MASSACHUSETTS ECONOMIC OUTLOOK

Executive Summary and Highlights

- The Massachusetts economy is in the fourth year of the expansion that began in the summer of 2009. Real gross state product is 4.5% above its pre-recession peak, and 87% of the 143,000 jobs lost in the recession have been regained.
- The labor market has improved markedly since the recovery began. In addition to the job gains cited above, the state's unemployment rate fell from a peak of 8.7% in December 2009 to 6.6% this October.
- In the third quarter of this year, however, the Massachusetts economy decelerated significantly.
- Growth in the Massachusetts economy is expected to slowly improve from its weak pace in the third quarter of this year to a more moderate pace in 2013, and then to expand robustly in 2014 and 2015.
- On a fourth-quarter to fourth-quarter basis, payroll employment is expected to grow 1.2% in 2012 and 0.8% in 2013. Employment growth in 2014 and 2015 will be close to 2.0% in each of those years, before declining in 2016 due to the aging of the workforce.
- Over the four and one-half year forecast period, from the third quarter of 2012 to the last quarter of 2016, overall payroll employment is projected to expand at an annual average rate of 1.4%.
- Employment in construction, professional and business services; information; leisure and hospitality; and education and health services will grow substantially faster than overall employment.
- The residential housing market finally appears to be past the bottom and on its way back. Prices have been rising moderately, sales have increased substantially, and most importantly, housing permits are running above last year.
- Houses will be as or more affordable than they were in the mid-1990s and early 1980s. Housing will still be relatively more expensive in Massachusetts than in the rest of the country, but not so expensive that it should lead to the same out-migration pressures that households experienced in the last expansion.
- Chances are that the state and the nation will be spared the recession that would result if Congress did nothing and the full impacts of "fiscal cliff" were to become reality. Moody's Analytics puts the probability of this happening at only 15%, and the probability of a middle ground scenario, with a deal that avoids much of the short-term impacts, at 55%. This is the scenario assumed by this outlook.

Recent Economic Performance

The Massachusetts economy is in the fourth year of the expansion that began in the summer of 2009. Although real gross state product is 4.5% above its pre-recession peak, and 87% of the

143,000 jobs lost in the recession have been regained¹, the state's economic growth slowed in third quarter of this year, and growth is expected to continue to be slow for the last quarter of this year and first quarter of next.

Through the first half of 2012, Massachusetts recovered at a quicker pace that the nation as a whole. According to the U.S. Bureau of Economic Analysis, real state gross domestic product (GDP) grew 4.2% in 2010 from the prior year, the 11th fastest among the 50 states and the District of Columbia, while U.S. real GDP grew 3.1%². In 2011, state real GDP grew 2.2%, the 7th fastest among the 50 states and the District of Columbia, while U.S. real GDP grew 1.5%. In the first three quarters of 2012, state real GDP grew at an annualized rate of 2.5% according to NEEP, while U.S. real GDP grew at an annualized rate of 1.7%.

The labor market has improved markedly since the recovery began. In addition to the job gains cited above, the state's unemployment rate fell from a peak of 8.7% in December 2009 to 6.6% this October. The U.S unemployment rate fell from 10.0% in October 2009 to 7.9% this October. The broader U-6 unemployment rate, which includes in the unemployment count those who wanted to work full-time but could only find part-time work, and those who wanted a job but haven't looked in the last four months because they had given up looking or were marginally-attached to the labor force, fell from 16.4% from its peak in December 2009 to 14.1% in October³, while the corresponding U.S. figure fell from its peak of 17.2% in October 2009 to 14.6% this October.

In the third quarter of this year, however, the Massachusetts economy decelerated significantly, with state real GDP slowing to a 1.9% annualized rate from 3.0% in the prior quarter⁴, the unemployment rate rising from 6.0% in June to 6.6% in October, the U-6 unemployment rate rising from 12.6% in June to 14.1% in October, and payroll employment growing at a meager 0.7% annualized rate between June and October.

Europe and the worldwide growth slowdown continue to act as a drag on the state's economy. State merchandise exports in the first 9 months of this year were down 7.8% relative to the same period in 2011. For the U.S., the corresponding figure was plus 5.0%. The weaker Massachusetts performance reflects its higher reliance on Europe as an export destination. Demand for information technology products is stagnant, and for semiconductors and semiconductor equipment, has declined from 2011. Nominal U.S. investment in information and processing equipment and software declined slightly in the second and third quarters of this year, and in the third quarter was only 1.4% higher than the third quarter of last year.

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¹ The official count of regained jobs in October was 93,700, or 66% of the lost jobs. However, the ES-202 count of the actual number of payroll jobs in March 2012 suggests that the official count of jobs in March was 30,600 too low. Adding this number to 93,700 gives 124,300 jobs regained.

² The U.S. growth rates cited here from the BEA are based on a definition that makes them consistent with the state GDP estimates. They may differ slightly from U.S. GDP growth rates from the NIPA accounts.

³ Author's calculations, using the Current Population Survey. The figures are seasonally-adjusted and smoothed.

⁴ MassBenchmarks (www.massbenchmarks.org).

The Outlook: Steady Improvement in Sight

Growth in the Massachusetts economy is expected to slowly improve from its weak pace in the third quarter of this year to a more moderate pace in 2013, and then to expand robustly in 2014 and 2015. This scenario assumes that the effects of the economic crisis in Europe and the slowing Chinese economy will be more than offset by growing demand with the U.S., and that the looming fiscal austerity scheduled to begin in 2013 will be softened by post-election compromises in Washington. The forecast assumes, however, that the cut in the social security tax rate will not be extended again, but will revert back to its full rate at the beginning of 2013.

On a fourth-quarter to fourth-quarter basis, payroll employment is expected to grow 1.2% in 2012 and 0.8% in 2013. The faster growth in 2012 reflects the strength of the first two quarters. Employment growth in 2014 and 2015 will be close to 2% in each of those years, before declining in 2016 due to the aging of the workforce. For the forecast period as a whole, from the third quarter of 2012 to the fourth quarter of 2016, employment growth is expected to average 1.4% per year.

Growth in income and output will essentially follow the same profile as employment, with relative slow growth in 2013 and faster growth in 2014 and 2015. Real gross state product is expected to grow at a 3.3% annual average rate over the forecast period, while real personal income is expected to grow at a 3.2% rate over the same period of time.

The state's unemployment rate is expected to remain between 6 and 6.5% in 2013 and 2014, and then to decline slowly to 5.5% by the end of 2016.

Employment by Sector

By the end of the forecast period, in 2016, the industrial structure of the state's economy will look significantly different from the one that preceded the recession. This is due to long-term trends in demand in the mix of goods and services, the comparative advantages and disadvantages of the state's economy in supplying the nation and the world with products and services, and technological change. Business cycles often accelerate the timing of these changes.

At one extreme, the number of jobs in education and health services is expected to be 14.5% higher by the end of 2016 than in the beginning of 2008, while at the other extreme, the number of jobs in construction is expected to be 7.2% lower. Total nonagricultural employment is projected to be 4.8% higher, with the number of jobs reaching its pre-recession peak in the first half of 2014.

Professional and business services, and leisure and hospitality, will also comprise higher shares of the economy in 2016, with employment 12.7% and 10.5% higher than before the recession respectively.

Government, information, and other services will comprise roughly the same share of jobs as before the recession. Trade, transportation, and utilities; financial activities; construction; and manufacturing will comprise a lower share of jobs than before the recession. Furthermore, the number of jobs in these sectors will still be lower than before the recession began. The number of jobs in trade, transportation, and utilities; and financial activities will be 1.6% and 3.2% lower, respectively; while the number of jobs in construction and manufacturing will be 7.2 and 8.7% lower, respectively.

Much of the changes in the relative share of super sectors are due to differential rates of job loss during the recession. For example, education and health care continued to grow throughout the recession, while construction lost 25% of its jobs, manufacturing lost 13% of its jobs, and professional and business services lost nearly eight% of its jobs.

Over the four and one-half year forecast period, from the third quarter of 2012 to the last quarter of 2016, overall payroll employment is projected to expand at an annual average rate of 1.4%, which is somewhat higher than in the prior expansion (2004q1-2008q1), in which employment growth was 0.9% per year on average. Employment in construction, professional and business services; information; leisure and hospitality; and education and health services will grow substantially faster than overall employment, with average annual growth rates of 4.4%, 2.4%, 2.1%, 1.8%, and 1.7% respectively. Note that, even with high rates of growth, construction employment by the end of 2016 will still be lower than before the recession. Employment in the remaining sectors will lag that of overall employment. The number of jobs in financial activities, government, and manufacturing will grow at annual average rates moderately below that of overall employment, at 1.2%, 1.0%, and 0.9% respectively. Employment in other services will grow at only 0.5% per year, and employment in trade, transportation, and utilities is expected to grow at only 0.2% per year.

Housing

The residential housing market finally appears to be past the bottom and on its way back, assuming that the temporarily weak economy will not set it back once again. This has been the worst housing market for Massachusetts since the Great Depression of the 1930s. Although it does not approach the severity of that time, when prices fell in half and the housing slump – the period from the peak before the crash to when the price level attained its former peak – lasted roughly 20 years, this housing slump is significantly worse than the one in the late 1980s and early 1990s. On that occasion, the median price (as measured by the National Association of Realtors) fell 11% between the second quarter of 1988 and the first quarter of 1993, and the slump lasted 9 years.⁵

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⁵ For the Boston metro area, the Case-Shiller home price index fell 15.9% between March 1989 and January 1992, and the slump lasted eight years.

This time, prices fell 25% between the third quarter of 2005 and the first quarter of 2009. Since then sales and prices began to rise in response to the homebuyer credit program, but after that program ended the market weakened. By the end of the forecast period -11 years after the peak in 2005, prices are still expected to be 4.2% below their peak, suggesting that the slump will end near the end of 2017, or will have lasted about 12 years.

All three basic measures of the health of the housing market have shown significant improvement this year: Prices have been rising moderately, sales have increased substantially, and most importantly – because this is where "the rubber hits the road" for the housing market, housing permits are running above last year. The only sign of continued weakness in these trends is that most of the improvement in permits has been in the multi-family sector. One would expect permits to respond last to a rising housing market, so we should see a firmer trend in single family permits soon.

The near-term slowdown in economic growth is expected to restrain price growth though the first quarter of next year, but then appreciation is expected to accelerate to between 3 and 4% per year for 2014-2016. Sales are expected to rise 33% by the beginning of 2014 from their level at the beginning of 2012. Permits are expected to reach near pre-recession levels by the second half of 2014.

There is an upside to the housing slump. It has made houses more affordable for new homeowners, and therefore has lowered the cost of living. One measure of affordability is the median house price to per capita income ratio. At the peak of the housing market, this measure reached 8.5. It is now at about 5.6, and is expected to continue to fall throughout the forecast to 5.2 by the end of 2016. At this level, houses will be as or more affordable than they were in the mid-1990s and early 1980s. Housing will still be relatively more expensive in Massachusetts than in the rest of the country, but not so expensive that it should lead to the same out-migration pressures that households experienced in the last expansion.

The Fiscal Cliff: What Could But Probably Will Not Happen In 2013

In August, the Congressional Budget Office estimated the impact on the U.S. economy of the so-called "fiscal cliff": a fall in real U.S. GDP of 0.5% from the fourth quarter of 2012 to the fourth quarter of 2013, and a fall in employment that would result in the unemployment rate rising to 9.1% by the fourth quarter of the year.⁷ The fiscal cliff is a set of fiscal tightening provisions that will happen under current law if Congress does nothing. These provisions include:

Automatic spending reductions, equally divided between defense and non-defense spending, that would total approximately \$109 billion in budget authority in Fiscal Year

years 2012 to 2022.

⁶ For the Boston metro area, the Case-Shiller home price index fell 17.5% between November 2005 and April 2009. ⁷ Congressional Budget Office. (August 2012). *An update to the budget and economic outlook: Fiscal*

- 2013 and \$1.2 trillion between 2013 and 2022, as called for in the Budget Control Act of 2011.
- Expiration of the tax provisions of 2001, 2003, and 2009, the payroll tax holiday, increases due to the Affordable Care Act, and other provisions, which would increase tax revenues by approximately \$400 billion in FY 2013.

Several studies have estimated the impact of the fiscal cliff on states' economies, although they differ as to whether they include only the spending cuts or include the tax increases; and also as to whether or not the comparison is "current policy" (that is, extending the tax cuts and cancelling or postponing the spending cuts) or a baseline scenario of a middle ground between current policy and current law. Three studies include the following estimates of the loss in Massachusetts employment:

- 1. 74,000. Moody's Analytics. Their analysis takes into account the tax increases as well as the spending cuts. The baseline comparison is a "middle ground" between current policy and current law. The estimate represents a difference from baseline employment in 2014 of 2.24%.
- 2. 60,497. Stephen Fuller, George Mason University. This is the sum of the direct and indirect job losses on Massachusetts due to the \$115.7 billion cuts in defense and non-defense spending in fiscal years 2012 and 2013. The baseline is current policy.
- 3. 52,000. MassBenchmarks. This is the impact of the direct and indirect job impacts of the Massachusetts share of the \$1.2 billion in defense and non-defense cuts between 2013 and 2022. MassBenchmarks estimates that the average job loss over the 2013-2022 period would be 52,993 jobs. The baseline is current policy.

The Congressional Budget Office estimates that, nationally, roughly half the job impact derives from the spending cuts, and about half from the tax increases¹⁰. Although Massachusetts may be more than proportionately impacted by the spending cuts because of its concentration in defense procurement and medical research funding from the National Institutes of Health, Moody's Analytics finds that the biggest relative impact on Massachusetts is due to the tax increases, and this is because it is a wealthy state. In 2011, Massachusetts per capita personal income of \$53,471 was only exceeded by Connecticut (\$57,902), and the District of Columbia (\$73,783). U.S. per capita income was \$41,560.¹¹

Chances are that the state and the nation will be spared these short-term impacts of fiscal austerity by some sort of deal between Congress and the White House that will soften the blow of the fiscal cliff, and this is what is built in to the forecast for Massachusetts. Thus, growth will be greater in 2013 than it would be without a deal, but less than it would be if current

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⁸ Fuller, Stephen S.; with Chmura Economics and Analytics. (July 17, 2012). *The economic impact of the Budget Control Act of 2011 on DOD and non-DOD agencies*. http://www.aia-aerospace.org/assets/Fuller II Final Report.pdf.

MassBenchmarks. (February 22, 2012). Federal budget cuts could reverse Massachusetts recovery. http://www.donahue.umassp.edu/docs/MassBenchmarks FederalBudgetCuts.

¹⁰ Congressional Budget Office. (November 2013). *Economic effects of policies contributing to fiscal tightening in 2013*.

¹¹U.S. Bureau of Economic Analysis.

policy were extended. Moody's Analytics puts the probability of going over the cliff, that is, current law, at only 15%, and the probability of a middle ground scenario, incorporated in this forecast, of 55%.

Alan Clayton-Matthews
Associate Professor, School of Public Policy and Urban Affairs, and Economics Department
Northeastern University
a.clayton-mattehws@neu.edu
617-373-2909