VERMONT ECONOMIC OUTLOOK

Executive Summary

- Looking at the U.S. economy, developments over the past month and the first two quarters of calendar year 2013 were characterized by a generally strengthening private sector which has been coping with an increasing amount of fiscal drag from sequestration and the recent federal government shutdown—layered on top of the government sector that already was in retrenchment even before sequestration.

  - The U.S economy gained 148,000 nonfarm jobs in September, including 126,000 jobs in the private sector, with the public sector adding an additional 22,000 jobs.

  - The unemployment rate in September fell 0.1 percentage points to 7.2%.

- While still following a recovery trajectory, Real GDP growth has certainly been bogged down in calendar year 2013 by both sequestration-related cuts and the federal shutdown in the first half of October.

  - In addition to the effects of federal sequestration, the shutdown of the Federal government during the first half of October is expected to also negatively influence GDP growth. Estimates of the fiscal drag on growth range from 1.8% to 2.1% of growth may be disintegrated by fiscal mismanagement at the federal level.

  - Add to that the latest with respect to the Middle East and the uneven European recovery, and the fiscal issues dragging on the U.S. and Vermont economies will likely continue over the next two to four fiscal quarters—with the attendant restraining effect on the growth of revenues those factors suggest.

- The State of Vermont itself continued to make modest recovery progress over the first nine months of calendar year 2013, despite the uncertainty regarding the Federal fiscal policy issues and the overall global economic slowdown—particularly in Europe and some parts of Asia. Through August,[1] the State has recovered roughly 12,800 of the 14,300 payroll jobs lost during the last economic downturn—a rate of recapture of 89.5%—despite a number of well publicized layoff announcements.

  - However, the character of the State's labor market recovery continues to be uneven, following an up-and-down pattern, and the State is not expected to complete its labor market recovery until mid-calendar year 2014.

  - Repairs and restoration activity related to Tropical Storm Irene are also expected to assist in providing some forward momentum continue through calendar year 2015—as storm recovery activity continues but tails off through the forecast period.

- Comparing the updated NEEP 2013 forecast to the forecast last Spring, the revised NEEP outlook reflects a mixed bag—but with a small overall downgrade in the major macro variables in the forecast.

[1] Because of the federal government shutdown, August state-by-state job market data is the latest available.

- The slight forecast downgrade includes: (1) additional near-term weakness due to the uncertainties in U.S. fiscal policy and the macro effects of federal sequestration[2], and (2) an expectation that activity will solidify roughly six to nine months out into the future. While this sounds like a replay of a familiar theme,[3] the forecast this time is based on more than expectations. This NEEP forecast cycle there is real data that appear to support this expected near-term outlook profile.

- Improvement in the state's unemployment rate will continue, but at a slower pace than both the U.S. and New England regional economies over the forecast period. This reflects Vermont's significantly lower rate of unemployment to begin with, and the state's demographic profile.
    - The average annual unemployment rate in Vermont is expected to drop by 0.5 percentage points over the calendar year 2013-2017 forecast period, settling in at an average annual rate of 3.7% by calendar year 2017.

- Positive job gains are expected in seven of eight of the state's private sector NAICS supersectors[4] according to the Fall 2013 NEEP macro forecast revision. The government NAICS supersector is not expected to add jobs overall over the forecast period, and the manufacturing NAICS supersector is expected to be flat over the 2013-2017 forecast period.
    - Among the notable gaining sectors are the construction sector (at a +4.3% annual average over the calendar year 2013-2017 period) and the leisure and hospitality sector (at a +2.9% annual average over the calendar year 2013-2017 period). Although the construction sector is expected to actual post a small year-over-year job decline in calendar year 2013 and be somewhat subdued versus the other New England states (an artifact of the Irene recovery effort), the construction sector will add jobs over the 2014-2017 time frame.
    - Other positive performances over the forecast period are also expected in the professional and business services sector (at a +2.6% annual average over the calendar year 2013-2017 period) and the education and health sector (at a +2.0% annual average over the calendar year 2013-2017 period).
    - The government subsector is expected to contract by a -0.4% yearly average over the forecast timeline. Most of the five year decline is expected to occur over the rest of calendar year 2013 and in calendar year 2014.

- The conference theme of this NEEP outlook update emphasizes the economic role of the city of Boston in the New England region. The Boston-area economy is clearly a

[2] It should be noted that the U.S. macro forecast did not include a significant federal shutdown or a default on the U.S. debt as a result of negotiations to increase the federal debt ceiling. With the roughly two week federal shutdown, it could be expected that fourth quarter 2013 economic performance statistics in this forecast could be more positive than they will turn out to be in fact.

[3] This has in fact been the "story" in the past two NEEP forecast revisions.

[4] NAICS means North American Industry Classification System. Labor data reported by the Bureau of Labor Statistics is classified by NAICS sector. Public and private reporting agencies follow this paradigm.

significant regional economic driver, and the state of Vermont in fact shares several significant links with the city and its surrounding metropolitan area.

  - The Vermont-Boston connection begins with Vermont being a very significant contributor of some of the most rabid fans to "Red Sox Nation." However, these connections also include areas such as travel and tourism, second or vacation homes, and higher education.[5]

- Vermont's connections—historical and current—manifest themselves in the movement of people between Vermont and the Boston Metropolitan Statistical Area, as well as between Vermont and Massachusetts in general—although the data are somewhat "old."

  - For example from calendar year 2009 to 2010, IRS statistics indicate that 1,517 Vermont residents moved from Vermont to Massachusetts—including 642 of those out-migrants locating in the Boston MSA.

  - Conversely and from calendar year 2009 to 2010, IRS statistics also show that a total of 1,551 in-migrants to Vermont came from the state of Massachusetts—with 646 of those in-migrants moving to Vermont from the Boston MSA.

  - This relatively even in-migration and out-migration was not always the case. During the 2005-2007 period, Vermont had a significant net in-migration gain versus Massachusetts. While with respect to the Boston MSA since 2005, Vermont's net migration generally fluctuates year-to-year.

  - Another source of in-migration, albeit for somewhat temporary residents, is the large number of Massachusetts residents that attend Vermont higher education institutions. Massachusetts students rank as the most frequent out-of-state enrollees in Vermont's public university and State Colleges System.

- With respect to tourism, and the residents from Massachusetts and residents from the Boston metro area are among the state of Vermont's most frequent visitors—providing a significant economic driver to the Vermont economy.

  - Statistics from the Vermont Department of Tourism and Marketing indicate that in calendar year 2011, a total of 1.3 million visitors came from the State of Massachusetts, spending approximately $142 each during each visit. About 350,000 of those Massachusetts visitors were from the Boston-area.

  - Approximately 17% of all skiers and riders from out-of-state that visit Vermont ski resorts are from Massachusetts. Vermont ski areas are tuned into this relationship, and the Vermont Ski Area Association reports that Boston MSA is one of the most aggressively pursued metropolitan commercial market for resort's marketing campaigns.

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[5] A recent joint study by the Brookings Institution and JP Morgan Chase under their Global Cities Initiative also offers some hope that there will be inter-metro area trade data sometime in the future. However, the study was not timely enough for detailed data mining for inclusion in the Fall 2013 NEEP conference theme in this regard.

    - There are a large number of out-of-state residents that own some form of a second-home in Vermont. Of those second home owners in Vermont, a total of 19.7% are residents of the state of Massachusetts. That corresponds to the second highest rate of second home ownership in the state of Vermont—trailing only the state of Connecticut (24.6%) in terms of the largest percentage of second home owners' place of primary residence among the other 48 states.

- While there is no doubt a significant connection between the Boston MSA and Vermont, the state of Vermont perhaps shares a somewhat more interconnected commercial relationship with Montreal and the province of Quebec as a whole.

    - In 2012, Vermont exported $1.3 billion of merchandise to Quebec and imported $2.9 billion—but that was the conference theme for a previous NEEP outlook forecast (see the Spring 2011 NEEP Outlook Update, pages 236-239).

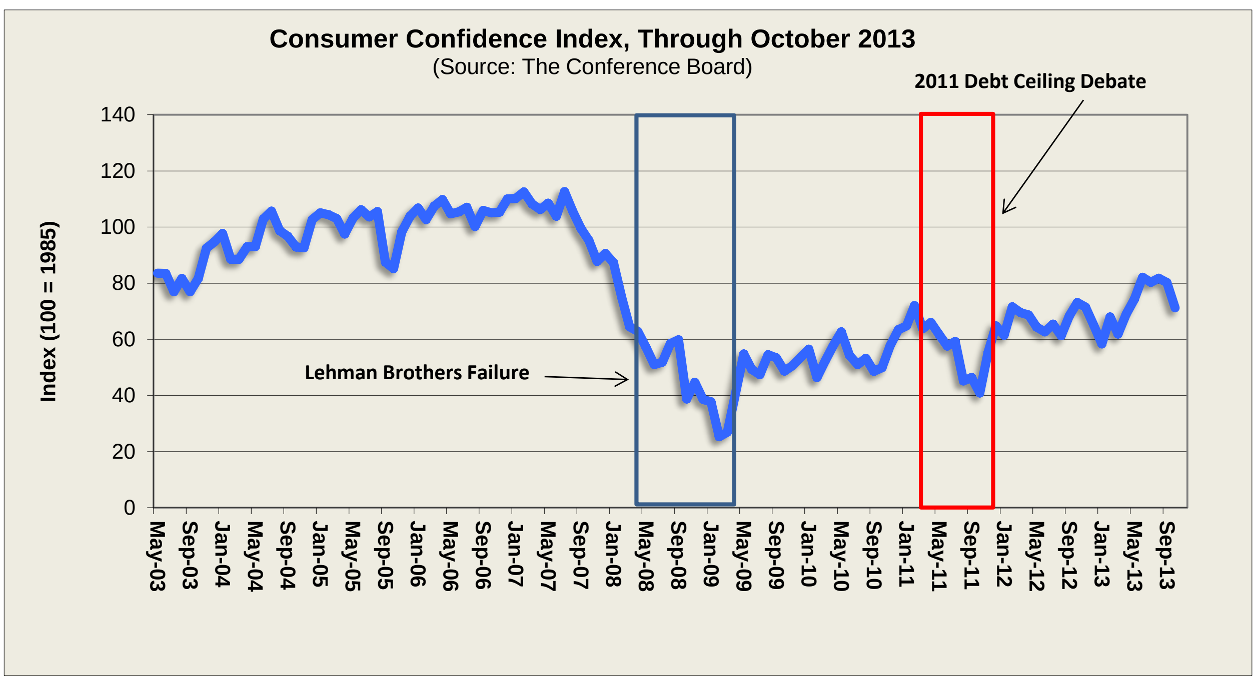
The U.S. Economic Situation

For the most part, developments in the U.S. economy over the first half of calendar year into the Fall of 2013 reflect a strengthening private sector, which is helping the rest of the economy cope with increasing drag resulting from federal fiscal policy. The U.S economy gained 148,000 nonfarm jobs in September, which was the latest employment figure released by the Bureau of Labor Statistics.

Although economic activity in the summer and early Fall of 2013 has been dampened by federal expenditure sequestration and the more recent government shutdown, monetary policy has been helping—by lifting stock prices and housing prices—which has bolstered household wealth. This, in turn, has helped the household sector cope with the FICA tax increase in January, 2013, the fiscal policy uncertainties at home, and the still developing economic (in Europe) and global security (e.g. Syria) issues abroad. So far, the helpful boost from monetary policy has come without any real signs of asset bubbles in stock or housing prices that can sometimes follow a long period of low interest rate policy from monetary policy. However, the Federal Reserve's continued historically high level of asset purchases remains uncertain and has unsettled financial markets. There is concern about the "tapering" of future asset purchases by the Federal Reserve and the potential impact this may have on U.S. and global economic activity.

Earlier this year, the Administration and Congress were unable to avoid sequestration. The sequestration cuts, according to estimates by most analysts, resulted in a significant level of fiscal policy drag on the U.S. economy, reducing Gross Domestic Product (GDP) growth by an estimated 0.5 percentage points, reducing nonfarm payroll job gains by an estimated 500,000 and increasing the U.S. unemployment rate by about ¼ of a percentage point by the middle of calendar year 2014 (or the end of the State's fiscal year 2014). According to Moody's Analytics, the above effects relating to sequestration come on top of an already significant amount of fiscal drag related to past policy measures. These measures include the fiscal cliff deal, which raised taxes by $200 billion in calendar year 2013 and will reduce GDP growth by an estimated 0.8 percentage points in calendar year 2013, and other congressional expenditure reduction decisions such as those related to the 2011 debt ceiling agreement and the reduction of Hurricane Sandy relief (as compared to the original relief package)—which will reduce GDP growth by another 0.2 percentage points in calendar year 2013. In total, Moody's Analytics estimates these measures are expected to reduce GDP growth in the U.S economy by 1.5 percentage points by the time calendar year 2013 is over. Considering the lagged effects between budget authority and actual expenditures in the federal budget, at least some of the effects of federal sequestration will spill over into the next federal and state fiscal years.

In addition to the effects of federal sequestration, the shutdown of the Federal government during the first half of October is expected to also negatively influence GDP growth during the fourth quarter of calendar year 2013. Estimates of the magnitude of this negative impact range from 0.3 to 0.6 (annualized) percentage points in the fourth quarter of calendar year 2013, according to many analysts. In all, as much as 1.8% to 2.1% of GDP growth potential estimated for calendar year 2013 may have been eliminated by fiscal mismanagement and political gridlock at the federal level. However, the most significant effect of the shutdown may be a continued erosion of confidence in the Federal government's ability to effectively execute its fiscal policy responsibilities. In addition, the recent resolution of the federal shutdown was temporary, and left most of the impasses which brought it about unresolved. The U.S. economy faces yet another spending and debt ceiling deadline sometime within the next calendar year (calendar year 2014). With the fiscal uncertainty hanging over the U.S. and global economy, consumer confidence, business confidence, and investor confidence all remain fragile—leaving the health and forward progress of the U.S. and global economy unusually "at risk."[6] It is expected that the pace of forward progress in the U.S. and Vermont economies will slow through the Fall of 2013. Any slowdown of appreciable magnitude will weigh heavily on the already fragile collective psyche of households, businesses, and investors. This will leave the current, still somewhat fragile pace of forward progress in the economy vulnerable to any one factor, or a combination of adverse developments in the economy, or in international politics in Europe or the Middle East.



[6] Unusual refers to the fact that an economy at this point in the business cycle should be experiencing higher rates of forward progress in output growth and in labor markets—the latter of which has still not completed a full recovery from job losses experienced during the "Great Recession."

The U.S. and Vermont economies should begin to strengthen during the first half of calendar year 2014, provided that progress is not impeded by a continuation of Federal fiscal gridlock. The private sector component of the economy appears to be building strength, and consumer spending, business investment and now even housing will add to the pace of the U.S. and Vermont economies. In the absence of a policy mistake domestically, a sudden and adverse development in the global economy and/or a global political meltdown, economic progress is expected to once again begin to reflect a more normal pace and profile.

The Vermont Situation:

The state of Vermont itself continued to make modest recovery progress over the first nine months of calendar year 2013, despite the uncertainty regarding the Federal fiscal policy issues and the overall global economic slowdown—particularly in Europe and some parts of Asia. Through August, the state has recovered roughly 12,800 of the 14,300 payroll jobs lost during the last economic downturn—a rate of recapture of 89.5%—despite a number of well publicized layoff announcements.[7] However, the character of the State's labor market recovery has been uneven, following a well-worn up-and-down pattern. In each case, whether the state was on the upside or the downside of this uneven pattern, it appears that economic conditions were not as positive (when on the upside of the pattern) or not as poor (when on the downside of the pattern) as the labor market reading was indicating.

The latest state data available from August 2013 shows Vermont's year-over-year job change performance ranked second highest in New England and 26th among the 50 states. Vermont gained payroll jobs at the rate of 1.5% (on a year-over-year basis). The state's 1.3% year-over-year gain in private sector payroll jobs ranked Vermont 34th nationally in year-over-year job change. Out of the New England region, Vermont's ranking for year-over-year total private sector payroll employment change was only below the states of Massachusetts and Maine.

[7] This is consistent with the 78.0% job re-capture rate for the U.S. economy through August—despite announcements of significant layoffs at IBM in Essex Junction, Revision Eyewear, Huber & Suhner, and some other Vermont businesses.

Table 1: Year-Over-Year Job Change by State		
Total Payroll Jobs (Aug 2012-Aug 2013)		
Rank	State	
1	North Dakota	3.2%
2	Utah	2.7%
3	Idaho	2.5%
4	Texas	2.4%
5	Minnesota	2.3%
9	New Jersey	2.0%
16	Massachusetts	1.7%
18	Florida	1.7%
26	**Vermont**	**1.5%**
27	California	1.4%
28	New York	1.4%
36	Maine	0.9%
37	New Hampshire	0.9%
42	Connecticut	0.8%
43	Pennsylvania	0.7%
46	Rhode Island	0.6%
47	Hawaii	0.5%
48	Oklahoma	0.5%
49	Alabama	0.5%
50	Alaska	-0.5%
Source: U.S. Department of Labor, BLS		

Table 2: Year-Over-Year Job Change by State		
Private Sector Payroll Jobs (Aug 2012-Aug 2013)		
Rank	State	% Change
1	Utah	3.8%
2	North Dakota	3.6%
3	Idaho	3.2%
4	Georgia	2.8%
5	Texas	2.7%
14	New Jersey	2.2%
15	Florida	2.1%
22	Massachusetts	1.9%
24	Wisconsin	1.9%
29	New York	1.7%
34	Maine	1.5%
36	**Vermont**	**1.3%**
42	Connecticut	1.0%
43	New Hampshire	1.0%
46	West Virginia	0.8%
47	Rhode Island	0.8%
48	Alabama	0.7%
49	Oklahoma	0.6%
50	Alaska	-0.1%
Source: U.S. Department of Labor, BLS		

Analyzing Vermont's employment situation on a sector basis, the year-over-year job change figures show that the state's best performance over the last year came in the professional and business services sector with job addition of over +4.1% change (see Table 3 below). Compared to the other 49 states, Vermont's growth in professional and business services sector ranked tenth in the U.S. and second in the New England region. However, the state's Government sector's total employment grew by 2.3% over the past year, which ranked Vermont third highest among the 50 states and highest among the six New England states.

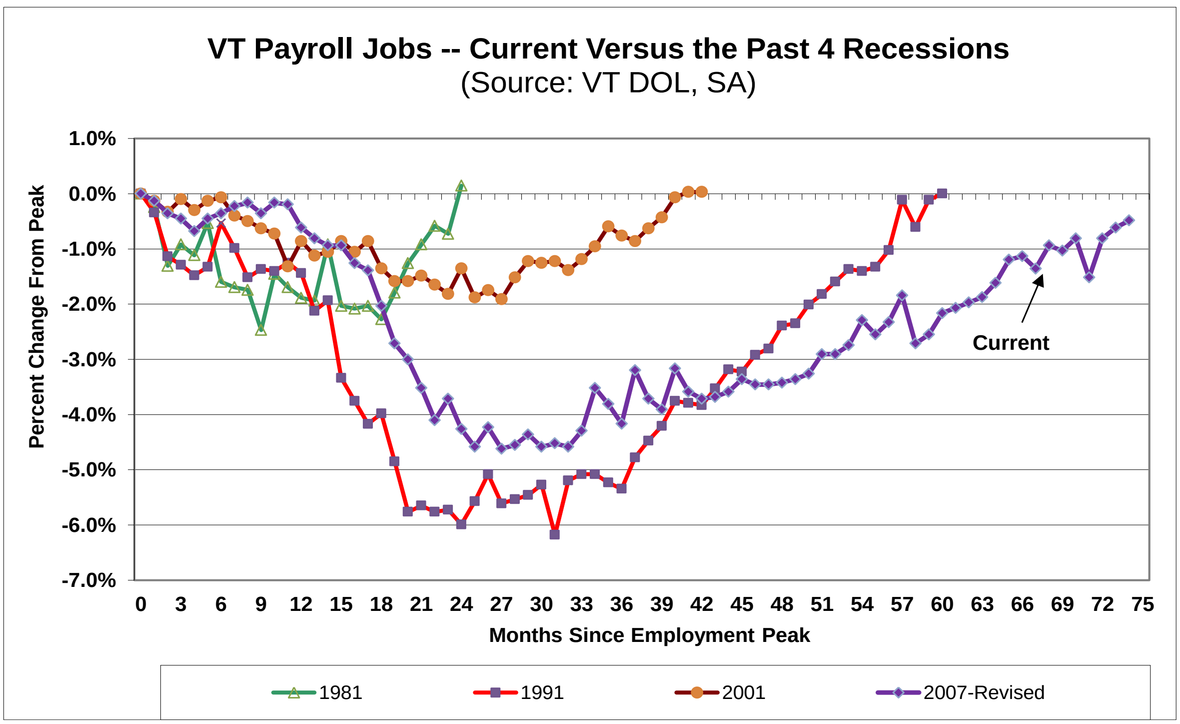
The state also had a positive year-over-year job change performance in the leisure and hospitality sector, at +2.6% versus August 2012, but the state ranked comparatively low on a state-by-state basis for both the U.S. economy as a whole and in the New England regional economy. Manufacturing sector employment was 0.9% higher than a year ago and ranked 16th in the nation and 2nd in New England for growth despite the recent IBM layoffs that were included in employment statistics by July 2013.

Table 3: Payroll Job Performance By NAICS Supersector August 2012 vs. August 2013

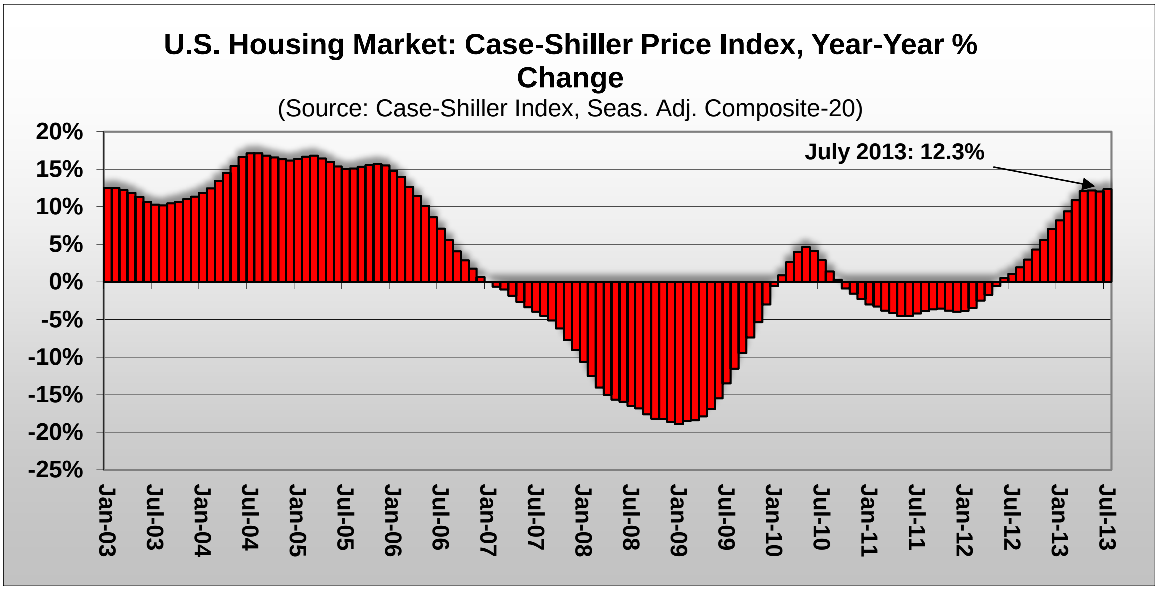
Industry Supersector	% Change in VT	VT Rank in New England	VT Rank in U.S.	Highest Ranked New England State	# of States Reporting Job Losses
Total Nonfarm	**1.5%**	**2nd**	**26**	**MA (16th)**	**1**
Total Private	**1.3%**	**3rd**	**36**	**MA (22nd)**	**1**
Construction	1.3%	5th	33	CT (4th)	14
Manufacturing	0.9%	2nd	16	RI (11th)	20
Information	0.0%	3rd	21	ME (4th)	28
Financial Activities	1.6%	3rd	17	RI (4th)	11
Trade, Transportation, Utilities	0.2%	5th	46	ME (16th)	4
Leisure and Hospitality	2.6%	5th	37	NH (19th)	3
Education and Health Services	0.8%	4th	34	MA (13th)	5
Professional and Business Services	4.1%	2nd	10	ME (7th)	3
Government	2.3%	1st	3	VT (3rd)	31

Notes:
NAICS means North American Industry Classification System
Source: U.S. Bureau of Labor Statistics

The chart below compares the level of payroll job loss and recovery versus the employment peak for the past few recessions, focusing on the most recent "Great Recession." The chart shows that job market recoveries in the more recent recessions are generally lengthening. Recently, Vermont has seen steady job additions, and has recovered just under 90% of the jobs lost in the recession. It is expected that Vermont will complete its numerical labor market recovery around the middle of calendar year 2014 from its last labor market peak in mid-calendar year 2007.



The Case-Shiller Housing Price Index continues to show strong growth in prices. The Composite-20 Index in July 2013 was 12.3% higher than a year ago. The strong price increases have some housing analysts concerned with significant shortages of housing supply being offered on the market in certain metropolitan areas.



The Moody's Analytics National Economic Forecast Assumptions

The economic outlook for Vermont for the calendar years 2013–2017 period is based on a comprehensive national economic outlook assembled by Moody's Analytics, a respected national economic forecasting firm. The statistics in the consensus economic forecast in Table 2 (below) reflect this underlying Moody's Analytics national economic forecast as adjusted in the consensus revenue forecast that was completed in August 2013. This forecast includes a significant amount of restraint on national economic growth through mid-calendar year 2013, resulting primarily from fiscal policy developments related to sequestration (which reflects reduced Federal spending). Fiscal policy decisions in Washington, D.C. are estimated by Moody's to have subtracted 1.1% from annual GDP growth in 2013. Overall, the forecast calls for a moderate, but still historically restrained pace of output growth for the U.S. economy during the rest of calendar year 2013, averaging 1.6%, and a more robust calendar year 2014, expected to average 3.2% GDP growth. The baseline growth rate for GDP across the calendar year 2015–2017 forecast period includes 3.9% for calendar year 2015 and 2.9% for calendar year 2016, slowing to a 2.4% rate of growth for calendar year 2017.

The Moody's Analytics national outlook for U.S. labor markets predicts an annual average increase in payroll jobs of 1.7% in calendar year 2013 and a continuation of the high U.S. unemployment rate, which is expected to average 7.5%. The national forecast also expects only a modest rate of payroll job additions in calendar year 2014 of 1.8%, rising to 2.4% for calendar year 2015 as the U.S. economy builds some momentum and fiscal policy begins to normalize. Following its peak in calendar year 2015, employment growth will roll back slightly in calendar year 2016 to a 2.1% rate of growth, and is expected to fall further to 1.2% in 2017. The national rate of unemployment is expected to decrease steadily throughout calendar years 2013-2015, achieving 5.4% by the end of calendar year 2017, a rate which has not been experienced in U.S. labor markets since the beginning of the Great Recession in 2008.

Consumer prices, as measured by the Consumer Price Index (CPI), are expected in this forecast to increase by 1.5% in calendar year 2013 and then increase to a 1.9% rate of inflation for calendar year 2014. Consumer prices are expected to continue to inflate at a rate above 2.0% for the remainder of the forecast horizon, increasing at 2.3% for calendar year 2015, 2.5% for calendar year 2016 and 2.5% for calendar year 2017. The Moody's Analytics forecast for monetary policy takes into account the Fed's stated expectations, which call for a tightening after calendar year 2015 when the national unemployment rate is expected to be 6.3%.

The key risks to the Moody's Analytics five-year outlook include uncertainty regarding fiscal policy, primarily how sequestration will influence employment and output through calendar years 2013 and 2014, the improving but still weak condition of national housing markets, the persistent sovereign debt, banking, and currency crisis in Europe, and international political stability regarding U.S. relations with the Middle East and East Asia. An implicit assumption in this outlook is that federal budget and debt issues are resolved in a manner that does not adversely affect the economy over the long-term—although the roughly two week shutdown of the federal government in October is likely to restrain economic activity in the fourth quarter of calendar year 2013.[8] In addition, this past recession was unique in that it was a synchronized global downturn and involved an unprecedented level of banking, private sector, and now public sector financial de-leveraging—particularly federal employment, which was affected by sequestration. In light of these risks, the short-term and longer-term economic forecast calls for a below trend rate of output and income growth and similarly below trend rate of labor market recovery for an extended period—at least until the lingering effects of the persistent European financial crises work through their adjustment processes and while federal sequestration remains in effect.

The Vermont Economic Outlook

The Vermont near-term economic outlook, which is based on the Moody's Analytics' national forecast as described above (and reflected in Table 2 below), includes a Vermont economy that will follow a similar path to the U.S. economy's progression throughout the calendar year 2013-2017 period. Looking at the major macro variables, the updated forecast calls for the current state economic upturn to proceed along a modest recovery/expansion path for real output (as measured by Gross State Product or GSP), for inflation-adjusted or real personal income, and for its labor market recovery. This restrained rate of recovery in Vermont is an artifact of the less than average rate of output, income, and job decline for the Vermont economy during the "Great Recession" relative to its U.S. and New England counterparts.

In terms of Vermont's key economic variables, the forecast for Vermont expects an annualized 1.3% increase in output for all of calendar year 2013. Calendar year 2014's output is then expected to follow a more normal 3.1% annual rate of increase, subsequently leading to a 4.1% rate of growth for calendar year 2015. For calendar year 2016, GSP growth is expected to pull back, increasing at a 2.7% annual rate, while GSP growth in 2017 is expected to register an increase, but a somewhat more restrained 2.1% annual rate as the economy slows in the final year of the five-year forecast time horizon. The rate of payroll job growth is expected to be 1.0% in calendar year 2013, followed by increases of 0.9% in calendar year 2014 and 2.1% in calendar year 2015. The rate of payroll job additions is expected to fall back slightly to 1.6% in calendar year 2016. Payroll job growth then is expected to tail off to a 1.1% annual rate of increase in calendar year 2017.

Nominal dollar personal income is expected to post a performance similar to GSP and employment growth, ballooning in the initial years of the forecast horizon then tapering off to a more restrained level of growth. For calendar year 2013, nominal dollar personal income is expected to increase by 3.0%, followed by increases of 5.4% in calendar year 2014, with Personal Income growth peaking

[8] An event that was not anticipated in the Moody's Analytics August forecast baseline.

in 2015 at 6.2%. The final two years of the forecast horizon show this metric steadily declining, at 5.9% growth in 2016 and 4.6% growth in 2017. The state's unemployment rate is expected to continue to perform consistently superior to U.S. unemployment rates throughout the calendar year 2013–2017 forecast timeline. The Federal Housing Finance Agency (FHFA) Housing Price Index for Vermont is also expected to post a more modest and restrained rate of increase in this forecast timeline than in previous analyses, reflecting the mid-2013 slowdown and the resulting effect on employment and personal wealth.

Although the state's economic performance is expected to be moderately positive over the calendar year 2013-2017 period, the forecast for Vermont also expects that labor market conditions will remain "tight" throughout the state and there will be a modest recovery in housing prices in the Vermont housing market. The state's annual average unemployment rate is expected to fall through the forecast period, registering a 4.2% annual rate for calendar year 2013 and a 4.2% annual average in calendar year 2014, and then declining to a 4.0% annual average in calendar year 2015, a 3.8% annual average in calendar year 2016, and a 3.7% annual average unemployment rate in calendar year 2017. This forecast, if achieved, would result in a Vermont unemployment rate at the end of calendar year 2017 being a full 2.3 percentage points below the forecasted U.S. unemployment rate and 1.9 percentage points below the forecasted New England average unemployment rate.

Positive job gains are expected in seven of the state's eight private sector NAICS supersectors[9] according to the Fall 2013 NEEP macro forecast revision. The government NAICS supersector is not expected to add jobs overall during the forecast period, and the manufacturing NAICS supersector is expected to be flat over the forecast period. Among the notable gaining sectors are the construction sector (at a +4.3% annual average over the calendar year 2013-2017 period) and the leisure and hospitality sector (at a +2.9% annual average over the calendar year 2013-2017 period). Although the construction sector is actually expected to post a small year-over-year job decline in calendar year 2013 and be somewhat subdued versus the other New England states (an artifact of the Irene recovery effort), the construction sector will add jobs over the 2014-2017 time frame. Other positive performances over the forecast period are also expected in the professional and business services sector (at a +2.6% annual average over the calendar year 2013-2017 period) and the education and health sector (at a +2.0% annual average over the calendar year 2013-2017 period).

Turning to the state's housing market recovery, the forecast for Vermont expects there will be improvement in sales and construction activity in the Vermont housing market, but these improvements will occur at a historically restrained pace. According to the FHFA Price Index, the prices in Vermont reached the anticipated turning point in the third quarter of calendar year 2012, when the index began to report a sustained increase in value. Having reached a "bottom" in the market, housing prices are expected to continue recovering, with more consistently positive movement. This forecast update calls for prices to realize the following schedule of annual increases: 0.7% increase in calendar year 2013, 1.5% increase in calendar year 2014, 2.1% increase in calendar year 2015, 2.9% increase in calendar year 2016, and a 3.8% increase in calendar year 2017. While the Vermont housing price performance has been superior to the U.S. and New England averages over the calendar year 2008 to calendar year 2012 time frame, the more restrained housing price growth in Vermont over the calendar year 2013 through 2017 time frame is expected given the fact that Vermont housing prices as measured by the FHFA index did not

[9] NAICS means North American Industry Classification System. Labor data reported by the Bureau of Labor Statistics is classified by NAICS sector. Public and private reporting agencies follow this paradigm.

experience nearly the rate of housing price decline as what was experienced by many other states, as well as relative to the New England and U.S. averages during the deep recession in the housing market. Moreover, it is highly uncertain whether or not other markets will experience as sharp a bounce-back as is expected in the forecast—given the still very tight credit available for the housing market.

On-Going Impact of Tropical Storm Irene

Near-term economic prospects and the pace of economic recovery in Vermont will also likely continue to be affected by the after effects of Tropical Storm Irene. This storm, which hit the state at the end of August 2011, resulted in heavy rains and record flooding, and caused significant destruction throughout the state. The widespread flooding cause by this storm was the second greatest natural disaster in the 20th and 21st centuries (the largest being the November 1927 Flood) for Vermont.

Like disaster recovery experience elsewhere, the ultimate economic impacts to the state associated with the recovery from Tropical Storm Irene look to be slightly positive due to the influx of out-of-state relief workers (the effect of which appears to mimic increased tourism) and the significant flow of federal recovery funds. Most of the recovery and disaster relief activities that mitigated the effects of infrastructural and property damage have been complete for months. As a result, the positive economic impact of this repair effort has already been distributed throughout the Vermont economy.

The largest Irene recovery project that remains to be completed is the reconstruction of the Waterbury State Office Complex in Waterbury, which was destroyed by the flooding caused by the storm. On May 8, 2013, Vermont was approved by FEMA to begin demolishing and rebuilding the Waterbury complex. The new office complex will be built on the same site, is expected to be completed by late 2015 and is expected to cost approximately $125 million. The majority of the costs of reconstruction of the Waterbury complex (approximately $89 million) will be financed by funds received from FEMA and state insurance proceeds, with the remainder being covered by the state as part of its annual capital bill appropriations, including $22.1 million appropriated as part of the fiscal year 2014 capital bill by the Vermont General Assembly.

Table 2: Forecast Comparison: U.S., New England, and Vermont

	Actual					Forecast				
	2008	2009	2010	2011 [2]	2012 [2]	2013	2014	2015	2016	2017
Real Output ($2000-% Change)										
U.S. Gross Domestic Product	-0.3	-2.8	2.5	1.8	2.8	1.6	3.2	3.9	2.9	2.4
N.E. Gross Domestic Product	-0.8	-2.6	2.8	1.0	1.2	2.3	3.1	3.8	2.6	2.2
Vermont Gross State Product	-0.2	-2.9	5.6	1.3	1.2	1.3	3.1	4.1	2.7	2.1
Non-Farm Payroll Jobs (% Change)										
U.S.	-0.6	-4.4	-0.7	1.2	1.7	1.7	1.8	2.4	2.1	1.2
New England	0.0	-3.6	-0.2	1.0	1.1	1.2	1.2	1.7	1.6	1.0
Vermont	-0.4	-3.3	0.2	0.7	1.2	1.0	0.9	2.1	1.6	1.1
Inflation-Adjusted Personal Income										
%Change (2000 Dollars)										
U.S.	0.6	-2.7	1.2	3.6	2.3	1.9	4.1	4.5	3.9	2.8
New England	0.5	-4.3	2.3	2.4	1.1	1.7	3.6	4.0	3.6	2.4
Vermont	1.3	-2.1	1.6	2.3	1.6	0.2	0.9	1.8	1.2	0.1
Unemployment (Percent)										
U.S.	5.8	9.3	9.6	8.9	8.1	7.5	6.9	6.3	5.7	5.4
New England	5.4	8.1	8.5	7.8	7.2	6.8	6.4	6.2	5.7	5.4
Vermont	4.6	6.9	6.4	5.6	5.0	4.2	4.2	4.0	3.8	3.7
FHFA Housing Price Index [3]										
U.S.	-4.8	-5.4	-4.0	-3.6	0.0	3.5	6.0	3.9	1.9	0.5
New England	-4.2	-4.9	-2.7	-2.2	-0.8	1.1	4.1	4.0	3.5	3.2
Vermont	0.0	-2.0	-1.2	-0.6	0.5	0.7	1.5	2.1	2.9	3.8

Notes:

[1] U.S. data reflect the Moody's Analytics Baseline Forecast for August 2013.

[2] 2011 and 2012 variables are subject to further revision, and 2013 through 2017 values in this table reflect projected data as of November 2013.

[3] FHFA refers to the Federal Housing Finance Agency (formerly the Office of Federal Housing and Enterprise Oversight).

Sources: Moody's Analytics (U.S.), New England Economic Partnership Forecast November 2013 Update (U.S., New England, Vermont)

NEEP Fall 2013 Conference Theme: Importance of the Boston Economy to Vermont

The conference theme of this NEEP outlook update emphasizes the economic role of the city of Boston in the New England region. The Boston-area economy is a clear regional driver, and the state of Vermont shares several significant links with the city and its surrounding metropolitan area. While it may be true that Vermont is not as dependent on the Boston metro area as some of the other states in New England—and given its relatively remote location and the ready access Vermonter's enjoy to the Montreal and Quebec markets[10]—it nevertheless appears to remain an important secondary economic driver. There is no doubt however that Boston has a major influence on Vermont demographics, tourism and economy as a whole.

An interesting in-migration/out-migration trend has evolved over the years between residents of Vermont and the Boston Metropolitan Statistical Area[11] (MSA), as well as between Vermont and Massachusetts in general. According to Internal Revenue Service income tax return filings[12], from calendar year 2009 to 2010 (the most recent data available), a total of 1,517 out-migrants moved from Vermont to Massachusetts, with 642 of those Vermont out-migrants listing their new place of residence in Massachusetts inside the Boston MSA (corresponding to 42.3% of Vermont to Massachusetts out-migration). This out-migration of Vermonters to the Boston area was also approximately 2.8% of total migration out of Vermont to other United States destinations during that year. There is no other MSA in the country that attracted more Vermont residents during that period. Furthermore, Massachusetts comes only after New Hampshire as the destination state for the most Vermont out-migrants.

Looking at trends going the opposite direction in calendar year 2010, there were a total of 1,551 in-migrants to Vermont that year, from those who had lived in in the State of Massachusetts prior to emigrating for Vermont. Of those in-migrants to Vermont, 646 came from the Boston MSA, accounting for 41.6% of the total Massachusetts to Vermont flow. Overall in the calendar year 2009-2010 period, the IRS data shows that Vermont experienced a net gain of 34 residents from the state of Massachusetts—making this an essentially breakeven situation. The same was true for the state of Vermont for the greater Boston area, where the net gain was essentially flat, totaling 4 residents from Boston moving to the state of Vermont.

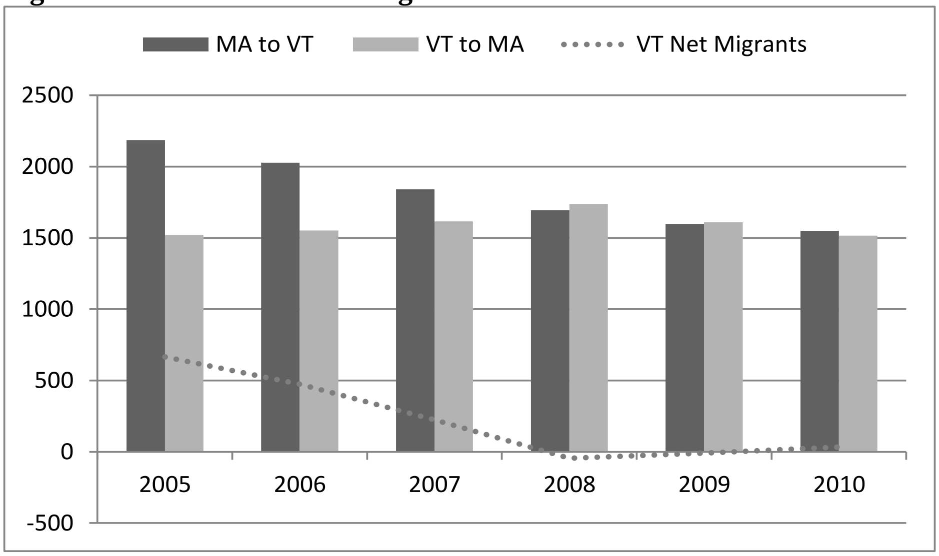
This essentially breakeven in-migration/out-migration trend between Massachusetts and the Boston MSA has not always been the case. As shown in Figure CT-1 below, Vermont enjoyed a positive net gain over Massachusetts from calendar year 2005-2007. Since, there has been some back-and-forth with migration-based population changes going both ways, with Vermont experiencing net losses in calendar year 2008 and calendar year 2009. Looking at Figure CT-2, the migration relationship between Vermont and Boston has been a little more erratic. In 2005 Vermont enjoyed a net gain of over 200 people moving out of the Boston area. That quickly dropped to a marginal net loss in calendar year 2006, and has gone back and forth year-by-year ever since.

[10] Not to mention Vermont's vastly improved transportation links to New York City.

[11] The Boston MSA is defined by the Department of Commerce's Bureau of Economic Analysis as consisting of Essex, Middlesex, Norfolk, Plymouth, and Suffolk counties in Massachusetts and Rockingham and Strafford counties in New Hampshire.

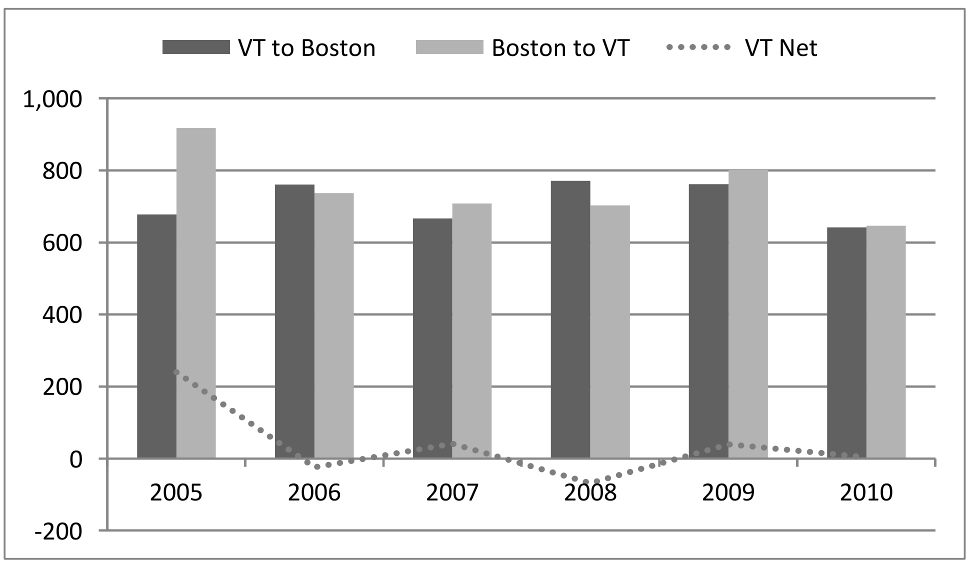
[12] The IRS lists the number of returns filed and exemptions listed. EPR uses the number of exemptions as the number of migrants.

Figure CT-1: State-to-State Migration Trends



Source: Internal Revenue Service Data (2013)

Figure CT-2: State-to-MSA Migration Trends



Source: Internal Revenue Service Data (2013)

Another source of migration, albeit only transient, is the large number of Massachusetts residents that attend Vermont higher education institutions. In the fall of 2012, there were 393 full-time equivalent students enrolled in the Vermont State College system that listed Massachusetts as their state of residence.[13] This accounted for 18.5% of all out-of-state enrollments. At the University of Vermont (UVM), out of the 10,192 undergraduates enrolled in 2012, 1,663 students listed

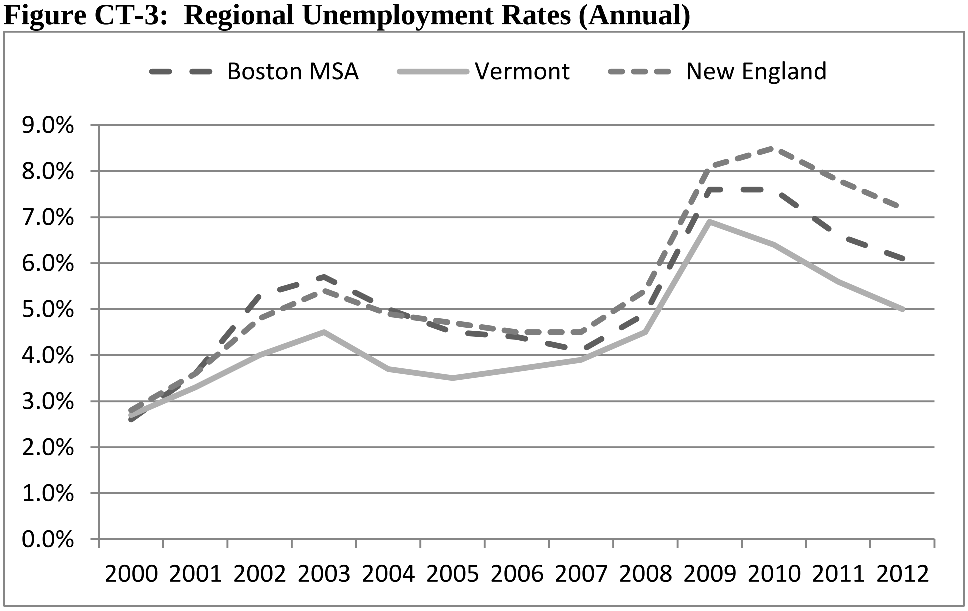
[13] Source: Vermont State Colleges 2012 Sourcebook of Institutional Data

Massachusetts as their state of residence.[14] This was the most students from any state in the country outside of Vermont, and accounted for about a quarter of the students in New England that attended UVM (including Vermont residents).

A typical narrative in Vermont is that younger people in Vermont move to the Boston area in search of more and diverse jobs and more diverse non-work activities. Certainly the Vermont colleges and university system trains many young Massachusetts and Boston residents, residents of other New England states, as well as Vermont residents. However, it is difficult to determine the so-called "brain drain" that occurs from the more rural state of Vermont to an urban destination like Boston. Simply looking at the 2012 American Community Survey published by the Department of Commerce's Census Bureau, the 20 to 35 year old population for both Vermont (18.4% of total population) and the Boston MSA (21.3% of total population) are fairly similar, with Vermont having a slightly smaller proportion of younger people. This is also reflected in average area age, with Vermont's median age at 42.4 years and Boston's at 38.8 years. It is also important to note that all of these ACS figures for both Vermont and the Boston MSA are close to New England and national averages. Thus, it would not necessarily follow that younger people, on average, are leaving Vermont for the "bright lights" of the Boston metro area, or vice versa.

Looking at Figure CT-3 below also underlines the even migration numbers experienced between Vermont and Boston. The annual unemployment rate in both the Boston MSA and Vermont have followed similar trends over the past decade, with Vermont experiencing a lower rate the majority of the time. Further, both areas enjoyed lower rates than the average for the New England region. With these common trends and demographics, it is not surprising that there are no significant spikes in migration either way.

Figure CT-3: Regional Unemployment Rates (Annual)



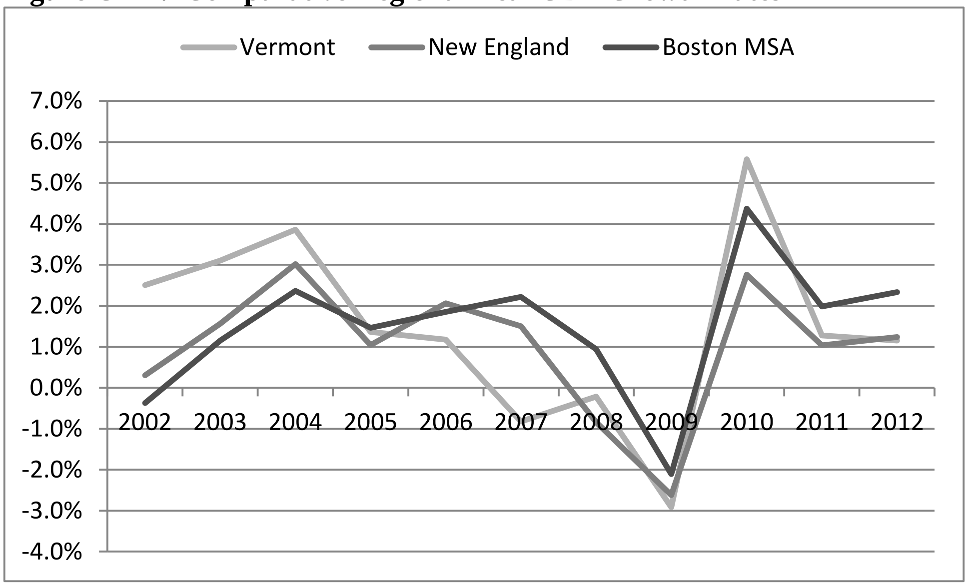
Source: Bureau of Economic Analysis (2013)

Considering the migration data and unemployment rates, it is a fairly safe conclusion that the Vermont and Boston economies are closely interconnected, reacting similarly to shocks in both the

[14] Source: The University of Vermont Fall 2012 Enrollment Report

national and regional economies. This is further emphasized by Figure CT-4, which shows the Gross Domestic Product for Vermont and the Boston MSA, as well as the New England region as a whole. Again, there is a distinctive positive GDP relationship between all three regional designations. This is a good representation of how important the links are between the two areas as well as the region as a whole.

Figure CT-4: Comparative Regional Real GDP Growth Rates



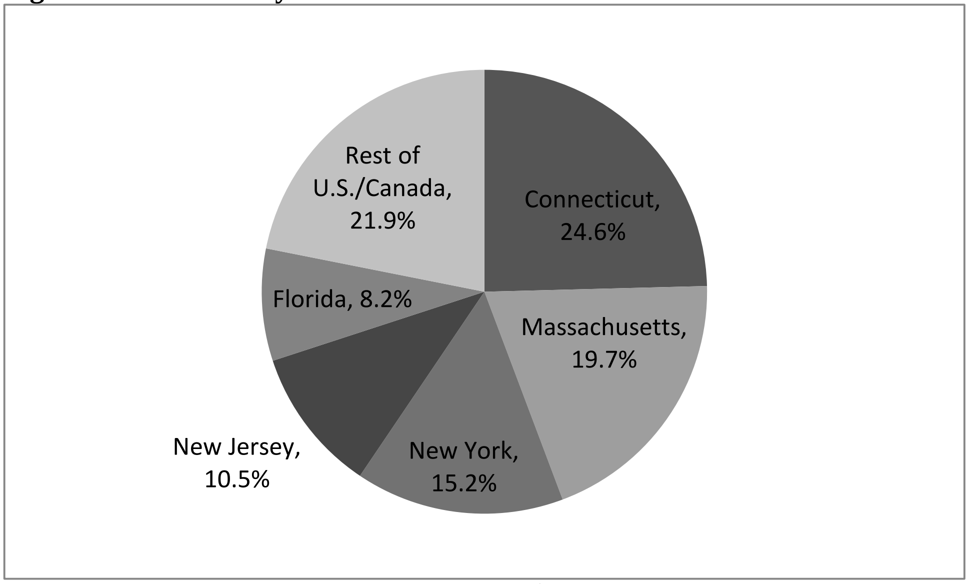
Source: Bureau of Economic Analysis (2013)

A simple comparison of macroeconomic trends reveals a macroeconomic connection between Boston and Vermont, but there are also more measurable indicators. Tourism, for example, has always been a component of Vermont's economic base, and residents from Massachusetts and the Boston-area specifically are among Vermont's "best" source of visitors. In calendar year 2011, for example, it was estimated that 1.3 million visitors to Vermont travelled to the state from Massachusetts; spending approximately $184 million during their visits. That breaks down to about $142 per visitor per visit. From the Boston area specifically, it was estimated that about 350,000 people visited Vermont during calendar year 2011.[15]

Another indication of the close relationship between the two states is the number of Massachusetts residents who own an additional home in Vermont, most often a vacation home. According to a 2010 Vermont Second Home Owner Survey conducted by the Portland Research Group/Economic & Policy Resources, Inc. for the Vermont Department of Tourism and Marketing, a total of 19.7% of all Vermont second homeowners who listed another state or country as their primary residence listed that primary residence as the state of Massachusetts. This was second only to Connecticut, which accounted for 24.6% of the state's second home owners. Figure CT-5 (below) shows the distribution between the top 5 states and the Rest of the U.S. and Canada.

[15] This is a rough estimate by EPR that is derived from the Vermont Department of Tourism's Travel Planning Website and the 2011 National Tourism Survey. The 350,000 estimate is based on a number of visitors that is very likely to be lower than the actual number of visitors from the area, considering that visitors who live closer to a vacation destination will be less likely to consult a travel planning website.

Figure CT-5: Primary State of Residence Share of Vermont Second Home Owners in 2010



Source: Portland Research Group and Vermont Department of Tourism and Marketing (2010)

Similarly, a big tourism draw to Vermont for out-of-state residents has always been the abundance and quality of the ski resorts. According to the Vermont Ski Areas Association, approximately 17% of all skiers and riders that visit a mountain in Vermont are from Massachusetts. Furthermore, about 80 percent of the out-of-state market come from the tri-state area, and Boston was listed as the most populous and proximate metropolitan band of skiers and riders within the region. The Boston-area market usually is the most aggressively pursued metropolitan commercial area for resort marketing teams as well.

While Vermont enjoys a solid bond with Boston, it perhaps shares a more interconnected commercial relationship with Montreal and the province of Quebec as a whole. Certainly the strong historical and cultural ties to the French-Canadian city and province aid the economic relationship, as well as the proximity. In 2012, Vermont shipped $1.3 billion worth of merchandise exports (4.8% of Vermont State GDP) to Quebec. Likewise, Vermont imported $2.9 billion worth of merchandise from the Province of Quebec in 2012[16]—but that was the conference theme for a previous NEEP outlook forecast (see the Spring 2011 NEEP Outlook Update, pages 236-239).

Taking both the Quebec region and New England region together, Montreal and Boston are the two most important metro areas for the state of Vermont (outside, of course, of the state's own metro area). Acknowledging this, Governor Peter Shumlin has been leading the way in efforts to improve transportation going both north and south. In 2012, Governor Shumlin announced the development and launch of the 138-mile Vermont-Quebec Electric Vehicle Charging Corridor, a pioneering electric vehicle regional infrastructure project. Vermont was also recently the recipient of an $8.9 million federal grant to rehabilitate railroad track along the Western Corridor, which is part of a broader $18.5 million rail project to reduce shipping costs and increase speed.[17] Additionally, since 2011 Vermont has pursued the federal funds for the development of a high-speed passenger rail

[16] Source: The Official Statistics Bureau of Canada - StatCan
[17] Press release: http://governor.vermont.gov/newsroom-gov-shumlin-adm-szabo-announce-TIGER-9-2013

network that would connect the entire region, from New York to Montreal, with an important spur to Boston.

These future developments are critical, since other than car travel via the interstate highway system, there are few accessible travel options to get from Vermont to Boston. Neither Burlington International Airport nor Amtrak currently have direct passenger service to Boston, so any improvement to transportation options in the New England and Northeast corridor would be significant progress toward the goal of increasing the already important relationship between Boston and Vermont. Megabus and Greyhound both offer options via passenger bus, while Rutland-Southern Vermont Regional Airport offers daily flights from Rutland to Boston. There is an obvious need for an infrastructure expansion in the region, especially one that could better connect Vermonters to Boston.

Jeffrey B. Carr, President
Economic & Policy Resources, Inc.
400 Cornerstone Drive, Suite 310
P.O. Box 1660
Williston, Vermont 05495-1660
(800) 765-1377

Robert A. Chase, Senior Economist
Economic and Policy Resources
400 Cornerstone Drive, Suite 310
P.O. Box 1660
Williston, Vermont 05495-1660
(800) 765-1377