The Hampton Roads Economy

What's Next?
THE HAMPTON ROADS ECONOMY: WHERE WE’VE BEEN, WHERE WE’RE GOING

The worldwide recession punished Hampton Roads in 2009. Fortunately, in 2010 both the nation and region began to recover. As expected, Department of Defense spending cushioned the area’s economic downturn. Military spending within the region grew by an estimated 3.1 percent in 2010, but this was the lowest rate of increase since 2000. Further, residual problems from the recession, particularly in the housing and banking industries, have not disappeared and have acted as a drag on regional growth.

The prospective closure of the Joint Forces Command (JFCOM) constitutes an ominous storm cloud on the economic horizon. Further, defense-related spending in Hampton Roads also would decline significantly if yet another aircraft carrier task force is moved outside of the region. Meanwhile, there is increasing concern that rising sea levels will impose costs on the region. Taking all of these factors into account, it is fair to say that the economic outlook for our region during this decade is mediocre.

This recession will go into the record books as unusual. Despite rising income and expenditures in Hampton Roads in 2010, employment growth has been quite modest. Regional firms appear to have learned how to do more with less. The result has been rising labor productivity, which eventually will pay off for Hampton Roads in terms of more jobs and higher wage rates. In the short run, however, it has provided cautious firms with another reason not to hire more employees.

In order to get a sense of how economic events will unfold in Hampton Roads during 2011, we will explore the region’s basic economic data, giving special attention to housing markets.

Taking the Measure of the Region’s Economic Activity

RECESSION AND RECOVERY

The 2010 growth rate of the Hampton Roads economy will be very close to 2.4 percent, the highest regional rate since 2006, but still substantially below the area’s 3.2 percent average annual growth over the last 40 years. Our gross output is expected to reach $81.1 billion in 2010, making the Hampton Roads economy comparable in size to those in other metropolitan areas such as Nashville, New Orleans, Hartford and Austin.

Table 1 reveals that the region’s economic growth rate has tapered off significantly in the latter part of the recent decade. Most of this slow growth can be attributed to the national recession rather than to any current structural problems within the Hampton Roads economy.

During the early part of the decade, seen in Graph 1, the region’s economy grew much faster than the national economy. This growth was directly attributable to the rapid increase in Department of Defense spending from 2000 to 2004. Substantial, but slower rates of regional growth in subsequent years were strongly related to slowdowns in Department of Defense spending within Hampton Roads. From 2000 to 2010, our estimated total output grew considerably faster than...
that of the nation. The region’s real gross domestic product grew at a rate of 31.8 percent over the decade, while real national GDP growth was 18.9 percent.

Rising unemployment rates inevitably accompany slow economic growth. As seen in Graph 2, the region’s unemployment rate rose rapidly during the recession and will average 7.6 percent in 2010. This is the highest rate in more than 20 years. Nevertheless, on a more upbeat note, Graph 3 reports that total unemployment insurance claims in our region have begun to recede, declining nearly 10 percent from May 2009 to May 2010. However, even with rising regional output and declining unemployment claims, our unemployment rate is not likely to diminish substantially over the next year because unemployed people who had previously been discouraged from seeking a job because of the shrinking economy may choose to re-enter the labor force. These are the “discouraged workers” that unemployment rates ordinarily do not capture.

Small consolation though it may be, Hampton Roads’ unemployment rate over the past two years has tracked about two percentage points lower than that of the nation. Once again, rising defense spending within the region helped to moderate the effects of the national recession. That economic engine now appears to be sputtering.

Graph 4 reveals that Department of Defense spending in Hampton Roads continued to increase in 2010 to an estimated $20 billion annually. It has roughly doubled from 2000 to 2010, growing at an average annual rate of nearly 7 percent per year. This externally originated infusion of direct spending into the Hampton Roads economy has had a powerful expansionary effect on economic activity. The Old Dominion University Economic Forecasting Project estimates that increases in defense spending since 2000 accounted for more than three-quarters of the region’s growth during the first decade of the millennium.

Alas, this may come to an end. Secretary of Defense Robert Gates, obviously speaking for President Barack Obama, has signaled that defense spending may not increase as much as the rate of inflation in the next few years. Major weapons systems acquisitions and ship construction are scheduled to decline. And, Secretary Gates has indicated that he intends to close JFCOM, which in a worst-case scenario would cost the region about 10,000 jobs and $1 billion in lost income after all economic ripple effects are taken into account. Yes, 10,000 is a small proportion of the approximately 100,000 full-time military and civilian employees in the region, but it will cast a pall over the region’s economic growth if even one-half of this comes to pass.

### Table 1

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Nominal GRP (Billions$)</th>
<th>Real GRP (2005=100) Billions$</th>
<th>Real GRP Growth Rate Percent</th>
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</thead>
<tbody>
<tr>
<td>2000</td>
<td>49.23</td>
<td>55.54</td>
<td>3.3</td>
</tr>
<tr>
<td>2001</td>
<td>52.48</td>
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<tr>
<td>2002</td>
<td>56.06</td>
<td>60.85</td>
<td>5.1</td>
</tr>
<tr>
<td>2003</td>
<td>60.64</td>
<td>64.44</td>
<td>5.9</td>
</tr>
<tr>
<td>2004</td>
<td>64.20</td>
<td>66.35</td>
<td>3.0</td>
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<tr>
<td>2005</td>
<td>68.43</td>
<td>68.43</td>
<td>3.1</td>
</tr>
<tr>
<td>2006</td>
<td>72.37</td>
<td>70.09</td>
<td>2.4</td>
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<tr>
<td>2007</td>
<td>76.06</td>
<td>71.61</td>
<td>2.2</td>
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<tr>
<td>2008</td>
<td>78.09</td>
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<tr>
<td>2009</td>
<td>78.43</td>
<td>71.44</td>
<td>-0.7</td>
</tr>
<tr>
<td>2010</td>
<td>81.14</td>
<td>73.18</td>
<td>2.4</td>
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</table>

Source: Old Dominion University Economic Forecasting Project. Data incorporate U.S. Department of Commerce personal income revisions through May 2010.

### Retail Sales and New Car Registrations

Hampton Roads taxable sales, a term that excludes new automobile registrations, fell by 1.2 percent during 2009 and continued to decline slightly through the first quarter of 2010 (see Graph 5). However, the Old Dominion University Economic Forecasting Project estimates that retail sales are recovering and we will see an overall annual increase in taxable sales of 1.9 percent in
2010. Meanwhile, spurred by the “cash for clunkers” federal tax credit, new automobile registrations climbed more than 25 percent.

Based on national data, household consumption and saving patterns appear to have stabilized after being severely stressed by the recession and a dramatic tightening in credit. Graph 6 discloses that the net worth of regional households is again increasing after a 20 percent decline in 2008. However, as Graph 7 indicates, households have yet to work out all of their financial kinks. Bankruptcies within the region have increased nearly threefold over the past four years. Even so, the total numbers remain relatively small, at least as compared to those in locations such as Florida and California.

New automobile sales, measured by registrations, suffered a serious decline in 2009, falling by 37.5 percent. Auto sales recovered substantially in the first quarter of 2010 (see Graph 5), and are likely to remain at a much higher level than 2009, given sales incentives, pent-up demand, a leveling off of tightened credit standards and rising regional income.

**PORT ACTIVITY AND TOURISM**

As part of the down cycle in international trade created by the recent recession, the Port of Hampton Roads experienced a decline in general cargo tonnage of 16.4 percent in 2009 (see Graph 8). The steepness of the recent general cargo decline relative to past recessions reflects the international character of the recent economic downturn.

Simultaneous with the recovery of the global and national economies, more global trade is expected; this will increase general cargo tonnage at the Port of Hampton Roads by an estimated 6.3 percent in 2010. The port will benefit in the future from two new developments. First, Norfolk Southern Corp.’s new Heartland Corridor is scheduled to become fully operational in September 2010. The new rail corridor will decrease intermodal travel distance from the Port of Hampton Roads to Chicago by approximately 250 miles and therefore will make the region much more competitive when it vies for Midwest ocean cargo.

This will happen slowly, however, for it takes a long time for shipping lines to adjust their scheduling. Second, the leasing of the Portsmouth APM terminal by the Virginia Port Authority is likely to result in a substantial diversion of port general cargo away from existing facilities to the new terminal. The new terminal is roughly 10 percent more efficient in cargo movement than the older terminals and this will improve the port’s competitive position, especially relative to its East Coast rivals.

Unsurprisingly, the recession has had a particularly negative effect on travel and tourism as businesses and households adjust to adverse conditions. Graph 9 discloses that it was a tough year for tourism in Hampton Roads in 2009, though not quite as bad as it was for hotels in Virginia and the United States.

The decline in regional tourism was not evenly distributed across the region. Graph 10 illustrates the reality that Williamsburg’s hotel industry was particularly hard hit by the recession. To lesser degrees, so were Norfolk and Portsmouth. This is not due to overbuilding of hotel rooms. Each city’s supply has remained relatively constant; it is falling demand that is the culprit. The result has been falling occupancy and room rates. This has dealt a blow to tax collections in many cities.

Williamsburg’s tourism market share declined from 30.6 percent in 1999 to 17.6 percent in 2009 (see Graph 11). The Historic Triangle (of which Williamsburg is the key) faces significant challenges in marketing itself to a changing demographic of guests that apparently has less affinity for things historic. The winners in the rearrangement of regional tourism market shares have been Chesapeake/Suffolk, Hampton/Newport News and Virginia Beach. The latter provides classic beach tourism plus other attractive amenities, while the former two have focused primarily on serving business travelers.
GRAPH 1
RATE OF GROWTH OF GDP (U.S.) AND GRP (HAMPTON ROADS)

Source: Old Dominion University Economic Forecasting Project
GRAPH 2

HAMPTON ROADS AND U.S. ANNUAL UNEMPLOYMENT RATE (2001-2010)

Sources: U.S. Department of Labor and the Old Dominion University Economic Forecasting Project
Sources: Virginia Employment Commission and the Old Dominion University Economic Forecasting Project

Graph 3

January 2003 to April 2010
Total Unemployment Insurance Claims in Hampton Roads
GRAPH 4

ESTIMATED DIRECT DOD SPENDING IN HAMPTON ROADS* (2000-2010)

Source: Old Dominion University Economic Forecasting Project
*Includes federal civilian and military personnel and procurement
GRAPH 5

HAMPTON ROADS ANNUAL PERCENT CHANGE IN TAXABLE SALES AND NEW AUTOMOBILE REGISTRATIONS (1ST QUARTER 2009 TO 1ST QUARTER 2010)

Source: Old Dominion University Economic Forecasting Project
Graph 6

Estimated Household Net Worth in Hampton Roads
(2000-2009; Billions of $)*

Source: Old Dominion University Economic Forecasting Project

*Fourth quarter of each year
GRAPH 7
HAMPTON ROADS BANKRUPTCIES*
(2006-2010)

Source: Old Dominion University Economic Forecasting Project
*Includes total new petitions filed and reopened cases, chapters 7 through 15
Graph 8

General Cargo Tonnage at the Port of Hampton Roads, 1991-2010

Source: Virginia Port Authority and the Old Dominion University Economic Forecasting Project.
Sources: Smith Travel Research Trend Reports, May 11, 2010, and the Old Dominion University Economic Forecasting Project
GRAPH 10

PERCENT CHANGE IN HOTEL REVENUE
VARIOUS HAMPTON ROADS CITIES, 2008-2009

Sources: Smith Travel Research, Jan. 20, 2010, and the Old Dominion University Economic Forecasting Project
GRAPH 11
ESTIMATED MARKET SHARES OF HAMPTON ROADS HOTEL INDUSTRY AS MEASURED BY HOTEL REVENUE

The Hampton Roads Job Market

In the recent recession the annual level of job losses within Hampton Roads bottomed in 2009, as shown in Graph 12. Between 2000 and 2007, an average of 8,800 net new jobs was added annually. Things have changed. Graph 12 reports that the region lost approximately 37,000 jobs from 2008 to 2010. Nevertheless, Graph 13 illustrates that we have turned the corner and in the second half of 2010, have been adding jobs.

Job growth is likely to continue to be slow. First, the value of commercial real estate has fallen 42 percent since 2007 and this has had a profoundly discouraging impact on a variety of business firms. Second, financial credit has been quite tight and firms that wish to borrow funds to expand often have found it impossible. Banks are attempting to straighten out their balance sheets to cope with delinquent borrowers and frequently decline to make new commitments. Third, a variety of tax increases and a 41 percent increase in the minimum wage have diminished the desire of some firms to add workers.

If there is any joy in all of this, it is that despite our woes, we are doing better than comparable metropolitan regions in the Southeast (see Graph 14). Hampton Roads’ job losses were slightly smaller (proportionately) than those of Raleigh and much smaller than those of Charlotte, Jacksonville and the United States.

HIGH-PROFILE JOB LOSSES

More than most others, this recession has been characterized by highly visible job losses at firms that either have contracted their operations or closed their doors. Table 2 reports our estimates of the total jobs lost within Hampton Roads attributable to some of the area’s companies. (These data include multiplier effects estimated from the U.S. Department of Commerce RIMS II economic model.)

At this date, the precise economic impact of the JFCOM closure is unknown and therefore Smithfield Foods leads the list of firms whose downsizing has had a ripple effect on the regional economy. However, the list is spread over a wide range of industries. The city of Franklin actually is not part of the defined Virginia Beach-Norfolk-Newport News MSA (Hampton Roads), but some of its job losses nevertheless have occurred within our region.

<table>
<thead>
<tr>
<th>Company</th>
<th>Estimated Jobs Lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>JFCOM?</td>
<td>5,000-10,000?</td>
</tr>
<tr>
<td>Smithfield Foods</td>
<td>2,318</td>
</tr>
<tr>
<td>Verizon Wireless</td>
<td>1,465</td>
</tr>
<tr>
<td>Cooper Vision</td>
<td>1,413</td>
</tr>
<tr>
<td>International Paper</td>
<td>1,156</td>
</tr>
<tr>
<td>USAA</td>
<td>1,083</td>
</tr>
<tr>
<td>Alcoa Howmet</td>
<td>595</td>
</tr>
<tr>
<td>U.S. Food Service</td>
<td>373</td>
</tr>
<tr>
<td>Dean Foods/Pet Dairy</td>
<td>368</td>
</tr>
<tr>
<td>Advanced Services</td>
<td>282</td>
</tr>
<tr>
<td>Capital Group Companies</td>
<td>277</td>
</tr>
</tbody>
</table>

*Total includes direct, indirect and induced job losses.

The jobs losses displayed in Table 2 accounted for slightly more than a third of the area’s estimated job losses in 2009 and 2010. The economic effects of plant closings typically are transmitted throughout all the cities of Hampton Roads. It’s also true that the shutting of some firms located just outside of the region (such as International Paper) also can have a major negative impact upon our region.
EMPLOYMENT, WAGES AND INCOME, 2000-2010

The United States lost an estimated 7.7 million jobs during the economic recession and in 2010 actually had 1.1 percent fewer jobs than it had in 2000. Here in Hampton Roads, we lost approximately 37,000 jobs during the recession, but experienced a 2.4 percent overall gain in employment for the decade. Still, 2000-2010 was a difficult period for Hampton Roads; new civilian employment in the region rose by a meager 17,600 jobs. Compare this to the 1990s when we gained more than 112,000 new jobs.

Compensation, however, is a different thing. As seen in Graph 15, the estimated total earnings of local private-sector employees grew substantially faster than those of private-sector employees nationally. However, it is the estimated total earnings for Hampton Roads military personnel that is the eye-catcher. The earnings of military personnel rose at a rate that was more than double that of the national average for private-sector employees as the Department of Defense, which no longer can depend upon a military draft, moved to attract and retain its soldiers and civilians.

Graph 16 reveals that average private-sector wages in Hampton Roads exceeded the national average in 2009. Much of this can be attributed to the economic ripples created by the decade-long increases in defense spending within the region. Rapidly rising labor productivity in Hampton Roads bodes to continue this trend in 2011.

The relatively strong wage performance of the private sector, along with the rapid decade-long increase in the earnings of military personnel, led both to rising household income and an increase in the spread between the median income of Hampton Roads households and that of households across the nation (see Graph 17). In 2000, regional median household income was 4.3 percent greater than that of households nationally. By the end of 2010, we believe this gap will have widened to 13.1 percent. It didn’t used to be this way. In the 1990s, median household income in Hampton Roads trailed national averages. Our improved relative standing largely reflects our superior economic performance during the economic recession, which in turn reflects the magnificent cushion provided the region by defense spending.

What the Lord giveth, however, the Lord also taketh away. If increases in defense spending in Hampton Roads taper off (this seems likely), or JFCOM is phased down or shuttered, or additional aircraft carrier groups leave the region, or new classes of ships are homeported elsewhere, or the mix of defense spending changes in favor of “boots on the ground” rather than naval expenditures, then Hampton Roads could be hurt economically even if overall national defense spending continues to increase.

Did all industries share equally in the region’s recent gains and losses? No. Graph 18 displays the decade’s five largest industry gainers and losers with respect to job growth. The expansion of the health care and social assistance segment of the economy led the way in job growth from 2000 to 2010, creating fully 80 percent more jobs than the next leading industry, leisure and hospitality. Other services, which include such varied activities as auto repair, electronics and appliance repair, and a host of small businesses such as auto body shops and beauty parlors, followed the leisure sector, but still created only about 30 percent of the jobs generated by health care and social assistance.

Interestingly, local government was fourth on the list of growth industries, as governments spent generous increases in tax revenues earlier in the decade. This performance seems unlikely to continue because of falling tax revenues and diminished state subsidies.

Manufacturing led the way among the job losers, giving up more than twice the number of jobs as lost in retail and wholesale trade. Manufacturing employment declined by an estimated 13.6 percent in Hampton Roads between 2000 and 2010. However, manufacturing employment in the United States as a whole declined 33.4 percent. Nevertheless, it is important to keep in mind that the value of manufacturing output rose almost 10 percent in the United States during the same time period. In Hampton Roads, the value of output generated by manufacturing increased by 25.7 percent between 2000 and 2010. Hence, fewer people are producing
more valuable manufactured goods. Neither Hampton Roads nor the United States is getting out of the business of manufacturing goods. Increasingly, however, we are getting by with fewer workers.

Note once again that the absolute number of uniformed military personnel in our region declined over this period. And keep in mind that military earnings rose very rapidly during the decade despite this loss of personnel, resulting in a significant earnings boost on a per-person basis.

Graph 19 provides an “economic glide path” for employment changes in Hampton Roads between 2000 and 2010. These glide paths smooth out ups and downs along the way and are primarily useful to illuminate long-term trends.

Conspicuously absent from the slate of employment growth industries in Graph 19 are any industry sectors that would be affected by port activity. This is peculiar since at its height port general cargo rose by almost a third (review Graph 8) over the course of the decade. However, transportation and warehousing, an industry closely aligned with port activity, experienced a secular decline through the decade. These data suggest that productivity increases in intermodal shipping, occasioned by such examples as scale economies of larger vessels, improved rail service, more efficient cranes for loading/unloading vessels, computer control of warehouse cargo and a whole host of other new cargo movement efficiencies, have served to substitute for labor (employment) in this highly competitive industry. Simply put, despite the growth of cargo throughput, the port lost jobs overall because of increasingly efficient operations.
Graph 12


Sources: U.S. Department of Labor and the Old Dominion University Economic Forecasting Project
GRAPH 13
CIVILIANS EMPLOYMENT IN HAMPTON ROADS
(THOUSANDS OF JOBS, 2000-2010)

Source: Old Dominion University Economic Forecasting Project
Sources: U.S. Department of Labor, June 8, 2010, and the Old Dominion University Economic Forecasting Project
(not seasonally adjusted)
GRAPH 15
ESTIMATED PERCENTAGE INCREASE IN TOTAL EARNINGS (WAGES, SALARIES AND FRINGE BENEFITS)
SELECTED CATEGORIES (2000-2009)

GRAPH 16

Sources: U.S. Department of Labor CES wages and the Old Dominion University Economic Forecasting Project
GRAPH 17

Sources: U.S. Census Bureau and the Old Dominion University Economic Forecasting Project
GRAPH 18
EMPLOYMENT GAINS AND LOSSES IN HAMPTON ROADS, 2000-2010

Sources: U.S. Department of Labor, U.S. Department of Commerce and the Old Dominion University Economic Forecasting Project
GRAPH 19

COMPARATIVE TREND GROWTH RATES FOR HAMPTON ROADS’ LEADING EMPLOYMENT GROWTH AND CONTRACTION INDUSTRIES

Source: Old Dominion University Economic Forecasting Project
Residential Housing: Anatomy of a Struggling Market

The Hampton Roads housing market continued to experience declining median home prices and homeowner equity, while foreclosures and for-sale home inventory rose. As seen in Graph 20, median single-family home prices have fallen by more than 15 percent since their peak in the third quarter of 2007. The rate of decline nationally has been nearly double that of the region. We believe that housing prices, adjusted for seller concessions, are likely to continue to decline, albeit at very modest rates.

The collapse of housing prices reported in Graph 20 has been the most important contributor, both nationally and regionally, to the decline in the proportion of homeowners relative to renters, as well as to the falling proportion of positive equity that homeowners maintain in their houses. Graph 21 provides an interesting perspective on these developments. Three variables are reported here – current homeownership rates, peak homeownership rates and the percentage of homes that have positive equity (the value of a property exceeds the value of its mortgage, if any). Taking Hampton Roads as an example, the current homeownership rate is about 64 percent; this is down from a peak of about 79 percent. Approximately 79 percent of homes in Hampton Roads have positive equity; another way of saying this is that only 21 percent of homeowners in our region are “under water” and owe more in their mortgage than their home is worth. This number is likely to increase if home prices continue to decline, but one can see in Graph 21 that Hampton Roads is well below the U.S. average and dramatically better off than locations such as Los Angeles and Miami.

Housing Inventory: The Supply of Homes on the Market

Foreclosures in Hampton Roads have risen steadily since 2006 (see Graph 22). Estimated regional foreclosure filings increased by a factor of more than 12 over the period 2006-10 and are, or will eventually appear as, part of the inventory of unsold homes in the area. While the overall rate of home foreclosures in Hampton Roads is below the national average, our rate of increase in foreclosures between 2006 and 2010 has been more than double that of the nation.

The total residential inventory of unsold Hampton Roads homes, which includes both new and existing houses (see Graph 23) has also been on the rise. From a low point of 3,311 homes in 2004, the regional inventory rose to an estimated 15,261 homes in 2010 – a nearly fivefold increase.

Home Sales

Between 2006 and 2008, total home sales in Hampton Roads fell by nearly one-third (see Table 3). Even so, sales of homes did increase between 2008 and 2009, though that still left them about 70 percent below their 2006 peak. However, fully 18 percent of these home sales were “distressed” properties that had to be sold because of foreclosures and similar reasons. One can see in Table 3 that non-distressed home sales have declined every year since 2006.

<table>
<thead>
<tr>
<th>Year</th>
<th>All Sales</th>
<th>Distressed Sales</th>
<th>Non-Distressed Sales</th>
<th>Percent Distressed Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>22,407</td>
<td>59</td>
<td>22,348</td>
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<tr>
<td>2007</td>
<td>19,154</td>
<td>262</td>
<td>18,892</td>
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<td>2008</td>
<td>15,048</td>
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<td>13,999</td>
<td>6.97</td>
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<tr>
<td>2009</td>
<td>15,852</td>
<td>2,869</td>
<td>12,983</td>
<td>18.10</td>
</tr>
</tbody>
</table>

Sources: Real Estate Information Network and the Old Dominion University Economic Forecasting Project. Information deemed reliable but not guaranteed.

*Distressed sales represent bank-owned homes and short sales.
Complicating the interpretation of a turnaround in the annual number of regional home sales is the role played by the federal government’s program to boost housing sales through the use of tax credits. The program, initiated in late February 2009, gave as much as $8,000 to homebuyers who closed on their home by Nov. 30, 2009. Although the program was eventually extended into 2010, the extension was not passed until the initial credit was set to expire, leaving potential homebuyers who considered purchasing a home prior to November 2009 uncertain as to whether they would be able to access the credit if they waited past that date.

It appears likely that the small increase in our region’s home sales between 2008 and 2009 can be attributed largely to tax incentives, which de facto reduced the buyer’s purchasing price. This invites the possibility that the removal of the tax incentive in May 2010 will cause a downward shift in regional housing sales. There already are signs that this is occurring. Like the tax incentive provided for automobiles (“cash for clunkers”), the one-time tax incentive for home buying may simply have moved forward the date when people were likely to make that purchase anyway. After all the smoke has cleared, it is not certain that these incentives will have engineered significant increases in the total number of units sold. The incentives were designed to provide a short-term economic stimulus and it appears they have done so. Their long-run economic impact, however, may be minimal.

**The rising inventory of homes available for sale in Hampton Roads has tripled the time it takes to sell a house compared to 2005 (see Graph 24).** Between 1995 and 2010, new homes on average accounted for 28 percent of the proportion of total unsold homes in the regional housing inventory. In 2010, however, new homes account for only 19 percent of total unsold inventory. This reflects dramatic reductions in new home construction. Between 2006, which represents the height of the regional residential real estate bubble, and 2010, the average annual inventory of new homes in Hampton Roads ballooned to 2,819, which was 1,338 more than the average of the preceding decade. This excess inventory has put a considerable dent in new home construction.
to the United States. Relatively speaking, this is one of the best times in recent history to purchase a home in our region, if you have the ability to do so.

If Hampton Roads houses are historically affordable and it is now relatively cheaper to own than to rent, then why aren’t houses selling like hot cakes and prices rising? The answer to this question lies in the region’s supply and demand for housing. After adjusting for inflation, housing prices can be expected to rise when there are fewer houses on the market than people want to buy at prevailing prices. Economists label this “excess demand.” On the other hand, housing prices can be expected to fall when there are more houses on the market than people want to buy at prevailing prices. This is “excess supply.”

Graph 27 depicts the relation of excess demand and excess supply of housing to the direction and value of change in housing prices. The left-hand scale measures the number of homes that have been in excess supply or excess demand in a given year. For example, in 1996, the excess supply of homes was approximately 2,400, while in 2004, during the housing boom, the excess demand for homes was about 5,000. One can see that currently we have a record level of excess supply of homes (about 7,000).

The right-hand scale of Graph 27 records what was happening to housing prices in each of these years. Between 2000 and 2005, when there was excess demand for housing, prices rose rapidly (almost 20 percent in 2005). This was not sustainable and housing prices began to taper off; by 2008, prices actually were declining. This was coincident with a rising excess supply of homes.

The Graph 27 data lead almost inevitably to the conclusion that housing prices in Hampton Roads have declined in 2010 and are apt to decline further in 2011. We believe the 2010 decline in prices will be about 5 percent, but that the 2011 decline will be more modest. The historical affordability and the relative price of owning versus renting notwithstanding, given the large volume of foreclosures likely in the region’s housing market over the course of 2010 and the lack of employment growth in Hampton Roads, it is difficult to envision how our region will quickly be able to “work off” the huge excess supply of housing that currently exists. Economic recovery, however, can work wonders and that is the primary key to a regional housing revival (from the standpoint of sellers).

### Table 4

**Estimated House Rental and Principal and Interest for a House Payment in Hampton Roads (2000-2010)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Median Monthly Rent for a Three-Bedroom House</th>
<th>P&amp;I Monthly for a Median-Priced House</th>
<th>Ratio of Monthly P&amp;I to Rent</th>
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</thead>
<tbody>
<tr>
<td>2000</td>
<td>$882</td>
<td>$854</td>
<td>0.97</td>
</tr>
<tr>
<td>2001</td>
<td>911</td>
<td>809</td>
<td>0.89</td>
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<td>2002</td>
<td>1,037</td>
<td>827</td>
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<td>0.75</td>
</tr>
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<td>2004</td>
<td>1,087</td>
<td>971</td>
<td>0.89</td>
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<tr>
<td>2005</td>
<td>1,118</td>
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<tr>
<td>2006</td>
<td>1,164</td>
<td>1,459</td>
<td>1.25</td>
</tr>
<tr>
<td>2007</td>
<td>1,247</td>
<td>1,495</td>
<td>1.19</td>
</tr>
<tr>
<td>2008</td>
<td>1,236</td>
<td>1,447</td>
<td>1.17</td>
</tr>
<tr>
<td>2009</td>
<td>1,277</td>
<td>1,190</td>
<td>0.93</td>
</tr>
<tr>
<td>2010</td>
<td>1,300</td>
<td>1,149</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Sources: U.S. Department of Housing and Urban Development and the Old Dominion University Economic Forecasting Project.
GRAPH 20
CUMULATIVE DECLINE (QUARTER PEAK* TO 1ST QUARTER 2010) IN MEDIAN SINGLE-FAMILY HOUSE PRICES (EXISTING HOMES)

<table>
<thead>
<tr>
<th>Percentage</th>
<th>U.S.</th>
<th>Hampton Roads</th>
</tr>
</thead>
<tbody>
<tr>
<td>-26.0%</td>
<td></td>
<td>-15.6%</td>
</tr>
<tr>
<td>-30%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: National Association of Realtors (NAR), Real Estate Information Network Inc. (REIN) and the Old Dominion University Economic Forecasting Project
*U.S. house prices peaked in Q3 2005 (NAR); Hampton Roads in Q3 2007 (REIN).
GRAPH 21
ESTIMATED HOMEOWNER EQUITY AND OWNERSHIP RATES: HAMPTON ROADS, U.S. AND SELECTED METROPOLITAN HOUSING MARKETS

GRAPH 22
HAMPTON ROADS RESIDENTIAL FORECLOSURE FILINGS, 2006-2010

Sources: Realty Trac and the Old Dominion University Economic Forecasting Project
GRAPH 23
ESTIMATED INVENTORY OF TOTAL (NEW CONSTRUCTION AND EXISTING) RESIDENTIAL HOMES IN HAMPTON ROADS AS MEASURED BY ACTIVE LISTING ON APRIL 30 OF EACH YEAR (1995-2010)

Sources: Real Estate Information Network Inc. and the Old Dominion University Economic Forecasting Project. Information deemed reliable but not guaranteed.
Sources: Real Estate Information Network Inc. and the Old Dominion University Economic Forecasting Project. Information deemed reliable but not guaranteed. Days on market are calculated from the date listed to the date under contract for existing homes sold.
GRAPH 25
ANNUAL CHANGE IN TOTAL EMPLOYMENT AND TOTAL (SINGLE AND MULTI-UNIT) NEW HOUSING PERMITS IN HAMPTON ROADS, 1980-2010

Sources: U.S. Census Bureau, U.S. Department of Commerce and the Old Dominion University Economic Forecasting Project
GRAPH 26

Source: Old Dominion University Economic Forecasting Project
(assumes 4.9 percent mean mortgage rate in 2010)
GRAPH 27

ESTIMATED EXCESS SUPPLY/EXCESS DEMAND OF HOUSES IN THE HAMPTON ROADS SINGLE-FAMILY HOUSING MARKET (RIGHT SCALE) RELATIVE TO THE ANNUAL CHANGE IN REAL HOUSE PRICES (LEFT SCALE)

Source: Old Dominion University Economic Forecasting Project
Summary

This year has been one of recovery for the Hampton Roads economy. After two years of decline, the region’s economy will expand at a rate of 2.4 percent in 2010. However, this is not likely to be accompanied by strong employment growth, and the region has experienced a net migration outflow.

Approximately three-quarters of all economic expansion in Hampton Roads in recent years has come from defense spending, which now accounts for approximately 45 percent of total economic activity in our region, directly and indirectly. Two other economic pillars, tourism and the port, contracted during the recession and are slowly working their way back to more accustomed levels of activity.

2011 should be a better year for Hampton Roads, economically speaking. Nevertheless, our extreme dependence upon defense spending places us in a highly vulnerable position. Changes in the level of defense spending, or the closure of JFCOM, or the movement of aircraft carrier groups away from the region, or changes in the mix of defense spending, could severely disadvantage us in the future. It seems likely that defense spending in Hampton Roads will decelerate over the coming decade.

Further, because of our peculiar topography, we are highly dependent upon a road transportation system that features four tunnels and numerous choke points. Unless improved, this system will impose increasingly higher costs on many of the region’s citizens over the next few years. There also is the prospect of higher costs due to rising sea levels and increasingly common flooding.

Taken together, the factors noted here (plus other influences) suggest a subtle deterioration in the long-term outlook for economic growth in Hampton Roads. Whatever one thinks about the time period 2000-05, these years may in fact turn out to be the good old days that we remember fondly.
Recovery

? MILES