Foreclosures Dampen the Economic Recovery

June 2011

The Thomas Jefferson Institute for Public Policy

Virginia Economic Forecast 2011-2012

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Foreword

The Thomas Jefferson Institute for Public Policy is proud to present its twelfth 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 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, workforce and economic development, and software design.

"Virginia Economic Forecast: 2011–2012" 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 "Foreclosures Dampen the Economic Recovery," features an analysis of the foreclosure crisis in the nation and in Virginia, and how its lingering effects will play out during the recovery from the recession. The economic forecast also describes the improving economy in 2010 and expectations about the continuing recovery.

Last year's *Virginia Economic Forecast* anticipated the beginning of the recovery. In 2010, real gross domestic product expanded 2.8%, similar to Chmura's forecast of 2.9%. Consumer spending was slower than anticipated, growing 1.7% in 2010 compared to a projection of 2.3%. Residential investment also fared more poorly than thought, contracting 3.0% in the year compared to Chmura's forecast of a 1.0% decline. In Virginia, the housing market also fared worse than expected, with building permits improving just 1.6% in 2010, falling short of an expected stronger rebound of 10.7%. Employment in the Commonwealth slipped 0.2% further in 2010 rather than posting a modest 0.4% advance per projections.

We once again thank SunTrust for sponsoring this year's "Virginia Economic Forecast: 2011–2012." 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 2011

The Nation

❧ By mid-2009, the recession officially ended and the U.S. economy returned to growth. The labor market and financial markets have been improving since the first half of 2009. The U.S. economy has experienced seven consecutive quarters of real gross domestic product (GDP) growth, 1.8 million jobs have been added since February 2010, and the unemployment rate is trending downward.

❧ The recovery is moderate because of the headwinds that remain: continued falling housing prices, additional foreclosures, stubbornly high unemployment, and soaring energy prices. From December 2007 to February 2010, 8.7 million jobs were lost in the nation. If employment expands by 127,000 jobs a month—the average pace from February 2010 through April 2011—it will take about four and a half years to reach pre-recession employment levels.

❧ Chmura Economics & Analytics (Chmura) forecasts real GDP to grow 2.7% in 2011 and 3.1% in 2012. Employment is expected to expand 1.0% in 2011, followed by 1.2% growth in 2012. Consumer spending is expected to continue its rebound and grow 2.9% in 2011 and 2.5% in 2012. Residential real estate and investment in commercial structures are forecast to continue to contract in 2011 and begin to rebound in 2012. Despite an uptick in headline inflation, inflation remains under control and interest rates are forecast to remain fairly low.

Foreclosures

❧ In 2007, only 0.9% of all mortgages in the country were in foreclosure, but that rate jumped to 1.6% in 2008 and 2.6% in 2009. The foreclosure rates appear to have leveled off in 2010, but at elevated levels. Based on data for the first eleven months of 2010, about 3.2% of all mortgages in the nation were in foreclosure in 2010.

❧ In March 2011, one in every 742 housing units in Virginia filed for foreclosure compared to the national average of one in every 542. Regions where homes are least affordable are those that experienced heightened foreclosure activity. Eighty-seven percent of March 2011 foreclosures in Virginia were filed in the Northern Virginia, Richmond, and Hampton Roads metropolitan areas.

❧ Until the excess foreclosed properties are digested by the market, housing activity will be less likely to rebound. The increased supply of homes on the market and lack of demand continues to depress home prices, thus preventing a speedy recovery of the housing market. In addition to directly affecting residential investment in GDP, foreclosures also indirectly slow down consumer spending due to the impact on consumer wealth.

Virginia

❧ In Virginia, employment expanded 1.1% (+39,257 jobs) over the year ending March 2011 compared to 1.0% growth in the nation. Since May 2010, the year-over-year pace of job growth in Virginia has not exceeded the pace in the nation by more than 0.6 percentage points. This contrasts with the period from October 2008 through November 2009 when both the state and nation were contracting jobs but the pace of job loss in the nation was over a percentage point faster than in Virginia.

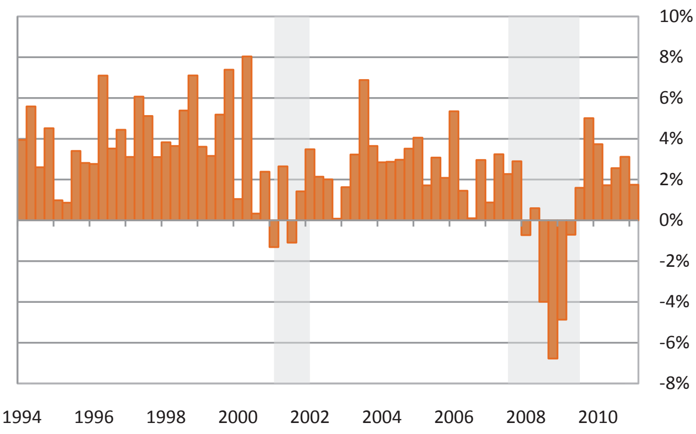
❧ Over the year ending March 2011, most of the job gains in Virginia were due to three sectors: professional and business services (+16,101 jobs), education and health services (+10,451), and retail (+11,960). Manufacturing added 947 jobs in the state over this period, equivalent to a 0.4% employment gain—a rare expansion in this industry that has posted only seven months of year-over-year job growth since October 1998.

❧ The housing market in Virginia has continued to struggle. The Virginia Association of Realtors reported that 82,809 homes were sold in the state in 2010, a 9.8% decrease from 2009. The median sales price in 2010 was $236,900, up 3.3% from the prior year. The weakness in the housing market is underscored by residential building permit activity. After double-digit percentage declines for four straight years, single-family building permits in Virginia posted a mere 1.6% annual average expansion in 2010. The projection for 2011 is modest growth of 1.8%.

National Economy

Although the recession officially ended in June 2009 according to the National Bureau of Economic Research, the official arbiter of recessions, the economic recovery has been slow and uneven. Real gross domestic product (GDP) increased at an annualized 2.6% pace in the third quarter of 2010, followed by annualized gains of 3.1% in the fourth quarter and a lackluster 1.8% in the first quarter of 2011 (based on the "second estimate"). Despite the slowdown in GDP growth in the first quarter of 2011, recent data indicate that economic momentum is building and the weakness is likely transitory. Signs that the recovery is beginning to gain traction include improving labor market conditions, retail sales growth, and advancing industrial production.

Real Gross Domestic Product
Quarterly Annualized Percent Change



Source: Bureau of Economic Analysis

Nearly two years into the recovery, the U.S. economy is beginning to show signs that the recovery is gaining strength. As of April 2011, employment had increased for seven consecutive months. In February 2011, nonfarm payroll employment grew by 235,000, followed by increases of 221,000 in March and 244,000 in April. The Dow Jones Industrial Average has rebounded strongly since the first quarter of 2009. In addition, initial unemployment claims started to decline in April 2009 and dipped below the important 400,000 mark—the threshold usually associated with steady job growth—from mid-February to mid-April. A subsequent upswing in initial claims above 400,000, however, is a reminder that the recovery remains uneven.

Headwinds Remain

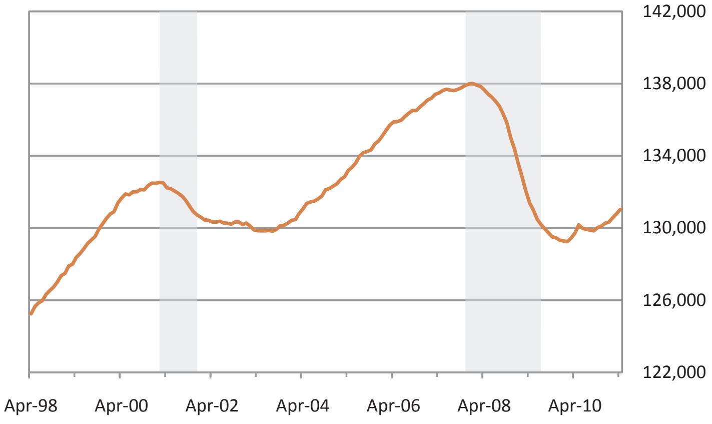
In the aftermath of the longest and deepest downturn since the Great Depression, the U.S. economy has experienced a somewhat weak and uneven recovery because of the headwinds that remain. In particular, falling housing prices, additional foreclosures, continued high unemployment, and soaring energy prices are putting downward pressure on economic growth.

Historically, housing leads the country out of recessions; the current housing market, however, has yet to sustain positive contributions to GDP growth in this recovery. Weakness in the housing market— particularly the contraction in home prices that is partly due to the glut of foreclosed homes—has been restraining consumer spending. The sharp decline in housing prices has reduced consumers' net worth; some consumers have reacted to this drop by deferring nonessential spending.

High unemployment is another headwind that has been damping economic growth because of the associated reduction in wages and spending. The severity of the recession that ended in June 2009, and the prospect of slow employment gains, will likely hamper growth for a few years. From December 2007 to February 2010, 8.7 million people lost their jobs in the nation. Since then, 1.8 million jobs have been added, leaving a net loss of roughly 7.0 million jobs based on nonfarm payroll employment. If employment continues to expand at a moderate 127,000 jobs per month—the average pace from February 2010 through April 2011—it will take about four and a half years to reach pre-recession employment levels.[1] Sustaining the more recent pace of 233,000 jobs per month—the average pace from February 2011 to April 2011—would be needed to

1 Note that reaching pre-recession employment levels does not take into account growth needed in the labor market due to new job-seekers.

Employment
Nonfarm Payroll in Thousands



Source: Bureau of Labor Statistics

reach pre-recession employment levels in roughly two and a half years. The unemployment rate stood at an elevated 9.0% as of April 2011. Chmura forecasts the national unemployment rate will average 8.7% in 2011, 8.1% in 2012, and 7.5% in 2013.

Soaring energy prices are a third headwind affecting economic growth. Rising gas prices caused in large part by unrest in the Middle East and North Africa are eroding consumer confidence and raising inflation expectations. The consumer price index for gasoline rose 3.3% in April 2011 after increasing 5.6% in March—jumping 33.1% in all since April 2010. The latest retail sales data for April suggest that the negative effects of rising energy and food prices on discretionary spending are becoming apparent as household budgets are stretched by rising costs. Consequently, consumers are struggling to contribute to economic growth as their purchasing power erodes.

Monetary Policy

The federal funds rate has been virtually 0% since December 2008. Moreover, as of April 2011, the Federal Open Market Committee (FOMC) press release continued to indicate this policy will continue:

> *The Committee will maintain the target range for the federal funds rate at 0 to 1/4 percent and continues to anticipate that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, are likely to warrant exceptionally low levels for the federal funds rate for an extended period.*

The FOMC also noted in its April press release that it will continue its $600 billion asset-purchase program and adjust its holdings as needed to best foster maximum employment and price stability. This second round of quantitative easing was designed to stimulate the economy in an environment where the Federal Reserve Board could no longer lower the target interest rate.

> *To promote a stronger pace of economic recovery and to help ensure that inflation, over time, is at levels consistent with its mandate, the Committee decided today to continue expanding its holdings of securities as announced in November. In particular, the Committee is maintaining its existing policy of reinvesting principal payments from its securities holdings and will complete purchases of $600 billion of longer-term Treasury securities by the end of the current quarter. The Committee will regularly review the size and composition of its securities holdings in light of incoming information and is prepared to adjust those holdings as needed to best foster maximum employment and price stability.*

Due to the recent run-up in commodity prices, especially energy prices, inflation has become a top economic concern for Americans. Chairman Bernanke has indicated that he believes this increase in inflation will be transitory. He recently said:

> *... the most likely outcome is that the recent rise in commodity prices will lead to, at most, a temporary and relatively modest increase in U.S. consumer price inflation--an outlook consistent with the projections of both FOMC participants and most private forecasters. That said, sustained rises in the prices of oil or other commodities would represent a threat both to economic growth and to overall price stability, particularly if they were to cause inflation expectations to become less well anchored. We will continue to monitor these developments closely and are prepared to respond as necessary to best support the ongoing recovery in a context of price stability.*[2]

2 Federal Reserve Chairman Ben S. Bernanke, "Semiannual Monetary Policy Report to the Congress," before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, Washington, D.C., March 1, 2011.

Forecast

Chmura Economics & Analytics (Chmura) forecasts real GDP to grow 2.7% in 2011 and 3.1% in 2012. Employment is expected to expand a moderate 1.0% in 2011, followed by 1.2% growth in 2012—an average pace of growth from 2010 through 2012 equivalent to about 117,000 additional jobs per month.

Consumers, whose spending accounts for about two-thirds of GDP, pulled back 1.2% on spending in 2009. Consumer spending modestly rebounded in 2010, rising 1.7% with an impressive 4.0% annualized gain in the fourth quarter. Spending rose an annualized 2.2% in the first quarter of 2011 and is forecast to rise 2.9% through 2011 and 2.5% in 2012.

Residential real estate and nonresidential structures continue to struggle. Residential investment contracted 3.0% in 2010 with a 27.3% annualized plunge in the third quarter of 2010 following the expiration of the first-time homebuyer tax credit. It recovered in the fourth quarter of 2010, expanding 3.3%. Residential investment fell off again in the first quarter of 2011, but is expected to resume modest growth in the second quarter; nevertheless, an overall 1.8% decline is projected for 2011. The contraction in employment from the recession and its slow rebound also reduce the need for additional commercial real estate. Investment in commercial structures fell 13.7% in 2010 and is forecast to contract 2.3% in 2011 before growing again in 2012.

With inflation remaining under control, interest rates are forecast to remain fairly low. The consumer price index rose 1.6% in 2010 and is forecast to rise 2.8% in 2011. The Fed is expected to hold the federal funds rate target at essentially zero through the third quarter of 2011 until stronger economic growth becomes apparent. The federal funds rate is forecast to rise to an average 1.5% in 2012. Longer-term yields are expected to continue to edge up with the 10-year Treasury yield averaging 3.5% in 2011 and 4.0% in 2012.

Chmura Economic Forecast

	Actual		Forecast		
	2009	2010	2011	2012	2013
			Percent Change		
Real Gross Domestic Product	-2.6	2.8	2.7	3.1	3.2
Consumption Expenditures	-1.2	1.7	2.9	2.5	2.5
Gross Private Domestic Investment	-22.7	17.0	5.5	8.6	7.8
Residential Investment	-22.8	-3.0	-1.8	4.4	6.9
Nonresidential Investment	-17.1	5.7	9.6	11.1	8.4
Producer's Durable Equipment	-15.3	15.3	12.6	12.5	9.3
Structures	-20.5	-13.7	-2.3	4.0	4.6
Government Expenditures	1.6	1.0	-0.6	1.6	2.2
			Trade Deficit (2005 Dollars; Billions)		
Net Exports, Goods & Services	-362.4	-422.1	-413.7	-441.7	-467.6
			Percent Change		
Consumer Price Index	-0.3	1.6	2.8	2.0	1.4
			Yields (%)		
Federal Funds Rate	0.2	0.2	0.2	1.5	3.3
Prime Rate	3.3	3.3	3.3	4.5	6.3
10-Year Treasury	3.3	3.2	3.5	4.0	4.5
30-Year Conventional Mortgage	5.0	4.7	5.0	5.6	6.2

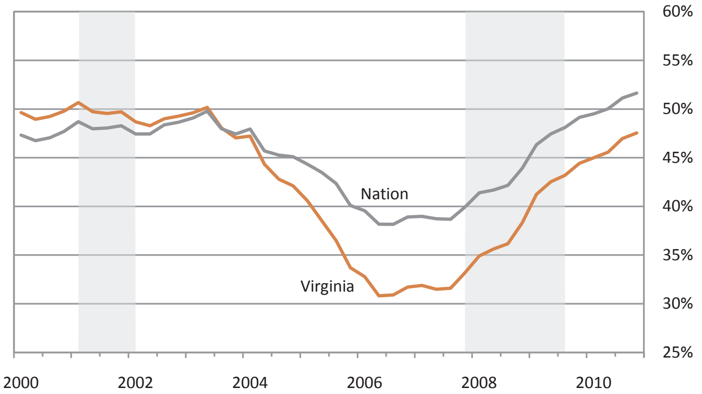
Source: Chmura Economics & Analytics
Note:Yields reported for the average of the quarter.

Foreclosures Dampen the Economic Recovery

The most recent recession was in many ways the most severe economic downturn since the Great Depression. Even though the recession officially ended in June 2009, effects from the recession persist. The unemployment rate peaked at 10.1% in October 2009—after the official end of the recession—and the unemployment rate was still high in April 2011 at 9.0%. In Virginia, the state unemployment rate more than doubled from 3.3% in December 2007 to 7.2% in December 2009, and remained above 6.0% as of the latest data in March 2011.

The recession was triggered by a bursting real estate bubble. During the first half of the 2000s decade, low interest rates, innovation in financial products such as interest-only mortgages, and the development of the mortgage securitization market (mortgage-backed securities) created an environment where many subprime customers qualified for home mortgages. The lending environment increased demand and pushed up home prices. High home prices also enticed more investors and speculators into the market which further fed the real estate bubble. Reduced home affordability, however, was one result of the housing bubble (see chart).

Home Affordability
Percent of Households That Can Afford a Median-Priced Home



Source: Chmura Economics & Analytics

When the housing bubble finally burst, it ushered in a foreclosure crisis and an economic recession whose effects still reverberate today. Even as the economic recovery began accelerating this year, the foreclosure crisis lingers and could derail the economic recovery. For that reason, this section of the Virginia Economic Forecast assesses the severity of the current foreclosure situation and its impact on the state and national economies.

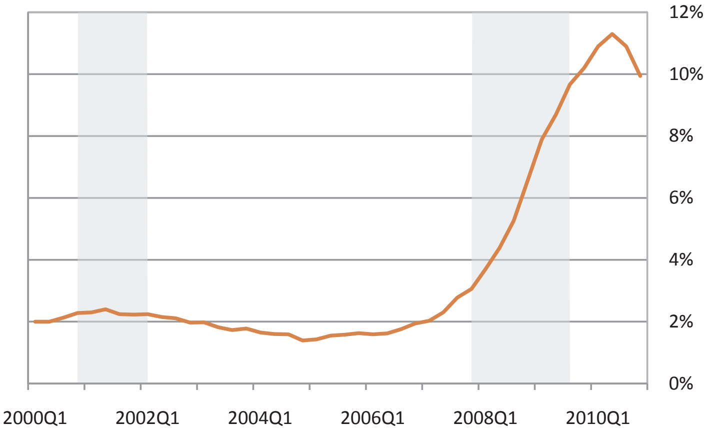
Foreclosure Process

Foreclosure is the legal process through which a mortgage lender attempts to recover the money owed on a defaulted loan by selling or taking ownership of the property from the borrower. Typically, the foreclosure process begins when a borrower defaults on the loan payment and the lender files a public default notice. A foreclosure process can result in four outcomes: (1) the borrower reinstates the loan by paying off the default amount during a grace period; (2) the borrower sells the property to a third party during a grace period and uses the proceeds to pay off the loan; (3) the property is purchased by a third party during a public auction at the end of grace period; or (4) the lender takes ownership of the property—with the property becoming bank-owned or real estate owned (REO) property—usually with the intent to resell it later on the open market.

Past-due mortgage payments are a harbinger of a foreclosure filing.[3] Historical delinquency rates for residential real estate loans[4] show that from 2000 to 2007, only about 2% of outstanding loans were delinquent more than 30 days. The delinquency rate began to increase sharply in the second half of 2007 and peaked at 11.3% in the second quarter of 2010. Despite a subsequent decline to 9.9% in the fourth quarter of 2010, current delinquency rates remain much higher than historical levels, implying that the number of foreclosures will also remain elevated.

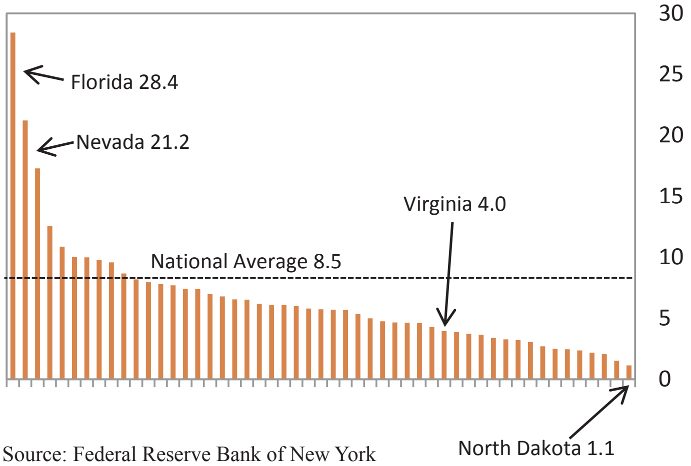
3 The actual month of being delinquent before a foreclosure notice is filed depends on the mortgage contract. It is typically around two to three months.
4 Residential real estate loans include all loans secured for one- to four-family properties, such as mortgages, home equity loans, and home equity lines of credit.

Delinquency Rate: Residential Real Estate Loans (30+ Days, Seasonally Adjusted Annual Rate)



Source: Federal Reserve

Foreclosed Mortgages per Thousand Households (November 2010)



Source: Federal Reserve Bank of New York

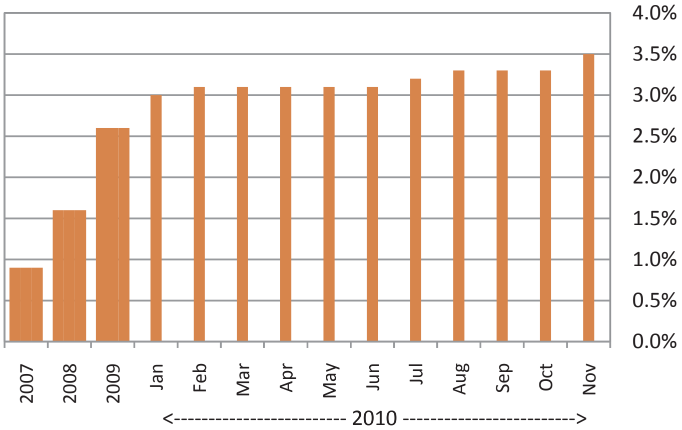
Foreclosures in the Nation and Virginia

Foreclosure rates skyrocketed after 2007 when only 0.9% of all mortgages in the country were in foreclosure. That rate jumped to 1.6% in 2008 and climbed further to 2.6% in 2009. The foreclosure rates appear to have leveled off in 2010, but at elevated levels. Based on data for the first eleven months of 2010, about 3.2% of all mortgages in the nation were in foreclosure in 2010.

The severity of the foreclosure crisis varies greatly by state and is highly concentrated in a handful of states. Virginia is faring better than many other states. According to the latest data of November 2010, an average of 8.5 mortgages per 1,000 households were in foreclosure nationally compared with 4.0 for Virginia. The states topping the list were Florida, Nevada, New Jersey, Illinois, California, and Arizona; all with double-digit foreclosures per 1,000 households. Foreclosures have been highest in states that had the biggest housing bubbles before the recession and/or the most depressed state economies. The ten states with the highest foreclosure rates accounted for 61% of all foreclosures in the country in November 2010, with the top five states accounting for half of all foreclosures. Florida alone had 23% of all foreclosures in the country in November 2010. Consequently, the negative effects of foreclosures are more pronounced in these states.

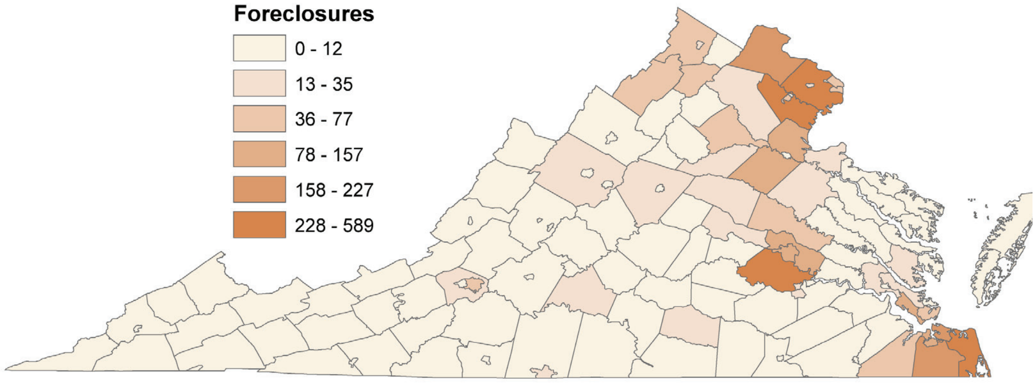
The fact that Virginia is doing better than the national average does not mean Virginia has escaped the foreclosure crisis unscathed. Regions where homes are least affordable are those that experienced heightened foreclosure activity. In March 2011, one in every 742 housing units in Virginia filed for foreclosure—better than national average of one in 542. As the map shows (next page), foreclosures in Virginia have been heavily concentrated in the Northern Virginia, Richmond, and Hampton Roads metropolitan statistical areas (MSA), with 87% of March filings occurring in these localities. In Chesterfield County, one in 283 housing units was filed for foreclosure, the highest rate in the state during March 2011.

Percentage of Mortgages in Foreclosure



Note: Annual data are presented for 2007-2009.
Source: CoreLogic

New Foreclosure Filings, March 2011



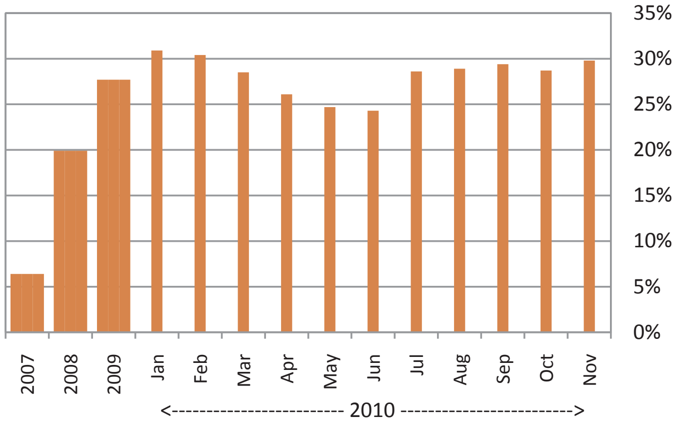
Source: RealtyTrac

Housing Market in the Wake of the Foreclosure Crisis

Though the worst of the foreclosure crisis appears to be over, the elevated delinquency rate implies that foreclosures will remain high for some time. Both supply and demand forces in the housing market indicate that it may take years to finally digest the millions of foreclosed homes.

On the supply side, millions of foreclosed homes have entered the market, dramatically increasing the supply of homes. The foreclosed properties are either sold at public auctions or become bank-owned properties (REOs) which are sold at a later date. Either way, many of these properties are short sales, sold at prices below the balance owed for the mortgages.

Percentage of Distressed Home Sales



Note: Annual data are presented for 2007-2009.
Source: CoreLogic

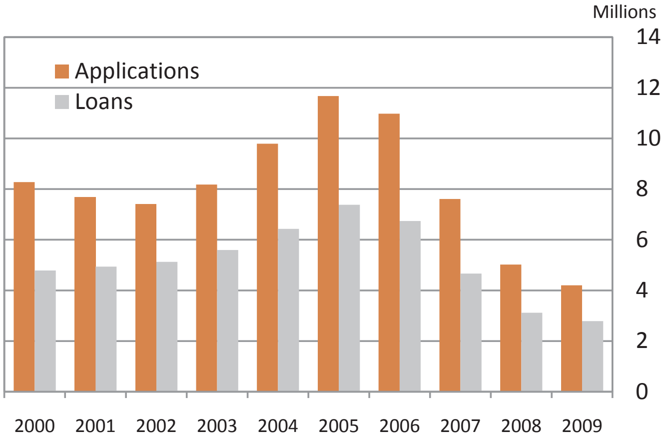
The share of distressed sales (either a short sale or an REO) relative to total sales has increased dramatically since the onset of the foreclosure crisis. In 2007, only 6.4% of all home sales in the nation were distressed sales. That percentage increased to 19.9% in 2008 and 27.7% in 2009. The most recent data indicate that this percentage stabilized around 30% in 2010, but has shown no signs of falling.

Until the excess foreclosed properties are digested by the market, housing activity will be less likely to rebound. Based on the total number of foreclosed mortgages and average distressed sales in November 2011, it will take 18 months to clear the foreclosed homes currently on the national market. In Virginia, 13 months are needed to clear the current glut of foreclosed homes.[5] However, these rates do not consider the newly foreclosed homes that will continue to enter the market in the future.

While foreclosed properties have increased the supply of houses, demand is soft because of the continued high unemployment rate as well as stricter lending policies. After the foreclosure crisis, banks tightened their lending practices which resulted in a sharp reduction in home loan applications and originations. In 2009, 4.2 million home loan applications were filed in the nation to purchase single-family homes, only 36% of applications filed at their peak

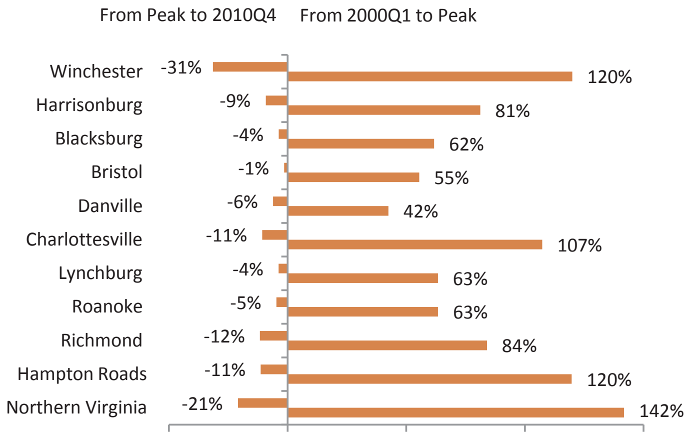
5 Source: U.S. Housing and Mortgage Trends, Prepared by CoreLogic February 2011. http://www.corelogic.com/.

Mortgage Finance Activities



Note: Includes only single-family purchase applications and originations.
Source: Federal Reserve Board

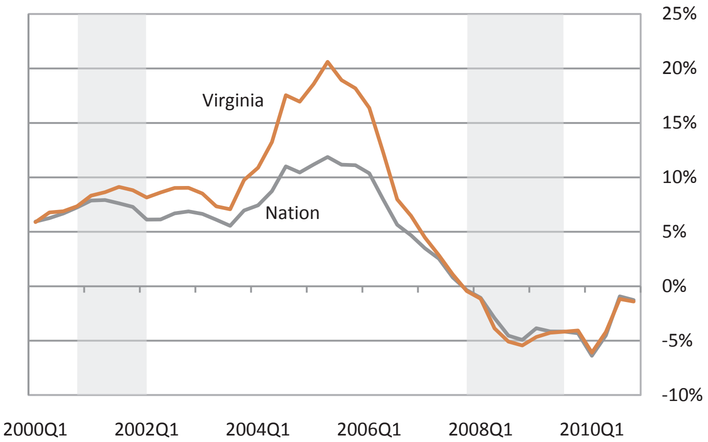
Home Price Changes
Virginia Metropolitan Areas



Source: Federal Housing Finance Agency

in 2005.[6] Similarly, loan originations for single-family home purchases were 2.8 million in 2009, 38% of their 2005 level. The home-buyer credit in the second half of 2009 provided a temporary boost for home demand. Otherwise, the 2009 mortgage applications and originations may have been even more depressed.

Housing Price Index
Percent Change, Year-Over-Year



Source: Federal Housing Finance Agency

The increased supply of homes on the market and lack of demand continues to depress home prices, thus preventing a speedy recovery of the housing market. Almost two years after the recession ended, housing prices in the nation and Virginia are still falling. By the end of 2010, home prices dropped 11% nationally from their mid-2007 peak. In states that were hardest hit by the foreclosure crisis, price drops were even larger. Based on Chmura's modeling, home prices for both the nation and Virginia could start growing again as early as fall 2011.

Housing prices in Virginia have been falling since their peak in mid-2007. Typically, regions that experienced larger price appreciation prior to the recession (such as the Northern Virginia and Winchester metro areas) also experienced larger price declines. Metropolitan areas with moderate price appreciation (such as Roanoke, Lynchburg, and Danville) experienced less price decline.

Elevated delinquency rates, a large number of distressed properties, and falling home prices suggest that the foreclosure crisis will continue in the foreseeable future. If the number of new foreclosures per year matches the pace of 2010, it may take over six years for the foreclosure rate to recede to pre-recession levels. If new foreclosures match the 2009 pace, it could take three years for the foreclosure rate to return to pre-recession levels. Thus, the foreclosure crisis remains a potential threat for the ongoing economic recovery.

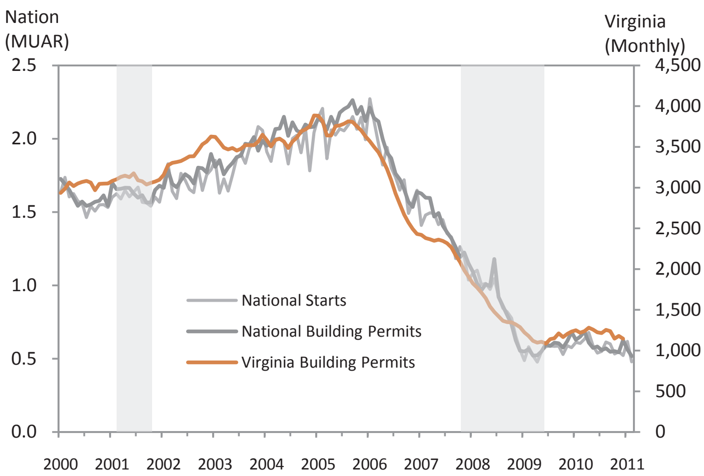
6 This number does not include loan applications for refinance or home improvement. As a result, it is a good indicator for the market demand for homes.

Foreclosure and the Economic Recovery

The prolonged foreclosure crisis continues to dampen the economic recovery. Foreclosures have a direct impact on GDP growth because it reduces the residential investment component of GDP. Residential investment accounted for about 2.5% of national GDP in 2010. A 10% increase in residential investment can boost GDP growth by 0.3 percentage points. With home prices falling and a large number of foreclosed homes on the market, however, home builders are reluctant to build more homes. National home starts have been mired around an extremely low level of 0.5 million units at an annual (MUAR) rate since 2009. Housing activities in Virginia have followed the same trend, as state building permits in 2010 were less than 40% of pre-recession levels. Most economists forecast modest growth in housing starts and residential investment in 2011 and 2012. Based on current housing market conditions, Chmura forecasts GDP growth of 2.7% in 2011 with residential investment contracting 1.8%. In contrast, if residential investment grew 10% in 2011, GDP growth for the year would improve to 3.0%.

In addition to directly affecting residential investment in GDP, foreclosures also indirectly slow down consumer spending because of the impact on consumer wealth. When home prices are increasing, households can refinance their mortgages with cash-out options to increase their spending. Even the consumers who do not take cash from their home equity feel they are wealthier as property values appreciate. Studies have found that consumers spent about five to six cents of every dollar of increased housing wealth.[7] Suppose housing prices decline by 3% in 2011 as in each of the past three years. With a median home price of $156,100 in 2011,[8] average home prices will fall $4,683 for the year. This implies that the average household will cut annual spending by $258 in 2011.[9] Based on the current number of households that own homes, the declining home prices could lead to a reduction in consumer spending of $19.3 billion in 2011 which would translate into a reduction of 0.1 percentage point off the GDP growth rate.

Housing Starts and Building Permits



Source: U.S. Census

Other than dampening GDP, the foreclosure crisis also affects other sectors of the economy. The foreclosure crisis contributes to the slow labor market recovery. A delayed housing market recovery prevents the construction sector from adding jobs. Foreclosures can also affect state and local finances via declining property taxes due to lower home prices; which in turn can have ripple effects in other parts of society such as education and quality of life. Thus, it is not surprising that many localities in Virginia are experiencing budget problems two years after the recession ended. In a July 2010 survey of Virginia localities conducted by the Virginia Municipal League, more than half of respondents said they had to cut education funding and more than two-thirds have cut or ended contributions to local civic and cultural organizations.[10] Some localities in Virginia had to lay off teachers or police to balance their budgets.

Policy Implications

Since the onset of the financial crisis, federal and state governments have proposed several measures to alleviate the impact of foreclosures. However, these measures have

7 Source: Housing Wealth, Financial Wealth, and Consumption: New Evidence from Micro Data. By Raphael Bostic, Stuard Gabriel, and Gary Painter. Regional Science and Urban Economics, January 2009. Housing Wealth Effects: Housing's Impact on Wealth Accumulation, Wealth Distribution and Consumer Spending, by Eric Belsky and Joel Prakken, "Joint Center for Housing Studies Working Paper W04-13, December 2004.

8 Source: National Association of Realtors, Feb 2011. http://www.realtor.org/research/research/ehsdata

9 $4,683 * 5.5% = $258.

10 Source: "Survey: Nearly 30% of Virginia's Localities have had to Increase Taxes." http://www.timesnews.net/article.php?id=9024597

been less successful in stemming the foreclosure tide. The fundamental problem in the lack of effective policy is the moral ambivalence regarding the foreclosure crisis. On the one hand, many people believe that foreclosures have a negative effect on the economy and communities and that government should intervene to reduce the impact. One the other hand, some policymakers believe homeowners should be responsible for their own actions and that government should not bail out those who took out loans that they could not afford. As a result, programs intended to address the foreclosure issue, such as the Making Home Affordable Program by the Obama administration, did little to alleviate the foreclosure crisis.[11] This program is voluntary in nature and its eligibility criteria apply only to a small percentage of mortgages. In a recent survey completed in the epicenter of the foreclosure crisis—Nevada—a majority of surveyed homeowners said they were not aware of the federal and state programs to help them, or that banks were not willing to help when they reached out to them.[12]

The ambivalent attitude toward foreclosures is expected to persist with no additional programs helping struggling homeowners. With the worst of the foreclosure crisis likely in the past, there is less political pressure for policymakers to deal with foreclosures. Market forces will work to clear the foreclosure mess slowly, but surely.

While no legislative actions are expected that will deal with the foreclosure crisis per se, Congress passed a Financial Reform Bill (Dodd-Frank Bill) which aimed to prevent future financial crises. The bill will set up a consumer protection agency that requires banks to review the income and credit history of mortgage applicants to ensure they can afford payments.[13] This bill seems to address some of the causes of the foreclosure crisis. Whether it can prevent future financial crises in general, and foreclosure crises in particular, remains to be seen.

11 Source: http://www.makinghomeaffordable.gov/Pages/default.aspx

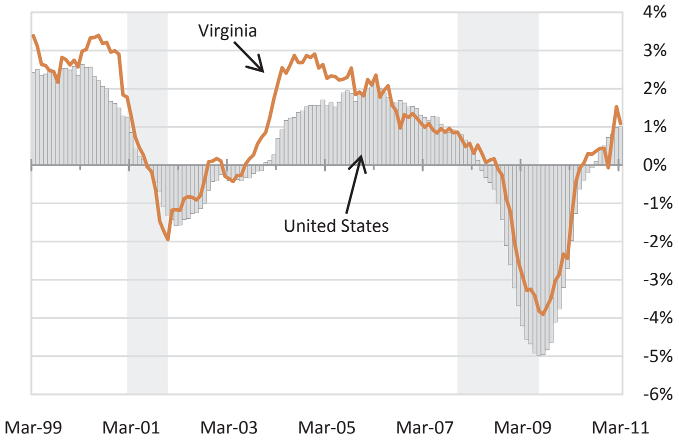
12 Source: An Analysis of Nevada Foreclosure Crisis, Nevada Association of Realtors. Available at: http://media.lasvegassun.com/media/pdfs/blogs/documents/2011/01/25/FaceofForeclosure0125.pdf.

13 Source: Financial Reform Law: What's in it and How does it Work? http://www.csmonitor.com/USA/Politics/2010/0721/Financial-reform-law-What-s-in-it-and-how-does-it-work

Virginia Economy

As in the nation, the economic recovery in Virginia has been slow and uneven. The Commonwealth is performing better than the nation overall, and this is clearly seen in the labor market data. Nevertheless, the recovery will likely drag on well past 2011 as the state and the metro areas attempt to expand economic activity to pre-recession levels.

Employment Growth
Percent Change, Year-Over-Year



Source: Bureau of Labor Statistics

The year-over-year employment growth rates of Virginia and the nation have been fairly similar over the last nine months. For the year ending March 2011, total employment expanded 1.1% (+39,257 jobs) in the state compared to 1.0% growth in the nation. Since May 2010, the year-over-year pace of job growth in Virginia has not exceeded the pace in the nation by more than 0.6 percentage points. This contrasts with the period from October 2008 through November 2009 when both the state and nation were contracting jobs but the pace of job loss in the nation was over a percentage point faster than in Virginia.

The quicker job loss in the nation resulted in a deeper trough than experienced in Virginia. Employment in the state peaked in April 2008 at 3,777,900 and dropped to a trough of 3,591,200 in February 2010 for a 4.9% peak-to-trough decline. This compares with a 6.3% decline in the nation. Furthermore, as of March 2011, Virginia has recovered 33% of its peak-to-trough job losses while the nation has only recovered 17% of its losses.

Among the metro areas, there is wide variation in the recovery of recession job losses. Northern Virginia leads the pack, having regained 81% of its peak-to-trough job losses as of March 2011. Three of the metros have had recent troughs (December 2010 or later) and have recaptured less than a tenth of recession job losses: Blacksburg (1%), Hampton Roads (3%), and Roanoke (7%). Four other metros have regained less than a third of lost jobs as has the state: Richmond (13%), Bristol (17%), Charlottesville (26%), and Harrisonburg (31%). The final metros have been above-average in regaining employment losses from the recession as of March 2011 preliminary data: Winchester (45%), Danville (46%), and Lynchburg (75%).

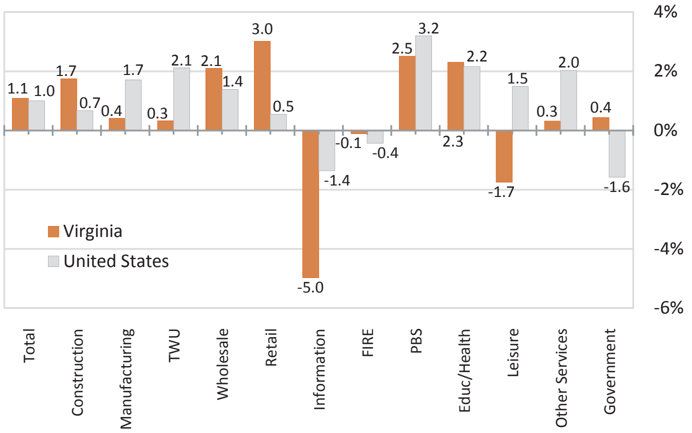
In the near term, Virginia's job growth is expected to improve, though in somewhat modest fashion. On an annual average basis, employment in the state is projected to expand 1.4% in 2011 after receding 0.2% in 2010. Employment growth is expected to accelerate to 1.6% in 2012, though based on this forecast the state may not reach pre-recession levels in this year. By comparison, from 1992 to 2007, Virginia averaged 1.9% annualized job growth.

Sector Job Growth

Over the year ending March 2011, most of the job gains in Virginia were due to three sectors: professional and business services (+16,101 jobs), education and health services (+10,451), and retail (+11,960). The two former sectors are historically the fastest growing in the state, each averaging better than 3.0% annualized job growth over the past twenty years. Retail, in contrast, is recovering lost ground. Retail employment peaked in November 2007 at 428,800 jobs in Virginia; as of March 2011, though the sector was expanding jobs at a 3.0% year-over-year pace, current employment was 409,100, over 19,000 jobs below peak.

Manufacturing added 947 jobs in Virginia over the year ending March 2011, equivalent to a 0.4% employment gain. This was a rare expansion in this industry that has posted only seven months of year-over-year job growth since October 1998. Not all manufacturing industries in the Commonwealth are in decline, however. For example, over the five years ending with the third quarter of 2010 (based on a four-quarter moving average), the following industries added jobs in the state: ship and boat building (+2,249 jobs), other chemical product and preparation manufacturing (+1,212), electrical equipment manufacturing (+960), and aerospace product and parts manufacturing (+411).

Employment Growth by Sector
Percent Change, Year Ending March 2011



Source: Bureau of Labor Statistics

Like manufacturing, the construction sector in Virginia has just recently added jobs on a year-over-year basis after a long period of contraction. For the year ending March 2011, construction expanded by 3,350 jobs (+1.7%). Construction employment was in year-over-year decline in the state from October 2006 through December 2010, a period that coincides with the housing market correction. Construction employment peaked in the state in March 2006 at 264,400; five years later, construction jobs numbered 195,200 in Virginia after more than one in every four construction jobs were lost.

The remaining sectors are likewise in the similar position of regaining jobs lost following previous peaks. Government is somewhat an exception to this—if one ignores the temporary bump of federal jobs due to the census in 2010, recent March 2011 employment may have been a peak for this sector. Over the year ending March 2011, three of these remaining sectors posted job losses: leisure (-5,872 jobs); information (-3,812); and finance, insurance, and real estate (-194). The final four sectors posted employment gains: government (+3,083 jobs); wholesale (+2,289); other services (+587); and transportation, warehousing, and utilities (+367).

Technology

Though high-tech employment declined in Virginia during the recession, the drop was not as severe or prolonged as in the overall economy. From the third quarter of 2008 to the first quarter of 2010, high-tech shed about 13,100 jobs in the state for a 2.2% contraction. By comparison, high-tech employment in the nation posted a 6.7% peak-to-trough contraction over the same period.

The latest data show high-tech employment expanding in Virginia. For the year ending with the third quarter of 2010, high-tech added 3,542 jobs in the state for a 0.6% expansion. Wages and salaries in high-tech industries grew even faster over this period, expanding 6.9%--faster than the 4.2% expansion in wages and salaries among all industries. Despite the high-tech job growth in the state, only four of the eleven state metro areas expanded high-tech employment over this period. In fact, the Northern Virginia metro area added 4,774 high-tech jobs over the year ending with the third quarter of 2010, exceeding the total net high-tech job growth in the state.

Level-one high-tech industries are those employing a higher percentage of technology-oriented occupations compared with level two or level three industries. Level-one industries contracted 2.9% in Virginia from peak to trough due to the recession, much less than the 7.3% contraction in the nation. Over the year ending with the third quarter of 2010, the largest job gains among level-one industries in Virginia were posted in scientific research and development services (+2,375 jobs) and computer systems design and related services (+1,157). Over the same period, seven of the twelve level-one industry groups shed jobs in the state, led by a 623-job contraction in architectural, engineering, and related services.

High-Technology Growth in Virginia

		Employment				Wages and Salaries Thousands of Dollars*			
NAICS	**Industry**	**2009Q3**	**2010Q3**	**Change**	**% Change**	**2009Q3**	**2010Q3**	**Change**	**% Change**
	Total Employment	**3,525,410**	**3,541,681**	**16,271**	**0.5**	**41,104,861**	**42,847,714**	**1,742,853**	**4.2**
	Total High Technology	**585,842**	**589,384**	**3,542**	**0.6**	**12,630,624**	**13,498,245**	**867,621**	**6.9**
	Level 1	**274,404**	**276,412**	**2,009**	**0.7**	**6,005,788**	**6,492,761**	**486,973**	**8.1**
3254	Pharmaceutical and Medicine Manufacturing	3,476	3,424	-52	-1.5	63,876	64,355	479	0.8
3341	Computer and Peripheral Equipment Manufacturing	714	687	-27	-3.7	10,414	11,382	968	9.3
3342	Communications Equipment Manufacturing	1,445	1,466	21	1.5	25,004	37,888	12,884	51.5
3344	Semiconductor and Other Electronic Component Manufacturing	4,137	4,103	-33	-0.8	62,144	66,142	3,998	6.4
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	5,089	4,644	-445	-8.7	108,366	103,847	-4,519	-4.2
3364	Aerospace Product and Parts Manufacturing	3,028	3,207	179	5.9	64,260	69,312	5,053	7.9
5112	Software Publishers	4,846	4,888	42	0.9	129,783	140,076	10,292	7.9
5182	Data Processing, Hosting, and Related Services	11,470	11,104	-366	-3.2	216,207	212,698	-3,509	-1.6
5191	Other Information Services	7,855	7,634	-221	-2.8	93,068	93,989	921	1.0
5413	Architectural, Engineering, and Related Services	67,358	66,735	-623	-0.9	1,343,299	1,385,891	42,591	3.2
5415	Computer Systems Design and Related Services	138,743	139,900	1,157	0.8	3,277,109	3,597,973	320,864	9.8
5417	Scientific Research and Development Services	26,244	28,619	2,375	9.0	612,258	709,207	96,950	15.8
	Level 2	**172,062**	**176,550**	**4,488**	**2.6**	**3,971,630**	**4,235,902**	**264,272**	**6.7**
	Level 3	**139,376**	**136,421**	**-2,955**	**-2.1**	**2,653,205**	**2,769,582**	**116,377**	**4.4**

* 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

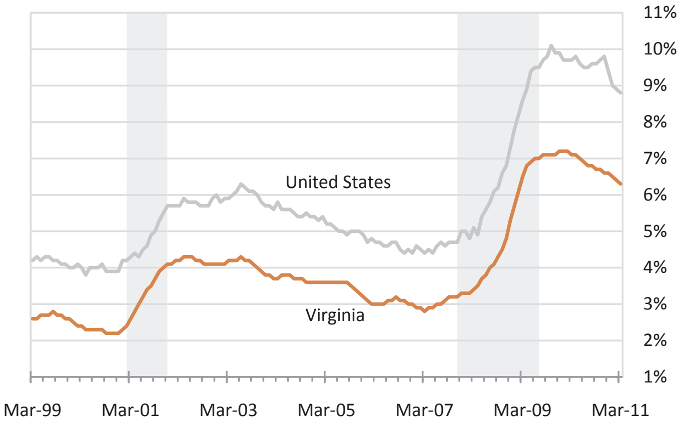
An industry is defined as ***high-tech*** *in this publication if, at the national level, it possesses at least double the percentage of employment in technology-oriented occupations compared to the average for all industries. Level one high-tech industries possess at least five times the average of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

Labor Market

After peaking at 7.2% from December 2009 through February 2010, the unemployment rate in Virginia has steadily trended downward, reaching 6.3% as of March 2011. By comparison, the national unemployment rate peaked at 10.1% in October 2009 and has trended downward, though less steadily so. Among the metro areas, the lowest March 2011 unemployment rates were recorded in Northern Virginia (4.5%) and Charlottesville (5.0%), the same metros that have had the two lowest unemployment rates in the state since January 2008. The highest metro area unemployment rates as of March 2011 were found in Danville (9.4%) and Bristol (7.4%).

Initial unemployment claims data indicate improvement in the labor market, though a quick return to pre-recession levels is unlikely. The six-month moving average of initial unemployment claims in Virginia peaked in July 2009 at 46,877. Initial claims have receded sharply since, with the moving average falling 38% to 29,145 in March 2011. This level of initial claims, however, is still relatively high—in the two years preceding the recession, initial claims averaged about 22,000 per month in the Commonwealth.

Unemployment Rate



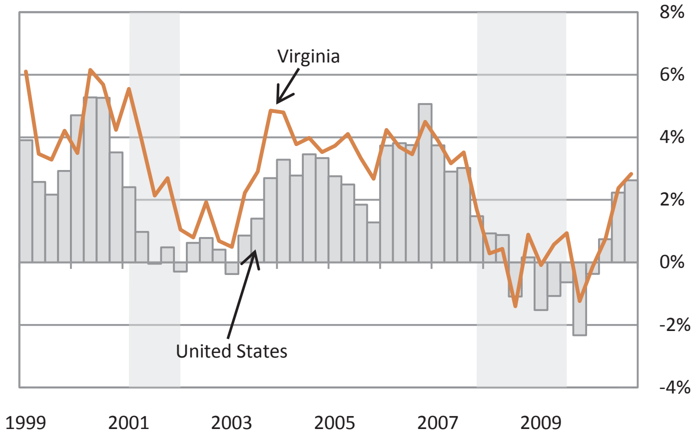
Source: Bureau of Labor Statistics

Income

From 2009 to 2010, real personal income advanced 1.5% in Virginia compared to 1.3% in the nation—Virginia's pace of growth ranking 18th among the fifty states. Personal income is made up of (1) net earnings; (2) dividends, interest, and rent; and (3) transfer receipts. Virginia's total income growth in 2010 exceeded that of the nation due to better growth in net earnings—which expanded 3.0% in the state compared to 2.4% in the nation. Over the past ten years, Virginia averaged 2.3% annualized growth in real personal income, outpacing the 1.5% annualized growth in the nation.

The proportion of income supplied by net earnings was level in the state while decreasing in the nation in 2010. Net earnings consist of wage and salary disbursements, other labor income, and proprietor's income. From 2009 to 2010, the proportion of income from net earnings remained at 70.6% in Virginia while dropping in the nation from 64.5% to 64.1%. The percentage of income supplied by transfer payments (social security, unemployment compensation, welfare, disability payments, etc.) increased in both the state and the nation—consistent with expectations for a period of slow and contracting growth. From 2009 to 2010, the proportion of income provided by transfer payments increased from 12.9% to 13.4% in Virginia and from 17.5% to 18.3% in the nation.

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



Source: Bureau of Economic Analysis

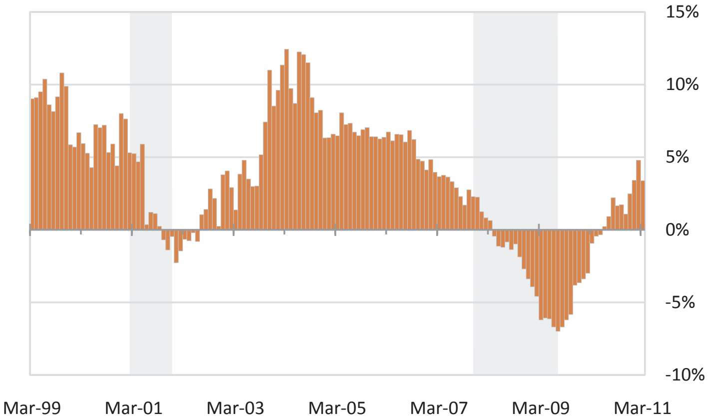
Total wages and salaries in Virginia rose 1.8% in 2010 after contracting 1.2% in 2009. With the business cycle on the upswing, wages and salaries growth is forecast to accelerate to 4.7% in 2011 and 5.1% in 2012. All of the metro areas in Virginia are expected to see growth in wages and salaries in 2011. With the exception of Northern Virginia, every state metro area saw a decline in wages and salaries in at least one of the past two years.

Retail Sales

Consumer spending in Virginia has begun to recover from a long and sustained drop due to the recession. Over the year ending March 2011, retail sales grew 3.4% in the state as every metro area posted an expansion. The six-month moving average of retail sales peaked in Virginia in June 2007 before plummeting 8.4% to a trough in February 2010. As of March 2011, the moving average of retail sales in Virginia was 4.7% below its pre-recession peak.

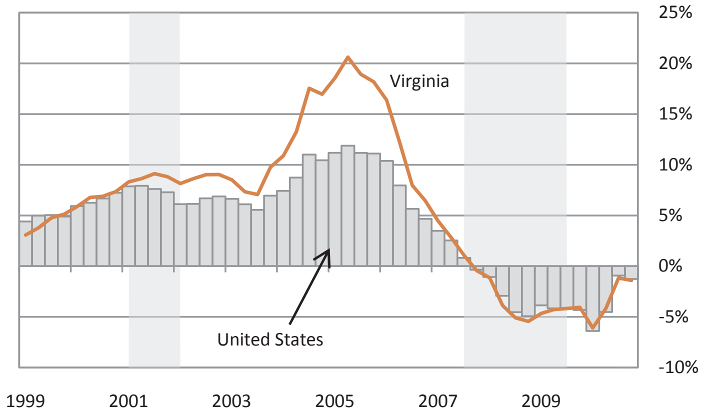
On an annual average basis, real retail sales fell 0.6% in 2010 after dropping 5.4% in both 2009 and 2008. Real retail sales are expected to improve 4.2% in 2011 and to accelerate slightly to 4.3% growth in 2012. All of the state metro areas are expected to see real retail sales growth over 2011 and 2012 as sales attempt to rebound from prior losses.

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



Source: Virginia Department of Taxation

Home Price Appreciation
Percent Change, Year-Over-Year



Source: Federal Housing Finance Agency

Housing Market

Unlike retail sales, the housing market in Virginia has not made clear strides for a rebound, but rather has continued to struggle. The Virginia Association of Realtors reported that 82,809 homes were sold in the state in 2010, a 9.8% decrease from 2009. The median sales price in 2010 was $236,900, up 3.3% from the prior year.

An alternative measure of home prices is the Federal Housing Finance Agency's (FHFA) House Price Index, a weighted repeat sales index that is a true measure of price appreciation as it is not affected by changes in the size or quality of homes sold. According to the FHFA index, home prices fell 1.4% in Virginia in the fourth quarter of 2010 on a year-over-year basis, continuing a string of declines begun in the fourth quarter of 2007.[14] Home prices fell at a similar 1.3% pace in the nation in the fourth quarter of 2010.

According to the FHFA index, Virginia home prices in the fourth quarter of 2010 are 11.6% below their peak that was reached in the second quarter of 2007. Among the metro areas, the largest declines in prices were recorded in Winchester (with fourth quarter 2010 prices 31.7% below the peak reached in the second quarter of 2006) and the Washington DC tri-state metro (with fourth quarter 2010 prices 20.9% below the peak attained in the last quarter of 2006).

The weakness in the housing market is underscored by residential building permit activity—which, instead of bounding back, has been crawling back. After double-digit percentage declines for four straight years, single-family building permits in Virginia finally posted a gain, but it was merely a 1.6% annual average expansion in 2010. Expectations for 2011 are that growth remains modest at 1.8%. While most of the metros in the Commonwealth are projected to see increases in building permit activity in 2011, several are forecast to see declines: Harrisonburg (-0.5%), Lynchburg (-2.7%), and Winchester (-5.8%).

Metro Areas

Accelerated growth in employment is expected in 2011 as the recession recedes further into the background; a full recovery, however, is not expected to be quick. On an annual average basis, employment in Virginia plummeted 3.2% in 2009 and slipped an additional 0.2% in 2010. Statewide employment is forecast to advance 1.4% in 2011 and 1.6% in 2012. Every metro area in the state is expected to see job growth in 2011.

Four of Virginia's metro areas are forecast to see less than a half percent gain in employment in 2011. Three of these are the metros that have been the slowest growing over the past decade, each posting an annual average contraction in employment from 2000 to 2010: Danville (-1.9%), Roanoke (-0.6%), and Bristol (-0.5%). The fourth metro

14 This is calculated using the FHFA's All-Transactions Index as opposed to their Purchase Only Index. The All Transactions Index augments purchase price valuations with appraisals from refinanced mortgages.

area with modest growth expectations in 2011 is Hampton Roads, forecast to expand employment 0.2% in 2011. In March 2011, Hampton Roads posted a 0.2% year-over-year decline in employment and also recorded the slowest pace of growth in retail sales (+1.2%) among the state metros.

Metros with 2011 job growth expectations close to average in the Commonwealth include Richmond (+1.0% in 2011) and Blacksburg (+1.5%). Richmond has been slower that the state to recoup job losses due to the recession. In March 2011, Richmond was shedding jobs on a year-over-year basis in three key sectors that were performing better statewide: manufacturing; government; and finance, insurance, and real estate. Blacksburg was one of only three state metros to post an overall decline in employment over the year ending March 2011 (Hampton Roads and Roanoke being the others). Recent data, however, show a dramatic improvement in Blacksburg's unemployment rate (6.6% in March 2011) and retail sales (+8.2% in March 2011 on a year-over-year basis).

Northern Virginia is expected to expand employment 2.0% in 2011 as it continues to be a main driver in the state's recovery. After employment bottomed out in the state in February 2010, about 61,000 jobs were added as of March 2011 with nearly half of that job growth (49% to be exact) occurring in Northern Virginia. In addition, as of the third quarter of 2010, Northern Virginia accounted for 57% of the state's high-tech jobs and 67% of its high-tech wages and salaries.

The remaining metro areas are forecast to record employment growth of 2.0% or better in 2011: Winchester (+2.0%), Charlottesville (+2.1%), Lynchburg (+2.1%), and Harrisonburg (+3.6%). Among all the state metros, Winchester posted the largest peak-to-trough employment decline (-9.0%) due to the recession. Lynchburg's decline was also fairly large (-7.9%), but preliminary first quarter of 2011 employment data suggest the metro has recovered about three-quarters of those job losses. Charlottesville and Harrisonburg, on the other hand, have posted the best job growth in the state over the last decade outside of Northern Virginia. From 2000 to 2010, the state managed 0.3% annualized average job growth compared to 0.9% in Harrisonburg and 1.1% in Charlottesville.

Chmura Virginia Forecast
Most-Likely Scenario, Annual Average Change

	Actual			Forecast	
Blacksburg	2008	2009	2010	2011	2012
Total Employment*	0.6%	-3.6%	-2.6%	1.5%	1.8%
Wages and Salaries**	-0.3%	-3.5%	0.2%	3.9%	3.6%
Real Retail Sales	-1.4%	-6.1%	-2.2%	3.6%	3.1%
Building Permits***	N/A	N/A	N/A	N/A	N/A
Bristol					
Total Employment*	0.5%	-4.2%	-1.1%	0.3%	0.4%
Wages and Salaries**	4.0%	4.5%	-2.4%	1.6%	2.4%
Real Retail Sales	-2.1%	-2.8%	-0.6%	2.0%	0.2%
Building Permits	-26.7%	-27.7%	-1.9%	2.3%	3.8%
Charlottesville					
Total Employment*	-0.1%	-2.2%	-1.0%	2.1%	2.1%
Wages and Salaries**	2.1%	-0.2%	1.1%	5.3%	5.6%
Real Retail Sales	-6.1%	-7.6%	0.9%	5.2%	3.5%
Building Permits	-30.6%	-18.2%	8.7%	4.1%	8.4%
Danville					
Total Employment*	-0.3%	-3.6%	-2.3%	0.4%	0.2%
Wages and Salaries**	0.7%	-3.3%	0.5%	2.1%	2.1%
Real Retail Sales	-6.2%	-5.1%	-1.2%	1.7%	1.3%
Building Permits	-41.9%	-21.1%	-3.9%	2.6%	5.1%
Hampton Roads					
Total Employment*	-1.2%	-3.3%	-1.2%	0.2%	0.3%
Wages and Salaries**	2.1%	-1.5%	-0.3%	2.9%	3.3%
Real Retail Sales	-7.1%	-5.1%	-1.9%	2.1%	1.6%
Building Permits	-28.7%	-10.5%	7.2%	0.1%	6.0%
Harrisonburg					
Total Employment*	-1.0%	-2.6%	1.7%	3.6%	2.9%
Wages and Salaries**	3.8%	-0.9%	0.6%	5.8%	4.2%
Real Retail Sales	-2.1%	-10.4%	-0.1%	7.4%	2.7%
Building Permits	-37.8%	0.6%	-13.0%	-0.5%	8.8%
Lynchburg					
Total Employment*	1.0%	-4.7%	-1.3%	2.1%	1.5%
Wages and Salaries**	3.4%	-3.3%	0.5%	4.1%	4.0%
Real Retail Sales	-0.1%	-9.8%	2.2%	1.3%	3.5%
Building Permits	-41.0%	-33.6%	1.0%	-2.7%	8.3%
Northern Virginia					
Total Employment*	0.2%	-1.7%	0.8%	2.0%	2.7%
Wages and Salaries**	3.1%	0.1%	2.9%	5.7%	6.2%
Real Retail Sales	-6.0%	-3.8%	0.7%	6.1%	6.5%
Building Permits	-35.5%	-1.4%	6.4%	3.6%	9.7%
Richmond					
Total Employment*	-0.5%	-3.9%	-0.9%	1.0%	1.4%
Wages and Salaries**	1.4%	-4.7%	1.0%	4.7%	4.4%
Real Retail Sales	-5.3%	-5.9%	-2.4%	5.0%	4.8%
Building Permits	-32.8%	-31.4%	-5.5%	0.5%	3.8%
Roanoke					
Total Employment*	-0.7%	-4.0%	-2.0%	0.2%	0.3%
Wages and Salaries**	2.6%	-1.6%	-1.4%	2.4%	2.8%
Real Retail Sales	-2.8%	-10.9%	-2.1%	2.5%	2.3%
Building Permits	-16.9%	-44.3%	-10.6%	6.1%	9.2%
Winchester					
Total Employment*	-2.8%	-4.6%	0.4%	2.0%	2.1%
Wages and Salaries**	0.3%	-2.6%	1.1%	3.8%	4.8%
Real Retail Sales	-9.3%	-11.2%	1.9%	5.2%	6.0%
Building Permits	-35.7%	-14.7%	-3.0%	-5.8%	6.2%
Non-MSAs					
Total Employment*	3.4%	-6.3%	0.2%	2.3%	1.6%
Wages and Salaries**	2.8%	-1.2%	3.5%	4.8%	5.3%
Real Retail Sales	-3.2%	-4.9%	-0.1%	0.2%	1.2%
Building Permits	-44.4%	-31.9%	-12.8%	0.5%	-7.1%
VA-Totals					
Total Employment*	0.0%	-3.2%	-0.2%	1.4%	1.6%
Wages and Salaries**	2.5%	-1.2%	1.8%	4.7%	5.1%
Real Retail Sales	-5.4%	-5.4%	-0.6%	4.2%	4.3%
Building Permits	-34.0%	-16.6%	1.6%	1.8%	6.6%

*Employment refers to nonagricultural employment **Wages and salaries include some options that were exercised. Actual data are through the 4th quarter of 2010. ***Since 2005, building permits data are not reported for Blacksburg metro.
All reported series are seasonally adjusted.

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.

❧ **Economic Impact Studies -** Chmura analyzes the economic impact of construction projects, transportation and tourism initiatives, and the relocations of companies and industries.

❧ **Economic and Workforce Development -** A variety of tools and consulting services are offered for analysis of area workforce inventories, industry conditions and target markets, and occupation clusters.

❧ **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.

❧ **Regional Economic Development** - Chmura analyzes the strengths and weaknesses of regions to find industries that best fit an area's economic development goals and to conduct target marketing.

❧ **Site Selection** - Chmura provides consulting services to help businesses find the ideal location.

❧ **Software Solutions** - Chmura produces customized and user-friendly software systems and databases. Products include **JOBSeq**®, **WIBeq**™, and **Career Concourse**™, an online job-seeker labor market exploration tool.

❧ **Strategic Planning** - From vision to mission to implementation and tracking performance measures, Chmura offers a full range of services.

❧ **Surveys and Focus Groups** - Chmura conducts surveying and focus group research.

Visit www.chmuraecon.com for more information.

"...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 a good government, and this is necessary to close the circle of our felicities."

- Thomas Jefferson, 1801

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