

Th. Jefferson

The Housing Recession

June 2008

The Thomas Jefferson Institute
for Public Policy

Virginia Economic Forecast
2008-09

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Cover Photo: John G. Hendron
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The Thomas Jefferson Institute for Public Policy is proud to present its ninth annual report on the economy of the United States and Virginia. It is part of the foundation's efforts to offer well-researched studies for our state leaders to assist them in better preparing for the future.

This year's annual *Virginia Economic Forecast* was again researched and written by Dr. Christine Chmura and her team of top economists at Chmura Economics & Analytics (Chmura) headquartered in Richmond. Dr. Chmura founded Chmura Economics & Analytics in 1999 after serving as Chief Economist at Crestar Bank (purchased by SunTrust) for seven years. Chmura has since grown into a leading member of its industry, specializing in quantitative research, traditional economics, and workforce and economic development.

"*Virginia Economic Forecast: 2008 – 2009*" is made available to our state's elected leaders, business leaders, and the media in order to assist them in better understanding the economic reality facing our state. This year's edition, titled *The Housing Recession*, describes how the housing slowdown took shape in the nation and in Virginia and how fallout spread into other portions of the economy. The *Economic Forecast* details expectations of a national recession in 2008 with lower than potential growth through 2009. Uncertainty about inflation, especially as influenced by energy prices, is a risk to growth expectations.

Last year's *Virginia Economic Forecast* anticipated the pace of economic growth to slow compared to the prior year. In 2007, the real gross domestic product expanded at a 2.2% pace compared with Chmura's forecast of 2.0%. Chmura's forecast last year expected residential investment to drop 12.3% and it fared worse, falling 17.0%. Consumer spending also fared worse than expected, growing 2.9% rather than 3.3% as forecast. Perhaps the biggest surprise was the drop in the trade deficit spurred by the declining dollar. The deficit fell nearly \$69 billion instead of a \$9 billion drop that was projected. Virginia building permits were projected to decline 8.1% in 2007 but actually dropped a steeper 23.5%. Employment in the Commonwealth slowed as expected, managing only 1.3% growth compared to 1.6% as forecast.

We once again thank SunTrust for sponsoring this year's "*Virginia Economic Forecast: 2008 – 2009.*" Nothing in this report should be construed as supporting or opposing any legislation. The opinions are those of the authors and not necessarily those of the Thomas Jefferson Institute, its Board of Directors, or SunTrust as the sponsor of this report.

Michael W. Thompson

Chairman and President

Thomas Jefferson Institute for Public Policy

June 2008



In the Nation...

• An economic slowdown has been precipitated by the housing slowdown, the related credit crunch, and an increase in energy prices. Real gross domestic product (GDP) grew at a 0.6% annualized pace in the fourth quarter of 2007 and 0.9% in the first quarter of 2008. On an annual basis, GDP is expected to remain slow through 2008 (+1.2%) and 2009 (+1.4%).

• Defining the current slowdown as a “recession” is officially decided by the National Bureau of Economic Research. However, Chmura Economics & Analytics (Chmura) expects such a declaration to be made with the recession beginning in the first quarter of 2008 and continuing into the third quarter before the economy begins to grow again. In addition to the slowdown in real GDP, employment fell by 324,000 jobs over the first five months of 2008 and retail sales in April 2008 reached their slowest pace of growth since November 2002.

• GDP is projected to post slight annualized contractions in the second and third quarters of 2008. Contributing to the downturn will be slower consumer spending, a contraction in residential investment, and slowing business investment. The rebound in 2009 is not expected to be sharp.

The Housing Recession...

• Factors contributing to the housing boom through 2006 included low interest rates, high investor activity, and an increase in “affordability” loan products such as interest-only loans. Prospects turned as rapidly rising home prices led to a sharp reduction in affordability that reduced demand. Further, defaults on homes jumped as rising interest rates along with the lack of home price appreciation or falling prices reduced some borrowers’ ability to make payments. In some cases, required balloon payments that were due could not be paid as home values declined and no equity was available to finance payments. Affordable mortgage packages with no interest for a year or two found some owners with no equity, lower-priced homes, and the inability to get loans needed to maintain “ownership.”

• Part of the spillover effect onto the broader economy from the housing recession occurred because of the bundling of mortgage loans into complex investment products. When investments defaulted, confidence was lost in the risk rating system applied to the structured investment products leading to loss of liquidity in a broader range of investment instruments. Tighter lending practices that have resulted are dampening consumer and business spending.

• Within Virginia, the greatest imbalance between housing supply and demand is in Northern Virginia, where, as part of the Washington MSA, there exists an 11.6 months inventory of homes for sale. Virginia has the 13th highest foreclosure rate in the nation although it has only 6.7 housing foreclosures per 10,000 people compared to an 8.0 foreclosures per 10,000 people average in the nation.

In Virginia...

• Employment growth has slowed in Virginia as it has in the nation. Over the year ending April 2008, employment grew 0.5% in the state with job losses in manufacturing; construction; finance, insurance, and real estate; and information. Job gains over the period were led by education and health services and the professional and business services sector. Among the metro areas, growth varied from +2.2% in Lynchburg to -0.5% in Blacksburg.

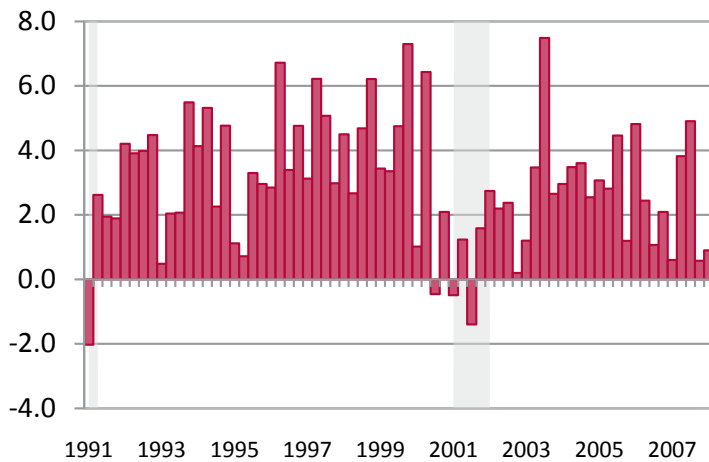
• Home sales in Virginia dropped 15% in 2007. In the first quarter of 2008, home prices fell 0.1% in the state, the first decline in 13 years. The largest price declines occurred in Northern Virginia (-5.1%) and Winchester (-4.9%). Single-family building permits plummeted in Virginia and in April 2008 were at less than half their peak reached in August 2005.

• Single-family building permits are expected to continue to fall in the state in 2008 and 2009. Employment growth is expected to slow to 0.5% in 2008 before accelerating to 1.2% in 2009. Among the metro areas, Charlottesville is projected to have the best job growth (1.8%) in 2008 while declines are expected in Danville, Blacksburg, and the non-metro regions of the state.

Limping Along in 2008

How many hits can the U.S. economy take before going down? A slowdown in the housing industry precipitated declines in home prices that resulted in the mortgage-debt debacle. These problems infected sophisticated investment products and continue to feed a credit crunch that has spread to other markets, including the availability of student loans. In this environment, consumers have remained resilient and continue to spend. The latest blow — higher energy prices — however, will likely ensure that the nation stumbles into recession.

Real Gross Domestic Product Quarterly Annualized Percent Change



Source: Bureau of Labor Statistics

Composition of GDP

Although real gross domestic product (GDP) grew an annualized 0.9% (preliminary figure) in the first quarter of 2008 compared with 0.6% in the fourth quarter, the recent composition of growth reflects an economy slipping into recession. As shown in the accompanying table, the consumer sector, which typically makes up about two-thirds of GDP, contributed 1.58 percentage points to fourth

quarter growth compared with 0.70 percentage points in the first quarter.

Real residential investment remained a drag on the economy by subtracting 1.17 percentage points from GDP in the first quarter compared with 1.25 in the prior quarter. More concerning is the shift in business investment on equipment and software. Instead of contributing to growth as it did in the fourth quarter, it contracted and reduced GDP in the latest quarter — a sign that businesses are becoming more cautious as they are presumably facing slower demand for their products and services. Moreover, business investment in structures such as offices, warehouses, and factories made very little contribution to real GDP in the first quarter compared to 0.41 percentage points in the fourth quarter.

Contributions to Percent Change in Real Gross Domestic Product Seasonally Adjusted at Annual Rates

	2007-IV	2008-I
Gross domestic product	0.6	0.9
Percentage points at annual rates:		
Personal consumption expenditures	1.58	0.70
Business investment in structures	0.41	0.04
Business investment in equipment and software	0.22	-0.07
Residential investment	-1.25	-1.17
Change in private inventories	-1.79	0.21
Net exports of goods and services	1.02	0.80
National defense	-0.03	0.27
Nondefense	0.06	0.04
State and local	0.34	0.08

Source: Bureau of Economic Analysis, last revised May 29, 2008

Inventories can provide mixed signals. The increase in inventories in the first quarter along with slower demand suggests they are unwanted inventories resulting from a drop in demand rather than a conscious increase due to the expectation of stronger growth. Looking ahead, unanticipated inventories will lead to declines in production until the imbalance is worked off.

The shrinking international trade deficit provides a positive spot in the current environment. As the Federal Reserve lowered interest rates in the face of slower U.S. growth, international investors shifted funds to other countries with higher interest rates and better prospects for growth over the short term. The resulting weakness in the dollar made U.S. exports relatively cheaper, thereby reducing the

international trade deficit. In addition, the tepid demand from U.S. consumers for imports, which is another sign of a weakening economy, contributed to the decline in trade deficit.

Recession?

Two straight quarters of decline in real GDP provide a “rule-of-thumb” for defining a recession. However, the “Business Cycle Dating Committee” of the National Bureau of Economic Research (NBER) is the official arbiter of recession. According to the NBER, “A recession is a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales.”

They also emphasize that, “The committee’s approach to determining the dates of turning points is retrospective. We wait until sufficient data are available to avoid the need for major revisions. In particular, in determining the date of a peak in activity, and thus the onset of recession, we wait until we are confident that, even in the event that activity begins to rise again immediately, it has declined enough to meet the criterion of depth. As a result, we tend to wait to identify a peak until many months after it actually occurs.”

A national recession might have started as early as January 2008 based on some of the indicators that the NBER tracks. Employment declined in each of the first five months of 2008 for a total decline of 324,000 jobs through May. Industrial production peaked in January and fell 1.3% through April. Retail sales slowed to a 2.0% year-over-year pace of growth in April 2008, the slowest since November 2002, and below the 3.9% pace of inflation (consumer price index). Meanwhile, personal income growth fell to below average, slowing to a 4.8% year-over-year pace in April 2008, below the 5.1% annualized average pace over the last ten years. Finally, business optimism dropped markedly; the National Federation of Independent Business Index of Small Business Optimism in May 2008 fell to its lowest index reading since 1980.

Monetary and Fiscal Policy

Monetary and fiscal policy implemented since September 2007 will temper the slowdown, but the continued credit crunch and rising oil prices are expected to offset some of the stimulus.

The Federal Reserve Open Market Committee (FOMC) reacted quickly to the mortgage crisis, lowering the federal funds rate target to 2.0% — a 325-basis-point reduction from September 2007 (when the rate was 5.25%) through April 2008. The loss of confidence by investors in the pricing structure of sophisticated investment instruments that accompanied the mortgage crisis, however, could not be solved by lower interest rates. To attack this problem, the Federal Reserve created a Term Auction Facility (TAF) that allows banks to borrow from the Federal Reserve without the stigma associated with borrowing from its discount window.¹ The TAF has relieved some of the borrowing pressure on banks, but most banks continue to enforce tightened credit conditions for borrowers, which translates into slower economic growth.

Although President Bush and Congress worked quickly in February to pass a \$152 billion stimulus package, the money which is now filtering into the hands of taxpayers as rebate checks is being offset to some degree by higher gasoline prices.² According to the Department of Energy, the average regular-grade gallon of gas cost \$3.00 (including all taxes) in mid-February compared with \$3.98 on June 2, 2008. The ninety-eight cent rise in price over that period leads to a \$49 increase in the monthly cost of gas for an individual who drives 1,000 miles a month at 20.2 miles per gallon,³ or a \$582 increase for the year.

¹ The discount window, which functions as a safety valve in relieving pressures in reserve markets, is generally reserved for emergencies. For that reason some depository institutions may not want to alarm investors by using the discount window too often.

² The cash payment is \$300 for individual workers and \$600 for working couples with at least \$3,000 in earnings. For those families who pay at least \$600 (singles) or \$1,200 (married couples) in federal income taxes, a \$600 rebate check would be sent to single earners and \$1,200 rebate check to married couples. An additional cash payment of \$300 per child is also provided. A typical family of four, for example, would receive a cash payment totaling \$1,800. The full cash payments are limited to married couples with less than \$150,000 in taxable income and individuals with less than \$75,000 in taxable income; individuals earning more will have rebates reduced by 5% of earnings above the taxable income caps.

³ The U.S. Environmental Protection Agency reported 20.2 miles per gallon as the average fuel economy for model years 2007 and 2006, cars and light-duty trucks.

Economic Forecast

The Chmura Economics & Analytics (Chmura) forecast expects real GDP to contract at an annualized 0.4% pace in the second quarter and 0.1% in the third quarter before beginning to grow again. Based on this forecast, the NBER is likely to indicate that a recession began in the first quarter of 2008 and continued for three quarters with fourth quarter 2008 recording the first quarter of recovery.

The slowdown will mainly be driven by downturns in consumer spending and residential and business investment. Consumer spending, which makes up about two-thirds of overall GDP, is forecast to decline on an annualized basis during the second quarter and grow at a modest pace over the rest of the year. In contrast, real residential investment is expected to continue to decline on an annualized basis through the third quarter of 2009.

Business investment in buildings is forecast to decline from the second quarter of 2008 through the first quarter of 2009 while business investment in equipment and software also contracts during the second through fourth quarters of 2008. The trade deficit is expected to improve and thus contribute to growth during the entire recession and government spending is likely to remain moderate.

On an annual basis, the contraction will cause real GDP to slow to 1.2% in 2008 from 2.2% in 2007. The rebound in 2009 is not expected to be sharp — real GDP is forecast to grow 1.4% and not reach its potential growth rate of 3.0% until 2010.

In light of the continued run up in oil prices and potential acceleration in inflation, we believe the Federal Reserve will not be lowering the federal funds rate target further than the current 2.0%. Moreover, we expect the Federal Reserve to start raising the federal funds rate in the third quarter of 2009 as the economy starts to show signs of strength. Long-term interest rates are also expected to rise in light of the increase in inflation expectations.

National Forecast Summary

	Actual		Forecast		
	2006	2007	2008	2009	2010
	Percent Change				
Real Gross Domestic Product	2.9	2.2	1.2	1.4	3.0
Consumption Expenditures	3.1	2.9	1.2	1.2	2.4
Gross Private Domestic Investment					
Residential Investment	-4.6	-17.0	-19.9	-8.3	6.5
Nonresidential Investment	6.6	4.7	0.6	-0.3	3.3
Equipment and Software	5.9	1.3	-0.5	0.1	3.3
Government Expenditures	1.8	2.0	2.2	1.6	2.0
	Trade Deficit (Billions of 2000 Dollars)				
Net Exports, Goods & Services	-624.6	-555.9	-437.1	-376.6	-367.2
	Percent Change				
Consumer Price Index	3.2	2.9	4.1	2.9	2.2
	Yields (%)				
Federal Funds Rate	5.0	5.0	2.3	2.3	4.1
Prime Rate	8.0	8.1	5.3	5.3	7.1
10-Year Treasury	4.8	4.6	3.8	4.3	4.7
30-Year Conventional Mortgage	6.4	6.3	6.0	6.2	6.4

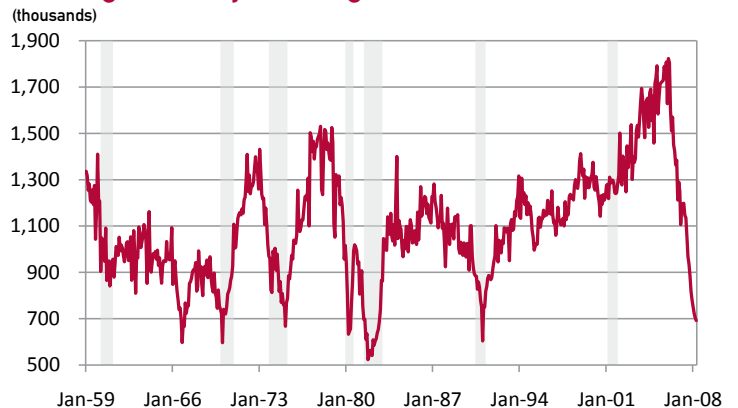
Source: Chmura Economics & Analytics

Note: Yields reported for the average of the year.

The Housing Recession

Homebuilders did not experience a recession in 2001 like the rest of the nation. In fact, the pace of building following the recession from 2004 through 2006 exceeded almost everyone's forecasts when single-family housing starts hit three straight years of record activity. The tables turned after January 2006 when single-family housing starts hit a peak of 1.823 million units at an annualized rate (MUAR) but then dropped 62% through April 2008. The continued softness in the market and credit issues among banks suggests a quick recovery is unlikely even though the contraction has been occurring for over two years.

US Single-Family Housing Starts



Source: U.S. Census Bureau

How Did We Get Here?

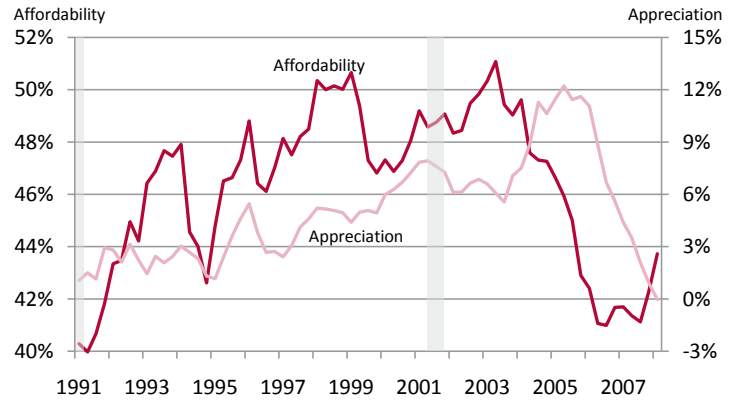
Owning a home is part of the “American Dream.” Low long-term interest rates, driven in part by a strong U.S. economy that attracted foreign investment in U.S. Treasuries, made homes affordable to a large portion of the population. In the second quarter of 2003, 51.1%⁴ of households in the nation could afford a median-priced home. As a result, the demand for homes from first-time and move-up buyers drove prices higher. The double-digit home price appreciation that was occurring in many markets attracted investors who often bought homes under construction and then ‘flipped’ them for a quick profit when the homes were ready to be occupied. Of course, the investors contributed to even greater price appreciation and a false sense of growth in demand.

In addition to historically low interest rates on 30-year conventional mortgages, homes were being made more affordable with products that lowered initial monthly payments but potentially increased risks when interest rates rose. Interest-only and payment-option loans⁵ made up about 32% of all originations in 2006 when conventional mortgage rates were inching up. Nevertheless, by 2007, the share of homeowners with such loans was estimated to be less than 8%.⁶

Alternative-documentation loans (Alt-A) and subprime loans also gained in popularity during this period. Alt-A loans, considered riskier than prime loans but not as risky as subprime loans, are characterized by low documentation (little confirmation of income and assets) and/or slightly subpar credit scores as well as features such as interest-only or payment options. Alt-A loans made up 2.7% of originations in 2001, 13.4% in 2006. Subprime loans generally have higher interest rates to account for the risks inherent in borrowers who have not made timely payments in the past. These loans jumped from 8.6% of originations in 2001 to 20.1% in 2006.⁷

Low interest rates, high investor activity, and mortgage products that initially made homes more affordable to a wider range of the population, drove demand and prices higher. In the nation, home prices rose at double-digit year-over-year rates for seven quarters from the third quarter

US Home Affordability vs. Home Appreciation



Source: Chmura Economics & Analytics and Office of Federal Housing Enterprise Oversight

of 2004 through the first quarter of 2006. Within Virginia, home price appreciation varied, partially based on the overall strength of the economy. Northern Virginia (part of the Washington MSA) saw 21 quarters of double-digit growth that peaked at 26.4%. At the other extreme, Bristol’s home prices did not rise at a double-digit rate during any of the quarters over the past decade and Danville saw only one quarter of double-digit growth.

Home Price Growth and Affordability in the Nation and Virginia’s Metro Areas

	Quarters of Double Digit Growth	Peak Growth Rate	2008 Qtr 1 Growth from Year Ago	2008 Qtr 1 Home Affordability*
US	7 from Q3 '04 to Q1 '06	12.2%	-0.03%	43.7%
Virginia	10 from Q1 '04 to Q2 '06	21.1%	-0.06%	39.6%
Washington	21 of 23 from Q4 '00 to Q2 '06	26.4%	-5.12%	30.7%
Hampton Roads	13 from Q4 '03 to Q4 '06	24.9%	1.49%	38.4%
Richmond	10 from Q3 '04 to Q4 '06	16.6%	2.36%	42.0%
Roanoke	2 from Q1 '06 to Q2 '06	11.0%	4.46%	47.3%
Lynchburg	8 from Q3 '05 to Q2 '07	12.2%	-0.03%	51.7%
Charlottesville	12 from Q4 '03 to Q3 '06	20.0%	1.62%	32.3%
Danville	1 in Q4 '05	10.0%	4.28%	53.5%
Bristol	None	9.2%	5.09%	48.5%
Blacksburg	2 of 3 from Q2 '05 to Q4 '05	13.3%	4.63%	41.9%
Harrisonburg	10 from Q3 '04 to Q4 '06	21.1%	1.72%	38.3%
Winchester	13 of 15 from Q4 '02 to Q2 '06	27.0%	-4.92%	39.2%

Sources: Chmura Economics & Analytics and Office of Federal Housing Enterprise Oversight.
* Percent of households that can afford a median-priced home.

⁴The percent of households that could afford a median-priced home is estimated by the Chmura Home Affordability Index.

⁵ Payment-option loans allow borrowers to defer a portion of principal and interest by paying credit-card-like minimums.

⁶ *The State of the Nation's Housing 2007*, Joint Center for Housing Studies of Harvard University, pages 16-17.

⁷ Ibid.

The rise in home prices led to a swift decrease in home affordability. By the third quarter of 2006, only 41% of all American households could afford a median-priced home. Of course, affordability varies greatly by region. Home affordability dropped to 23.1% in Northern Virginia during the second quarter of 2006, but has since risen to 30.7% as home prices in the region have fallen. During the same quarter of 2006, median-priced homes were affordable to 53.6% of the households in the metropolitan area of Danville where the unemployment rate was 6.2% compared to 4.6% in the nation.

The decrease in home affordability reduced demand which slowed home price appreciation. The sluggish appreciation caused investors to exit the market. Finally, the rising interest rates along with the lack of home price appreciation, or falling prices in some areas, eventually led to defaults in subprime and Alt-A loans.

Not surprisingly, housing sales and new home starts slowed dramatically since 2006. As 2006 progressed, the damage was contained in the residential housing industry – but that would end.

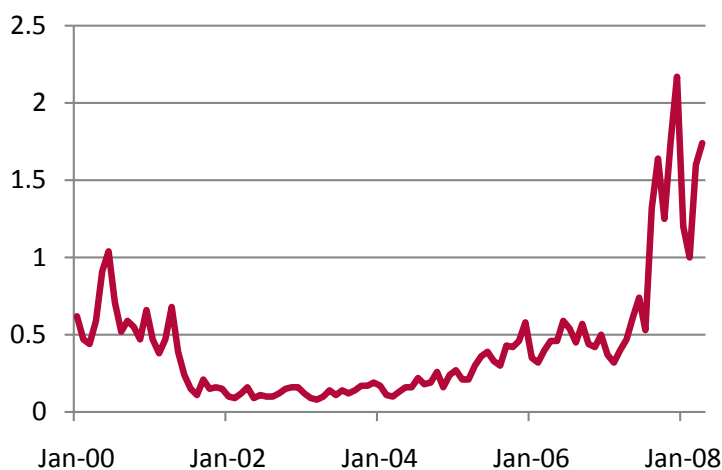
Spilling Over to the Broader Economy

Subprime mortgage loans are a relatively small percentage of overall loans. However, they had a bigger impact on the investment community because they were bundled with other types of loans into structured credit products. Investors relied on the rating agencies to rate the risk of these very complex investments, and when losses in subprime loans caused some investments to default that were thought to be ‘safe,’ the loss of confidence in the rating system translated into a loss of liquidity in a broader range of products.

The loss of liquidity and confidence between banks is evident in the TED⁸ spread (3-month LIBOR⁹ minus 3-month Treasury Bill) which represents the interest rate difference between U.S. government loans and inter-bank loans. Dur-

ing strong economic times, the TED spread hovers around 10 and 20 basis points. As the subprime mortgage crisis began to unravel, the TED spread spiked to more than 150 basis points and jumped to over 200 basis points in December 2007, indicating hesitancy for loaning between banks and thus less liquidity. The Federal Reserve acknowledged the liquidity issues in September 2007 by lowering the federal funds rate and discount rate. It was clear that reductions in interest rates were not sufficient to cure the liquidity problems at hand. As noted in the previous section of this report, the Fed instituted the TAF that allows banks to borrow from the Federal Reserve without the stigma associated with borrowing from its discount window.

TED Spread (3-Month LIBOR minus 3-Month T-Bill)



Source: U.S. Federal Reserve

According to the latest *Senior Loan Officer Opinion Survey on Bank Lending Practices* (April 2008), domestic and foreign institutions reported having further tightened their lending standards and terms on a broad range of loan categories for both consumers and businesses. In fact, the Federal Reserve reported that the percentage of domestic banks reporting tighter lending standards was “close to, or above, historical highs for nearly all loan categories in the survey.”

In addition to the tighter lending standards slowing down some purchases made by consumers and businesses, the slowdown or drop in the pace of home price appreciation impacts overall consumer spending. In an environment where home prices are rising, it was found that consumers spent about 5 ½ cents out of every dollar increase in

⁸ “T” in TED stands for “T-Bill” and “ED” for the ticker symbol of Eurodollar futures, which was used in the calculation before LIBOR was substituted.

⁹ LIBOR, the London Inter Bank Offered Rate, is the rate that banks use to loan to each other while the 3-month bill is from the U.S. Treasury which is assumed to carry no risk.

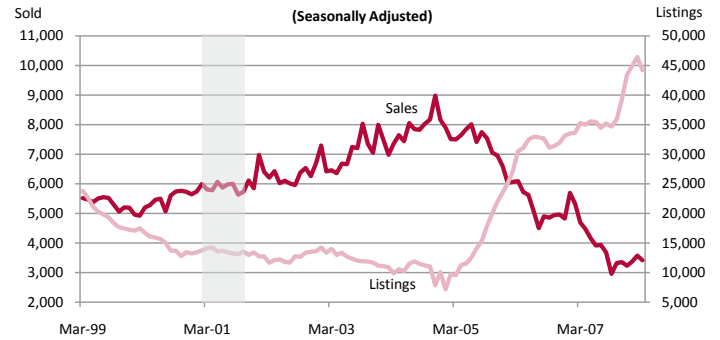
housing wealth within a year of the gain.¹⁰ On the downside, the Congressional Budget Office estimated that weak home price increases or moderately declining prices could lead to a reduction in consumer spending between \$21 billion and \$316 billion, depending on the magnitude of price changes. This would translate into a reduction from 0.1 to 2.2 percentage points off of the pace of GDP.¹¹

How is Virginia Faring?

The health of the housing industry varies greatly by region. Regions where homes are least affordable are those that have generally seen the greatest imbalance between supply and demand. Within Virginia, the Northern Virginia portion of the Washington MSA possesses the greatest imbalance, based on the latest data for March 2008 showing 44,000 homes available for sale relative to 3,400 homes sold during the month. The inventory-to-sales ratio was 12.8 months, that is, at the current rate of sales in March, it would take over 12 months to sell all of the homes on the market in the Washington MSA. By comparison, the inventory-to-sales ratio in the nation for March was 10.0 months.

When will the housing market in the Washington MSA get back to a more historical inventory-to-sales ratio of 6 months? That depends on the number of new houses that come on the market in the upcoming months as well as sales, which depends on affordability. From this perspective, lower interest rates as well as home price depreciation will cause the inventory of unsold homes in the Washington area to be reduced more quickly than in an environment where home prices remain stable.

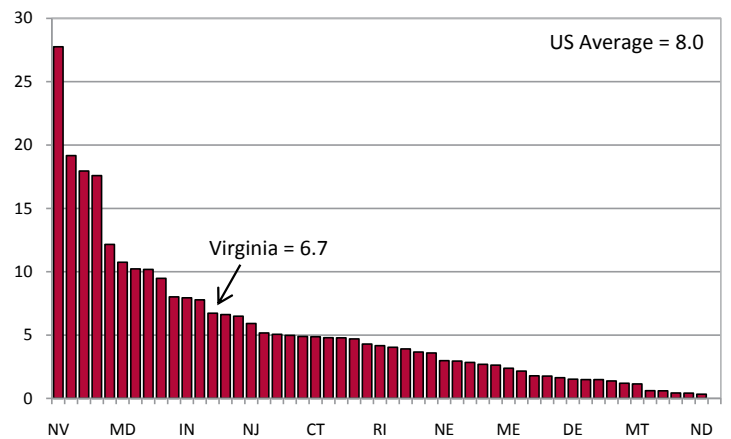
Washington MSA Sales Versus Listings



Source: Metropolitan Regional Information Systems

Virginia is faring better than the national average when it comes to foreclosures per capita. Virginia ranks 13th in the nation with only 6.7 housing foreclosures for every 10,000 people compared to an average 8.0 foreclosures per 10,000 people. The bulk of the issues in the nation have been concentrated in four states: Nevada, Florida, Arizona, and California.

Number of Foreclosures per 10,000 People, April 2008



Source: Chmura Economics & Analytics, Realty Trac, and U.S. Census Bureau

¹⁰ Eric Belsky and Joel Prakken, "Housing Wealth Effects: Housing's Impact on Wealth Accumulation, Wealth Distribution and Consumer Spending," Joint Center for Housing Studies Working Paper W04-13, December 2004.

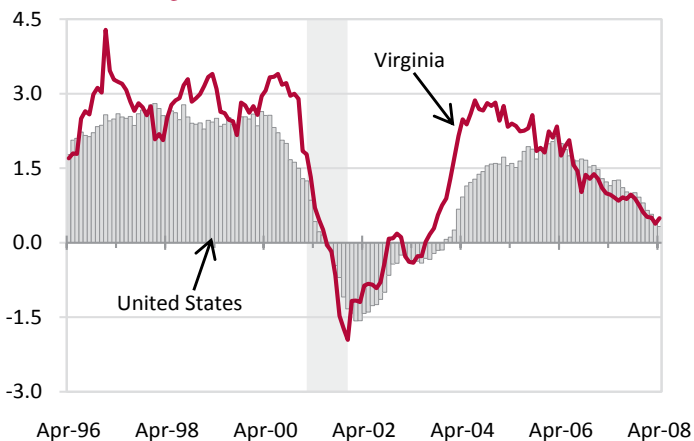
¹¹ These estimates assume a price decline between 2% and 10%. "Housing Wealth and Consumer Spending," Congressional Budget Office Background Paper, January 2007.



Virginia Economy

Since April 2006, the pace of job growth slowed in Virginia as it has in the nation. Employment growth in the state slowed from a 1.8% year-over-year pace in April 2006 to 0.5% in April 2008; meanwhile, employment in the nation slowed from 2.0% to 0.3%. Increases in national defense and security spending caused employment to recover sooner and stronger in Virginia than the nation following the last recession. However, the pace of job growth generally equaled that of the nation over the last three years. Even so, from the end of the last recession in November 2001 to April 2008, Virginia averaged 1.2% annualized employment growth compared to 0.8% in the nation.¹²

Employment Growth Percent Change, Year-Over-Year



Source: Bureau of Labor Statistics

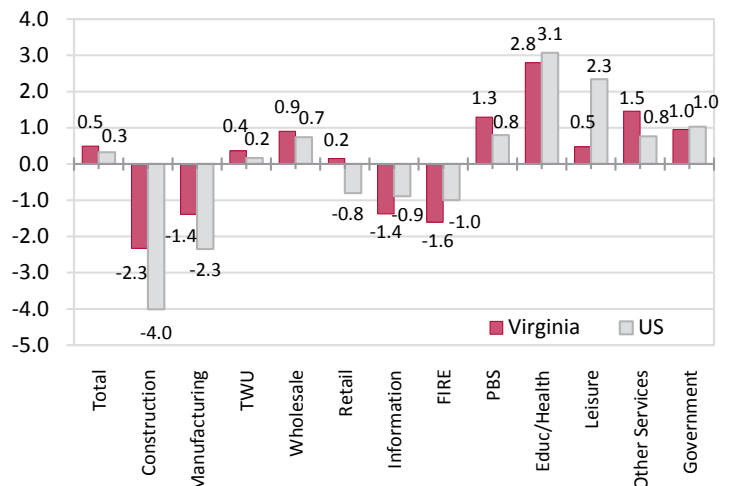
Virginia's economy is expected to be sluggish in 2008 before improving in 2009. Job growth is forecast to average 0.5% in 2008 but then accelerate to 1.2% in 2009. Real retail sales slowed to 0.3% growth in 2007 and are expected to continue at 0.3% in 2008 before improving to 3.6% in 2009. The drop in single-family building permits in the state underscores the depth and breadth of the housing slowdown. Single-family building permits, which fell more than 20% in both 2006 and 2007, are forecast to continue declining over the next two years. The rate of decline is expected to slow, however, with a 19.4% drop in 2008 and a 10.4% further decline in 2009.

Recent Growth

Over the twelve months ending April 2008, employment grew slightly faster in Virginia than in the nation. Employment expanded 0.5% (+18,617 jobs) in the state over this period compared to 0.3% in the nation, ranking Virginia 30th among the fifty states for this twelve-month period.

Virginia lost jobs in four major sectors over the year ending April 2008, with each of these sectors contracting in the nation over the same period. The manufacturing sector shed 3,888 jobs in the state over the last twelve months. Manufacturing posted year-over-year declines in 110 of the past 115 months and has declined by 100,636 jobs (a 26.7% loss of manufacturing jobs) over the ten years from April 1998 to April 2008. The continued downturn in the housing market is evident with construction losing 5,645 jobs in Virginia over the year ending April 2008; and this sector has posted year-over-year declines since October 2006. The slow housing market has also taken a toll on financial employment¹³ with the finance, insurance, and real estate sector (FIRE) shedding 3,124 jobs over the year ending April 2008. The fourth declining sector in Virginia, information,¹⁴ lost 1,259 jobs over this period, a 1.4% drop in employment compared to a 0.9% contraction in the nation.

Employment Growth by Sector Percent Change, Year Ending April 2008



Source: Bureau of Labor Statistics

Note: TWU = Transportation, warehousing, and utilities
FIRE = Finance, insurance, and real estate
PBS = Professional and business services

¹² Over a similar timeframe, 2000 to 2007, it is estimated that Virginia's population average 1.2% annual growth compared to 1.0% in the nation.

¹³ For example, the real estate credit industry shed 1,649 jobs (-14.6%) from the third quarter of 2006 to the third quarter of 2007 (the latest data available at this level of detail).

¹⁴ According to the U.S. Census Bureau, "the information sector comprises establishments engaged in the following processes: (a) producing and distributing information and cultural products, (b) providing the means to transmit or distribute these products as well as data or communications, and (c) processing data."

Education and health services added 11,546 jobs over the year ending April 2008, the largest gain among Virginia's sectors — higher education often sees increased enrollment during slow economic times because some students who can't find jobs continue their education, and health services is generally insensitive to business cycles and continues to benefit from an aging population. Professional and business services (PBS), a sector with relatively high average wages, added 8,322 jobs over this period, expanding faster in Virginia (1.3%) than in the nation (0.8%). Retail added 653 jobs in the state on the strength of 1,033 added jobs in the Richmond metro area and despite losses elsewhere, such as Northern Virginia (-457 jobs) and Hampton Roads (-255).

For the year ending April 2008, the state metropolitan areas (MSAs) with the fastest job growth were Lynchburg, (+2.2%, +2,408 jobs), Winchester (+1.7%, +1,006 jobs), and Harrisonburg (+1.3%, +861 jobs). Each of these metros, however, had slower growth in the preceding months. Lynchburg job growth hit a slow 0.3% year-over-year pace in March 2007. Winchester and Harrisonburg both dipped into decline in 2007, Winchester contracting at a 0.6% pace in August 2007 and Harrisonburg declining at a 1.9% pace in July 2007.

The largest MSAs in the state were in the middle of the pack in job growth for the year ending April 2008. Northern Virginia expanded by 0.8% (+10,664 jobs) as did Richmond (+5,313) while Hampton Roads grew 1.1% (+8,142). Northern Virginia's growth relied heavily on professional and business services (+7,686) and government (+3,773). Richmond, which is benefitting from the expansion of Ft. Lee, also had strong government sector growth (+2,260) as well as gains in education and health services (+2,196). Growth in Hampton Roads was driven by service sectors: education and health services (+2,673), other services¹⁵ (+2,549), and professional and business services (+2,400).

Three of Virginia's smaller metros posted slow growth over the year ending April 2008: Roanoke (+0.8%, +1,318 jobs), Charlottesville (+0.7%, +688 jobs), and Bristol (+0.3%, +304 jobs). Charlottesville typically outperforms Virginia and has posted faster year-over-year job growth than the state for the past 39 consecutive months (through April 2008). Bristol and Roanoke, however, have grown slower than the state this decade. From December 1999 to April

2008, Virginia averaged 1.0% annualized growth compared to 0.2% in Roanoke and 0.01% in Bristol.

Employment in the Blacksburg metropolitan area dropped 0.5% (-341 jobs) over the twelve months ending April 2008 as goods producing industries drove the loss; furniture and related product manufacturing and textile mills have recently shed jobs in the region. April 2008 data were not available for the Danville metro at this writing. In the most recent data, for the year ending September 2007, employment declined 1.3% (-505 jobs) in Danville, with losses in manufacturing (-305 jobs), retail (-221), and construction (-171).

Technology

The high-tech industry struggled in Virginia in the last recession and immediately following, but since the second quarter of 2004, high-tech employment has grown faster than overall employment on a year-over-year basis. For the year ending with the third quarter of 2007 (the latest data available), high-tech industry expanded 1.9% (+10,667 jobs) compared to 1.0% growth among all industries. High-tech industries also provide higher average annual wages compared to all industries. Average annual wages in Virginia's high-tech industries were \$86,249 as of the third quarter of 2007 compared to \$45,620 in all industries. Moreover, high-tech wages and salaries grew faster over the most recent twelve months (ending third quarter 2007), advancing 9.1% compared to 6.2% growth in wages and salaries for all industries.

Level one high-tech industries are those employing a higher percentage of technology-oriented occupations. Among these industries in Virginia, the largest job gains over the year ending with the third quarter of 2007 were posted in computer systems design and related services (+6,499 jobs) and scientific research and development services (+1,247). Over the same period, jobs were lost in architectural, engineering, and related services (-1,652) and data processing,

¹⁵ The other services sector includes industries such as automotive repair and maintenance, personal care services, and civic and social organizations.

High-Technology Growth in Virginia

NAICS	Industry	Employment				Wages and Salaries Thousands of Dollars*			
		2006Q3	2007Q3	Change	% Change	2006Q3	2007Q3	Change	% Change
	Total Employment	3,627,591	3,663,654	36,062	1.0	38,516,841	40,894,937	2,378,095	6.2
	Total High Technology	566,453	577,120	10,667	1.9	10,956,119	11,957,263	1,001,144	9.1
	Level 1	262,352	268,827	6,475	2.5	5,127,196	5,582,050	454,855	8.9
3254	Pharmaceutical and Medicine Manufacturing	3,556	3,618	62	1.8	59,915	61,223	1,308	2.2
3341	Computer and Peripheral Equipment Manufacturing	1,489	1,667	178	11.9	17,775	20,439	2,664	15.0
3342	Communications Equipment Manufacturing	2,803	2,978	175	6.3	57,823	62,010	4,187	7.2
3344	Semiconductor and Other Electronic Component Manufacturing	6,981	7,063	82	1.2	112,143	107,680	-4,464	-4.0
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	5,472	5,239	-233	-4.3	100,703	105,718	5,016	5.0
3364	Aerospace Product and Parts Manufacturing	1,662	1,444	-218	-13.1	23,764	21,470	-2,295	-9.7
5112	Software Publishers	5,103	5,268	166	3.2	148,351	147,506	-845	-0.6
5182	Data Processing, Hosting, and Related Services	12,523	12,199	-325	-2.6	212,699	211,104	-1,595	-0.8
5191	Other Information Services	7,530	8,024	494	6.6	75,344	85,308	9,964	13.2
5413	Architectural, Engineering, and Related Services	70,370	68,718	-1,652	-2.3	1,223,378	1,327,842	104,464	8.5
5415	Computer Systems Design and Related Services	120,654	127,152	6,499	5.4	2,586,172	2,868,673	282,501	10.9
5417	Scientific Research and Development Services	24,209	25,456	1,247	5.1	509,129	563,079	53,950	10.6
	Level 2	160,394	162,538	2,145	1.3	3,254,327	3,668,698	414,371	12.7
	Level 3	143,707	145,754	2,048	1.4	2,574,596	2,706,515	131,919	5.1

* Includes some stock options that were exercised.

Note: Data in this table include both privately-owned and government-owned high-tech operations. Figures may not sum due to rounding.

Source: Chmura Economics & Analytics and Virginia Employment Commission

An industry is defined as high-tech in this publication if, at the national level, it possesses at least double the percentage of employment in technology-oriented occupations compared to the average for all industries. Level one high-tech industries possess at least five times the average of technology-oriented occupations, level two employ 3.0 to 4.9 times the average, and level three at least 2.0 times the average.

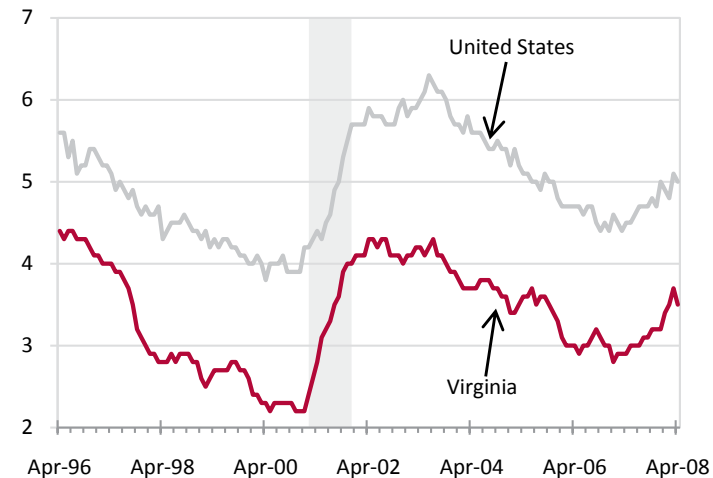
hosting, and related services (-325) as well as two level one manufacturing industries: navigational, measuring, electromedical, and control instruments (-233) and aerospace product and parts (-218).

The Northern Virginia metropolitan area accounts for the lion's share of high-tech industry jobs in the state. Northern Virginia provides over half of all high-tech industry employment in the state and nearly two-thirds of level one employment. This dominance was in play over the twelve months ending with the third quarter of 2007 as Northern Virginia added 7,135 high-tech jobs including 5,489 in computer systems design and related services.

Labor Market

The unemployment rate in Virginia reached a post-recession¹⁶ low of 2.8% in January 2007 but has since trended upward, similar to the trend in the nation as the job market weakens. The state unemployment rate rose sharply over the first quarter of 2008 to 3.7% as of March — the highest since June 2005 — before pulling back to 3.5% in April. Despite the increase, Virginia's unemployment rate of 3.5% in April was well below that of the nation (5.0%). Danville was the only state metro to have a higher unemployment rate (6.2%) than the nation in April 2008. Among the other metros, unemployment rates varied from lows of 2.8% in Northern Virginia and 3.0% in Charlottesville to highs of 4.0% in Blacksburg and 4.6% in Bristol.

Unemployment Rate



Source: Bureau of Labor Statistics

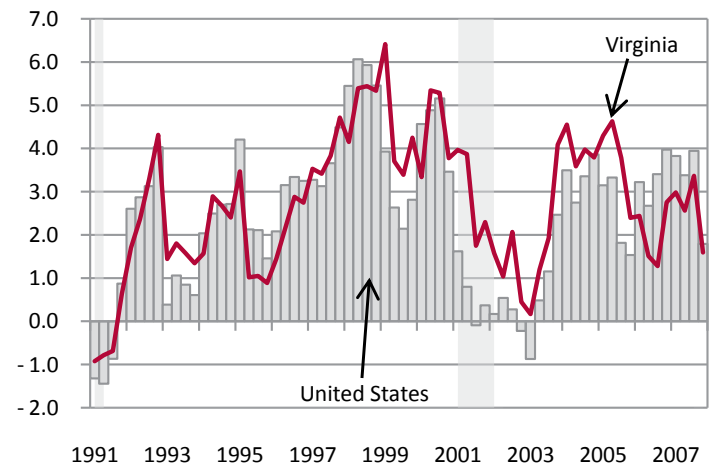
Income

This decade, Virginia averaged 2.6% annualized growth in real personal income, outpacing the 2.1% annualized growth in the nation. Nevertheless, income growth in Virginia was under par compared to the nation in 2007. Nominal personal income increased 5.6% in Virginia compared to 6.2% in the nation, with Virginia's pace of growth ranking 37th among the fifty states. Personal income is made up of (1) net earnings; (2) dividends, interest, and rent; and (3) transfer receipts. Virginia's growth in 2007 exceeded that in the nation in transfer receipts but trailed in the other two components.

In net earnings by sector, Virginia saw above-average contributions to growth in 2007 from professional and business services as well as civilian federal government and military. Negative contributions to personal income growth in 2007 were posted in construction, information, and in real estate and rental and leasing. Virginia also had lower-than-average contributions to growth in finance and insurance, manufacturing, and transportation and warehousing.

The proportion of income supplied by net earnings decreased in both the state and the nation in 2007. Net earnings consist of wage and salary disbursements, other labor income, and proprietor's income.¹⁷ From 2006 to 2007, the proportion of income from net earnings fell in Virginia from 73.8% to 73.3% while dropping in the nation from 68.4% to 67.8%. The percentage of income supplied by transfer payments (social security, unemployment compensation, welfare, disability payments, etc.) increased in both the state and nation as one would expect during a period of slow and contracting growth. From 2006 to 2007,

Real Personal Income Growth Percent Change, Year-Over-Year



Source: Bureau of Economic Analysis and Bureau of Labor Statistics

the proportion of income provided by transfer payments increased from 11.2% to 11.4% in Virginia and from 14.7% to 14.9% in the nation.

Wages and salaries in Virginia advanced 5.4% in 2007 and are forecast to slow to 3.9% amid the business cycle downturn in 2008 before accelerating to 5.0% in 2009. Among the metro areas, Richmond posted the best wage and salaries growth in 2007 (+7.0%) while expectations are that the fastest growth in 2008 will occur in Charlottesville and Winchester (+6.4%) with Northern Virginia posting the best growth (+5.8%) in 2009. On the other hand, Danville posted the slowest wages and salaries growth (+1.0%) in the state in 2007, a trend forecast to continue in 2008.

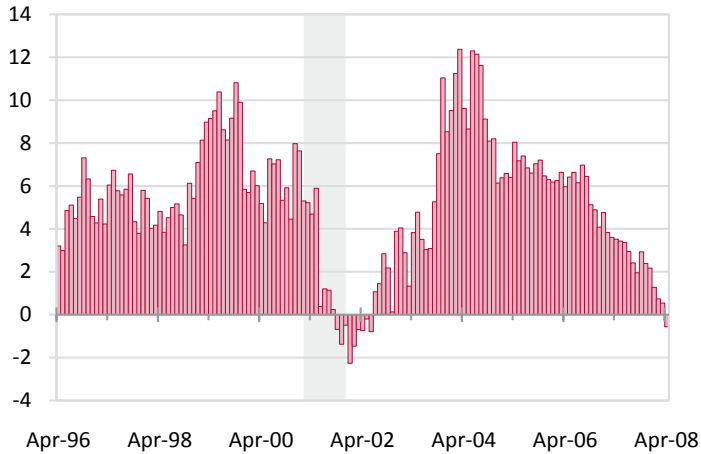
Retail Sales

Consumer spending in Virginia continued its slowing trend that began in the summer of 2006 and, similar to the nation, slowed significantly since the start of the year. Over the twelve months ending April 2008, retail sales in the state fell 0.6%, the first year-over-year contraction since sales fell during and after the last recession. Among the metro areas, sales growth in April 2008 was highest in Bristol (+7.7%), and Lynchburg (+5.0%), the only metros where the year-over-year pace of growth exceeded the 3.9% increase in inflation (consumer price index) over the same period. Four metros posted slow, but positive growth over this period: Harrisonburg (+2.7%), Blacksburg

¹⁷ Virginia posted slow growth in proprietor's income in 2007, 0.2% compared to 2.9% in the nation.

(+1.3%), Danville (+1.1%), and Richmond (+0.2%). The remaining metros posted declines in retail sales: Charlottesville (-1.2%), Northern Virginia (-1.3%), Roanoke (-1.7%), Hampton Roads (-2.4%), and Winchester (-4.3%).

Retail Sales, Percent Change Year-Over-Year, Six-Month Moving Average



Source: Virginia Department of Taxation

Real retail sales growth slowed to 0.3% in 2007 and is expected to continue at that pace in 2008 before accelerating to 3.8% in 2009. While most of the state metro areas are expected to maintain pace or improve in 2008, several are forecast to experience slower growth: Bristol, Danville, Hampton Roads, and Richmond.

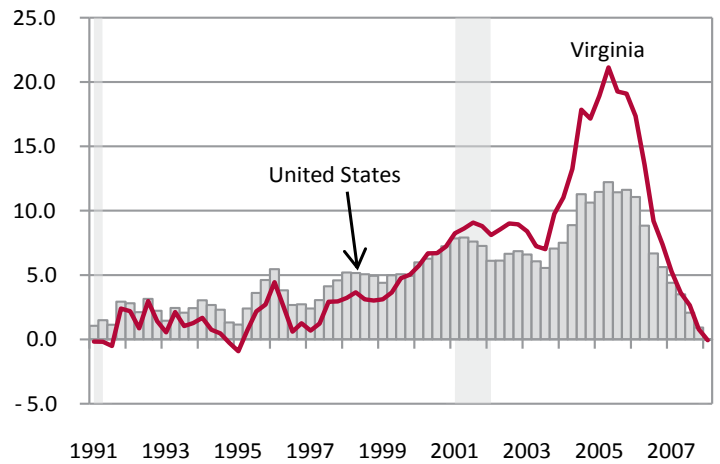
Housing Market

Home sales dropped in Virginia as they have in the nation. The Virginia Association of Realtors reported 95,323 homes sold in the state in 2007, a decline of 15% from 2006. Homes were on the market in Virginia an average of 88 days in 2007, up from an average 70 days in 2006.

According to the Office of Federal Housing Enterprise Oversight (OFHEO) house price index,¹⁸ home prices fell 0.1% in Virginia in the first quarter of 2008 compared to a year earlier. This marks the first year-over-year decline in the state in 13 years. Year-over-year price growth peaked at 21.1% in Virginia in the second quarter of 2005 and has consistently decelerated since. Among the metro areas, the largest price declines for the year ending with the first quarter of 2008 occurred in Northern Virginia¹⁹ (-5.1%) and Winchester (-4.9%), the two regions that also posted the fastest price growth in 2005. Home prices continued to rise in the first

quarter of 2008 in Bristol (+5.1%), Blacksburg (+4.6%), Roanoke (+4.5%), Danville (+3.5%), Richmond (+2.4%), Charlottesville (+1.6%), and Hampton Roads (+1.5%).

Home Price Appreciation Percent Change, Year-Over-Year



Source: Office of Federal Housing Enterprise Oversight

The declining housing market has also been apparent in residential building permit activity. Single-family building permits in Virginia (based on a six-month moving average) dropped to 1,665 per month in April 2008, less than half the peak rate reached in August 2005. Over the year ending April 2008, every state metro area²⁰ except Lynchburg and Roanoke posted a decline in permits of 15% or more. The fall in building permits is expected to continue in Virginia though slowing in 2008 and 2009. Single-family building permits dropped 23.5% in 2007 and are forecast to fall 19.4% in 2008 and 10.4% further in 2009. All state metros are expected to experience declining permits in both 2008 and 2009 with the exception of Harrisonburg and Lynchburg, which are forecast to see slight-to-modest growth in 2009.

Metro Areas

Job growth slowed in Virginia from 2.3% in 2005 to 1.3% in 2007. Under the assumption of a short-lived national recession in 2008, employment in the state is expected to slow further to 0.5% in 2008 before accelerating in 2009 to 1.2%. While most Virginia metro areas are expected to see job growth in 2008, contractions are forecast for Blacksburg and Danville as well as the aggregate non-metropolitan region of the state.

¹⁸ The OFHEO house price index is a weighted repeat sales index and therefore is a true measure of price appreciation as it is not affected by changes in the size or quality of homes sold.

¹⁹ Northern Virginia home prices are based on those of the Washington metropolitan area.

²⁰ Single-family building permit data are not available for the Blacksburg metropolitan area, which is therefore excluded from remarks referring to all state metro areas in regards to building permits.

The fastest employment growth in 2008 is forecast for the metro areas of Charlottesville (+1.8%), Harrisonburg (+1.3%), and Winchester (+1.2%). While Charlottesville's expectation represents a slowdown from 4.7% growth in 2007, Winchester's and Harrisonburg's forecasts are improvements upon subpar performances in 2007. All three of these metros are expected to see acceleration in job growth in 2009.

The three largest state metros are forecast to experience slowing job growth in 2008 and accelerations in 2009, similar to the state. Northern Virginia employment grew 1.3% in 2007 and is expected to slow to 0.4% in 2008 before improving to 1.8% in 2009. Hampton Roads employment managed 0.6% growth in 2007 (while enduring the loss of the Ford truck plant) and is forecast to slow slightly to 0.5% in 2008 and then quicken to 0.8% in 2009. Richmond posted above-average job growth of 1.8% in 2007 but is expected to slow to 0.5% in 2008 as growth related to Ft. Lee is hindered by layoffs from Wachovia, Capital One, and Circuit City before moderate improvement to 0.7% in 2009.

Employment declines in 2008 are forecast for Danville (-1.0%), Blacksburg (-0.3%), and the non-metropolitan region of the state (-0.3%). Though Danville is seeing large economic developments, such from Com.40, the region has posted year-over-year employment declines in 53 of the last 54 months.²¹ Blacksburg, meanwhile, is suffering through manufacturing losses including layoffs at the Volvo plant in Dublin. In 2009, employment is projected to expand in Blacksburg 0.4% while Danville employment is expected to be flat. Non-metropolitan areas of the state are forecast to see further job erosion with an aggregate 0.9% decline in 2009.

The remaining three metro areas are expected to post relatively slow, but positive job growth. Bristol employment contracted 0.6% in 2007 and is forecast to be flat in 2008 but grow 0.1% in 2009. The Roanoke metro area posted above-average 2.1% growth in 2006 before slowing to 0.3% in 2007; further slowing to 0.1% is expected in 2008 with 0.3% growth projected for 2009. Lynchburg steadily posted 2.1% or higher job growth from 2005 through 2007, though since October 2006 the manufacturing sector has posted year-over-year contractions in employment.²² Overall employment growth is forecast to slow in Lynchburg to 0.6% in 2008, still above-average compared to the state, before slowing further to 0.3% in 2009.

Virginia Forecast Summary Most Likely Scenario, Annual Average Change

	Actual			Forecast	
	2005	2006	2007	2008	2009
Blacksburg					
Total Employment*	0.8%	0.4%	0.7%	-0.3%	0.4%
Wages and Salaries**	4.8%	6.6%	3.2%	4.3%	2.8%
Real Retail Sales	2.1%	7.0%	0.2%	0.2%	-1.3%
Building Permits***	N/A	N/A	N/A	N/A	N/A
Bristol					
Total Employment*	1.1%	1.3%	-0.6%	0.0%	0.1%
Wages and Salaries**	4.6%	6.8%	1.5%	4.3%	-0.4%
Real Retail Sales	-1.2%	4.0%	4.2%	1.8%	-4.0%
Building Permits	-24.6%	-0.5%	-18.5%	-5.2%	-2.4%
Charlottesville					
Total Employment*	3.3%	4.4%	4.7%	1.8%	2.2%
Wages and Salaries**	7.0%	8.8%	6.6%	6.4%	5.5%
Real Retail Sales	7.1%	0.2%	0.8%	0.9%	2.9%
Building Permits	0.8%	-17.1%	-15.7%	-13.9%	-2.5%
Danville					
Total Employment*	-1.4%	-4.1%	-1.6%	-1.0%	0.0%
Wages and Salaries**	0.8%	-2.6%	1.0%	1.0%	2.0%
Real Retail Sales	-0.9%	2.7%	4.9%	0.4%	-3.4%
Building Permits	7.9%	-14.0%	-32.9%	-22.9%	-3.1%
Hampton Roads					
Total Employment*	1.5%	0.9%	0.6%	0.5%	0.8%
Wages and Salaries**	5.3%	5.3%	5.5%	4.9%	5.4%
Real Retail Sales	3.2%	2.8%	1.0%	0.2%	3.0%
Building Permits	1.1%	-21.2%	-21.7%	-14.9%	-5.5%
Harrisonburg					
Total Employment*	0.1%	4.9%	1.0%	1.3%	1.9%
Wages and Salaries**	4.5%	7.1%	4.9%	4.2%	1.8%
Real Retail Sales	4.6%	3.3%	-2.0%	1.8%	1.2%
Building Permits	10.0%	-22.9%	-17.4%	-16.5%	2.9%
Lynchburg					
Total Employment*	2.4%	2.1%	2.1%	0.6%	0.3%
Wages and Salaries**	6.0%	6.4%	4.0%	2.8%	0.7%
Real Retail Sales	3.2%	8.7%	-0.9%	2.9%	-0.5%
Building Permits	29.0%	-0.5%	-18.6%	-14.2%	5.1%
Northern Virginia					
Total Employment*	3.7%	2.5%	1.3%	0.4%	1.8%
Wages and Salaries**	8.5%	6.7%	5.0%	3.6%	5.8%
Real Retail Sales	3.9%	1.0%	-0.5%	1.1%	5.5%
Building Permits	-7.4%	-36.2%	-22.7%	-19.9%	-12.1%
Richmond					
Total Employment*	2.1%	1.6%	1.8%	0.5%	0.7%
Wages and Salaries**	6.4%	4.4%	7.0%	4.8%	3.7%
Real Retail Sales	4.0%	4.8%	2.2%	0.2%	3.9%
Building Permits	10.5%	-15.1%	-23.0%	-18.9%	-8.8%
Roanoke					
Total Employment*	1.5%	2.1%	0.3%	0.1%	0.3%
Wages and Salaries**	3.2%	5.5%	5.2%	3.4%	2.1%
Real Retail Sales	2.5%	3.9%	-1.5%	0.6%	3.5%
Building Permits	-11.4%	-13.1%	-22.9%	-7.6%	-5.1%
Winchester					
Total Employment*	1.9%	5.0%	0.2%	1.2%	2.3%
Wages and Salaries**	7.4%	7.6%	4.4%	6.4%	4.3%
Real Retail Sales	11.5%	0.0%	-6.4%	-0.5%	4.2%
Building Permits	21.7%	-24.7%	-48.4%	-17.6%	-8.2%
Non-MSAs					
Total Employment*	0.9%	-0.2%	2.2%	-0.3%	-0.9%
Wages and Salaries**	5.9%	4.3%	6.0%	5.0%	6.3%
Real Retail Sales	4.3%	2.2%	0.7%	-0.1%	0.1%
Building Permits	0.8%	-21.3%	-29.2%	-21.3%	-13.5%
VA-Totals					
Total Employment*	2.3%	1.7%	1.3%	0.5%	1.2%
Wages and Salaries**	6.9%	5.8%	5.4%	3.9%	5.0%
Real Retail Sales	3.8%	2.5%	0.3%	0.3%	3.6%
Building Permits	0.0%	-24.8%	-23.5%	-19.4%	-10.4%

*Employment refers to nonagricultural employment.

**Wages and salaries include some options that were exercised. Actual data are through the 2nd quarter of 2007.

***Since 2005, building permits data are not reported for the Blacksburg metro. All reported series are seasonally adjusted.

²¹ This trend is based on data through September 2007, the latest available for the region.

²² Manufacturing employment declines were posted through September 2007, the latest available data.

About Chmura Economics & Analytics

Chmura Economics & Analytics (Chmura) was founded by Christine Chmura in 1999. The firm specializes in applied economic consulting, quantitative research, and software solutions requiring the integration of advanced economic analysis.

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🔗 **Education Tools** - Chmura helps educators determine demand for training programs.

🔗 **Forecasting** - Chmura builds regional, industry, and firm-specific economic models.

🔗 **Publications** - The *Virginia Economic Trends*© is published quarterly and the weekly *Economic Update* is available online. Chmura also creates and updates customized publications.

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Michael Thompson

Chairman and President: For over twenty years, Mr. Thompson owned his own marketing company. He has been very active in national, state and local politics as well as a number of state and community organizations, commissions, and committees, Springfield, VA.

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“...a wise and frugal government, which shall restrain men from injuring one another, shall leave them otherwise free to regulate their own pursuits of industry and improvement, and shall not take from the mouth of labor the bread it has earned. This is the sum of good government, and this is necessary to close the circle of our felicities.”

—Thomas Jefferson, 1801

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