he Bay State’s economic expansion peaked in December 2000, when the MassBenchmarks Current Economic Index, which is a proxy for gross state product, reached 150.2. But even before reaching that peak, warning signs were on the horizon. The MassBenchmarks Leading Economic Index, which forecasts changes in gross state product six months hence, turned negative in November 2000 and, except for one month, stayed negative for a year. The Current Index did not rise again until April 2003 and since then has risen at a stubbornly slow pace. While there have been eight successive quarters of growth in the Current Index, the pace of that growth appears to have slowed from last year.

In sum, the state of the state economy is a bit like an economist’s version of Groundhog Day, with three fundamental themes driving a repeating story line. Here are the three underlying plot points of that story.

**Theme 1: Job growth has been and is expected to remain slow in the near term.**

Recent employment estimates from the payroll survey suggest that demand for products and services supplied by Massachusetts producers is finally outstripping the ability of employers to meet that demand with existing employees. As a result, payroll employment is beginning to expand more quickly and workers are finding jobs more easily than they have for several years.

Massachusetts total wage and salary income has grown steadily but slowly throughout the recovery. From March 2003 through June of this year, wage and salary income has grown at an annualized rate of 2.9 percent, or 0.5 percent after accounting for inflation as measured by the U.S. consumer price index. However, when measured on a per worker basis, real wages are barely keeping up with inflation. Real payroll wages rose at a 2.1 percent year-over-year.

**A Groundhog Day economy in the Bay State**

*Stubbornly slow growth, a shifting job market – and possible wild cards*
The MassBenchmarks Current Economic Index for June was 154.5, up 3.1 percent from May (at annual rates) and up 3.3 percent from June of last year. The Current Index is normalized to 100 in July 1987 and is calibrated to grow at the same rate as Massachusetts real gross state product over the 1978–2003 period.

The MassBenchmarks Leading Economic Index for June was 4.3 percent, and the three-month average for April through June was 2.8 percent. The Leading Index is a forecast of the growth in the Current Index over the next six months, expressed at an annual rate. It thus indicates that the economy is expected to grow at an annualized rate of 4.3 percent over the six months ending in December. Because of monthly fluctuations in the data on which the index is based, the three-month average of 2.8 percent may be a more reliable indicator of near-term growth.

While it is too soon to tell if a sustained acceleration in growth is emerging, there are finally several positive signs that the Massachusetts economy is picking up steam again as the Leading Index recorded its fastest growth forecast since May 2004. Drops in June’s unemployment rate and initial unemployment claims indicate strengthening labor markets. On a seasonally adjusted basis, initial unemployment claims fell to 29,400, the lowest number since the recession began in December 2000. The Bloomberg stock index, a reliable leading indicator, has been rising steadily for three months, finishing July at a level not seen since August 2000. Massachusetts merchandise exports are up sharply this year, rising 10.7 percent from January through May on a seasonally adjusted basis. Gains in self-employment are outstripping payroll employment, as evidenced by growing proprietors’ income and income tax revenues.

“Caution must be used in interpreting these positive signs,” said UMass Boston Professor and MassBenchmarks co-editor Alan Clayton-Matthews. The three-month average of the Leading Index still suggests near-term growth below a 3 percent annual rate. The Current Index is estimating second quarter real state gross product growth of only 2.8 percent, which is significantly slower than the 3.4 percent annual rate of growth for U.S. real gross domestic product. “Declining unemployment may in part reflect a labor force that is falling faster than employment and this is not a sign of strength,” said Clayton-Matthews.
year rate in the beginning of 2004, but by June of this year, wage rates were not even keeping up with inflation, as real wage rates fell 0.8 percent from June 2004. (The gain in nominal wage rates over the year was only 1.7 percent. Wage rates are measured as the withholding tax base per payroll worker and are deflated using the U.S. CPI-U).

The unemployment situation does reflect a modestly improving job market. Both the unemployment rate and the number of unemployed fell during last year. The unemployment rate peaked at 5.9 percent during April through August of 2003 and has generally fallen since then. The number of unemployed followed a similar pattern, peaking at just over 200,000 in April 2003. During 2004, the number fell from 190,800 in January to 159,900 in December, before briefly rising to 164,500 in March and declining to 158,000 in June.

The modest improvement in unemployment is also echoed in the number of long-term unemployed, which is the number of persons who have been unemployed for more than half a year. According to the Current Population Survey, this number fell from an annual average of 53,800 in 2003 to 41,900 in 2004, a drop of 22 percent. In the first four months of 2005 (data are only available through April), the average number of long-term unemployed fell a bit further to 38,700. Workers in Massachusetts and the nation are suffering about equally on this score, with 0.8 percent of the working-age population among the long-term unemployed.

Theme 2: In an ongoing labor market mismatch, job sectors that are expected to gain jobs are not the same as where they have been lost.

Despite renewed economic growth, the Massachusetts Division of Unemployment Assistance reported in June of this year that more than 67,000 workers continued to collect unemployment insurance benefits, over 38 percent of whom have been doing so for more than 15 weeks. At the same time, recent surveys of Massachusetts employers who are actively seeking to fill open positions find that they have had difficulty finding suitably qualified workers. A statewide job vacancy survey conducted by the state found 55,532 private sector vacant positions in the second quarter of 2004, an increase of more than 1.8 percent over the previous year.

The fact that a large number of unemployed workers are actively seeking employment even as significant numbers of Massachusetts employers are reporting vacant positions and difficulty finding qualified workers indicates a skills gap, a mismatch of the skills of those looking for work and the needs of employers seeking employees. This “skills gap” is in part due to the fact that the industries that recently have been creating new jobs are not the same as those that lost many workers during the recent recession.

Growth in two employment sectors — professional and business services and leisure and hospitality — has been particularly strong during the last 12 months. Year-over-year growth in employment services was 10.2 percent, a bullish sign for strong growth in permanent payroll jobs during the remainder of this year. The strong 3.4 percent gain in leisure and hospitality jobs, and the particularly strong 13.9 percent gain in the accommodation sub sector, reflect a rebound in tourism or business travel, or both. The weak dollar and strong euro may be drawing European visitors to Boston. The increase in travel may also reflect a relaxation of the post 9/11 atmosphere of fear and tension.

The strong growth in professional and business services largely reflects the long-term secular strength of services employment relative to production employment. It also reflects a resurgence of demand for the state’s highly educated and skilled knowledge workers in fields such as consulting, engineering and scientific research and development.

At the same time, employment has been stagnant or declining modestly in the information technology and manufacturing sectors, where many of the job losses have taken place.

Firms in the information technology sector that survived the recession have become quite lean. In many instances, they have fundamentally reorganized the ways in which they operate and have implemented new labor-saving technologies that allow them to produce more and more output with the same or even less labor input. This trend is not likely to change any time soon.

A similar process continues to play itself out in the Massachusetts manufacturing sector, which experienced substantial job losses during the recession. While the pace of job losses appears to have abated, increasing global competition and rising productivity are expected to result in small but steady job losses in the Massachusetts manufacturing sector for the foreseeable future. While selected manufacturing sectors are expected to maintain employment levels or even modestly add employees in the coming years — notably in medical devices and instruments — the long-term transition from a manufacturing to a services employment base is expected to continue.

These trends, and the ongoing maturation of the industries that have been responsible for a good deal of our employment growth in recent years, mean that many of the workers displaced during the recent recession will not have an opportunity to obtain jobs in the industries in which they have the most work experience and relevant skills. Many of these displaced workers are highly educated, possess highly-specialized skills and are accustomed to earning high wages. To become competitive for jobs in growing industries, many of these displaced workers will require additional education, sometimes extensive training and other employment services.
Theme 3: Housing market appears set to cool

With rising interest rates, an economy that is only expanding slowly, and housing prices that are out of line with income, the housing market is due for a correction.

One measure of housing affordability is the ratio of median home value to per capita income. From 1960 to the present, this ratio has varied from the low to high fours in the nation as a whole. In 1960, the U.S. median home value from the decennial census was 4.96 times per capita personal income. By 1990, that ratio had fallen to 4.06. In 2000 it was 4.01 and rising. In 2004, the ratio stood at 4.97.

This ratio has varied much more in Massachusetts and for most of the time was higher than that for the nation. The 1960 Massachusetts ratio was 5.17. It fell to 4.57 in 1980, but rose steadily and swiftly in the 1980s. By 1989, the peak year of the housing market, the ratio stood at 7.60. Then it fell as housing prices dropped 11 percent over the course of five years. Housing continued to become more affordable until the nine-year housing price slump ended in the fourth quarter of 1997. By the end of the decade, annual price appreciation had accelerated back to more than 10 percent. In 2000, the ratio stood at 4.92, but was rising quickly. For 2004, the ratio was up to 6.82, near the level seen at the peak of the 1980s bubble.

While a reduction in the rate of growth in housing prices or even small nominal price declines in some regions of the state will bring some much needed relief to the many Massachusetts families that have been shut out the housing market, the growth in home equity and associated household wealth has served to shore up consumer spending. While a gradual return to a more sustainable price-to-income ratio seems the most likely scenario, a more severe correction could have a notable impact on future economic growth in those regions most directly affected by a cooling housing market.

Wild cards could shake up this Groundhog Day economy

On the upside, the Commonwealth continues to be well-positioned in potential high-growth emerging industries, such as nanotechnology and medical devices. The state’s economy will always be a magnet for certain types of high-technology development, though truly rapid economic growth may have to await “the next big thing,” whatever that turns out to be.

Included in downside risks are both national and global competition. The high cost of living and doing business in Massachusetts is well known, and there are always forces pulling economic activity to lower cost regions and countries. The state’s demographics presents another risk, with a very slowly growing labor force and a population that hovers around zero growth.

In the medium term, a major risk to a sturdy expansion is the dependence of the Massachusetts economy on the health and vitality of the national and international marketplace. Even as the heavy reliance of the Commonwealth’s export industries on continued national and global demand positions the state well for the future, it also leaves it vulnerable to exogenous developments.

A number of the possible scenarios that could serve to reduce growth come with silver linings. For example, rising interest rates would have a negative impact on the construction sector, but they would also place downward pressure on home prices — a key source of household wealth. An extended period of weak housing price appreciation, or even a short period of housing price declines, will help to ease the cost of living crunch that has put the Commonwealth at a competitive disadvantage in the national competition for skilled workers.

### The Critical Ratio of Housing Prices to Income

<table>
<thead>
<tr>
<th>Year</th>
<th>Massachusetts</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per Capita Personal Income</td>
<td>Median Home Value</td>
</tr>
<tr>
<td>1960</td>
<td>2,672</td>
<td>13,800</td>
</tr>
<tr>
<td>1970</td>
<td>4,483</td>
<td>20,600</td>
</tr>
<tr>
<td>1980</td>
<td>10,602</td>
<td>48,400</td>
</tr>
<tr>
<td>1989</td>
<td>22,342</td>
<td>169,707</td>
</tr>
<tr>
<td>1990</td>
<td>23,043</td>
<td>162,800</td>
</tr>
<tr>
<td>2000</td>
<td>37,756</td>
<td>185,700</td>
</tr>
<tr>
<td>2003</td>
<td>39,504</td>
<td>255,841</td>
</tr>
<tr>
<td>2004</td>
<td>41,801</td>
<td>285,187</td>
</tr>
</tbody>
</table>

Due to a boost from self-employment jobs and earnings, the job market appears to be improving faster than payroll employment and wages suggest. This reflects both the usual cyclical relationship between self-employment and payroll earnings as well as an apparent trend towards a higher share of total jobs being self-employed.

The evidence for these observations comes from state quarterly income estimates from the Bureau of Economic Analysis. These provide estimates of total earnings broken down into three components: wage and salary income; proprietors’ income; and supplements to wage and salaries. Wage and salary income is the earnings received by payroll workers, that is, their gross pay. Proprietors’ income represents the net profits or earnings received by self-employed workers, including non-payroll contract workers. Supplements, with which we are not concerned here, consist of employer contributions to social security and other social insurance programs, pensions and insurance, including health insurance.

As is typical in the early phases of recent recoveries, proprietors’ income is growing faster than payroll wage and salary income in this recovery. In the first quarter of the recovery (the second quarter of 2003), proprietors’ income was 5.2 percent higher than the same quarter a year earlier, while wage and salary income was 0.6 percent lower than in the prior year. So far during the recovery, proprietors’ income has continued to grow faster. In the first quarter of 2005, which is the most recent quarter available for both income series, proprietors’ income was 9.2 percent higher than in the prior year compared to a 6.1 percent increase for wage and salary income.
In contrast to expansions, growth in proprietors’ income tends to fall below growth in wage and salary incomes during recessions, although there are exceptions. Proprietors’ income fell sharply relative to wage and salary income in the double-dip recession of the early 1980s and in the long and deep 1989-91 recession. In the recessions of the early and mid-1970s, increases in both income components fell by about the same amount. This last recession, however, exhibited a markedly different pattern than seen in any recent business cycle: proprietors’ income grew substantially faster than wage and salary income throughout the recession, and continued to do so almost without pause throughout the recession.

The increasing relative importance of proprietors’ income – and by implication, non-payroll employment – is illustrated by the ratio of proprietors’ income to wage and salary income. This ratio reached a new high in the first quarter of 2005 of just over 14 percent. Indeed, the ratio of proprietors’ to wage and salary income appears to have been increasing, in fits and starts, since the early 1980s, when in the first quarter of 1982 it was as low as 8.6 percent. In each expansion since the early 1970s, proprietors’ income has reached a new high relative to payroll wages and salaries and a new high has already been established in the current expansion.

Recent trends are consistent with anecdotal and statistical evidence of an increasing tendency by employers to choose temporary and contract workers rather than permanent workers when expanding their staffing, presumably in an effort to lower health and pension costs. Although the income data presented on page 8 could result solely from faster per-worker income growth among the self-employed compared to payroll workers, the increasing trend more likely also reflects faster growth in the number of self-employed relative to payroll employment. The payroll employment data suggest that such a trend is occurring. One piece of evidence is the rapid growth in the employment services NAICS sector, which has risen at an annual rate of 9.1 percent since the recovery began in March 2003, compared to an annual rate of only 0.2 percent for all payroll employment. Although this is growth in payroll employment and not self-employment, it does underscore employers’ increasing reliance on temporary rather than permanent workers and suggests that complementary hiring of self-employment workers is also taking place. A second piece of evidence is child care services, which have grown at an annual rate of 2.2 percent since the recovery began and 5.0 percent in the 12 months ending in June. This excess of growth over and above that of overall payroll employment suggests that more self-employed parents must be dropping off their children for day care.

A third piece of evidence comes from the monthly Basic Current Population Surveys, the primary source of the official estimates of resident labor force, employment and unemployment. This survey shows a rising trend since the end of 2002 in the proportion of workers who are self-employed. The 12-month moving average of workers who say they are self-employed rose from 9.6 percent in November 2002 to 11.1 percent in April 2005, the last month for which the data are available. A similar trend is also apparent in the nation as a whole, where over the same period the proportion of workers who are self-employed rose from 11.3 percent to 12.1 percent.

- Alan Clayton-Matthews

**Percent of the Employment that is Self-Employed**

Source: Bureau of Economic Analysis