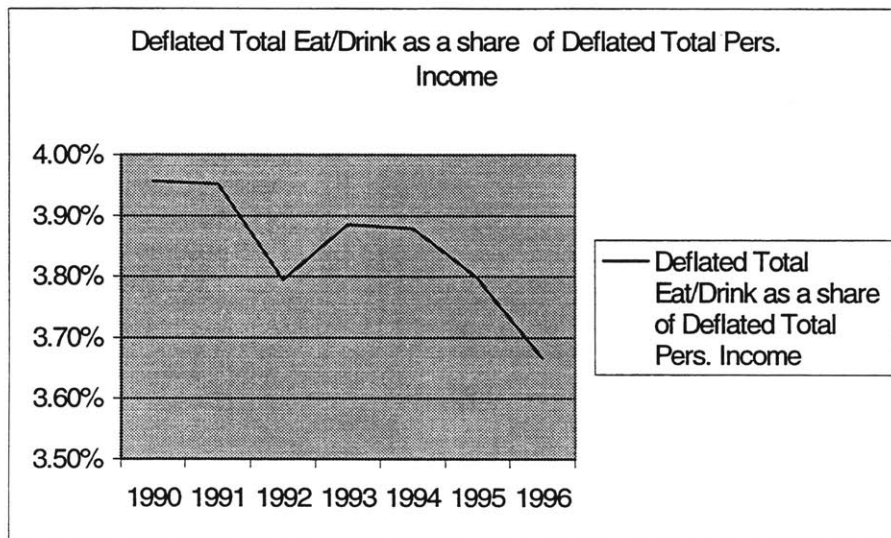
**Figure 2.32**

	Deflated Apparel Sales (bil. dol.)	Deflated Total Personal Income (bil. Dol.) 1985 base year	Deflated Total Apparel as a share of Deflated Total Pers. Income
1990	\$78.92	3957.623867	2%
1991	\$77.08	3938.352377	2%
1992	\$79.97	4050.531815	2%
1993	\$79.88	4095.306249	2%
1994	\$79.82	4185.016382	2%
1995	\$78.00	4318.595827	2%
1996	\$77.99	4424.045818	2%



**Figure 2.33**

	Deflated Eat/Drink Sales (bil. dol.)	Deflated Total Personal Income (bil. Dol.) 1985 base year	Deflated Total Eat/Drink as a share of Deflated Total Pers. Income
1990	\$156.60	\$3,957.62	3.96%
1991	\$155.67	\$3,938.35	3.95%
1992	\$153.66	\$4,050.53	3.79%
1993	\$159.10	\$4,095.31	3.88%
1994	\$162.33	\$4,185.02	3.88%
1995	\$163.99	\$4,318.60	3.80%
1996	\$162.23	\$4,424.05	3.67%



**Figure 2.34**

	Deflated Furniture Sales (bil. dol.)	Deflated Total Personal Income (bil. Dol.) 1985 base year	Deflated Total Furniture as a share of Deflated Total Pers. Income
1990	\$76.61	\$3,957.62	1.94%
1991	\$77.95	\$3,938.35	1.98%
1992	\$74.45	\$4,050.53	1.84%
1993	\$78.54	\$4,095.31	1.92%
1994	\$86.14	\$4,185.02	2.06%
1995	\$89.94	\$4,318.60	2.08%
1996	\$91.57	\$4,424.05	2.07%

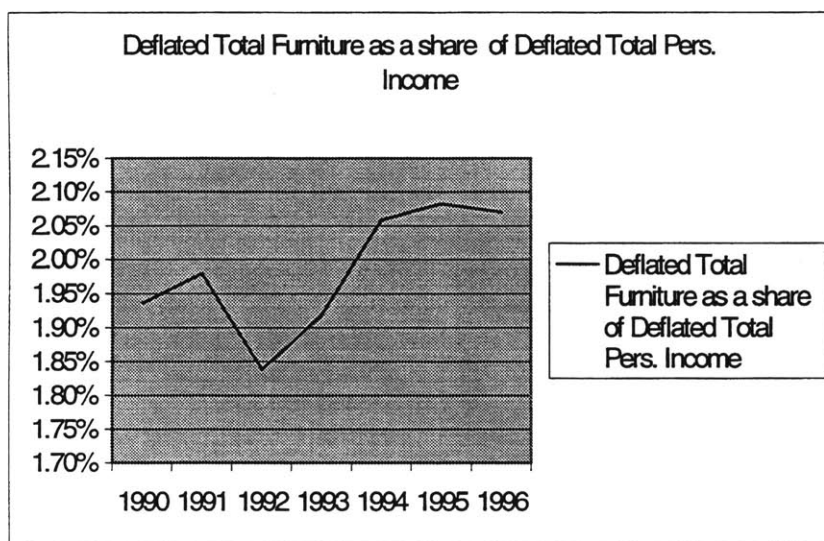
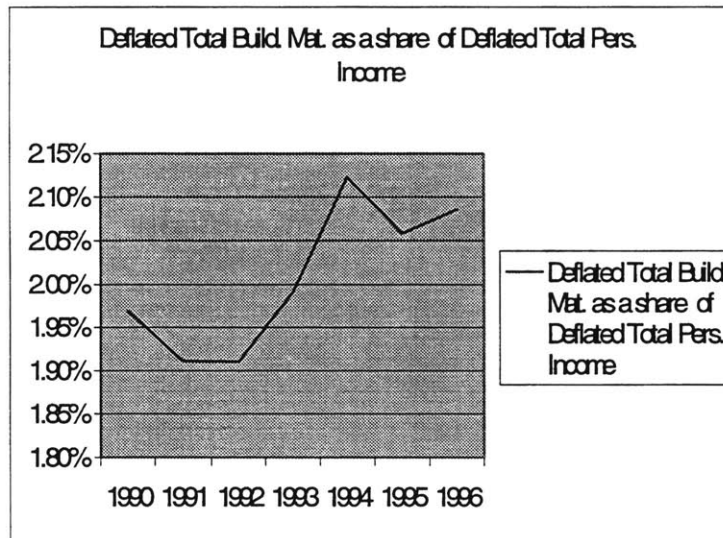


Figure 2.35

	Deflated Build. Mat. Sales (bil. dol.)	Deflated Total Personal Income (bil. Dol.) 1985 base year	Deflated Total Build. Mat. as a share of Deflated Total Pers. Income
1990	\$77.93	\$3,957.62	1.97%
1991	\$75.26	\$3,938.35	1.91%
1992	\$77.37	\$4,050.53	1.91%
1993	\$81.52	\$4,095.31	1.99%
1994	\$88.83	\$4,185.02	2.12%
1995	\$88.88	\$4,318.60	2.06%
1996	\$92.26	\$4,424.05	2.09%



## 2.12 - Chapter Summary

The first conclusion is that overall purchases are generally commanding a smaller and smaller share of the American income which is not good for shopping centers, however this gradual decline has continued to be more and more gradual which is better for shopping centers in recent years.

In the past decade, food sales have grown only \$5 billion (virtually no real growth) and are on the rise once again, general merchandise sales have grown a whopping \$56 billion and continue to steadily increase, apparel sales have been more volatile, risen only \$7 billion and have recently stabilized after a 1 year decline, Eating and Drinking Establishments have risen \$35 billion and continue their stable, steady increase, furniture sales have risen \$23 billion in a stable fashion, building material sales have risen \$21 billion and have experienced smooth low-grade inclines interspersed with smooth, low-grade declines while doing better in recent years. In general, the highest increases with positive incline patterns were for items sold by larger shopping centers and the second highest and best products were most common to stand-alone stores.

In addition, a distinct relationship was found between the sales performance of centers with the sales performance of the goods they most commonly sell, for example neighborhood centers displayed a mix of volatility from the performance of food sales with stability from the performance of general merchandise sales over the last decade.

Finally, with regard to the patterns of how much income Americans are spending on which types of goods: In the last six years Americans have spent continuously less on food, only recently have begun to spend less on general merchandise which was on the rise for most of the decade, have spent continuously less on apparel, have been sporadic about eating and drinking establishments and have in recent years spent the least on this category, have been spending much more on furniture which has been on the rise for the past few years and only recently stabilized. Finally, they are spending slightly more on building materials. This analysis tends to favor community centers and stand-alone stores and favors neighborhood and regional centers to a lesser degree.

**Chapter 3**  
**Retail Supply Compared to**  
**Retail Sales**

### 3.1 – Retail Supply Compared to Retail Sales

In Real Estate 97, Jane Adler goes on to write,

"Lachman says too much marginal retail space is staying open.....'You don't have a net loss of retail square footage. The retail dollar is being spread across too many square feet, and nobody is doing as well as they should.'

Ludgin of Heitman agrees that retailers greedy for market share are causing much of the harm. 'They are not looking for retail sales growth, but for market share,' she says, explaining that once retailers dominate a market they often close stores. 'The consumer benefits, but there is a lot of retail space left that may have to be re-used or bulldozed.'" (pg. 4)

By comparing total sales with total stock, there appears to be a decline in dollars per square foot. However, upon further examination, this decline is caused by the problem of the existing stock of older stores or "the demolition problem". By analyzing the change in sales over the change in stock, it is uncovered that there are no apparent trends and the relationship between retail sales and retail space is more consistent in the long-run than many think in the retail marketplace.

In comparing total stock of shopping centers to national shopping center sales, several adjustments and computations must be noted. Appendix A illustrates how automotive and fuel sales represent approximately 25% of total national sales and must be subtracted out in order to get a more accurate picture of shopping center sales.



Appendix B illustrates that sales must be adjusted further for inflation and “deflated” using the CPI Index.

Appendices C and D simply chart and explain the movement of number of centers and amount of gross leasable area opened per year from 1970-1996 and illustrate the recession and other trends that have influenced the overall shopping center market.

**3.2 - Total Stock Of Centers by Gross Leasable Area (GLA) Tabulated by Year**  
**Source: National Research Bureau (NRB)**

Using \$4.39 billion as a base in 1993 for total stock of GLA of all centers as well as the NRB data for the amount of GLA opened per year, the total stock of GLA for each year 1970-1996 is computed below.

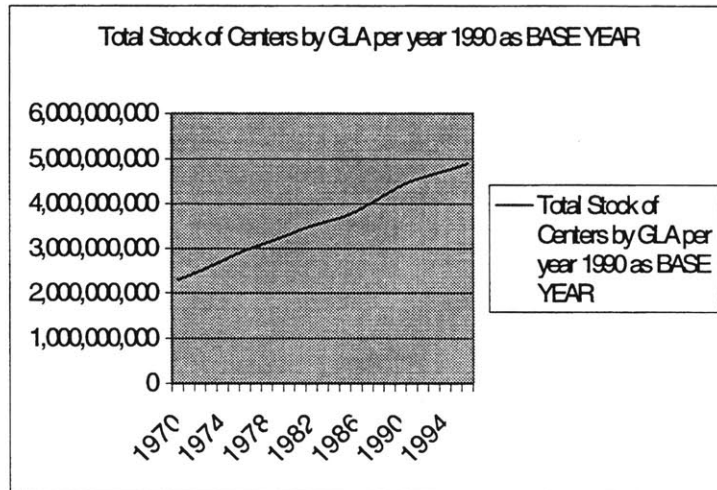
According to this computation, the total stock of centers in terms of gross leasable area has increased from 1970 to 1996 by about 118%.

**Figure 3.1 - Total Stock of Centers by GLA Per Year 1970-1996 (NRB)**

**Figure 3.2 - Total Stock of Centers by GLA Per Year 1970-1996 (NRB)**

**Total Stock of Centers by GLA per year 1990 as BASE YEAR**

1970	2,292,037,671
1971	2,389,894,734
1972	2,489,411,783
1973	2,602,793,020
1974	2,721,313,274
1975	2,837,534,304
1976	2,947,280,774
1977	3,034,684,836
1978	3,121,671,825
1979	3,210,102,862
1980	3,298,276,548
1981	3,403,605,328
1982	3,494,228,637
1983	3,571,910,372
1984	3,639,666,307
1985	3,716,393,013
1986	3,827,966,046
1987	3,965,795,236
1988	4,105,332,005
1989	4,249,150,960
1990	4,390,000,000
1991	4,499,796,584
1992	4,581,962,118
1993	4,659,407,305
1994	4,725,659,488
1995	4,798,236,250
1996	4,893,406,259



**3.3 - Total Real Adjusted Retail Sales Compared with Total Stock of Centers by GLA (Shown in Dollars per Square Foot)**

Source: National Research Bureau

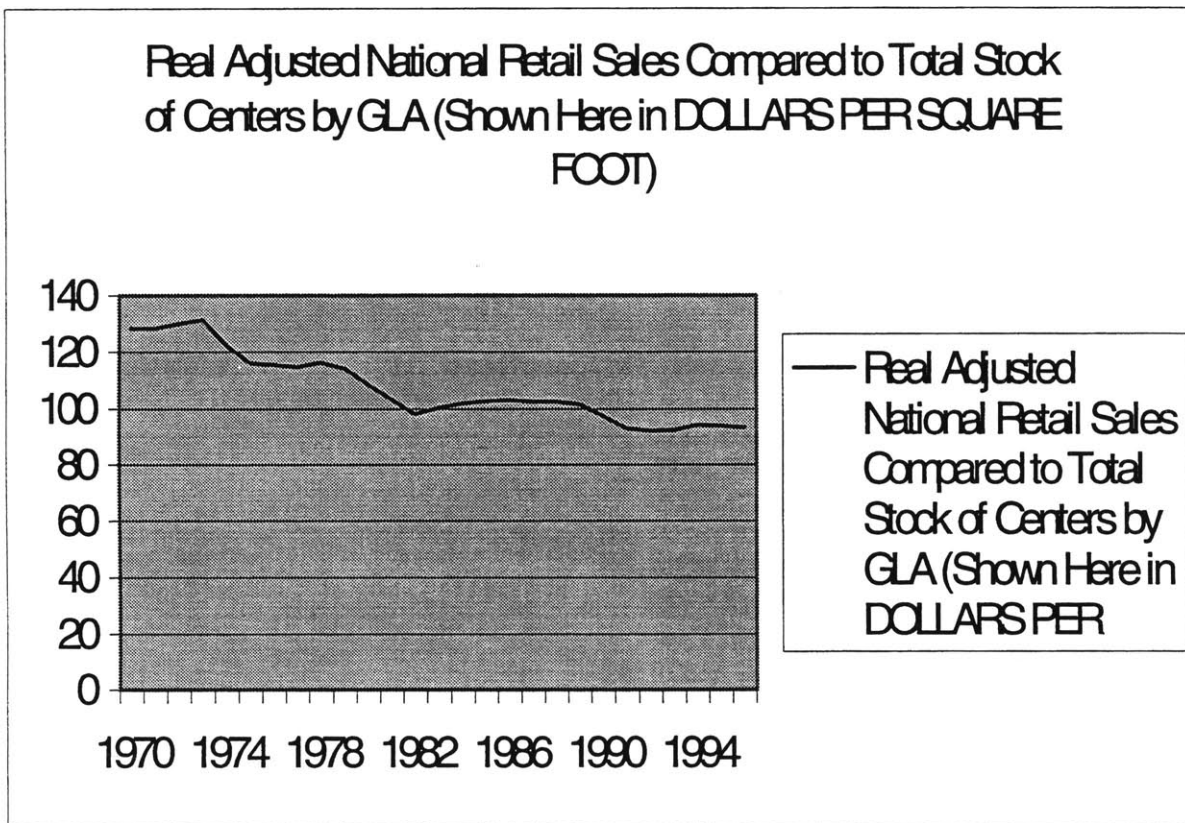
According to figure 3.3 and 3.4, while stock of centers has grown from 1970-1996 by 118%, sales has grown only 55%. The growth of stock has outpaced the growth in sales by more than two times. Sales per square foot has declined by 27%.

A possible reason for this decline is that the older retail stores which have closed because of the rise of shopping centers are still part of the stock, yet are not accounted for in this analysis. This is further explained in the chapter summary.

**Figure 3.3 - Total Real Adjusted National Retail Sales Compared to Total Stock of Centers by GLA for 1970-1996 in Dollars Per S.F.**

<b>Total Stock of Centers by GLA per year 1980 as BASE YEAR</b>	<b>Real Adjusted National Retail Sales 1970 as BASE YEAR</b>	<b>Real Adjusted National Retail Sales Compared to Total Stock of Centers by GLA (Shown Here in DOLLARS PER SQUARE FOOT)</b>	
1970	2,292,037,671	\$294,200,000,000	\$128.36
1971	2,389,894,734	\$306,992,337,165	\$128.45
1972	2,489,411,783	\$323,275,862,069	\$129.86
1973	2,602,793,020	\$342,070,882,932	\$131.42
1974	2,721,313,274	\$362,816,275,636	\$122.30
1975	2,837,534,304	\$329,304,773,909	\$116.05
1976	2,947,280,774	\$340,515,171,831	\$115.54
1977	3,034,684,836	\$348,480,562,007	\$114.84
1978	3,121,671,825	\$363,162,532,615	\$116.34
1979	3,210,102,882	\$366,723,715,647	\$114.24
1980	3,298,276,548	\$368,176,784,554	\$108.60
1981	3,403,605,328	\$351,369,155,529	\$103.23
1982	3,494,228,637	\$342,735,935,349	\$98.09
1983	3,571,910,372	\$358,580,878,321	\$100.39
1984	3,639,666,307	\$370,716,866,063	\$101.85
1985	3,716,393,013	\$381,294,512,236	\$102.60
1986	3,827,966,046	\$394,110,931,236	\$102.96
1987	3,965,795,236	\$406,365,365,382	\$102.47
1988	4,105,332,005	\$420,759,896,446	\$102.49
1989	4,249,150,960	\$430,882,162,546	\$101.40
1990	4,390,000,000	\$427,276,139,074	\$97.33
1991	4,499,796,584	\$418,534,916,151	\$93.01
1992	4,581,962,118	\$422,014,867,733	\$92.10
1993	4,669,407,305	\$430,866,601,709	\$92.47
1994	4,725,659,488	\$445,173,324,046	\$94.20
1995	4,798,236,280	\$460,803,157,604	\$93.95
1996	4,883,406,259	\$457,049,844,984	\$93.40

**Figure 3.4 – Real Adjusted National Retail Sales Compared to Total Stock of Centers by GLA (Shown Here in Dollars Per Square Foot)**



### 3.4 – The Change in Total Real Adjusted National Retail Sales Compared to GLA of Centers Opened Per Year

Source: National Research Bureau

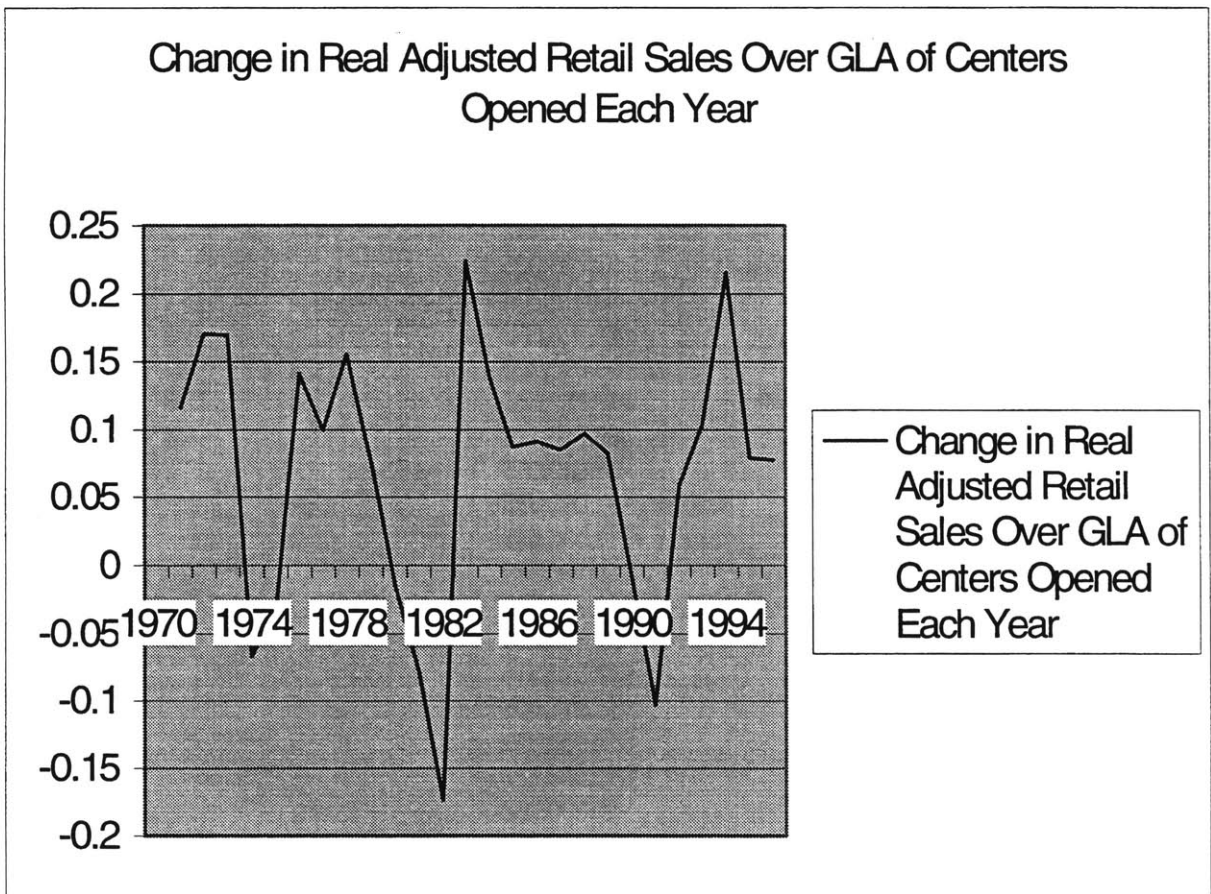
Figures 3.5 and 3.6 show a high volatility between the change in sales vs. the change in stock. This high volatility implies a consistency in the long run and denotes no apparent trend. The reason why a decline is not indicated as with total sales over total stock is because "total stock" is not one of the variables in this test, and the "demolition problem" does not skew the results.

**Figure 3.5 – The Change in Total Real Adjusted National Retail Sales Compared to GLA of Centers Opened Per Year**

	GLA of Centers Opened per year	Change in Real Adjusted Retail Sales	Change in Real Adjusted Retail Sales Over GLA of Centers Opened Each Year
1970	97,857,063		
1971	99,517,049	\$11,561,686	\$0.12
1972	113,381,237	\$19,314,503	\$0.17
1973	118,520,254	\$20,131,492	\$0.17
1974	116,221,030	-\$7,735,006	-\$0.07
1975	109,746,470	-\$3,015,704	-\$0.03
1976	87,404,062	\$12,328,532	\$0.14
1977	86,986,989	\$8,692,729	\$0.10
1978	88,431,037	\$13,782,676	\$0.16
1979	88,173,686	\$6,716,119	\$0.08
1980	105,328,780	-\$1,519,015	-\$0.01
1981	90,623,309	-\$7,098,378	-\$0.08
1982	77,681,735	-\$13,506,693	-\$0.17
1983	67,755,935	\$15,196,449	\$0.22
1984	76,726,706	\$10,731,292	\$0.14
1985	111,573,033	\$9,730,583	\$0.09
1986	137,829,190	\$12,592,316	\$0.09
1987	139,536,769	\$11,911,425	\$0.09
1988	143,818,955	\$13,990,258	\$0.10
1989	140,849,040	\$11,643,777	\$0.08
1990	133,695,179	-\$1,300,757	-\$0.01
1991	109,796,584	-\$11,303,553	-\$0.10
1992	82,165,534	\$4,803,368	\$0.06
1993	77,445,187	\$8,036,792	\$0.10
1994	66,252,183	\$14,291,595	\$0.22
1995	72,576,762	\$5,743,236	\$0.08
1996	95,170,009	\$7,396,823	\$0.08

Further, figures 3.7 and 3.8 reveal the same conclusions by comparing the change in sales with the change in the number of centers and illustrate this in dollars per center.

**Figure 3.6 – GLA of Centers Opened Per Year Compared to Change in Total Real Adjusted Retail Sales**

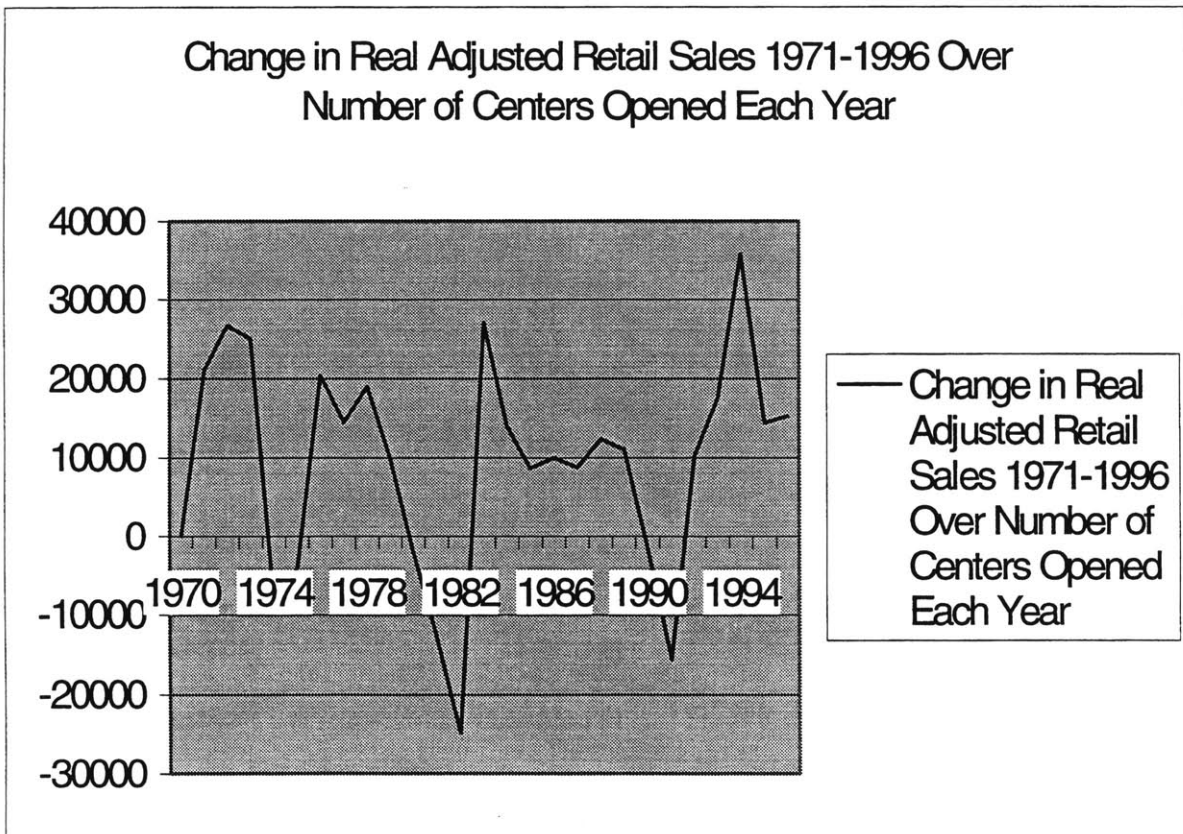


**Figure 3.7 – Change in Total Real Adjusted Retail Sales Compared to Number of Centers Opened (Shown in Dollars per Center)**

Source: National Research Bureau

	<b>Number of Centers Opened Each Year</b>	<b>Change in Real Adjusted Retail Sales Each Year 1971-1996</b>	<b>Change in Real Adjusted Retail Sales 1971-1996 Over Number of Centers Opened Each Year Shown in Dollars Per Center</b>
1970	619		
1971	549	11561685.82	21059.537020036400000000
1972	724	19314502.96	26677.490269337000000000
1973	804	20131491.98	25039.169125621900000000
1974	837	-7735006.131	-9241.345437275960000000
1975	759	-3015704.271	-3973.259909090950000000
1976	606	12328531.88	20344.112006600700000000
1977	602	8692728.859	14439.748935215900000000
1978	727	13782675.87	18958.288672627200000000
1979	677	6716119.405	9920.412710487490000000
1980	693	-1519014.797	-2191.940544011620000000
1981	549	-7098377.879	-12929.650052823200000000
1982	545	-13506693.38	-24782.923631192700000000
1983	561	15196449.05	27088.144479500800000000
1984	766	10731291.58	14009.519033942500000000
1985	1128	9730582.5	8626.402925531910000000
1986	1264	12592315.99	9962.275309335440000000
1987	1357	11911425.23	8777.763615327940000000
1988	1134	13990258.11	12337.088283068800000000
1989	1060	11643777.44	10984.695700000000000000
1990	963	-1300756.631	-1350.733780893020000000
1991	724	-11303553.43	-15612.642856353600000000
1992	473	4803367.868	10155.111771670300000000
1993	458	8036792.312	17547.581467248900000000
1994	399	14291595.06	35818.533994987500000000
1995	399	5743235.9	14394.074937343400000000
1996	486	7396823.396	15219.801226337400000000

**Figure 3.8 – Change in Real Adjusted Retail Sales 1971-1996 Compared to Number of Centers Opened Each Year**





### 3.5 - Chapter Summary

By analyzing the change in total retail sales over the change in total retail stock, it is uncovered that the U.S. may not be overbuilt and the fear permeating the real estate industry may be unjustified. Why then is a decline in sales per square foot seen when total sales are compared to total stock?

When total sales are put over total stock, one variable is unknown and therefore left out of the analysis - the stock of old stores. In other words, what is known is total sales which includes the sales of shopping centers and the sales of older stores.

However, only the stock of shopping centers is used to represent total stock and the stock of old stores is not factored into the total stock variable which leads to a decline in sales per square foot and fear in the marketplace.

For this there are only two solutions - estimate the stock of older stores and add this to "total stock" in the computation of sales per square foot - or analyze the changes in sales over the changes in stock which do not use "total stock" and therefore do not reflect the error of not factoring the stock of older stores. Either way, a conclusion will be reached of a much more stable sales dollar per square foot and a retail marketplace with at least some room for new shopping center development.

**Chapter 4**  
**Neighborhood, Community**  
**and Regional Centers Compared**

#### 4.1 – Sales Compared to Stock by Center Type

Sources: NRB, *Retail Sales and Retail Real Estate*, U.S. Census

In *Real Estate 97*, Jane Adler concludes,

"Neighborhood shopping centers with grocery anchors are cited as the most viable, and safest, retail format." (pg. 4)

Is this true? One way to find out is to look at the relative performances between the different shopping center types. First, the total sales performance between the different center types will be compared by dollars per square foot (sales over stock) and also related to the sales performance of the type of product which they most commonly sell. It will be determined whether trends in growth or decline in retail sales per square foot is more pronounced for neighborhood, community, or larger regional centers. Second, the center types will be compared by the changes in their sales over the changes in their stock and it will be determined whether this test is more accurate than the first as it was when comparing national retail sales with national retail stock.

Appendix E discerns the number of centers by center type in both table and chart form. Figures 4.1-4.3 illustrate sales per square foot for neighborhood (NCSC), community and regional center types. The stock by center type was obtained by taking the 1993 base year figure from *Retail Sales and Retail Real Estate* (page 8 figure 4) and applying the GLA per year from the NRB Index. The sales for each type of center has been taken from the deflated sales-by type-of-good analysis from chapter one.

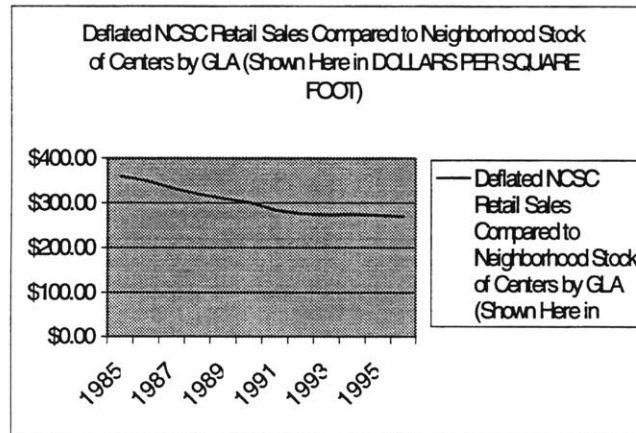
Figures 4.1-4.2 suggest a gradual decline in sales per square foot for neighborhood and community centers from 1985 to 1996, each showing a decrease of 25%-30%. This also indicates that for neighborhood and community types, the supply of retail space has grown faster than retail sales. The movement of regional sales per square foot, however, is much less smooth than the first two types. The

volatile motion of the regional chart in figure 4.3 reflects that the sales per square foot has generally stayed the same in the past ten years, which is confirmed by the table in figure 4.3.

For the regional center these findings agree with those of Retail Sales and Retail Real Estate which confirms “in the case of regional centers, a fairly stable sales per square foot since 1982”. However, for neighborhood and community types, figures 4.1-4.2 suggest a gradual decline in sales per square foot.

**Figure 4.1**

	<b>Total Stock of Neighborhood Centers by GLA per year 1993 as BASE YEAR</b>	<b>Deflated Total NCSC Sales</b>	<b>Deflated NCSC Retail Sales Compared to Neighborhood Stock of Centers by GLA (Shown Here in DOLLARS PER SQUARE FOOT)</b>
1985	563,454,255	\$202,700,000,000	\$359.75
1986	597,773,052	\$209,210,000,000	\$349.98
1987	635,342,044	\$212,180,000,000	\$333.96
1988	674,242,355	\$216,060,000,000	\$320.45
1989	702,785,319	\$217,810,000,000	\$309.92
1990	731,080,478	\$220,150,000,000	\$301.13
1991	755,789,712	\$214,550,000,000	\$283.88
1992	772,276,329	\$213,360,000,000	\$276.27
1993	784,000,000	\$214,160,000,000	\$273.16
1994	792,991,926	\$218,070,000,000	\$275.00
1995	802,567,387	\$218,820,000,000	\$272.65
1996	814,124,062	\$219,790,000,000	\$269.97



**Figure 4.2**

	<b>Total Stock of Community Centers by GLA per year 1993 as BASE YEAR</b>	<b>Deflated Community Retail Sales</b>	<b>Deflated Community Retail Sales Compared to Community Stock of Centers by GLA (Shown Here in DOLLARS PER SQUARE FOOT)</b>
1985	937,659,481	\$169,560,000,000	\$180.83
1986	992,540,804	\$176,150,000,000	\$177.47
1987	1,056,113,621	\$180,090,000,000	\$170.52
1988	1,133,854,036	\$183,250,000,000	\$161.62
1989	1,213,073,561	\$185,400,000,000	\$152.83
1990	1,288,260,704	\$186,630,000,000	\$144.87
1991	1,358,206,401	\$184,660,000,000	\$135.96
1992	1,420,242,265	\$187,090,000,000	\$131.73
1993	1,471,000,000	\$190,440,000,000	\$129.46
1994	1,510,469,930	\$195,590,000,000	\$129.49
1995	1,544,957,511	\$197,870,000,000	\$128.07
1996	1,587,504,768	\$199,440,000,000	\$125.63

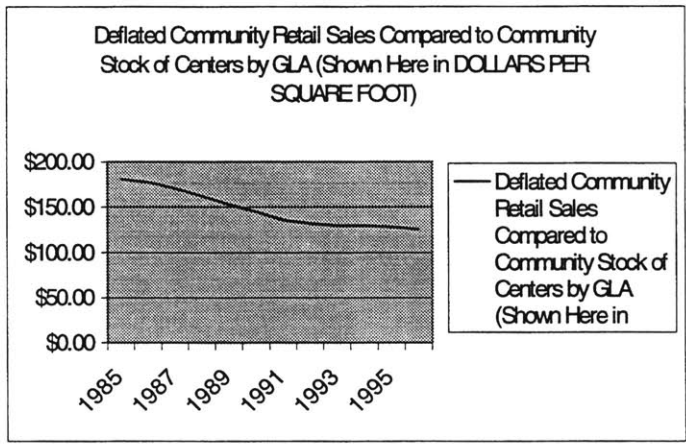
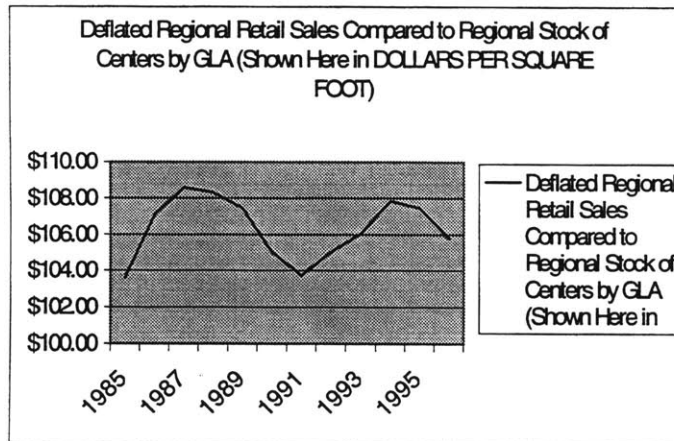


Figure 4.3

	Total Stock of Regional Centers by GLA per year 1993 as BASE YEAR	Deflated Regional Retail Sales	Deflated Regional Retail Sales Compared to Regional Stock of Centers by GLA (Shown Here in DOLLARS PER SQUARE FOOT)
1985	1,267,046,431	\$131,210,000,000	\$103.56
1986	1,286,324,901	\$137,730,000,000	\$107.07
1987	1,310,843,402	\$142,340,000,000	\$108.59
1988	1,337,230,962	\$144,850,000,000	\$108.32
1989	1,370,087,151	\$147,220,000,000	\$107.45
1990	1,402,657,917	\$147,280,000,000	\$105.00
1991	1,432,097,624	\$148,520,000,000	\$103.71
1992	1,466,506,913	\$154,040,000,000	\$105.04
1993	1,504,000,000	\$159,490,000,000	\$106.04
1994	1,534,371,504	\$165,480,000,000	\$107.85
1995	1,570,971,714	\$168,830,000,000	\$107.47
1996	1,615,294,712	\$170,860,000,000	\$105.78



#### **4.2 - Change in Sales Compared to Change in Stock by Center Type**

Figures 4.4-4.6 illustrate the change in sales over the change in stock for neighborhood, community, and regional centers. For neighborhood and community, which both showed a gradual decline in sales per square foot, the similarity appears in the readings with regard to major recessions in 1992 with recoveries to these recessions in 1994. Otherwise, the movements of neighborhood and community centers differ. Neighborhood changes hover around the \$100 positive change per square foot per year (apart from the major recession and recovery) in the last decade. Community changes, however, showed a continuous decline all the way down to the depth of the recession in 1992 and appear to be showing the exact same declining movement in recent years.

Regional center changes show more similarity to community center than to neighborhood center patterns. The inclines and declines are less pronounced than community centers and far less pronounced than neighborhood centers. (They also never fall below zero). The zig zag patterns in the change in sales over the change in stock for the different center types give the best reflection of recessions and in this case illustrate that all three types were hit by the major recession in the early nineties, but that neighborhood centers were hit the worst, then community, and regional centers suffered the least from this downturn in the market.



Figure 4.4

	Neighborhood GLA per year (Change in Stock)	Deflated Total NCSC Sales	Change in Deflated NCSC Sales	Change in Deflated NCSC Sales Over Change in Stock
1985	34,318,797	\$202,700,000,000		
1986	37,568,992	\$209,210,000,000	\$6,510,000,000	\$173.28
1987	38,900,312	\$212,180,000,000	\$2,970,000,000	\$76.35
1988	28,542,964	\$216,060,000,000	\$3,880,000,000	\$135.94
1989	28,295,159	\$217,810,000,000	\$1,750,000,000	\$61.85
1990	24,709,233	\$220,150,000,000	\$2,340,000,000	\$94.70
1991	16,486,617	\$214,550,000,000	-\$5,600,000,000	-\$339.67
1992	11,723,671	\$213,360,000,000	-\$1,190,000,000	-\$101.50
1993	9,530,999	\$214,160,000,000	\$800,000,000	\$83.94
1994	8,991,926	\$218,070,000,000	\$3,910,000,000	\$434.83
1995	9,575,462	\$218,820,000,000	\$750,000,000	\$78.33
1996	11,556,675	\$219,790,000,000	\$970,000,000	\$83.93

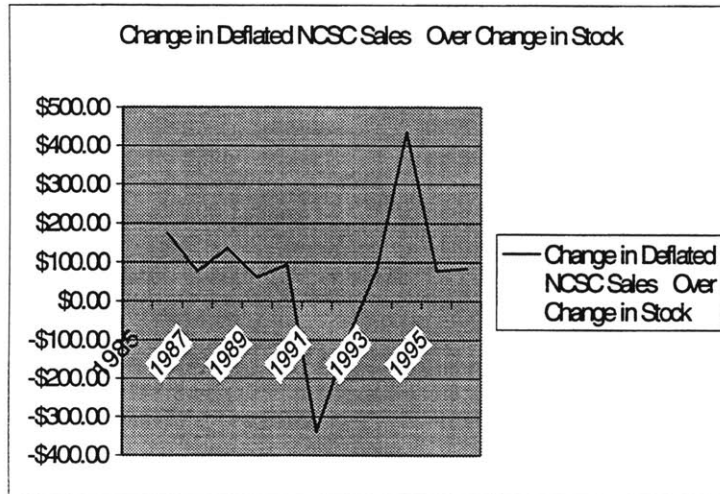


Figure 4.5

Community GLA per year (Change in Stock)	Deflated Total Community Sales	Change in Deflated Community Sales	Change in Deflated Community Sales Over Change in Stock
1985	54,881,324	\$169,560,000,000	
1986	63,572,817	\$176,150,000,000	\$6,590,000,000
1987	77,740,416	\$180,080,000,000	\$3,940,000,000
1988	79,219,525	\$183,250,000,000	\$3,160,000,000
1989	75,187,144	\$185,400,000,000	\$2,150,000,000
1990	69,945,697	\$186,630,000,000	\$1,230,000,000
1991	62,036,864	\$184,660,000,000	-\$1,970,000,000
1992	50,757,735	\$187,080,000,000	\$2,430,000,000
1993	43,079,247	\$190,440,000,000	\$3,350,000,000
1994	39,469,930	\$195,590,000,000	\$5,150,000,000
1995	34,487,580	\$197,870,000,000	\$2,280,000,000
1996	42,547,257	\$199,440,000,000	\$1,570,000,000

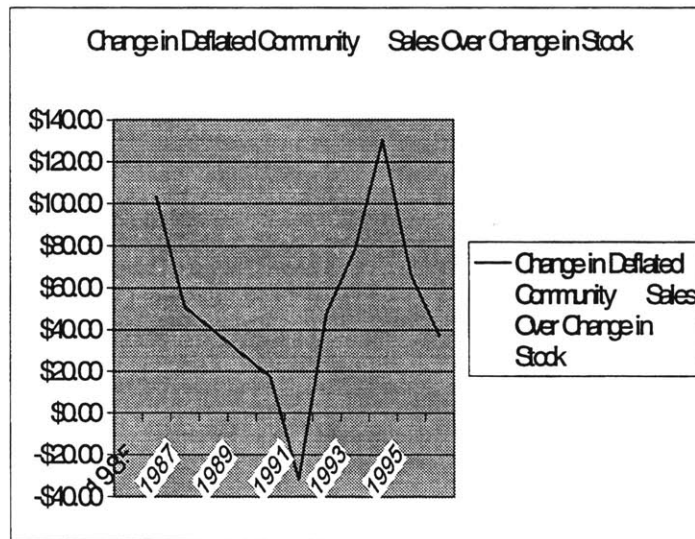
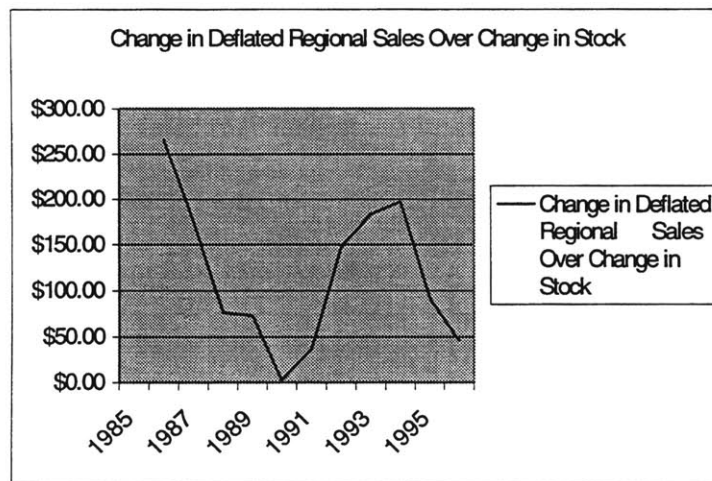


Figure 4.6

	Regional GLA per year (Change in Stock)	Deflated Total Regional Sales	Change in Deflated Regional Sales	Change in Deflated Regional Sales Over Change in Stock
1985	19,278,470	\$131,210,000,000		
1986	24,518,501	\$137,730,000,000	\$6,520,000,000	\$265.92
1987	26,387,560	\$142,340,000,000	\$4,610,000,000	\$174.70
1988	32,856,189	\$144,850,000,000	\$2,510,000,000	\$76.39
1989	32,570,767	\$147,220,000,000	\$2,370,000,000	\$72.76
1990	29,439,707	\$147,280,000,000	\$60,000,000	\$2.04
1991	34,409,289	\$148,520,000,000	\$1,240,000,000	\$36.04
1992	37,493,087	\$154,040,000,000	\$5,520,000,000	\$147.23
1993	29,722,074	\$159,490,000,000	\$5,450,000,000	\$183.37
1994	30,371,504	\$165,480,000,000	\$5,990,000,000	\$197.22
1995	36,600,210	\$168,830,000,000	\$3,350,000,000	\$91.53
1996	44,322,999	\$170,860,000,000	\$2,030,000,000	\$45.80



### 4.3 - Chapter Summary

When comparing total sales with total stock of neighborhood and community centers, there has been a decline in sales per square foot. Regional center sales per square foot have been stable. In contrast, when comparing changes in sales with changes in square footage there is much more volatility which implies long-run consistency for all center types. Further, the only pronounced periods of decline reflect recessions and there is no continuous decline to be found for any of the center types.

Thus it appears that the problem of the stock of old stores not being known nor being factored into the sales per square foot analysis is prevalent once again, this time within the analysis for neighborhood and community center types. It is concluded that after comparing the changes in sales with the changes in square footage for each center type, there is much more consistency and it does not appear that the neighborhood, community or regional markets are overbuilt. It does appear, however that because the stock of old stores are skewing the sales per square foot results for neighborhood and community centers, there may be a misconception in these markets as opposed to the regional center market.

# **Chapter 5**

## **Income Compared to Rent Growth**

## **5.1 – Shopping Center REITs and the Market**

The purpose of this chapter is to determine if those REITs specializing in shopping centers are outperforming the market. Therefore, three of these REITs will be sampled and the performance of their gross income will be compared to the market (represented by the rent index) in terms of growth, patterns and trends. The rent index must first be weighted by the regions found in Appendix J in which the REITs own property.

Most of the REITs which deal exclusively with shopping centers are listed in Appendix G. There is a scattering of data with regard to their gross revenues and gross square footage from 1972-1997 in Appendices H and I respectively.

Figure 5.1 lists the gross revenues of the three sample REITs which are New Plan Realty, Weingarten Realty Investments and Burnham Pacific Properties which have shown an increase in revenues over the past ten years of 485%, 185%, and 544% respectively. Figure 5.2 lists the REIT's gross square footage which have shown an increase of 400%, 144%, and 198% respectively.

**Figure 5.1**

**Table 20 - Gross Revenues of Three Sample REITs 1987-1997**

<b>3 Sample REITs</b>			
<b>Gross Revenues</b>			
	<b>New Plan Realty Trust</b>	<b>Weingarten Realty Investors</b>	<b>Burnham Pacific Properties</b>
1987	\$35,859,000	\$61,200,000	\$10,568,000
1988	\$37,320,000	\$64,800,000	\$13,064,000
1989	\$43,541,000	\$68,100,000	\$20,356,000
1990	\$54,123,000	\$76,900,000	\$23,638,000
1991	\$57,383,000	\$82,600,000	\$24,838,000
1992	\$64,692,000	\$90,000,000	\$28,025,000
1993	\$76,309,000	\$103,300,000	\$41,179,000
1994	\$100,955,000	\$120,800,000	\$51,387,000
1995	\$130,576,000	\$134,197,000	\$48,669,000
1996	\$167,606,000	\$151,123,000	\$47,314,000
1997	\$206,821,000	\$174,512,000	\$68,174,000

**Figure 5.2**

**Table 21 - Gross Square Footage of Three Sample REITs 1987-1997**

<b>3 Sample REITs</b>			
<b>Gross Square Footage</b>			
	<b>New Plan Realty Trust</b>	<b>Weingarten Realty Investors</b>	<b>Burnham Pacific Properties</b>
1987	4,365,000	9,900,000	990,000
1988	5,272,000	10,400,000	1,040,000
1989	6,261,000	10,800,000	1,183,000
1990	7,345,000	11,500,000	1,182,000
1991	7,439,000	12,600,000	1,185,000
1992	9,972,000	13,500,000	1,332,000
1993	11,839,000	15,000,000	2,160,000
1994	14,558,000	16,300,000	2,182,000
1995	16,160,000	18,000,000	2,271,000
1996	18,000,000	20,200,000	2,353,000
1997	20,500,000	22,200,000	2,960,000

## 5.2 – Computing the Variables

For our three sample REITs, it is necessary to get a figure for rent per square foot from the rental index which can be compared with that of the REIT. This figure is deduced from a weighted average of all properties for New Plan, Weingarten and Burnham in the regions where they are.

To arrive at a final figure, several steps must be taken. First, The number of square feet owned per region for the REIT must be listed. Second, This number must be divided by the total number of square feet owned by the REIT to get a percentage of property owned in each particular region.

Third, a figure for rent per square foot for each of the appropriate regions from the rent index must be listed for each year from 1987-1997. This is found in Appendix J. The percentage of property for each region is then multiplied with this figure of rent per square foot to get a weighted average in dollars per square foot.

Once added together, the weighted average in dollars per square foot per region establish a final number which represents the rental index weighted average dollar value per square foot from 1987-1997 by the regions in which the sample REIT owns property.

This number can then be compared with the dollar value per square foot deduced from dividing the REIT's income by its square footage.



### **5.3 – New Plan Realty Trust and the Rent Index**

The weighted average rent per square foot for the rent index is computed in figure 5.3 and then compared in table form with New Plan Realty Trust's rent per square foot in Appendix K. (The changes in rent per square foot are also shown in Appendix K).

Figure 5.4 then graphs the weighted average rent index and New Plan's income per square foot for the past ten years.

Shown in exhibit 5.4, the first major difference in the movements of the market and the first sample REIT (New Plan) is that they move opposite to each other from 1987-1991; the market surges and gently recedes while New Plan drops, stabilizes, and then begins to rise. The second difference is shown in 1991-1992 when New Plan displays a sharp drop while the market gently begins to stabilize.

The patterns look more similar from 1992-1996 in which New Plan looks to move along in tandem with the market, although in the last year of the analysis, New Plan's performance drops more subtly than the market.

Due to the sharp rise and drop from 1989-1992, it is possible that New Plan was one of the many real estate companies hurt by the recession (i.e. first growing rapidly and then feeling effects of plummeting rents). In fact, New Plan's income per square foot demonstrates that it was more badly shaken during this period than average market.

On the other hand, because of the steeper incline than the market in 1992-1996 and less sharp decline in 1996-1997, New Plan seems to be outperforming the market in the past five years.

**Figure 5.3**

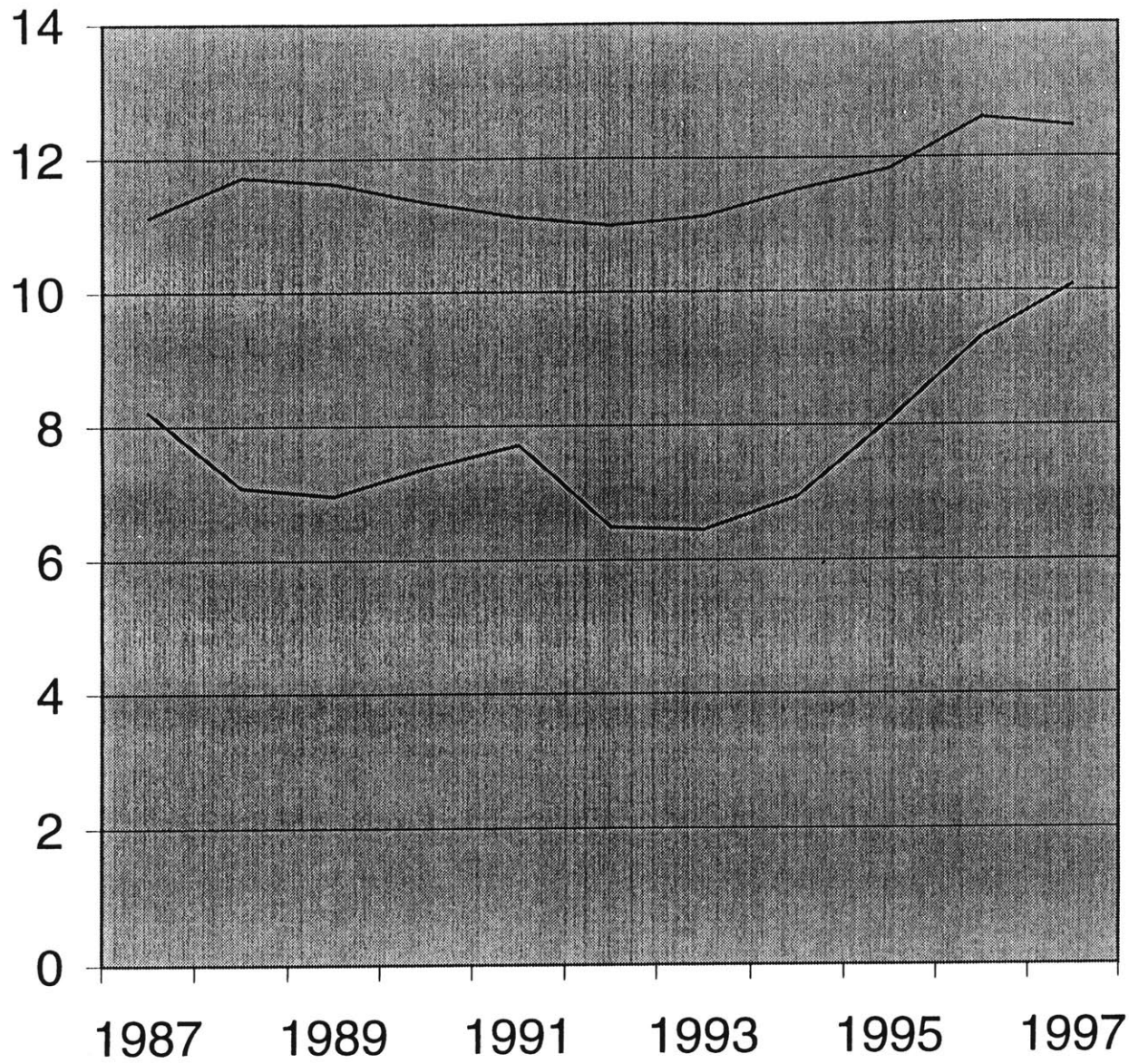
**Table 23 - New Plan: Percentage of Square Feet by Region and Corresponding Calculation of Rent Per Square Foot of Rent Index**

New Plan Calculated Ratio of Square Feet by Region			Rent Index - 1987	Weighted Average - 1987	Rent Index - 1988	Weighted Average - 1988	Rent Index - 1989
Region	Square Feet	Percentage					
Alabama	59,000	0%	\$11.72	\$0.03	\$12.11	\$0.03	\$12.53
California	333,000	2%	\$13.68	\$0.22	\$14.60	\$0.24	\$14.43
Delaware	246,000	1%	\$11.06	\$0.13	\$10.29	\$0.12	\$8.83
Florida	1,267,000	6%	\$10.72	\$0.66	\$11.21	\$0.69	\$11.68
Georgia	1,794,000	9%	\$12.14	\$1.06	\$12.58	\$1.10	\$11.60
Illinois	938,000	5%	\$11.50	\$0.53	\$12.22	\$0.56	\$12.75
Indiana	746,000	4%	\$8.03	\$0.29	\$7.85	\$0.29	\$7.69
Iowa	501,000	2%	\$11.72	\$0.29	\$12.11	\$0.30	\$12.53
Kentucky	684,000	3%	\$11.72	\$0.39	\$12.11	\$0.40	\$12.53
Maryland	325,000	2%	\$9.97	\$0.16	\$10.48	\$0.17	\$11.69
Michigan	1,655,000	8%	\$11.17	\$0.90	\$11.82	\$0.95	\$12.41
Missouri	822,000	4%	\$11.72	\$0.47	\$12.11	\$0.48	\$12.53
New Jersey	1,018,000	5%	\$8.61	\$0.43	\$8.98	\$0.45	\$8.75
New York	3,009,000	15%	\$11.72	\$1.72	\$12.11	\$1.78	\$12.53
Nevada	146,000	1%	\$9.33	\$0.07	\$12.11	\$0.09	\$10.69
North Carolina	284,000	1%	\$11.20	\$0.15	\$9.79	\$0.14	\$8.40
Ohio	2,384,000	12%	\$11.20	\$1.30	\$12.38	\$1.44	\$8.40
Pennsylvania	1,955,000	10%	\$10.49	\$1.00	\$12.38	\$1.18	\$14.70
Tennessee	658,000	3%	\$11.33	\$0.36	\$13.46	\$0.43	\$11.62
Virginia	1,357,000	7%	\$11.72	\$0.77	\$10.58	\$0.70	\$12.53
West Virginia	347,000	2%	\$11.72	\$0.20	\$12.11	\$0.20	\$12.53
<b>TOTAL</b>	<b>20,528,000</b>	<b>100%</b>		<b>\$11.13</b>	<b>\$12.11</b>	<b>\$11.73</b>	

Weighted Average - 1991	Rent Index - 1992	Weighted Average - 1992	Rent Index - 1993	Weighted Average - 1993	Rent Index - 1994
\$0.04	\$12.15	\$0.03	\$11.92	\$0.03	\$12.38
\$0.26	\$15.18	\$0.25	\$14.40	\$0.23	\$13.78
\$0.11	\$8.73	\$0.10	\$8.74	\$0.10	\$10.79
\$0.56	\$9.91	\$0.61	\$10.74	\$0.66	\$11.49
\$0.93	\$10.45	\$0.91	\$10.58	\$0.92	\$10.92
\$0.55	\$11.61	\$0.53	\$11.59	\$0.53	\$11.78
\$0.28	\$7.83	\$0.28	\$8.13	\$0.30	\$7.99
\$0.30	\$12.15	\$0.30	\$11.92	\$0.29	\$12.38
\$0.41	\$12.15	\$0.40	\$11.92	\$0.40	\$12.38
\$0.21	\$12.44	\$0.20	\$11.24	\$0.18	\$11.49
\$0.92	\$11.41	\$0.92	\$11.06	\$0.89	\$12.93
\$0.50	\$12.15	\$0.49	\$11.92	\$0.48	\$12.38
\$0.37	\$6.81	\$0.34	\$7.29	\$0.36	\$8.71
\$1.82	\$12.15	\$1.78	\$11.92	\$1.75	\$12.38
\$0.09	\$12.87	\$0.09	\$12.35	\$0.09	\$13.73
\$0.12	\$9.86	\$0.14	\$10.20	\$0.14	\$10.33
\$1.03	\$9.86	\$1.15	\$10.20	\$1.18	\$10.33
\$1.29	\$12.73	\$1.21	\$13.20	\$1.26	\$12.85
\$0.29	\$8.25	\$0.26	\$10.92	\$0.35	\$8.66
\$0.82	\$12.15	\$0.80	\$11.92	\$0.79	\$12.38
\$0.21	\$12.15	\$0.21	\$11.92	\$0.20	\$12.38
<b>\$11.13</b>		<b>\$11.01</b>		<b>\$11.14</b>	

Weighted Average - 1996	Rent Index - 1997	Weighted Average - 1997
\$0.04	\$13.87	\$0.04
\$0.22	\$14.35	\$0.23
\$0.13	\$6.66	\$0.08
\$0.76	\$13.50	\$0.83
\$1.17	\$12.43	\$1.09
\$0.60	\$13.54	\$0.62
\$0.35	\$9.13	\$0.33
\$0.33	\$13.87	\$0.34
\$0.45	\$13.87	\$0.46
\$0.21	\$12.80	\$0.20
\$0.96	\$11.96	\$0.96
\$0.54	\$13.87	\$0.56
\$0.48	\$7.55	\$0.37
\$1.98	\$13.87	\$2.03
\$0.10	\$15.79	\$0.11
\$0.15	\$10.92	\$0.15
\$1.27	\$10.92	\$1.27

Figure 5.4



— New Plan - Dollars Per Square Foot  
— Weighted Average Rent Index

#### 5.4 - Weingarten and the Rent Index

The weighted average rent per square foot for the rent index is computed in figure 5.5 and then compared in table form with Weingarten's rent per square foot in Appendix L. (The changes in rent per square foot are also shown in Appendix L). Figure 5.6 then graphs the weighted average rent index and Weingarten's gross income per square foot for the past ten years. Appendix N gives a short look at Weingarten's rental income as opposed to the gross income which is used in the analysis.

Shown in figure 5.6, Weingarten has shown a smoother disposition than a more volatile market in the regions where it owns property. First, as the market displays a sharp drop in 1997-1998, Weingarten appears stable with a very gradual incline.

Another major difference occurs in 1993 where as Weingarten begins a gentle 1 year rise of 20-25%, the market begins a sharp 2 ½ year surge of more than 40% growth.

Finally, in recent years (1996-1997) the market has begun to drop while Weingarten, conversely, has begun to rise.

Weingarten has risen approximately \$2 dollars per square foot over the past ten years and so has the market, but their patterns have been very different. Both were relatively stable during the recession. After the recession, however, the market displayed a significant surge which was not present in the performance of Weingarten.

Figure 5.5

Table 25 - Weingarten: Percentage of Square Feet by Region and Corresponding Calculation of Rent Per Square Foot of Rent Index

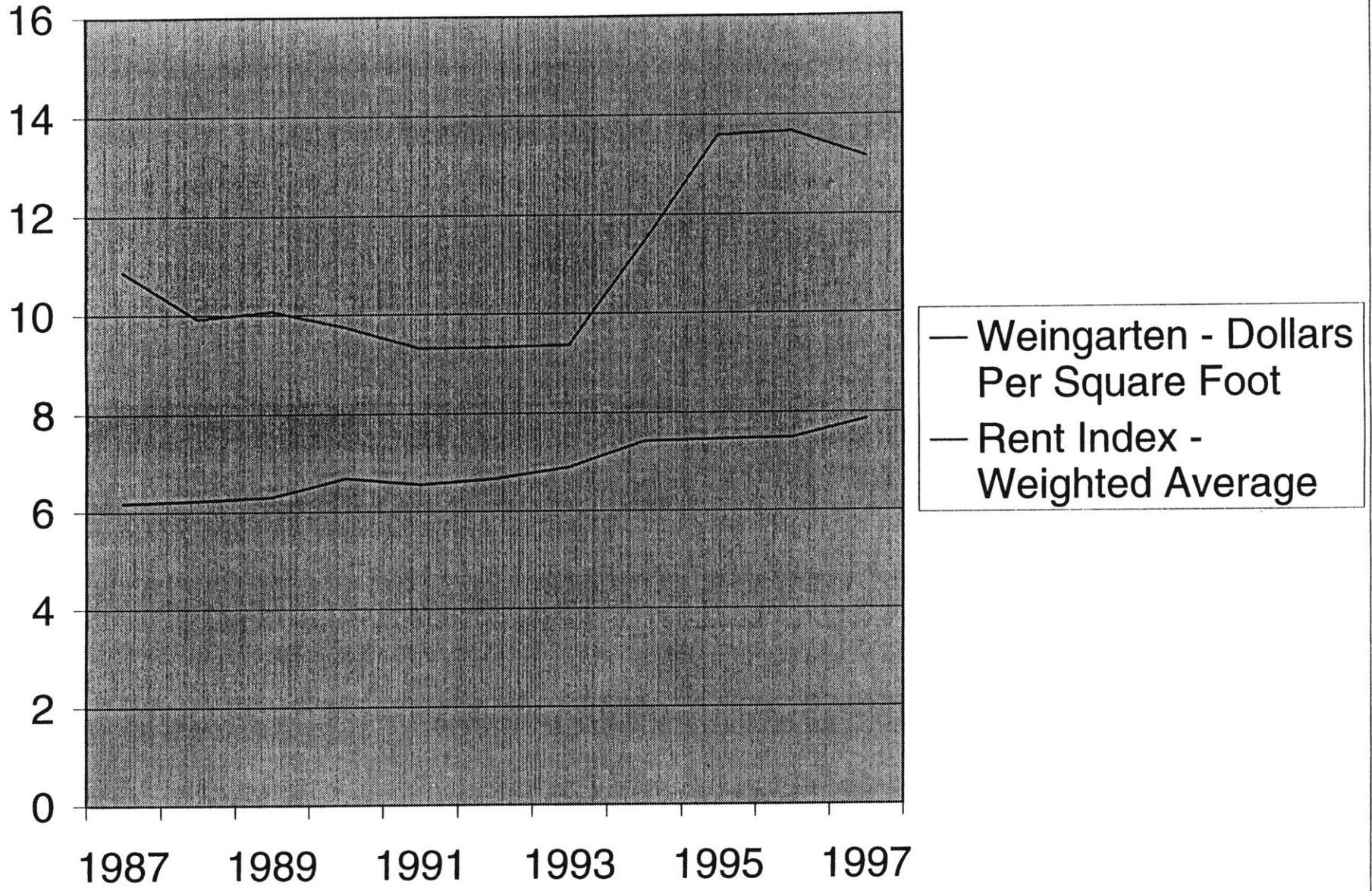
Weingarten Calculated Ratio of Square Feet by Region

Region	Square Feet	Percentage	Rent Index - 1987	Weighted Average - 1987	Rent Index - 1988	Weighted Average - 1988	Rent Index - 1989
Houston & Harris County	10,853,000	47%	\$10.97	\$5.19	\$9.65	\$4.57	\$9.74
Texas (excluding Houston and Harris County)	6,109,000	27%	\$10.97	\$2.92	\$9.65	\$2.57	\$9.74
Louisiana	1,337,000	6%	\$11.72	\$0.68	\$12.11	\$0.71	\$12.53
Arizona	1,026,000	4%	\$10.63	\$0.48	\$10.73	\$0.48	\$10.78
New Mexico	700,000	3%	\$11.72	\$0.36	\$12.11	\$0.37	\$12.53
Arkansas	534,000	2%	\$11.72	\$0.27	\$12.11	\$0.28	\$12.53
Oklahoma	697,000	3%	\$7.71	\$0.23	\$7.55	\$0.23	\$7.43
Nevada	730,000	3%	\$9.33	\$0.30	\$9.79	\$0.31	\$10.69
Kansas	466,000	2%	\$9.34	\$0.19	\$8.76	\$0.18	\$8.67
Colorado	211,000	1%	\$11.15	\$0.10	\$9.25	\$0.09	\$10.01
Maine	124,000	1%	\$11.72	\$0.06	\$12.11	\$0.07	\$12.53
Missouri	136,000	1%	\$11.72	\$0.07	\$12.11	\$0.07	\$12.53
Tennessee	20,000	0%	\$11.33	\$0.01	\$10.58	\$0.01	\$11.62
<b>TOTAL</b>	<b>22,932,000</b>	<b>100%</b>		<b>\$10.87</b>		<b>\$9.92</b>	

Weighted Average - 1991	Rent Index - 1992	Weighted Average - 1992	Rent Index - 1993
\$4.14	\$8.77	\$4.15	\$8.87
\$2.33	\$8.77	\$2.34	\$8.87
\$0.73	\$12.15	\$0.71	\$11.92
\$0.45	\$9.28	\$0.42	\$9.08
\$0.38	\$12.15	\$0.37	\$11.92
\$0.29	\$12.15	\$0.28	\$11.92
\$0.20	\$7.07	\$0.21	\$7.39
\$0.38	\$12.87	\$0.41	\$12.35
\$0.20	\$10.37	\$0.21	\$10.67
\$0.08	\$10.29	\$0.09	\$10.10
\$0.07	\$12.15	\$0.07	\$11.92
\$0.07	\$12.15	\$0.07	\$11.92
\$0.01	\$8.25	\$0.01	\$10.92
<b>\$9.32</b>		<b>\$9.34</b>	

Weighted Average - 1995	Rent Index - 1996	Weighted Average - 1996	Rent Index - 1997
\$6.74	\$14.09	\$6.67	\$13.18
\$3.79	\$14.09	\$3.75	\$13.18
\$0.74	\$13.52	\$0.79	\$13.87
\$0.49	\$11.93	\$0.53	\$12.72
\$0.39	\$13.52	\$0.41	\$13.87
\$0.30	\$13.52	\$0.31	\$13.87
\$0.24	\$9.25	\$0.28	\$9.84
\$0.45	\$14.30	\$0.46	\$15.79
\$0.20	\$9.86	\$0.20	\$10.13
\$0.12	\$12.06	\$0.11	\$14.27
\$0.07	\$13.52	\$0.07	\$13.87
\$0.07	\$13.52	\$0.08	\$13.87
\$0.01	\$9.44	\$0.01	\$12.13
<b>\$13.60</b>		<b>\$13.68</b>	

Figure 5.6



## 5.5 – Burnham and the Rent Index

Burnham acquired an excessively large number of properties in 1997.

Approximately 47 properties were acquired with approximately \$30 million in income. For 20 of the properties which closed on December 31, 1997 the square footage has been scaled back to 4.8 million. For the remaining 27 properties, the following analysis is used to adjust the 1997 gross square footage to 2.96 million in order get a more accurate picture of the performance of its rent per square foot. The corrected figures for Burnham were previously shown in Figures 5.1-5.2.

### Burnham Pacific 1996-1997 Analysis

**A) 20 Properties closed December 31, 1996. Therefore 7.5 million square feet was scaled back to 4.8 million square feet**

**B) 27 More properties closed during 1997 according to the following schedule. and shall be weighted accordingly**

#### Prior to June 1997 - Counted as 1996

	# of Properties	
January	9	
Feb	1	
April	9	
May	1	
<b>TOTAL</b>	<b>20</b>	<b>74%</b>

#### After to June 1997 - Counted as 1997

	# of Properties	
June	1	
August	2	
Oct	1	
Dec	3	
<b>TOTAL</b>	<b>7</b>	<b>26%</b>

1997 = 4.8 million  
 1996 = 2.35 million  
 difference = 2.45 million                      74% of 2.45 =                      1.8375

and 1997 square footage is reduced to                      **2.9625 (4.8-1.8375)**

The weighted average rent per square foot for the rent index is computed in figure 5.7 and then compared in table form with Burnham's rent per square foot in Appendix M. (The changes in rent per square foot are also shown in Appendix M). Figure 5.8 then graphs the weighted average rent index and Burnham's income per square foot for the past ten years.

Shown in figure 5.8, the performance of Burnham and the rent index are virtually identical in 1987-1988. From 1988-1992, as the market leveled and remained stable, Burnham's earnings surged upward, only to fall off more dramatically than the market in 1993.

From 1994-1997, Burnham's earnings recovered from the recession in a much more volatile way compared to the gentle upward slope of the market. A large surge for Burnham in 1994 led to a decline of similar intensity in 1995-1996. In the last two years, Burnham has begun yet another incline in dollars per square foot.

Despite its volatility, Burnham has displayed a 100% growth in dollars per square foot in the last ten years as opposed to its market which has grown only 33%.

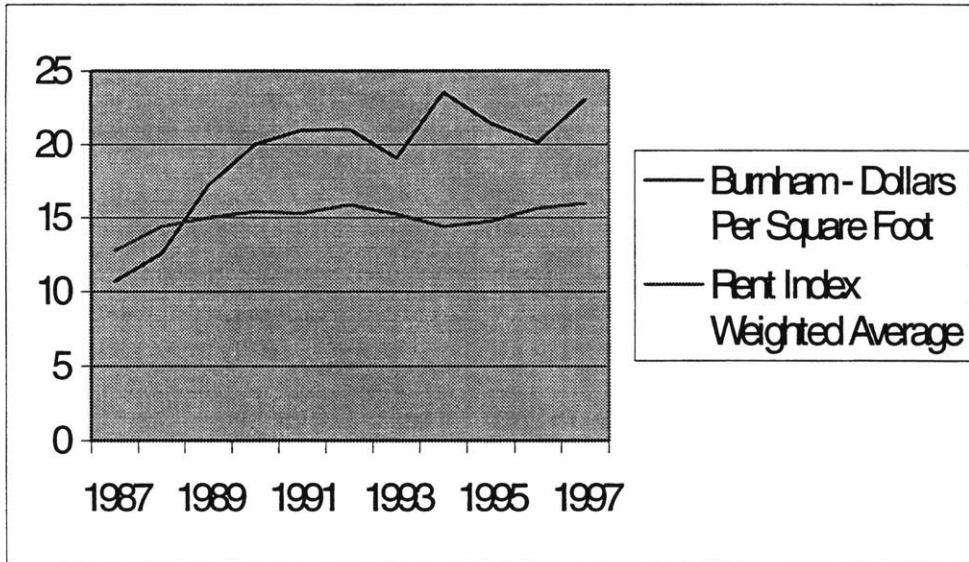


Figure 5.7

Table 27 - Burham Percentage of Square Feet by Region and Corresponding Calculation of Per Per Square Foot of Per Index  
 Burham Pacific Calculated Per of Square Feet by Region

Region	Percentage	Per Index- 1987	Weighted Average- 1987	Per Index- 1988	Weighted Average- 1988	Per Index- 1989
Pacific Northwest	8%	\$172	\$170	\$1211	\$173	\$1253
San Diego	20%	\$346	\$289	\$1359	\$272	\$1438
Los Angeles	38%	\$368	\$520	\$460	\$555	\$1448
San Francisco	33%	\$155	\$416	\$498	\$539	\$1626
	100%		\$276		\$439	
			Weighted Average- 1989	Per Index- 1990	Weighted Average- 1990	Per Index- 1991
			\$175	\$1242	\$175	\$1244
			\$288	\$1462	\$292	\$1477
			\$548	\$1514	\$575	\$1580
			\$585	\$1655	\$596	\$1547
			\$496		\$538	
			Weighted Average- 1991	Per Index- 1992	Weighted Average- 1992	Per Index- 1993
			\$175	\$1215	\$173	\$1192
			\$295	\$1520	\$304	\$1379
			\$600	\$1518	\$577	\$1440
			\$557	\$1739	\$638	\$1738
			\$527		\$587	
			Weighted Average- 1993	Per Index- 1994	Weighted Average- 1994	Per Index- 1995
			\$172	\$1238	\$174	\$1272
			\$276	\$1327	\$265	\$1447
			\$547	\$1378	\$524	\$1342
			\$626	\$1598	\$575	\$1639
			\$520		\$439	
			Weighted Average- 1995	Per Index- 1996	Weighted Average- 1996	Per Index- 1997
			\$176	\$1352	\$181	\$1387
			\$289	\$1364	\$273	\$1415
			\$510	\$1380	\$524	\$1435
			\$597	\$1899	\$684	\$1901
			\$473		\$562	
			Weighted Average- 1997			
			\$188			
			\$288			
			\$545			
			\$684			
			\$596			

Figure 5.8



## 5.6 – Chapter Summary

Have shopping center REITs been outperforming their markets? It is difficult to tell. In the last five years, two out of three have had a greater percentage increase in dollars per square foot than their respective markets.

### The Recession:

Two of the three sample REITs, New Plan and Burnham, appeared caught in the throes of the recession worse than their corresponding regional markets. Weingarten, conversely, outperformed its market during the recession, although not by much. The conclusion is that a few REITs did not plunge into the building spree indicative of the real estate industry in the 1980's, but most others did and paid for it.

### Patterns:

All of the sample REITs, some more smoothly than others, have had a pattern of income per square foot growth in the past 3-4 years and have followed their respective markets in this respect. However, only two out of three (New Plan and Burnham) have out-paced their markets in terms of this dollar per square foot growth.

### Trends:

In 1994 all of the REITs went upward, along with two out of three of their markets. In addition, every graph, both REIT and market, displayed a cyclical "S" pattern, though the amplitudes of their waves differed greatly.

# **Chapter 6**

## **Summary**

On a national scale, the decline in purchases as a share of personal income has slowed in recent years which is good in general for all shopping centers.

Americans are spending less on food (most common to neighborhood centers), more on general merchandise (community centers) and less on apparel (regional centers). They are spending less at restaurants and more on furniture (regional centers) and they are spending more on building materials (neighborhood centers).

A determination has been made that the U.S. may not be overbuilt because the stock of retail space has been consistent with retail sales in the long run.

Although sales per square foot appears to have been declining, this is really the result of the stock of older stores not being counted. Further, neighborhood and community types show the same discrepancy between sales per square foot (declining) and change in sales over change in square footage (consistent). This implies that there may be a substantial number of old neighborhood and community centers which are not being factored into the sales per square foot analysis and that there may be a misconception that these markets are overbuilt. In contrast, regional centers show a consistency across the board and, in theory, there may be a relatively small stock of older, larger centers.

Because of the recent growth of food sales, neighborhood and community center sales are reflecting this upward trend, while at the same time middle and larger size centers appear to remain stable investments because they reflect the gradual rise in sales of commodities such as general merchandise.

Finally, another reason why the U.S. retail market may not be overbuilt is that two thirds of a sample of REITs which specialize in shopping centers have exhibited better performance than their corresponding neighborhood and community regional markets and all three have displayed an upward trend in dollars per square foot in recent years.

## Appendix A

### Adjusting Retail Sales

Source: U.S. Census

The automotive and fuel industry makes up nearly a quarter of total U.S. Sales. Thus, by subtracting out these figures, we are getting a more accurate picture of shopping center sales. Of course there are other things included in total U.S. Sales that shopping centers do not sell. But it is important to realize that auto and fuel sales are the largest percentage of non-shopping center U.S. sales (25%) and should be the first to be taken out.

	<b>Total Nominal Retail Sales</b>	<b>Automotive Retail Sales (New Car Dealers)</b>	<b>Fuel Sales (Service Stations)</b>	<b>Adjusted Nominal National Retail Sales (i.e. less Automotive and Fuel)</b>
1970	\$375,200,000,000	\$51,800,000,000	\$29,200,000,000	\$294,200,000,000
1971	\$414,200,000,000	\$64,500,000,000	\$29,200,000,000	\$320,500,000,000
1972	\$458,500,000,000	\$76,800,000,000	\$33,400,000,000	\$348,300,000,000
1973	\$511,900,000,000	\$83,500,000,000	\$37,000,000,000	\$391,400,000,000
1974	\$542,000,000,000	\$76,300,000,000	\$43,000,000,000	\$422,700,000,000
1975	\$588,100,000,000	\$84,200,000,000	\$47,600,000,000	\$456,300,000,000
1976	\$656,400,000,000	\$105,200,000,000	\$52,000,000,000	\$499,200,000,000
1977	\$722,500,000,000	\$121,900,000,000	\$56,500,000,000	\$544,100,000,000
1978	\$804,200,000,000	\$134,800,000,000	\$59,300,000,000	\$610,100,000,000
1979	\$896,800,000,000	\$139,200,000,000	\$71,900,000,000	\$685,700,000,000
1980	\$957,300,000,000	\$124,800,000,000	\$83,800,000,000	\$738,700,000,000
1981	\$1,038,700,000,000	\$136,600,000,000	\$102,800,000,000	\$799,300,000,000
1982	\$1,069,000,000,000	\$143,900,000,000	\$97,100,000,000	\$828,000,000,000
1983	\$1,171,200,000,000	\$178,300,000,000	\$98,900,000,000	\$894,000,000,000
1984	\$1,289,400,000,000	\$225,900,000,000	\$99,500,000,000	\$964,000,000,000
1985	\$1,379,600,000,000	\$251,600,000,000	\$100,800,000,000	\$1,027,200,000,000
1986	\$1,454,400,000,000	\$270,400,000,000	\$102,100,000,000	\$1,081,900,000,000
1987	\$1,541,000,000,000	\$280,500,000,000	\$104,800,000,000	\$1,155,700,000,000
1988	\$1,656,000,000,000	\$302,400,000,000	\$107,900,000,000	\$1,245,700,000,000
1989	\$1,759,000,000,000	\$304,300,000,000	\$117,800,000,000	\$1,336,900,000,000
1990	\$1,845,000,000,000	\$316,000,000,000	\$131,700,000,000	\$1,397,300,000,000
1991	\$1,856,000,000,000	\$301,300,000,000	\$128,500,000,000	\$1,426,200,000,000
1992	\$1,952,000,000,000	\$333,800,000,000	\$137,000,000,000	\$1,481,200,000,000
1993	\$2,073,000,000,000	\$377,200,000,000	\$138,200,000,000	\$1,557,600,000,000
1994	\$2,227,000,000,000	\$434,100,000,000	\$141,700,000,000	\$1,651,200,000,000
1995	\$2,324,000,000,000	\$459,000,000,000	\$146,100,000,000	\$1,718,900,000,000
1996	\$2,445,000,000,000	\$495,000,000,000	\$155,000,000,000	\$1,795,000,000,000

## Appendix B

### Deflating Adjusted Retail Sales

**Source:** U.S. Census, Consumer Price Index

To get an accurate accounting of sales, we must consider inflation over the years. Our sales data must thus be deflated. The Statistical Abstract of the U.S. Census Bureau has a yearly percentage increase. Using 1970 as a base year, I have deflated National Sales and then labeled it "Real National Retail Sales" to account for inflation. For example \$1.795 trillion in 1970 dollars would only be worth \$457 billion in 1996.

	<b>Adjusted Nominal National Retail Sales (i.e. less Automotive and Fuel)</b>	<b>CPI Yearly Percentage Increase 1970 as BASE YEAR - All Items</b>	<b>Real Adjusted National Retail Sales 1970 as BASE YEAR</b>
1970	\$294,200,000,000	1.000	\$294,200,000,000
1971	\$320,500,000,000	1.044	\$306,992,337,165
1972	\$348,300,000,000	1.032	\$323,275,862,069
1973	\$391,400,000,000	1.062	\$342,070,882,932
1974	\$422,700,000,000	1.110	\$332,816,275,636
1975	\$456,300,000,000	1.091	\$329,304,773,909
1976	\$499,200,000,000	1.058	\$340,515,171,831
1977	\$544,100,000,000	1.065	\$348,490,552,007
1978	\$610,100,000,000	1.076	\$363,162,532,615
1979	\$685,700,000,000	1.113	\$366,723,715,647
1980	\$738,700,000,000	1.103	\$358,176,784,554
1981	\$799,300,000,000	1.103	\$351,369,155,529
1982	\$828,000,000,000	1.062	\$342,735,935,349
1983	\$894,000,000,000	1.032	\$358,580,878,321
1984	\$964,000,000,000	1.043	\$370,716,856,063
1985	\$1,027,200,000,000	1.036	\$381,294,512,236
1986	\$1,081,900,000,000	1.019	\$394,110,931,236
1987	\$1,155,700,000,000	1.036	\$406,365,395,382
1988	\$1,245,700,000,000	1.041	\$420,759,896,446
1989	\$1,336,900,000,000	1.048	\$430,882,162,546
1990	\$1,397,300,000,000	1.054	\$427,276,139,074
1991	\$1,426,200,000,000	1.042	\$418,534,916,151
1992	\$1,481,200,000,000	1.030	\$422,014,857,733
1993	\$1,557,600,000,000	1.030	\$430,856,601,709
1994	\$1,651,200,000,000	1.026	\$445,173,324,046
1995	\$1,718,900,000,000	1.028	\$450,803,157,604
1996	\$1,795,000,000,000	1.030	\$457,049,844,984

**Example: 1973 Real Retail Sales = \$391,400,000,000 / (1.062 \* 1.032 \* 1.044)**



## Appendix C

### Number of Centers Opened Each Year

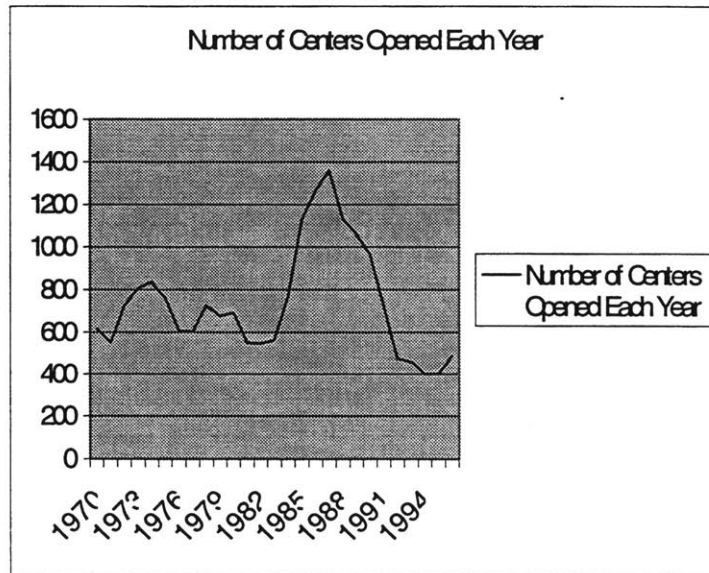
Source: National Research Bureau (NRB)

With two small peaks in 1975 and 1979, the figures below illustrate the largest explosion of the number of centers opened in 1988 due to the real estate development boom of the late eighties. Because of overbuilding and plummeting rents, the real estate market crashed and many of these projects went underwater and there was very little capital available for new ventures. The figures below illustrate this bust as well by showing a dramatic drop to only 400 centers opened in 1994.

Number of Centers Opened (NRB)

Number of Centers Opened (NRB)

Number of Centers Opened Each Year	
1970	619
1971	549
1972	724
1973	804
1974	837
1975	759
1976	606
1977	602
1978	727
1979	677
1980	693
1981	549
1982	545
1983	561
1984	766
1985	1128
1986	1264
1987	1357
1988	1134
1989	1060
1990	963
1991	724
1992	473
1993	458
1994	399
1995	399
1996	486



## Appendix D

### Amount of GLA of Centers Opened Per Year

**Source:** NRB

In recent years, however, the number of new centers has been on the increase.

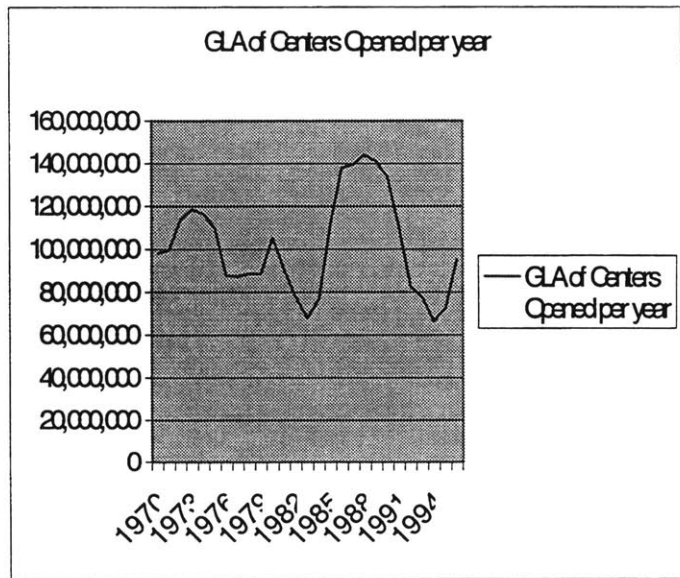
Because these figures reflect new construction, the movement is very volatile as opposed to the movement of existing stock which would show a steady increase.

#### GLA Of Centers Opened Per Year

##### GLA of Centers Opened per year

1970	97,857,063
1971	99,517,049
1972	113,381,237
1973	118,520,254
1974	116,221,030
1975	109,746,470
1976	87,404,062
1977	86,966,989
1978	88,431,037
1979	88,173,686
1980	105,328,780
1981	90,623,309
1982	77,681,735
1983	67,755,935
1984	76,726,706
1985	111,573,033
1986	137,829,190
1987	139,536,769
1988	143,818,955
1989	140,849,040
1990	133,685,179
1991	109,796,584
1992	82,165,534
1993	77,445,187
1994	66,252,183
1995	72,576,762
1996	95,170,009

#### GLA of Centers Opened Per Year



Appendix E

Shopping Centers Tabulated by Center Type:

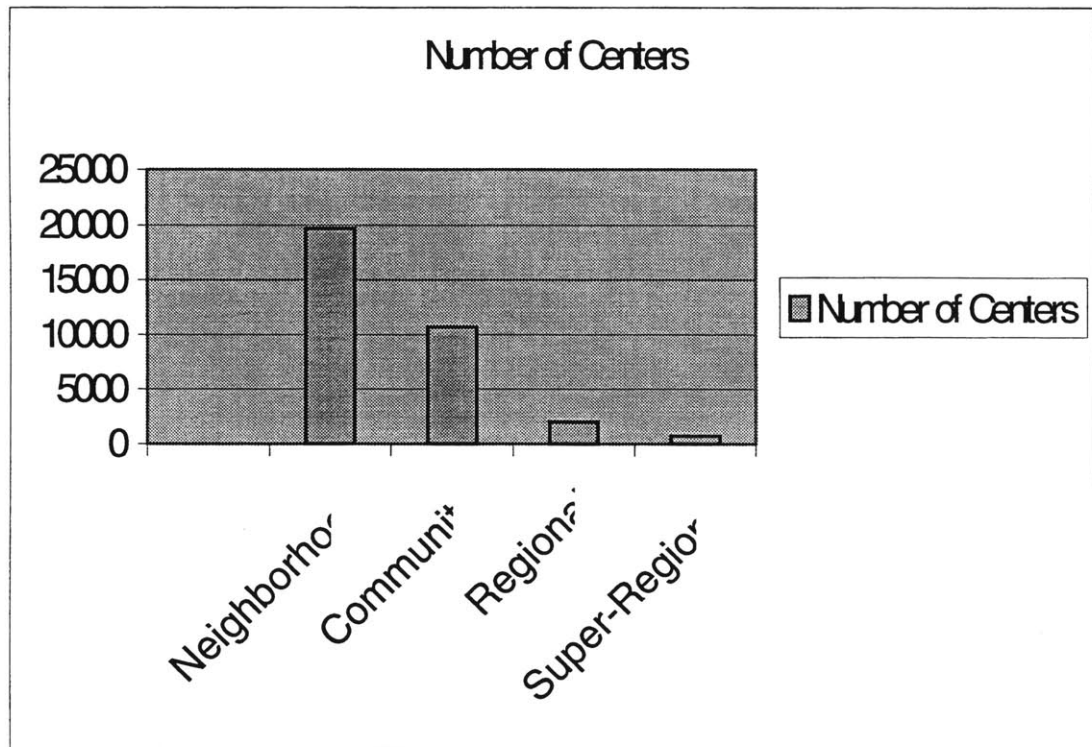
Neighborhood, Community, Regional, Super-Regional

Source: NRB

**National Research Bureau Data  
Number of Centers Tabulated by Type**

<u>Type of Center</u>	<u>Number</u>
Neighborhood	19,692
Community	10,702
Regional	2,011
Super Regional	760

**Number of Centers Tabulated by Type**



## Appendix F

### Sales of Goods Common to Shopping Centers

Source: U.S. Census

#### Sales Data From U.S. Census 1985-1996

	Build. Materials	Gen. Merchandise	Apparel	Furniture	Food	Eating/Drinking Est.
1985	\$71,200,000,000	\$158,600,000,000	\$70,200,000,000	\$68,300,000,000	\$285,100,000,000	\$127,900,000,000
1986	\$77,100,000,000	\$169,200,000,000	\$75,600,000,000	\$75,700,000,000	\$297,000,000,000	\$139,400,000,000
1987	\$83,500,000,000	\$182,000,000,000	\$79,300,000,000	\$78,100,000,000	\$309,500,000,000	\$153,500,000,000
1988	\$91,200,000,000	\$191,800,000,000	\$84,900,000,000	\$85,400,000,000	\$326,500,000,000	\$166,900,000,000
1989	\$92,700,000,000	\$204,400,000,000	\$91,400,000,000	\$91,500,000,000	\$345,100,000,000	\$173,900,000,000
1990	\$94,600,000,000	\$215,500,000,000	\$95,800,000,000	\$93,000,000,000	\$368,300,000,000	\$190,100,000,000
1991	\$95,200,000,000	\$228,500,000,000	\$97,500,000,000	\$98,600,000,000	\$370,600,000,000	\$196,900,000,000
1992	\$100,800,000,000	\$246,400,000,000	\$104,200,000,000	\$97,000,000,000	\$377,000,000,000	\$200,200,000,000
1993	\$109,400,000,000	\$264,600,000,000	\$107,200,000,000	\$105,400,000,000	\$385,000,000,000	\$213,500,000,000
1994	\$122,300,000,000	\$283,200,000,000	\$109,900,000,000	\$118,600,000,000	\$399,000,000,000	\$223,500,000,000
1995	\$125,800,000,000	\$299,200,000,000	\$110,400,000,000	\$127,300,000,000	\$409,600,000,000	\$232,100,000,000
1996	\$134,500,000,000	\$312,800,000,000	\$113,700,000,000	\$133,500,000,000	\$423,300,000,000	\$236,500,000,000

## Appendix G

### Shopping Center REITs

**Sources:** Professor Tim Riddiough – MIT/CRE  
Mr. Matt Ostrower – Boston Financial  
NAREIT.com – Internet Website  
Strait Retail Research Company

#### **Complete List of Shopping Center REITs from the Internet and NAREIT**

- |                                  |                                   |
|----------------------------------|-----------------------------------|
| 1 Aegis Realty Incorporated      | 27 Macerich                       |
| 2 Agree Realty Corp.             | 28 Malan Realty Investors         |
| 3 Alexander Haagen Properties    | 29 Mark Centers Trust             |
| 4 Arbor Property                 | 30 MGI Properties                 |
| 5 Bradley Real Estate, Inc.      | 31 Mid-America Realty Investments |
| 6 Burnham Pacific Properties     | 32 Mid-Atlantic Realty Trust      |
| 7 CBL & Associates               | 33 Mills Corporation              |
| 8 Chelsea GCA Realty             | 34 New Plan Realty Trust          |
| 9 Commercial Net Lease           | 35 Pan Pacific Retail Properties  |
| 10 Cousins                       | 36 Price Enterprises, Inc.        |
| 11 Crown American                | 37 Price REIT                     |
| 12 Developers Diversified Realty | 38 Prime Retail                   |
| 13 Excel Realty Trust            | 39 Ramco-Gershenson Properties    |
| 14 FAC Realty Trust              | 40 Regency Realty Corp.           |
| 15 Federal Realty Inv. Trust     | 41 Saul Centers, Inc.             |
| 16 First Union                   | 42 Simon Debartolo Group          |
| 17 First Washington Realty Trust | 43 Sizeler Property               |
| 18 General Growth                | 44 Tanger Factory Outlet Centers  |
| 19 Glimcher Realty               | 45 Taubman Centers                |
| 20 HGI Realty (Horizon Group)    | 46 United Investors Realty Trust  |
| 21 HRE Properties                | 47 Urban Shopping Centers         |
| 22 IRT Property Co.              | 48 Urstadt Biddle Properties      |
| 23 JDN Realty Corp.              | 49 Vorando Realty                 |
| 24 JP Realty                     | 50 Weingarten Realty Investors    |
| 25 Kimco Realty Corp.            | 51 Westerm Investment Real Estate |
| 26 Kranzco Realty Trust          |                                   |

## Appendix H

### Shopping Center REITs Annual Gross Revenues

**Sources: NAREIT and Individual Company Websites**

#### Shopping Center REIT Annual Gross Revenues Compiled from the Internet and the NAREIT Index

Shopping Center REITs Gross Revenues (in thousands)	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987
1 Kimco Realty Corp.												
2 NewPlan Realty Trust		\$206,821	\$167,606	\$130,576	\$100,955	\$76,309	\$64,692	\$57,383	\$54,123	\$43,541	\$37,320	\$35,859
3 Weingarten Realty Investors		\$174,512	\$151,123	\$134,197	\$120,800	\$103,300	\$90,000	\$82,600	\$76,900	\$68,100	\$64,800	\$61,200
4 Developers Diversified Realty												
5 Federal Realty Inv. Trust		\$188,529	\$164,887	\$142,841	\$128,133	\$105,948						
6 JDN Realty Corp.												
7 Regency Realty Corp.												
8 Excel Realty Trust												
9 Price REIT			\$54,325	\$43,523	\$39,925	\$27,794	\$18,815					
10 Bradley Real Estate, Inc.												
11 Burnham Pacific Properties		\$68,174	\$47,314	\$48,669	\$51,387	\$41,179	\$28,025	\$24,838	\$23,638	\$20,356	\$13,064	\$10,568
12 Price Enterprises, Inc.												
13 IRT Property Co.												above is a corrected error
14 Alexander Haagen Properties												
15 Western Investment Real Estate												
16 Saul Centers, Inc.												
17 Mid-Atlantic Realty Trust												
18 First Washington Realty Trust												
19 Kranzco Realty Trust			\$55,180	\$53,470	\$45,040	\$27,688						
20 Ramco-Gershenson Properties												
21 Pan Pacific Retail Properties												
22 FAC Realty Trust			\$54,300	\$53,300								
23 Aegis Realty Incorporated												
24 Urstadt Biddle Properties												
25 Agree Realty Corp.												
26 United Investors Realty Trust												
27 Mid-America Realty Investments												
28 Mark Centers Trust			\$43,796	\$43,332	\$36,333	\$30,378	\$29,548					
29 Malan Realty Investors												
30 Tanger Factory Outlet Centers		\$85,271	\$75,500	\$68,604	\$45,988	\$29,204	\$17,931					
31 MGI Properties												

Note: 1972 New Plan = 4,547

## Appendix I

### Shopping Center REITs Annual Gross Square Footage

**Sources: NAREIT and Individual Company Websites**

**Shopping Center REIT Annual Gross Square Footage Compiled from the Internet and the NAREIT Index**

Shopping Center REITs Gross Square Footage (in thousands)	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987
1 Kimco Realty Corp.												
2 New Plan Realty Trust		20,500	18,000	16,160	14,558	11,839	9,972	7,439	7,345	6,261	5,272	4,365
3 Weingarten Realty Investors		22,200	20,200	18,000	16,300	15,000	13,500	12,600	11,500	10,800	10,400	9,900
4 Developers Diversified Realty												
5 Federal Realty Inv. Trust												
6 JDN Realty Corp.												
7 Regency Realty Corp.												
8 Excal Realty Trust												
9 Price REIT			5,200	4,628	3,662	3,317	2,196					
10 Bradley Real Estate, Inc.												
11 Burnham Pacific Properties		7,598	2,353	2,271	2,182	2,160	1,332	1,185	1,182	1,183	1,040	990
12 Price Enterprises, Inc.												above is an estimate
13 IRT Property Co.												
14 Alexander Haagen Properties												
15 Western Investment Real Estate												
16 Saul Centers, Inc.												
17 Mid-Atlantic Realty Trust												
18 First Washington Realty Trust												
19 Kranzco Realty Trust		7,657	7,066	5,666	4,958	4,383						
20 Ramco-Gershenson Properties												
21 Pan Pacific Retail Properties		6,300										
22 FAC Realty Trust												
23 Aegis Realty Incorporated												
24 Urstadt Biddle Properties												
25 Agree Realty Corp.												
26 United Investors Realty Trust												
27 Mid-America Realty Investments												
28 Mark Centers Trust												
29 Malen Realty Investors												
30 Tanger Factory Outlet Centers	4,592											
31 MGI Properties												

## Appendix J

### Data Compiled from the Rent Index for Each Region Corresponding to the Three Sample REITs

#### Source: Rent Index

The rental index compiles data on rent per square foot per year for many different regions around the country. By examining each website of our three sample REITs and establishing which regions the sample REIT owns property in, only those regions from the rent index which were pertinent to the analysis were selected. The rent index offers many more regions which were not used. For those regions (mostly cities or metropolitan areas) which the REIT owns property in but which are not included in the rent index, there is a category in the rent index which is an average of approximately 24 different states labeled the “average” rent per square foot category. The following chart has about four of these exceptions in which this category is used

Data by Region Compiled for Sample REITs from Rent Index

Rent Index Data by Region	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	11.72	12.11	12.53	12.42	12.44	12.15	11.92	12.38	12.72	13.52	13.87
California	13.68	14.6	14.43	15.14	15.8	15.18	14.4	13.78	13.42	13.8	14.35
Delaware	11.06	10.29	8.83	10.36	9.24	8.73	8.74	10.79	10.9	10.7	6.66
Florida	10.72	11.21	11.68	10.67	9.15	9.91	10.74	11.49	11.81	12.34	13.5
Georgia	12.14	12.58	11.6	10.98	10.69	10.45	10.58	10.92	12.84	13.39	12.43
Illinois	11.5	12.22	12.75	12.93	12.13	11.61	11.59	11.78	12.86	13.21	13.54
Indiana	8.03	7.85	7.69	8.36	7.82	7.83	8.13	7.99	9.68	9.57	9.13
Iowa	11.72	12.11	12.53	12.42	12.44	12.15	11.92	12.38	12.72	13.52	13.87
Kentucky	11.72	12.11	12.53	12.42	12.44	12.15	11.92	12.38	12.72	13.52	13.87
Maryland	9.97	10.48	11.69	12.24	13	12.44	11.24	11.49	11.83	13.46	12.8
Michigan	11.17	11.82	12.41	11.48	11.38	11.41	11.06	12.93	10.56	11.87	11.96
New Jersey	8.61	8.98	8.75	8.29	7.52	6.81	7.29	8.71	8.91	9.59	7.55
New York	11.72	12.11	12.53	12.42	12.44	12.15	11.92	12.38	12.72	13.52	13.87
North Carolina	11.2	12.38	8.4	8.82	8.87	9.86	10.2	10.33	10.44	10.94	10.92
Ohio	11.2	12.38	8.4	8.82	8.87	9.86	10.2	10.33	10.44	10.94	10.92
Pennsylvania	10.49	13.46	14.7	14.11	13.55	12.73	13.2	12.85	12.7	14.82	12.88
Virginia	11.72	12.11	12.53	12.42	12.44	12.15	11.92	12.38	12.72	13.52	13.87
West Virginia	11.72	12.11	12.53	12.42	12.44	12.15	11.92	12.38	12.72	13.52	13.87
Houston	10.97	9.65	9.74	9.29	8.74	8.77	8.87	11.54	14.24	14.09	13.18
Texas	10.97	9.65	9.74	9.29	8.74	8.77	8.87	11.54	14.24	14.09	13.18
Louisiana	11.72	12.11	12.53	12.42	12.44	12.15	11.92	12.38	12.72	13.52	13.87
Arizona	10.63	10.73	10.78	10.19	10.08	9.28	9.08	9.47	10.92	11.93	12.72
New Mexico	11.72	12.11	12.53	12.42	12.44	12.15	11.92	12.38	12.72	13.52	13.87
Arkansas	11.72	12.11	12.53	12.42	12.44	12.15	11.92	12.38	12.72	13.52	13.87
Oklahoma	7.71	7.55	7.43	7.32	6.76	7.07	7.39	7.12	7.98	9.25	9.84
Nevada	9.33	9.79	10.69	12.41	11.97	12.87	12.35	13.73	14.07	14.3	15.79
Kansas	9.34	8.76	8.67	8.87	9.83	10.37	10.67	10.27	9.69	9.86	10.13
Colorado	11.15	9.25	10.01	9.87	8.54	10.29	10.1	10.07	12.83	12.06	14.27
Maine	11.72	12.11	12.53	12.42	12.44	12.15	11.92	12.38	12.72	13.52	13.87
Missouri	11.72	12.11	12.53	12.42	12.44	12.15	11.92	12.38	12.72	13.52	13.87
Tennessee	11.33	10.58	11.62	8.05	9.14	8.25	10.92	8.66	10.91	9.44	12.13
Pacific NorthWest	11.72	12.11	12.53	12.42	12.44	12.15	11.92	12.38	12.72	13.52	13.87
San Diego	13.46	13.59	14.38	14.62	14.77	15.2	13.79	13.27	14.47	13.64	14.15
Los Angeles	13.68	14.6	14.43	15.14	15.8	15.18	14.4	13.78	13.42	13.8	14.35
San Francisco	11.56	14.98	16.26	16.56	15.47	17.59	17.38	15.98	16.59	18.99	19.01



## Appendix K

### New Plan Dollars Per Square Foot Compared with Weighted Average Rent Index (By Region)

**Sources: NAREIT, New Plan Website, Rent Index**

New Plan Realty Dollars Per Square Foot Compared with Weighted Average Rent Index (by Region)			
	New Plan - Gross Revenues	New Plan - Square Footage	New Plan - Dollars Per Square Foot
1987	\$35,859,000	4,365,000	\$8.22
1988	\$37,320,000	5,272,000	\$7.08
1989	\$43,541,000	6,261,000	\$6.95
1990	\$54,123,000	7,345,000	\$7.37
1991	\$57,383,000	7,439,000	\$7.71
1992	\$64,692,000	9,972,000	\$6.49
1993	\$76,309,000	11,839,000	\$6.45
1994	\$100,955,000	14,558,000	\$6.93
1995	\$130,576,000	16,160,000	\$8.08
1996	\$167,606,000	18,000,000	\$9.31
1997	\$206,821,000	20,500,000	\$10.09
	New Plan - Changes in Do/S.F.	Weighted Average Rent Index	Changes in Rent Index Wt.Avg. Do/S.F.
1987		\$11.13	
1988	-\$1.14	\$11.73	\$0.59
1989	-\$0.12	\$11.63	-\$0.09
1990	\$0.41	\$11.35	-\$0.28
1991	\$0.35	\$11.13	-\$0.22
1992	-\$1.23	\$11.01	-\$0.12
1993	-\$0.04	\$11.14	\$0.13
1994	\$0.49	\$11.53	\$0.39
1995	\$1.15	\$11.84	\$0.30
1996	\$1.23	\$12.58	\$0.75
1997	\$0.78	\$12.45	-\$0.13

## Appendix L

### Weingarten Dollars Per Square Foot Compared with Weighted Average Rent Index (By Region)

Sources: NAREIT, New Plan Website, Rent Index

#### Weingarten Dollars Per Square Foot Compared with Weighted Average Rent Index (by Region)

	Weingarten- Gross Revenues	Weingarten- Square Footage	Weingarten- Dollars Per Square Foot	Weingarten- Changes in Dd/SF.
1987	\$61,200,000	9,900,000	\$6.18	
1988	\$64,800,000	10,400,000	\$6.23	\$0.05
1989	\$68,100,000	10,800,000	\$6.31	\$0.07
1990	\$76,900,000	11,500,000	\$6.69	\$0.38
1991	\$82,600,000	12,600,000	\$6.56	-\$0.13
1992	\$90,000,000	13,500,000	\$6.67	\$0.11
1993	\$103,300,000	15,000,000	\$6.89	\$0.22
1994	\$120,800,000	16,300,000	\$7.41	\$0.52
1995	\$134,197,000	18,000,000	\$7.46	\$0.04
1996	\$151,123,000	20,200,000	\$7.48	\$0.03
1997	\$174,512,000	22,200,000	\$7.86	\$0.38
	Rent Index- Weighted Average	Changes in Dd/SF Rent Index		
	\$10.87			
	\$9.92	-\$0.94		
	\$10.07	\$0.15		
	\$9.75	-\$0.32		
	\$9.32	-\$0.43		
	\$9.34	\$0.01		
	\$9.37	\$0.04		
	\$11.45	\$2.07		
	\$13.60	\$2.16		
	\$13.68	\$0.07		
	\$13.17	-\$0.50		

**Appendix M**

Burnham Dollars Per Square Foot Compared with the Weighted Average Rent Index (by Region)

Sources: NAREIT, Burnham Website, Rent Index

<b>Burnham Dollars Per Square Foot Compared with Weighted Average Rent Index (by Region)</b>				
	<b>Burnham Gross Revenues</b>	<b>Burnham Square Footage</b>	<b>Burnham Dollars Per Square Foot</b>	<b>Burnham Changes in Dd/SF</b>
1987	\$10,583,000	990,000	\$1067	
1988	\$13,064,000	1,040,000	\$1256	\$189
1989	\$20,356,000	1,183,000	\$1721	\$465
1990	\$23,688,000	1,182,000	\$2000	\$279
1991	\$24,888,000	1,185,000	\$2096	\$96
1992	\$28,025,000	1,332,000	\$2104	\$08
1993	\$41,179,000	2,160,000	\$1906	-\$198
1994	\$51,387,000	2,182,000	\$2355	\$449
1995	\$48,669,000	2,271,000	\$2143	-\$212
1996	\$47,314,000	2,353,000	\$2011	-\$132
1997	\$68,174,000	2,980,000	\$2308	\$292

<b>Rent Index Weighted Average</b>	<b>Changes in Dd/SF</b>	<b>Rent Index Weighted Average</b>
	\$1276	
	\$1439	\$163
	\$1496	\$058
	\$1538	\$042
	\$1527	-\$011
	\$1587	\$060
	\$1520	-\$067
	\$1439	-\$082
	\$1473	\$034
	\$1562	\$089
	\$1556	\$034

## Appendix N

### The Difference Between Gross and Rental Income for Weingarten

Source: NAREIT, Weingarten Website

	<u>Weingarten- Rental Revenues</u>	<u>Weingarten- Square Footage</u>	<u>Weingarten- Rental Dollars Per Square Foot</u>	<u>Weingarten- Changes in Rental Dol/SF.</u>
1987	\$50,800,000	9,900,000	\$5.13	
1988	\$54,000,000	10,400,000	\$5.19	\$0.06
1989	\$59,600,000	10,800,000	\$5.52	\$0.33
1990	\$55,400,000	11,500,000	\$5.69	\$0.17
1991	\$74,500,000	12,600,000	\$5.91	\$0.23
1992	\$83,200,000	13,500,000	\$6.16	\$0.25
1993	\$95,800,000	15,000,000	\$6.39	\$0.22
1994	\$112,200,000	16,300,000	\$6.88	\$0.50
1995	\$125,400,000	18,000,000	\$6.97	\$0.08
1996	\$145,300,000	20,200,000	\$7.19	\$0.23
1997	\$169,000,000	22,200,000	\$7.61	\$0.42