The D.C. Metropolitan Area is Recession Proof

Why the Federal Government is the Best Market Driver in a Recession

Presented by:
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Today’s financial crisis has extended beyond the borders of the U.S., as global economies are now contributing to a growing trade deficit. Most European economies are now in a recession. All of Asia has been hurt by reduced trade flows compounded by the credit crunch. “The world economy is in the midst of its deepest and most synchronized recession of our lifetimes,” said Klaus Schmidt-Hebbel, chief economist for the Organization for Economic Cooperation and Development (OECD).

The current financial climate has economists around the globe re-examining and re-forecasting the economic and real estate fundamentals in their respective markets. Markets with healthy fundamentals are feeling the pinch and those without proven drivers are languishing. At the national level, unemployment is now expected to grow to 10% in 2009 when forecasts were typically below 7% as recently as summer 2008. Payroll employment declined by 524,000 jobs in December 2008 alone with the total number of jobs lost in 2008 totaling 2.59 million; the most since nearly 2.0 million defense jobs were cut in a single month at the end of WWII. According to Economy.com estimates, another 2.7 million jobs are expected to be lost in 2009 and nearly 5.29 million U.S. jobs will be lost in total by that time.

In adverse economic times, a strong foundation is critical. As home to the massive Federal workforce, its contractors and subcontractors, and the economic activity they generate, the D.C. Metro area is largely insulated from national economic downturns. Federal purchases from area companies as well as national associations, legal services, lobbying firms and international entities requiring proximity to the Federal Government help support the region’s economy despite swings in the national and global economies. Statistics from the 2001 recession exemplify this. When the national economy lost 1.83 million jobs from 2001-2003, and the jobless rate for that period peaked in 2003 at 6%, the D.C. Metro area unemployment rate reached only 3.9%. In fact, the D.C. Metro area gained 66,000 jobs from 2001–2003.

Likewise during the current financial downturn, the D.C. Metropolitan area experienced economic expansion in 2008. The D.C. region offered 31,400 new employment opportunities, and the unemployment rate stayed lean at 4.4%. The D.C. economy has, by nearly all measures, out performed the national economy.
What are the factors that consistently cushion the D.C. Metro area during recessionary periods? Federal spending, Government intervention, policy-making, war-spending, and growing regulation play a role. Lastly, the sheer size and perceived permanency of the U.S. Federal Government inspire a level of confidence which cannot be discounted.

Rather than simply compare the D.C. area economy to the national economy, which has certain consistent drains (e.g. Rust Belt communities), this paper will examine the effects of Federal spending on the D.C. Metro area vis-à-vis select “dynamic metropolitan markets”. These are major markets which have dominant drivers in their own right. The financial services sector in New York, education in Boston, technology in Silicon Valley and Houston’s oil industry will be evaluated. An examination of economic drivers, specifically employment growth and gross regional product (GRP), as well as certain real estate indicators will be used to measure the relative strength of each market. This paper will assess the office market in each MSA, using net absorption, vacancy rate, rental/sales price and the presence of new development as indicators. Decline in employment and/or GRP are signs of market weakness. Likewise, negative absorption, increasing vacancy rates, declining rental/sales prices and the absence of any new development (which indicates lack of faith in a market) shall be considered signs of market softness. This paper will show that the D.C. Metro area, fueled by Federal spending and subsequent job growth, will consistently outpace other major markets and their respective drivers in down cycles.

**The D.C. Economy and Employment**

According to George Mason’s Center for Regional Analysis (Table 1), the Federal Government accounts for approximately one third ($118 billion) of the $360 billion D.C. Metro economy.

During past economic and financial downturns, the government increased hiring as well as Federal spending (particularly procurement spending) in an effort to stimulate national economic growth.
Table 2 shows increasing employment in the D.C. Metro area since 1995, including recessionary periods, and employment is expected to grow in the future. During the early 1990’s S&L crisis, the Federal Government added 20,000 government jobs to the D.C. region’s economy.

Many of these jobs resulted from the creation of the Resolution Trust Corporation (RTC), which was a Federal Government-owned asset management company charged with liquidating assets, primarily real estate-related assets, that had been assets of savings and loan associations (S&Ls) declared insolvent. As an aside, we are seeing a similar entity created today, the Term Asset-Backed Securities Loan Facility (TALF), to deal with the toxic assets responsible for the current financial crisis. During the 2001 recession, the D.C. Metro area added an average of 32,700 jobs a year during the period 2001-2003.

Table 3 shows that the D.C. Metro GRP grew more robustly than did the U.S. GDP, moving from 2.5% to 4.5% during the period 2001-2003. During this same period, the U.S. GDP grew from 0.8% to 2.5%. 2001 saw a major reduction of this capital across all major markets; however, the D.C. Metro GRP still grew. To a great extent, the D.C. Metro was able to withstand the severe loss of venture capital and the subsequent technology bust because the Federal Government increased its spending, as it does during down cycles (Table 4). For example, the Federal Government increased its spending by 9.5% in 2001.
The relationship between the U.S. GDP, the D.C. Metro GRP and Federal spending is an interesting one. Looking at the annual percentage changes of each of these in Table 5, one sees that Federal spending increased in 2002, the Government’s response to the recession. The D.C. Metro area’s GRP increased in this same year, but the U.S. GDP declined. One can argue that the benefits of Federal spending are felt most immediately where the Federal Government is located, the D.C. Metro area. In 2003, the U.S. GDP and the D.C. Metro area experienced increases. The conventional wisdom being that there is a 12-month lag between the infusion of dollars into a market and the response to the capital. The U.S. GDP and the D.C. Metro area GRP grew again in 2004, albeit not as dramatically. What is of particular note is that Federal spending declined in 2005. During the same year, U.S. GDP increased, but the D.C. Metro GRP declined. The multiplier effect explains this correlation.

The multiplier effect measures the impact a particular economic activity has on the region in which it occurs. It illustrates how an increase in spending produces an increase in income, job growth and/or consumption greater than the initial amount spent. Total effect has three main parts: direct, indirect, and induced effects. Direct effects are the immediate employment impacts associated with a change in demand for a particular industry. For example, a $1 million increase in computer purchases will cause manufacturers to produce $1 million more worth of computers, hiring extra workers in the process. Indirect effects would be hiring by industries that supply goods and services to the expanding computer industry (e.g. chipmakers). Induced effects occur as firms in all sectors of the local economy add staff due to spending of the additional income of employees in the directly (computer) and indirectly (chipmakers) affected industries.
What we observe is that the D.C. Metro GRP grows when its primary driver, Federal spending, grows and shrinks when the driver shrinks. Economists generally assign a multiplier of about 1.5 to Federal spending. That is, for every $1 of Federal spending, $1.50 is added to the D.C. Metro GRP. This is not a particularly large multiplier effect, and is, in fact, the lowest of all the markets discussed in this paper. What is of critical importance is that the D.C. Metro area benefits when the Federal Government is spending but is not unduly harmed when the Government slows its spending, resulting in economic stability.

**Federal Spending in the D.C. Region in the Current Recession**

Looking again at the current crisis, the sheer volume of business in managing the various programs and initiatives will require significant government oversight. There will be increased regulation of the mortgage lending industry, hedge funds and the financial system at large. The Federal agencies most likely to grow include the Treasury department (which includes the new agency created in 2008 called the Office of Financial Stability), the Federal Deposit Insurance Corporation (FDIC), the Federal Reserve, the Federal Housing Finance Administration (FHFA) and the Securities & Exchange Commission (SEC). Moreover, as the government grows, so do the various contractors (consultants, law firms, accounting, firms, etc.) with whom the Federal agencies work to help meet their objectives. Of course, some governmental regulation can result in contraction as seen by the Pentagon’s recent decision to abandon the production of certain military equipment (e.g. the Air Force’s F-22). However, the general rule of thumb is that for every $1 billion dollars of increased Federal procurement dollars (not total Federal dollars) spent in a region, approximately 7,000 new contractor jobs are created.\(^5\) It is important to note that some new jobs created may not be permanent; however, the short-term economic impact is significant. Table 6 demonstrates that total Federal spending from 2009-2010 is just over $7 billion. We can allocate about half of this to procurement spending, yielding roughly $3.5 billion. Multiplying $3.5 billion by 7,000 new contractor jobs, we see that 24,500 new contractor jobs are forecasted.
To be sure, the Federal Government can create positive growth in other major markets as well. As Table 7 indicates, new jobs were created in other major markets. However, not nearly as many as in the D.C. Metro market. Similarly, the GRP of other major markets do not exhibit the stability of the D.C. Metro area. Table 8 shows that the relative strength of the D.C. Metro in 2001-2003, the years during which the nation was recovering from the 2001 recession. Going into the flush times of 2005 and 2006, the enormous amount of money flowing into technology boosted Silicon Valley’s GRP. Moving from 2006 to 2007, oil prices began to climb, resulting in Houston outpacing the D.C. Metro. But will these drivers maintain their markets in the current recession and beyond? How does one more fully understand the impact of the drivers on their respective markets?

**Real Estate Indicators as a Measure of Economic Strength**

One way to quantify the impact is through an evaluation of certain key real estate indicators. This paper will focus on the commercial real estate office market, and specifically, net absorption vacancy rate, new construction and sales price. Positive net absorption is an indicator of economic activity. Net absorption is the change in occupied space in a consistent inventory. Positive net absorption indicates that companies are taking more space and conversely negative absorption indicates job loss and contraction. The vacancy rate is the percentage of the inventory that is empty. Growing vacancy rates can result from multiple factors. New construction could deliver unleased and/or existing buildings may lose tenants. Once could argue that any speculative construction is actually a sign of faith in a market, so it’s important to identify what is causing the vacancy and if it is trending up or down over time and as compared across markets. Lastly, sales prices are driven by both the strength of the economy as well as opportunism.
Opportunistic buyers feel that they are acquiring an asset which is poised to perform better, as the market in which it is located is perceived to be qualitatively better than other markets. It follows that markets which are supported by relevant drivers will exhibit higher levels of positive absorption, lower vacancy rates, some level of new construction and stable, if not rising, sales prices. An examination of these metrics across the dynamic metropolitan markets will exemplify D.C.’s superiority during recessionary periods.

**THE D.C. METROPOLITAN OFFICE LEASING MARKET**

In the D.C. Metro area, there are two factors that will largely influence leasing dynamics. First, Federal Government intervention will provide a significant boost to office tenant demand. The flurry of programs and initiatives brought forth by the new administration will all translate into robust Government job growth in the D.C. area.

In response to the severe economic downturn, Congress passed the American Recovery and Reinvestment Act of 2009 which was signed into law on February 17, 2009. The fiscal stimulus plan will cost $787 billion over ten years and includes a large number of spending increases, tax cuts and other social welfare provisions. Approximately $311 billion has been appropriated for discretionary spending projects. A large portion of that, $145 billion or 47%, is intended to be spent by the end of 2010. Although the $787 billion stimulus package will be disseminated throughout the country, perhaps no region will benefit more from the spending than the Washington, D.C. metro area. In addition to the billions of dollars that Virginia, Maryland, and the District will receive for funding infrastructure, energy, education, and other projects, the D.C. region will also benefit from the billions being channeled to the Federal agencies to help manage the various stimulus programs.

Historically, the D.C. region has received 4% to 5% of total government outlays. In 2007, for example, Federal spending in the D.C. region totaled $125.5 billion, which accounted for 4.9% of the $2.56 trillion in total U.S. Federal outlays.

### Table 9 - Federal Spending Increases in Past Recessions

<table>
<thead>
<tr>
<th></th>
<th>2001 Recession/ War Spending</th>
<th>Current Recession</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;L Crisis</td>
<td>25.3 B</td>
<td>26.9 B</td>
</tr>
<tr>
<td>1990-91</td>
<td>26.0 B</td>
<td>28.3 B</td>
</tr>
<tr>
<td>2000-01</td>
<td>28.1 B</td>
<td>30.1 B</td>
</tr>
</tbody>
</table>

**Washington Metro Area**

Source: Cassidy & Richard Collins Research Forecast, GMU Center for Regional Analysis, 2009-2011 aapl and fiscal year cycles.
By applying these historical averages to the current stimulus and the estimated Federal budget for 2009-2011, the D.C. region stands to gain an additional $38 billion in Federal spending over the next three years. This is more than double the spending that occurred in the D.C. region during the S&L crisis, and roughly 37% more than the spending that occurred during the war spending from 2002 to 2004.

The D.C. Metro area is home to the majority of Federal agencies in the region, many of which are slated to receive large amounts of stimulus money. Further, many contractors are dispersed throughout the D.C. region, and they too will play a major role in managing the various spending projects, as it is more efficient to administer the programs through their existing infrastructure. The Government is relying heavily on the Federal agencies to approve contracts and distribute money for the various stimulus projects. However, many of these agencies do not have the staff necessary for managing the massive increase in budgetary spending. For example, the Department of Energy (DOE) currently employs an estimated 14,000 people in managing a $25 billion budget which goes primarily to continuing scientific research and insuring the environmental cleanup of the national nuclear weapons complex. Per Table 10, the DOE will receive over $45 billion in new funding. This is an 80% budget increase which is essentially happening overnight. Granted, a large portion of the stimulus money will be spent directly by the states, but the DOE will play a critical role in managing the allocations and overseeing the projects. Thus, the DOE will need to hire more employees, more private contractors, and more project managers to efficiently allocate the money for various energy projects.

Table 10 - Projected Stimulus Allocation to Agencies

<table>
<thead>
<tr>
<th>Agency</th>
<th>Region</th>
<th>Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Transportation</td>
<td>DC</td>
<td>48.12</td>
</tr>
<tr>
<td>Department of Energy</td>
<td>DC</td>
<td>45.25</td>
</tr>
<tr>
<td>Department of Education</td>
<td>DC</td>
<td>44.01</td>
</tr>
<tr>
<td>Department of Housing and Urban Development</td>
<td>DC</td>
<td>13.69</td>
</tr>
<tr>
<td>Department of Health and Human Services</td>
<td>DC</td>
<td>10.46</td>
</tr>
<tr>
<td>National Institute of Health</td>
<td>MD</td>
<td>10.02</td>
</tr>
<tr>
<td>Environmental Protection Agency</td>
<td>DC</td>
<td>7.21</td>
</tr>
<tr>
<td>General Services Administration</td>
<td>DC</td>
<td>5.85</td>
</tr>
<tr>
<td>Department of Commerce</td>
<td>DC</td>
<td>5.91</td>
</tr>
<tr>
<td>Administration for Children and Families</td>
<td>DC</td>
<td>5.15</td>
</tr>
<tr>
<td>U.S. Army Corps of Engineers</td>
<td>DC</td>
<td>4.69</td>
</tr>
<tr>
<td>Department of Defense</td>
<td>VA</td>
<td>4.69</td>
</tr>
<tr>
<td>Employment and Training Administration</td>
<td>DC</td>
<td>4.47</td>
</tr>
<tr>
<td>Department of Justice</td>
<td>DC</td>
<td>3.90</td>
</tr>
<tr>
<td>National Science Foundation</td>
<td>VA</td>
<td>3.61</td>
</tr>
<tr>
<td>Department of Homeland Security</td>
<td>DC</td>
<td>2.75</td>
</tr>
<tr>
<td>Department of Agriculture</td>
<td>DC</td>
<td>2.62</td>
</tr>
<tr>
<td>National Coordinator for Health Information</td>
<td>DC</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Source: Congressional Budget Office; Holland & Knight

Table 10 shows the projected stimulus allocation to agencies. The table includes various Federal agencies and their respective billings for the allocated funds.
Assuming an average of 250 square feet per private sector contractor and 160 square feet per public employee, the projected space requirements will total over 14 million square feet by 2019. The majority of this requirement, over 10 million square feet, will be needed by the end of 2011. This combination should help the region absorb a significant portion of the 12 million square feet of new supply set to deliver in the D.C. region by 2010. The stimulus bill, as well as the job creation related to the financial bailout, will be critical for keeping the economy active and maintaining balance in the Washington D.C. office market.

As previously noted, positive net absorption is a direct indicator of economic stability. Simply put, new companies and other organizations are relocating to a preferred market or existing entities are flourishing and leasing additional space. Facing unprecedented economic conditions, net absorption remained positive, as the 337 million square foot office inventory posted positive 1.09 million square feet at the end of 2008. Although this leasing volume is less than half of what it was at the end of 2007, it is healthy when compared to the nation which was negative 7.5 million square feet through three quarters in 2008. The vacancy rate remained increased slightly from 9.7% to 11.2%, but this occurred because new construction was delivered to the market with a bit of unleased space. Some could argue that a market is not benefitted by unleased building deliveries during a down cycle; however, it can also be argued that speculative development is a sign of faith in a market.
Obviously increasing rental rates are another major indicator of tenant demand (and in turn economic health) in an office market. Average rents increased over 2% over the year. Although landlords are still asking for elevated rents, aggressive tenant incentive packages in the $60 to $80 per square foot range and six to nine months of free rent are common. Ultimately, the question throughout 2008 was if the expanded role of the Federal Government in the financial crisis would translate into increased office space demand. At this writing, Federal tenants associated with the financial markets have committed to approximately 300,000 square feet in the District and are considering taking another 400,000 square feet, a healthy trend which is expected to continue.

THE D.C. METROPOLITAN INVESTMENT SALES MARKET

In the first half of 2008, the D.C. region experienced fairly healthy office sales activity. Life companies and regional banks were lending, foreign investors and cash buyers were active, and for the most part, sales were closing. By mid year, office sales volume of non-portfolio sales stood at $2.5 billion, down just slightly from the $3.1 billion in the first half of 2007. In September 2008, the financial crisis turned into a full blown meltdown, and exposure to troubled real estate loans became the constant theme behind the financial turmoil.

With cash fleeing to the sidelines, stock values crashing, and confidence in real estate at an all time low, office sales came to a halt. In the D.C. Metro, sales volume slowed to just $942 million in the second half of 2008, a far cry from the $5.0 billion recorded in the second half of 2007. The most staggering slowdown was seen in portfolio sales. In 2006 and 2007, portfolio sales totaled $5 billion and $6 billion, respectively. In 2008, that number had dropped to just $66 million.

In all, office sales volume in the D.C. region came in at $3.4 billion. Although this is down sharply from $12.5 billion in 2007, the level of sales still ranks second in the country behind only New York (Table 9). Just 62 buildings changed hands in 2008 versus 218 last year. This represented 2.5% of the region’s total office inventory. Despite the dramatic slowdown in sales, office building prices remained elevated. In 2008, average price per square foot rose from $370 in 2007 to $411 in 2008, an increase of 11.1%. Likewise, capitalization (cap) rates held steady. The average cap rate in the D.C. Metro area inched up from 6.17% in 2007 to 6.31% in 2008.
Table 13
2008 Top Investment Sales Markets

<table>
<thead>
<tr>
<th></th>
<th>Volume in Billions</th>
<th>SF in Millions</th>
<th>$/SF</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>$12.7</td>
<td>16.1</td>
<td>$806</td>
<td>1</td>
</tr>
<tr>
<td>DC Metro</td>
<td>$3.4</td>
<td>8.3</td>
<td>$411</td>
<td>2</td>
</tr>
<tr>
<td>Houston</td>
<td>$1.5</td>
<td>9.2</td>
<td>$172</td>
<td>7</td>
</tr>
<tr>
<td>Boston</td>
<td>$1.4</td>
<td>5.3</td>
<td>$263</td>
<td>8</td>
</tr>
<tr>
<td>San Francisco</td>
<td>$1.2</td>
<td>4.1</td>
<td>$393</td>
<td>9</td>
</tr>
</tbody>
</table>

Source: Real Capital Analytics

As is typically the case in a down cycle, a flight to quality kept demand healthier in the core markets and weaker in the secondary and tertiary markets. Thus, office sales in the District fared significantly better than other markets. In many cases, multiple buyers were chasing a handful of assets which placed upward pressure on prices. As a result, average price per square foot came in at $544 for 2008, up from $451 in 2007.9

Similarly, the D.C. Metro area investment sales market performed comparatively well during the financial downturn of 2001. Office sales activity in the D.C. Metro area in 2001 included 119 office buildings of 50,000 square feet or more with an estimated aggregate value of $4.26 billion. The dollar volume was about 15% higher than in 2000. The square footage was 7% higher than the 2000 level and represented about 7% of the region’s total office inventory.10

Washington, D.C.’s preeminence, nationally and internationally, as an office investment haven was basically unshaken by the events of September 11th. While there were concerns that government functions would be dispersed for security reasons, this did not emerge as a national policy. Moreover, investors felt that Washington’s height restrictions and low-profile buildings made them less vulnerable to terrorists than the World Trade Center Towers or other landmark skyscrapers. Consequently, while some sales were delayed and others reexamined over issues like insurance costs, there continued to be strong investor interest at the end of the 2001.
Going forward, the D.C. Metro investment sales market is poised to rebound more quickly than other major metropolitan areas. According to Real Capital Analytics (Table 13), as of December 2008, there were well over 1,000 significant assets in the U.S. that had been identified as distressed, totaling $25.7 billion in volume. Those figures only include the assets that are truly distressed, such as mortgages already in default or in foreclosure. The situation is far worse looking at the number of potentially troubled assets heading into 2009. Real Capital Analytics identified 3,736 individual properties, $80.9 billion in volume, that fall into this category. The D.C. metro appears to be in a more stable situation than most other markets. In 2008, only 17 commercial properties had been identified as distressed assets, totaling $337 million. This represents less than 1% of total inventory in the market.

As distressed assets begin to surface in 2009, and should the Federal Government help credit markets move into a state of repair, investors with cash will be in a great position to take advantage of prime real estate opportunities. Further, with the Federal Government keeping interest rates low, timing may be ideal for some buyers to come in and make a low-leveraged deal that may not be possible two to three years from now. Office market investments made in 2009 in the D.C. region could generate significant future cash flows relative to the performance of other investments. The relative resiliency of the D.C. Metro area is evident by the elevated sales prices and continued investor interest in the face of recessionary periods. So the question remains, how does the impact of the Federal government on the D.C. area compare to the effect other drivers have on their respective markets? A review of other major markets and an examination their respective drivers during recessionary periods will illustrate that those drivers are not as stable as the Federal Government.
THE FINANCIAL SERVICES SECTOR AS A DRIVER IN NEW YORK CITY

New York City is the largest city in the United States (by 2007 population). The New York-Northern New Jersey-Long Island Metropolitan Statistical Area (MSA) is the largest in the U.S. With an estimated 18.8 million residents in 2007, the New York metro area increased 2.69% from that in the 2000 Census.

New York is a leading global city, exerting a powerful influence over worldwide commerce and finance. New York City is a global hub of international business and commerce and is one of three "command centers" for the world economy (along with London and Tokyo). New York City’s gross domestic product was $620 billion in 2006. Many major corporations are headquartered in New York City, including 43 Fortune 500 companies. New York is also unique among American cities for its large number of foreign corporations. One out of ten private sector jobs in the city is with a foreign company.

THE NEW YORK ECONOMY AND EMPLOYMENT

The New York State Department of Labor tracks various industries as a percentage of total nonfarm employment. This gives an indication of how each industry then contributes to the overall GRP. Services accounts for over half of all jobs. Professional and Business Services accounts for 30.6% of the overall Services group. This, taken with F.I.R.E at 12.3%, and the fact that nearly all the country’s largest investment banks were or are headquartered here, suggest that finance-oriented jobs are a large component of New York’s total GRP. In fact, according to an April 2005 report from the New York State Department of Labor, financial activities had the 3rd highest multiplier, 3.06, of all industry groups in the state. Only Information (3.41) and Management of Companies (3.16) were higher. This means that for every $1 spent in the financial activities arena, $3.06 was added to New York’s GRP.

Table 15 - Structure of Economy, % of Employment

<table>
<thead>
<tr>
<th>Industry</th>
<th>% of Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>14.9%</td>
</tr>
<tr>
<td>F.I.R.E</td>
<td>12.3%</td>
</tr>
<tr>
<td>Construction</td>
<td>3.42%</td>
</tr>
<tr>
<td>Trans/Utils</td>
<td>3.36%</td>
</tr>
<tr>
<td>Mfg</td>
<td>2.50%</td>
</tr>
<tr>
<td>Trade</td>
<td>11.97%</td>
</tr>
<tr>
<td>Services</td>
<td>51.5%</td>
</tr>
</tbody>
</table>

Source: NYSDOL
When times are good, this is extremely beneficial. However, this leaves New York vulnerable should financial activities be stymied.

New York’s employment base has been sensitive to national recessions. New York City lost approximately 131,300 jobs in 2001, 3.5% of the total number of jobs that existed in December 2000. This was one of the largest 12-month employment declines on record and the largest employment decline in the city since 1991. Every industry sector experienced job loss during the last 3 months of 2001, except for construction where there was a small gain of 400 jobs. Nearly two-thirds, or 84,000, of the 131,300 job decline occurred during the 4th Quarter 2001, effectively the post September 11th period.

The post September 11th decline during 2001 was almost two-thirds of the total for the year, and 5.5 times the pace of decline occurring in the 9 months of the pre September 11th period in 2001. The post September 11th job decline picture looks very different from that of the pre September 11th job decline. Before the World Trade Center attacks, New York City job losses were concentrated in manufacturing (-13,900), business services (-27,400), and the F.I.R.E. sector (-4,100). After September 11th, the F.I.R.E. sector led all industries in job declines (-26,600), although nearly half of these jobs eventually relocated outside of the city but elsewhere in the MSA. Air transport (-9,900), restaurants (-7,700), other retail (-5,600), and hotels (-3,100) were hard hit. In most cases, these industries had felt only moderate job loss before September 11th.

Due to a failed banking system, many job cuts have recently taken place in the financial services sector. While several financially-focused metropolitan areas have been affected, New York City is particularly vulnerable. Job losses began to mount early in 2008, though there were months when the positives outweighed the negatives, even as recently as July and August 2008. That shifted in September, and since then losses have mounted quickly totaling 7,400 lost jobs in September 2008, 8,500 in October 2008, 25,900 in November 2008 and 29,000 in December 2008. For 2008, only one segment of the New York City market did well and that was health services which gained 8,100 new jobs.
Leisure and hospitality remained in positive territory but the numbers shrank by year end 2008. As domestic and international travel continues to see cutbacks, expect this number to be negative throughout 2009. The remaining industries in positive territory in 2008 (though barely) were professional services and insurance & real estate (positions in these fields will be lost in 2009 as well). The unemployment rate for New York City climbed to 7.4% in December 2008, up from 5.1% just one year ago. It is the highest figure since the 8.4% in January 2004. 

For 2009, recent job loss forecasts by the NYC Office of Management and Budget and the NYC Office of the Comptroller project that the City will see private sector job declines in the range of 125,000 to 175,000 while private sector economists suggest that up to 250,000 jobs could be lost. Due to the dismal 4th Quarter 2008 reports across all industries, the sharp drop in personal consumer spending and even the $50 billion Madoff ponzi scheme fallout, these job loss forecasts continue to increase from previous prognostications. According to a December 2008 report by the Fiscal Policy Institute (FPI), “Initial unemployment insurance claims are rising rapidly, portending a strong likelihood of an upsurge in local job losses.”

Should the FPI’s prediction that job losses will accelerate to about 10,000 per month and maintain that pace throughout 2009, firm cutbacks will provide a consistent flow of space availability between the Hudson and East rivers. The complete failure and dissolution of some major Wall Street firms has had an overwhelmingly negative impact on New York.

Financial Services as a protective driver for the New York MSA was obliterated by the attacks of September 11th. The destruction of the World Trade Center towers, nearby businesses, and human lives had a major impact on the economy of New York City. Gross City Product (GCP) was estimated to have been reduced by approximately $27.3 billion over the last 3 months of 2001 and all of 2002. Overlaid on a labor market already weakened by the national recession were 462 extended mass layoffs attributable to September 11th that displaced nearly 130,000 employees in 2002. The failure of financial services to support New York throughout the recession of 2001 and today is apparent if one evaluates the performance of the office market during these times.


**NEW YORK CITY OFFICE LEASING MARKET**

After holding up well at the beginning of 2008, the fundamentals of the 443 million square foot New York office market showed serious weakness by the end of the year. As companies came under pressure to cut costs in 2008, the amount of both direct and sublease space rose dramatically. For the Class A New York Office Market, where much of the financial sector is located, the vacancy rate climbed above 10% for the first time since November 2004, closing the month of January 2009 at 10.2%. In this month alone, direct vacancy was up 14.4% and sublease availability increased by 11.8%. Despite numerous leasing options for tenants, leasing activity in this market in 2008 was the lowest level recorded since 2001.

With demand sagging and available space growing, many landlords have been forced to lower rental rates for both new deals and renewals. In Manhattan specifically, the overall asking rental rate closed 2008 at $60.33/sf, down 7.8% in the 4th Quarter 2008 and off 10% from its record high of $67.06/sf in May 2008. Negative net absorption coupled with reduced rental rates are clear signs that New York’s economy is suffering. Tenants, even some of Wall Street’s most venerable financial firms, are downsizing and/or disappearing altogether at an unprecedented pace. The financial services sector, as a driver, is currently quite weak.

Much the same weaknesses were seen in 2001, especially after 9/11. New York’s Downtown Manhattan office submarket lost nearly 13.5 million square feet of office inventory. Throughout all of the submarkets, enormous amounts of negative absorption were recorded and vacancy rates more than doubled as numerous firms either went out of business altogether or were forced to relocate to New Jersey or other neighboring jurisdictions. Comparatively speaking, the D.C. Metro market, also attacked on September 11th, did not suffer the same dire fate as New York. In fact, the very same attack actually inspired growth in our economy and office market. Among other things, the Department of Homeland Security was quickly created, and it leased office space. That agency still exists today, and is quite active in the D.C. Metro area.
This agency is in line to get a new headquarters location and is expected to continue to play a major role in the D.C. market at least as long as the country is at war.

NEW YORK CITY INVESTMENT SALES MARKET

While the investment sales market in New York has dropped off precipitously, it is still currently the highest ranked office investment market as measured by sales volume (Table 2). In 2007, almost $41 billion dollars worth of office product traded with an average sales price of approximately $700 per square foot. By contrast, the office sales volume was $12.7 billion at the end of 2008, but the average sales price increased to $806 per square foot.

The evaporation of capital with which to purchase real estate was felt in New York as it was in every U.S. market; however, the fact that New York was able to not only preserve but increase the price per square foot is a sign of vitality. However, recent research from Real Capital Analytics indicates that 32 commercial properties, collectively valued at $3.4 billion, are in distress. These buildings belong to bankrupt, defaulting, or foreclosing owners. In another ominous sign, 236 properties, valued at $8.6 billion, are designated as troubled, heading in the direction of distress. Those with cash or strong credit may well drive transactions going forward, whether in the form of all-cash or 1031, like-kind exchanges. However, expect a continuation of diminished sales activity as many wait for prices to bottom out and a wide bid-ask gap is curtailing sales activity.

Looking back at 2001, the New York City market held the top spot in terms of sales volume in 2001, as $6.2 billion dollars in sales volume was achieved. What can we divine from this? As measured by the relative health of the investment sales market, New York, driven by financial services, has performed better than any other market. New York’s consistent place atop other markets in the investment sales arena certainly shows that investors are interested when the economy is liquid, and they have the capital to chase assets. When this capital is absent, the vitality of this market diminishes. Further, the weak leasing fundamentals show that the financial services sector cannot support itself during recessionary periods.
THE EDUCATION SECTOR AS A DRIVER IN BOSTON

According to 2007 Census population figures, Boston is the 23rd largest city in the U.S. The Boston-Cambridge-Quincy Metropolitan Statistical Area (MSA) is the 10th largest in the U.S. with a total population of 4.5 million. The Boston metro area increased 2.06% from that in the 2000 Census.20

The largest city in New England, Boston is sometimes regarded as the unofficial "Capital of New England."21 With many colleges and universities within the city and surrounding area, Boston is a center of higher education.22 Boston's strong education sector dates back to the earliest days of America. Boston Latin School, founded in 1635, was the first public school in the colonies. The Mather School in Dorchester, founded in 1639, was the first public elementary school, and Boston English High School, founded in 1821, was the first public high school.

Across the river in Cambridge, Harvard College became the first post-secondary school when it was founded in 1636. So many schools, colleges and universities sprouted up in the city that Boston became known as the "Athens of America."23 Entering the 21st century, Boston retained its preeminence as an intellectual center, attracting people from around the country and around the world to its institutions of higher education.

THE BOSTON ECONOMY AND EMPLOYMENT

The economy of Metropolitan Boston rests primarily on educational and medical institutions, high technology, finance, professional and business services, and defense.24 Boston's colleges and universities have a major impact on the city and region's economy. According to a 2003 report by the Boston Redevelopment Authority, students enrolled in Boston's colleges and universities contribute $4.8 billion annually to the city's economy.
Not only are they major employers, but they also attract ancillary industries to the city and surrounding region at a ratio of at least 2 indirect jobs for every new job created in education and medical research. For the 14th straight year, Boston has led all U.S. cities in NIH grant awards, receiving more than $1.6 billion in research grants during fiscal year 2007. Nationally, Boston’s share of total funding increased to 7.7% in both 2006 and 2007, up from the 7.0% share it received in 2005. The 7.7% share accomplished for each of the last two years has been the highest percentage of total NIH funding for Boston since 2001. As health care, education and research play an increasing role in today’s knowledge-based economy, these institutions provide a crucial underpinning to the economy of Boston and the entire region.

The late 1990s boom brought a record number of jobs to Boston in 2000. However, employment dipped over 5% in 2002-2004, as Boston struggled to recover from the 2001 recession. Job growth began to increase again in 2005 and has increased each year since until 2008. For the year ending 2008, the unemployment rate for Boston was 4.8%, which is well under the current national unemployment rate of 8.1% but not as favorable as the 4.4% unemployment rate in the D.C. Metro area. 1st Quarter 2009 BLS estimates indicate a 3.2% loss in jobs. However, its gross domestic product grew each year 2001-2008, which is a sign of a healthy market. An examination of the real estate indicators will illustrate whether or not education does, in fact, drive a healthy market.

**THE BOSTON OFFICE LEASING MARKET**

Boston was able to avoid recession for most of 2008, but conditions worsened during 2008, and the vacancy rate increased from 13.2% in 2007 to 14.7% in the 157 million square foot office inventory. The negative absorption for 2008 of 595,000 square feet follows five consecutive years of positive absorption. An increase in the sublease market occurred during 4th Quarter 2008, and 1 million square feet of sublease space was available at year end 2008.
While workforce reductions are expected to lead to even further sublease availability in 2009, the 2008 sublease inventory is roughly comparable to what it was at the end of 2007.

The vacancy rate is expected to increase, as companies maintain status quo or contract and approximately 1.6 million square feet of new supply will come online. Assuming net negative absorption until a modest recovery in 2011, the vacancy rate could increase to the low teens.

As in the D.C. Metro market, Boston has seen recent speculative development. While it will lead to increased vacancy rate in the face of diminished tenant demand, it is a byproduct of developer/investor faith in the market.

Following a considerable increase in 2007, rental rates stabilized during the first half of 2008 but began to show signs of softening by the 4th Quarter 2008. Although demand weakened over the course of the year, space availability was still relatively tight and some landlords were reluctant to decrease asking rents. The weighted average asking rent for Class A space in the Financial District was $65.25 per sf at the end of 2008 compared to $61.10 per sf at the end of 2007. However, increased concessions in the form of tenant improvement dollars and rental abatement yielded lower net effective rents. Overall, Boston’s leasing fundamentals are showing signs of weakness.

**BOSTON MARKET INVESTMENT SALES**

Following a period of unprecedented sales activity, investment volume in 2008 dropped off dramatically in Boston with sales totaling $1.4 billion, compared to almost $10 billion in 2007. There were also more than double the number of sales in 2007 as in 2008, further evidence that the capital required to maintain steady market activity is scarce. Interestingly, the average sales price per square foot is currently approximately $265 per square foot, which is the same as it was at year end 2007.
So, while the number of sales dropped off due to a lack of capital, those investors who were able to close felt the Boston office market held its value over the course of 2008.

Until lenders reenter the market in a meaningful way, transaction volume will be stymied. All eyes are on traditional balance sheet lenders – life insurance companies and larger commercial banks. Ultimately, the Federal stimulus initiatives must work their way through these institutions and into the commercial investment markets before a return to a more stabilized flow of real estate capital is triggered. When capital does start to flow, it will be deployed in markets like Boston, which are still fundamentally sound and fairing better in terms of job loss and home foreclosures than other major metros across the country.

Despite generally poor economic conditions, Boston has thus far not been as hard hit as it was during the 2001 recession when the market suffered over 9 million square feet of negative absorption and the vacancy rate spiked from 3.6% at the end of 2000 to 14.6% at the end of 2001. However, Boston’s largest industries, including education, are announcing major layoffs and scaling back future development projects. In 2009, Boston can expect to see the office market revert back to a market similar to early 2002 with respect to rents, vacancies and absorption figures. Those institutional buyers that entered the market over the past three years and attempted to push rents up in an effort to justify their purchase price will be working to get deals done at significantly less than their proformas. Without a major source of job creation, Boston will have to wait out the recession longer than the D.C. Metro area, which will see job creation as a result of stimulus spending sooner.

**THE TECHNOLOGY SECTOR AS A DRIVER IN SILICON VALLEY**

Silicon Valley is located within the San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area (MSA), which is the 31st largest in the U.S. with a total population of 1.8 million (2007 Census data). This metro area increased 3.91% in population from that in the 2000 Census. Silicon Valley is the southern part of the San Francisco Bay Area in Northern California. The term Silicon Valley originally referred to the region's large number of silicon chip innovators and manufacturers, but eventually came to refer to all the high-tech businesses in the area. Despite the development of other high-tech economic centers throughout the United States, Silicon Valley continues to be the leading high-tech hub because of its large number of engineers and venture capitalists.
According to a 2008 study by AeA, Silicon Valley is the third largest high-tech center in the United States with 225,300 tech jobs. However, the Bay Area as a whole, of which Silicon Valley is part, would rank first with 386,000 high-tech jobs. Silicon Valley has the highest concentration of high-tech workers of any metropolitan area, with 285.9 out of every 1,000 private sector employees.\textsuperscript{32}

**THE SILICON VALLEY ECONOMY AND EMPLOYMENT**

Silicon Valley has six major areas of economic activity. Information Products & Services is the largest driver, including essentially all high technology functions. Following that is Life Sciences, Community Infrastructure, Innovation & Specialized Services, Other Manufacturing, and Business Infrastructure. Community Infrastructure includes health services, education, retail, transportation, government administration and other local serving industries, which have been broken out in greater detail in Table 20.

Compared to 2007, the first half of 2008 saw employment growth in three major areas of economic activity: Information Products & Services (4%), Life Sciences (3%), and Community Infrastructure (1%).\textsuperscript{33} This is important as Information Products & Services (i.e. technology) has a multiplier effect of 2-3%.\textsuperscript{34}
Silicon Valley employment has not been buffered by its high technology sector in past recessions. The area lost 230,000 jobs in the dotcom crash of 2000. Many of those lost jobs were never recovered, in large part because many of them were with companies that had relatively short life spans.

Looking at the current recessionary period, the San Jose-Sunnyvale-Santa Clara MSA posted an increase of 18,895 jobs between 2007 and 2008 for an increase of 1.4%. After 2008, employment began to drop. The unemployment rate of the region was 10% in January 2009. Total job losses are not expected to reach the levels they did during the dotcom crash. Global Insight analysts have forecasted only 26,000 jobs to be shed in Silicon Valley in 2009, which indicates some strength relative to other markets.

However, it is questionable as to whether or not the area should expect any new job creation as a result of high technology. Venture capital spending dried up significantly 2008, as investors tightened their belts and focused on keeping existing venture-backed companies afloat. National Venture Capital Association (NVCA) reported that total U.S. fundraising dropped by 21.4% in 2008 to $27.9 billion. According to Dow Jones VentureSource, total liquidity through initial public offerings, mergers and acquisitions was down 58% from 2007 to $24.1 billion. IPO’s were down from 76 to 6 in that same period, with only one of those being a Silicon Valley company. This was the fewest venture-backed IPO’s since 1977 and 2009 may not be any better.

According to Mark Heesen, president of the NVCA, who represents about 460 venture firms, “We have a responsibility to continue working with those [existing] companies, so there is less time and less money to invest in new companies.”

The more fundamental concern for Silicon Valley’s economy in 2009 may be capital spending, which persevered through the last recession, but whose return cannot be gauged at this time. Let’s evaluate the real estate indicators.
As anticipated, the Silicon Valley’s 59 million square foot office sector experienced a difficult 2008. Silicon Valley’s office market in the 4th quarter 2008 experienced increased vacancy, lower rental rates and development concerns. While the first half of 2008 continued to present strong leasing and sale fundamentals, Silicon Valley has not remained completely immune to the recession. This has added to the available inventory as overall vacancy increased from 8.54% in the 4th Quarter of 2007 to 14.5% in the 4th Quarter of 2008.36

From 2001 to 2003, annual available relet space added averaged over 8.0 million square feet and in each of those years, office net absorption was negative. Negative net absorption of 2.7 million square feet was realized in 2008 after a year of 218,000 square feet of positive absorption in 2007.37 The occupancy loss in 2001-2003 was largely attributable to large amounts of space being vacated after the dotcom crash; while the vacancy today is more a function of lack of tenant demand due to loss of capital, but as noted earlier, the growing pipeline of relet supply is contributing to the mounting vacancy in the office sector. As forecasted, office rental rates softened in 2008.

### The Silicon Valley Investment Sales Market

As is the case with the rest of the country, Silicon Valley is in uncharted economic territory. User-sale activity is down considerably and limited largely to those who qualify for specialized financing. The total sales volume for 2008 was $1.2 billion down from $5.025 billion at the end of 2007.
Likewise, the average sales price at the end of 2008 was $298 per square foot down from an average of $325 per square foot at the end of 2007. For the first time in a long time, technology is not driving Silicon Valley, although Green tech and Biotech have helped. However, when the markets return, an enormous amount of wealth is expected to be funneled into Silicon Valley. Smart money is waiting patiently on the sidelines for the right time to jump back in, but that time may not come until late 2009 or 2010.

On the heels of a disappointing 2008, there is no signal that fortunes will improve imminently. The supply side still has a pipeline of new construction coming on line to contend with that will increase the building base and vacancy rates even if demand otherwise keeps up with supply, which is not likely to happen. On the positive side, sublease inventories have remained relatively flat in the office sector. Certainly, sublease offerings will increase in 2009, but for 2008, they only increased by 89,568 square feet over the 1.65 million square feet that was available for sublease to begin the year. Office net absorption is likely to be negative on the order of 2.0 million square feet or more, with total office space availability expanding to approximately 16.0 million square feet. New construction is compounding the supply problem much more so than in the D.C. Metro or Boston markets and as a result, the office availability rate stands a good chance of surpassing the dotcom high of almost 20% without job creation to offset the increasing unemployment rate.

THE OIL INDUSTRY AS A DRIVER IN HOUSTON

Houston is the 4th largest city in the U.S., and the Houston-Sugar Land-Baytown Metropolitan Statistical Area (MSA) is the 6th largest in the U.S. Between 1990 and 2000, the Houston metro area increased an impressive 25.2%, making it one of the fastest growing metropolitan areas in the country. With an estimated 5.8 million residents in 2008, the Houston metro area is expected to increase 11.4% over the next five years to 6.5 million.

Houston has been long recognized as the energy capital of the world, with every major energy company holding a significant local presence. It is also known as the global center for integrated power, a fast-growing new sector of the energy industry, and accounts for 57.1% of the total U.S. capacity for natural gas transmission.
In 2008, Houston ranked second among U.S. cities with the most Fortune 500 headquarters, following only New York with 43 corporations, and surpassing Dallas and Chicago each with twelve 12, and Atlanta with 9 corporations. A total of 15 companies on the 2008 Fortune 100 Fastest-Growing Companies list are also headquartered in Houston. All major oil and gas companies have extensive operations in the area.40

THE HOUSTON ECONOMY AND EMPLOYMENT

While Houston’s economic base is supported by varied industries in the area, the energy sector remains the largest driver accounting for about 50% of the local economy.41 Oil and gas exploration, alone, account for over half of this total. Energy-related activities, such as the sale of oil field equipment, account for the balance. Indeed, the oil industry has a major effect on the economy, with a multiplier effect of 3.43.42 This means that for each job in the oil industry, over 3 jobs are created in areas which support oil. However, the reverse is that the economy is quickly hobbled when oil demand drops.

Houston maintained consistent job growth during past recessionary periods. With relatively minor exposure in telecommunications, Houston suffered less than many other economies in the 2001 recession. Looking back as far as the late 1980s, the Houston MSA has enjoyed low unemployment.

Table 25- Employment Growth in Houston

In the 12 months ending in December 2008, the Houston metro gained 57,300 new jobs, representing a 2.2% growth rate and an unemployment rate at 5.5%.
In 2007, Houston’s employment sector was even more robust with initial jobs gained at 90,200 (3.6% growth rate) which was subsequently revised upward to 103,500 (4.2% growth rate).

Although new jobs in 2008 represented almost half the number from the previous year, the gains were nevertheless indicative of healthy market conditions. Houston began 2009 flush from 2.2% job growth and 57,300 new jobs gained in 2008, in stark contrast to major metros across the U.S. suffering severe job losses and sharp increases in unemployment. Houston’s business strengths continue to be grounded in strong job growth and an economic base of future growth industries.

Houston’s long standing job growth is likely to be halted as record-breaking energy prices for crude oil and natural gas slide from their respective peaks of $145/barrel and $10 per thousand cubic feet recorded in mid 2008. Crude oil has dropped a dramatic 71% to $41.73 per barrel and natural gas dropped 52% to $5.15 per thousand cubic feet (mcf).

Weak energy prices have already caused several industry giants to announce severe cutbacks in exploration, production and capital spending through 2009. With demand for energy severely battered by the escalating global financial crisis, Houston’s exposure to the current recession is increased.

However, according to the International Energy Agency’s estimates, U.S. energy demand will increase 23% by 2030, while global energy demand will increase an even more significant 55% during the same period. The long term outlook is strong for Houston’s energy industry to maintain a key role in meeting the global demand for energy and energy-related products. Having entered the economic recession much later than most major U.S. metros, Houston’s economic slowdown is not expected to cut as deep, nor last as long, as other major business centers.
The Houston Office Leasing Market

Houston suffered from overbuilding during the recession of 2001, and Houston’s office market posted three years of negative absorption from 2001-2003.

Houston’s office market closed 2008 with modest positive net absorption but steady occupancy, as the vacancy rate rose almost a percentage point from 11.86% at the end of 2007 to 12.80% at the end of 2008. This stability is a sign of relative strength compared to other markets which are experiencing marked increases in vacancy.

Landlords observed mixed office rental rates at the end of the 4th quarter 2008. While particular Class A properties continued to post increases, Class B rental rates fell by 7.8% to $28.60 per sf. When compared to the above average expansion of the past two years when absorption exceeded 6.0 million sq. ft., the office market’s performance in 2008 was undeniably weaker due to slowing demand.

Looking forward, two key factors – increased speculative development coming online over the next twelve months and contractions in the energy industry – are expected to exert downward pressure on occupancy and rental rates in 2009. While pent-up demand for Class A office space resulted in the quick lease up of new space added in select submarkets in 2008, this is not likely to continue in the coming year with preleasing activity already well below last year’s levels. The significant drop in oil prices in the second half of 2008 is expected to continue through 2009 given weakened global demand for petroleum and petroleum-related products. A contracting energy sector, marked by a significant decrease in capital expenditures compared to the boon of the last several years, is expected to dampen future employment gains, as well as demand for office space in the coming year. With Houston’s exposure to the economic recession increasing in 2009, landlords competing for tenants could be compelled to lower their quoted rental rates while increasing lease concessions and tenant improvement allowances.
THE HOUSTON OFFICE INVESTMENT SALES MARKET

Sixty-three buildings traded in 2008 with a total sales volume of $1.5 billion down from $3 billion at the end of 2007. Likewise, the average sales price at the end of 2008 was $220 per square foot down from an average of $240 per square foot at the end of 2007. This suggests some market weakness.

CONCLUSIONS

All of the major metropolitan areas discussed have fared well compared to the nation as a whole. They enjoy lower unemployment rates and have stronger GRP’s than that of the nation. They all benefit from the presence of at least one large driver which has a national and, in some cases, international impact. However, to say a major market outpaces the national economy does not adequately illustrate its strength. Given that the national economic statistics also include all smaller, weaker markets, the major metropolitan areas really should do better. The real examination takes place when these markets are compared to each other, and especially when they are compared during recessionary periods. Which markets hold up best and why?

Washington, D.C. consistently performs the best during down cycles. Federal policies promote job growth and spending, both of which quickly bolster the markets which are the chief beneficiaries. The Washington D.C. metropolitan area is the largest recipient.

Unemployment is lower in the D.C. Metro area than other major markets and the nation. Further, the D.C. Metro area consistently enjoys the most stable GRP of all the major markets. Lastly, the relative health of the office market and the preservation of asset value are also strongest in the nation’s capital. Similarly, the D.C. Metro market performs well as measured by positive net absorption and stabilized vacancy rates. Both of these measures reflect the job creation which the Federal Government inspires.
The other major drivers described in this paper do not offer their respective markets the same benefits during recessionary periods. The economic and real estate fundamentals in the other major markets could weaken significantly with vacancies for office space equaling or exceeding the highs of 2001-2003 in certain instances. As Table 29 indicates, all the major metros have suffered increased vacancy rates during recessionary periods. However, the D.C. Metro area is the least impacted. And breaking the District out from the suburbs of Virginia and Maryland, a vacancy rate increase is even less noticeable. Comparatively speaking, the District enjoys an enviable vacancy rate during the current as well as past recessions. This stands to reason, as we have shown that region first in line for Federal spending dollars is most insulated.

As vacancy rate generally has an inverse relationship with positive net absorption, we again see that the D.C. Metro area sustained itself best during recessionary periods. Table 30 compares the change in occupied space across the major markets. New York’s suffered dramatic negative absorption as a result of the destruction of many financial institutions. Further, Boston, Silicon Valley and Houston show some vulnerability at times when their respective drivers are threatened.

### Table 29 - GRP by Metropolitan Area

![Table 29 - GRP by Metropolitan Area](image)

Source: Moody’s Economy.com

### Table 30 - Major MSA Comparison

#### Vacancy Rate History 2000 -2008

![Table 30 - Major MSA Comparison](image)

Source: U.S. Bureau of Labor Statistics
We see that while the D.C. Metro net absorption rate is slightly impacted by losses in outside-the-Beltway Markets, the trend is essentially stable during recessionary periods.

Lastly, a comparison of performance of rental rates and sales prices and new construction in each market illustrates that the D.C. Metro area enjoys a level of stability that the others do not.

Table 32 – Annual Percentage Change in Rent and Sales Price (% CHG/ SF)

<table>
<thead>
<tr>
<th>MSA</th>
<th>2008</th>
<th></th>
<th>2001</th>
<th></th>
</tr>
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<tbody>
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<td></td>
<td>Rental Rate</td>
<td>Sales Price</td>
<td>New Construction (million sf)</td>
<td>Rental Rate</td>
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</tr>
<tr>
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<td>0</td>
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<td>Boston</td>
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<td>Silicon Valley</td>
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<td>.917</td>
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</tr>
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<td>-9.1%</td>
<td>4</td>
<td>+1.86%</td>
</tr>
</tbody>
</table>

Source: Real Capital Analytics

Table 32 shows the annual percent change in average rental rate and investment sales price per square foot for 2008 and 2001. Looking at both recessions, one sees that the D.C. market is the only one which maintained lease and sales rates and enjoyed some level of new construction during both recessions. Rental rates grew by 2% in 2008 and held steady from 2000 to 2001. Further, the D.C. Metro was the second-best performing investment sales market (during both recessions). New York was the best-performing sales market (also during both recessions) but suffered a 7.8% drop in rental values in 2008 and a 6.2% decline in rents in 2001. There was also no new construction in 2008, a sign of investor/developer concern in the market. Boston enjoyed rental growth in 2008 but not so during the 2001 recession.
Sales prices have remained stable throughout 2008, but did not hold firm in 2001. There was new development in Boston during both recessions. Silicon Valley rents grew slightly and sales prices declined in 2008. Quite notably, rental rates dropped nearly 50% between 2000 and 2001. As a result of this, sales prices dropped about 25% during the same period. Investment sales prices did not suffer quite as much as rental rates because some of the buildings which sold during this time had long-term leases in place at the elevated rents. There was modest new construction in Silicon Valley in 2008 and nearly 4 million new square feet of office product delivered in 2001.

Lastly, Houston more or less held its own from 2000 to 2001 but has not been able to do so in 2008. The dramatic drop off in oil prices has clearly manifested itself in lost rental and investment value. However, there was new construction in both 2008 and 2001. Consistent, if not growing, rental and sales prices as well as developer confidence in the form of new construction combine to exemplify the most confidence in the D.C. Metro market. According to a 4th Quarter 2008 report from the Association of Foreign Investors in Real Estate, “Washington, D.C. deposes New York to reclaim its status as the top global city for foreign investors’ real estate dollars.”

Federal policy makers have already planted the seeds of growth in order to address this recession. U.S. Federal Government intervention is the leading catalyst for job growth, and Federal spending is the single greatest source of economic stability during a recession. Throughout each financial downturn, the intervention of the Federal Government served as the nation’s safety net. Even in the worst economic times, the confidence which the United States Federal Government, as the world’s leading superpower, evokes in its citizens and other world leaders, consistently translates into economic stabilization.
ENDNOTES

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