The state’s economy remains stuck in slow gear, and may no longer even be moving forward. In the face of slow employment growth, a population and brain drain, a sharp spike in energy costs, volatile consumer confidence, housing prices that are clearly cooling, increasing federal budget deficits, trade deficits and rising interest rates, perhaps it’s good news that the economy has been able to grow at all.

Moderate growth is expected through 2006. Annual payroll employment growth is expected to be in the range of 1.3 percent over this timeframe, perhaps peaking at an annual rate of nearly 2 percent in the second quarter of 2006. Gross state product growth is expected to be between 2 and 3 percent, on an annual basis, over the next two years. This is a lackluster performance for this phase of a recovery. The near-term future of the state’s economy is tepid, especially when one compares this expansion to those of the 1980s or 1990s. We expect slow growth, well below the average for the two prior expansions, for the next few years.

In the medium term, the primary risks to an uninterrupted expansion are rising interest rates and inflation and their effects on real income growth, and — through house prices — on household wealth. These risks are not

Look for little growth in the first half of 2006

High energy costs and cooling housing market
a drag on near term growth

Moderate growth is likely through 2006, but energy costs and the housing market could further limit growth in the near-term.
ECONOMIC INDICES FOR MASSACHUSETTS

Shortly before the publication of this issue, the November indices were released. Their more gloomy outlook is summarized below.

The Massachusetts Current Economic Index for November 2005 was 155.3, up 0.2 percent from October (at annual rates) and up 2.0 percent from November 2004. 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 Massachusetts Leading Economic Index for November was 0.3 percent and the three-month average for September through November was also 0.3 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 0.3 percent over the next six months (through May).

The Massachusetts economy is out of gas and is slowing to a virtual standstill. The Current Index estimates that real gross state product growth in the third quarter slowed to an annual rate of 1.6 percent versus revised real U.S. gross domestic product growth of 4.1 percent. Signs of a weakening state economy are abundant. Payroll employment grew only 0.4 percent in the 12 months ending in November 2005; wage rates are falling behind inflation; real inflation-adjusted aggregate wages paid to payroll workers is declining and the state continues to lose population and workers through out-migration. The Current and Leading indices suggest that conditions are not improving. Not only has recent growth been anemic, the Leading Index is projecting almost no growth into the first half of 2006.

This slowdown in the Massachusetts economy is not really the downside of a business cycle, but rather reflects an economy that is stagnating under the pressures of a high cost of living, outsourcing, offshoring and competition from Asia for the state’s information technology products. Aside from a brief spurt in 2003 and 2004 in which surging demand for technology products lifted the state, the recovery never caught fire in Massachusetts. In addition, recent developments, including the sharp rise in home heating and energy costs, the expectation of rising interest rates, and the specter of a fall in housing prices are weighing down growth in the near term.

Sources: The Conference Board; University of Massachusetts; Federal Reserve Bank of Boston
all on the downside. They come with silver linings. The primary factor driving inflation and interest rates is the huge trade deficit and expectations of a weakening dollar. On the upside, a weaker dollar will boost exports as the nation literally works its way out of foreign indebtedness. A long period of weak housing appreciation, or even a short period of housing prices declines, will help reduce the state’s competitive disadvantage in housing prices.

Before reporting the current state of the Massachusetts economy, we examine two of these risks in particular — high energy costs and housing affordability.

**The impact of Katrina-related energy costs**

Home heating and electricity expenditures for Massachusetts residents are expected to increase by more than one-third by October 2006 compared to October 2005, with increased costs of more than $700 for the average household. For the state as a whole, this amounts to an increase of $1.75 billion in expenditures, or 0.6 percent of personal income. Real gross state product growth is expected to be about 0.50 percent to 0.75 percent slower than it would have been in the absence of this Katrina-related shock, as energy spending increases act as a tax on the state’s income.

This growth impact estimate is based on the assumption that most of the increase in energy expenditures of households will come at the expense of other spending and the additional assumption that the multiplier effects will be small. Consumers are already paying for higher gasoline prices. Furthermore, energy prices last year were already significantly higher than the year before that. There is no room for most households to absorb these higher costs without cutting back on lower priority spending.

A low multiplier seems probable for a couple reasons. One is that much of the sacrificed spending effects will be exported to other regions of the country and other countries. Roughly one-half of state consumption is supplied from outside the state. It is true that Massachusetts exporters will also feel the effects of slower consumer spending in the rest of the country, but households outside the Northeast spend much less on home heating oil and natural gas — the two commodities with the highest Katrina-related price impacts — than do New Englanders, so the loss in exports should be relatively small. Also, the rebuilding in the Gulf states will provide some extra demand that would not otherwise exist. An example is replacement of information technology equipment damaged or destroyed in the hurricanes.

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The pain of the increased energy costs will not be shared equally across households. Natural gas customers will be subject to the biggest increase in their energy bills this winter — but they will just be “catching up” to heating oil customers who also experienced large increases last year. Households who commute long distances by car will have to shell out more money for gas than those who live closer to work. The biggest differences in pain, however, will be between high-income and low-income households. According to the Consumer Expenditure Survey, which is used to form the basket of goods that make up the consumer price index, the average U.S. household spends 3 percent of its income on home energy, that is, electricity, heating oil, and natural gas, but the difference in the budget shares of low-income versus high-income house-
holds is huge. Households in the top fifth of the income distribution spend only 1.7 percent of their income on these home energy services, while households in the bottom fifth of the income distribution spend 11.9 percent of their smaller incomes. If gasoline is added in, low-income households in the bottom quintile of income spend 19.4 percent, nearly one-fifth, of their income on electricity, fuel oil, natural gas and gasoline. To make matters even worse, these budget share figures are for 2003. This heating season, energy prices will be roughly 60 percent higher than in 2003. Low-income households in Massachusetts are suffering mightily this winter.

Housing market set to cool

With rising interest rates, an economy that is barely expanding, and housing prices that are out of line with income, the housing market is set 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 median home value according to the decennial U.S. census was 4.96 times per capita personal income. By 1990, the ratio had fallen to 4.06. In 2000, it was 4.16 and rising. By the second quarter of 2005, the ratio is estimated to have been 5.12.

This ratio has varied considerably more in Massachusetts, and, for most of the time, was higher than that for the United States. In Massachusetts in 1960, the 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 during the last boom, 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 over 10 percent per year. In 2000, the ratio stood at 5.46, but was rising quickly. In 2003, it surpassed the peak of 1989 and by the second quarter of 2005, it stood at 8.67, an unsustainable level at which the median-priced house costs more than 8.5 times per capita income. The only reason the market has been sustainable to this point is because mortgage interest rates have been low — much lower than in the late 1980s. Even though some correction in house prices is inevitable, correctly forecasting its timing and speed is virtually impossible. We now expect this downturn to take the form of a slump in the housing market, accompanied by periods of housing price stagnation and even modest decline. Thereafter, appreciation will be much subdued compared to the recent past. During this period we would expect incomes to grow faster than house prices, restoring housing to more affordable levels and making Massachusetts better able to attract families and retain its population and labor force.

Table 1. The Critical Ratio of Housing Prices to Income

| Year | Massachusetts | | United States | |
|------|---------------|---------------|---------------|
|      | Per Capita Personal Income | Median Home Value | Home Value/Income | Per Capita Personal Income | Median Home Value | Home Value/Income |
| 1960 | 2,672         | 13,800        | 5.17          | 2,401         | 11,900         | 4.96          |
| 1970 | 4,483         | 20,600        | 4.60          | 4,085         | 17,000         | 4.16          |
| 1980 | 10,602        | 48,400        | 4.57          | 10,114        | 47,200         | 4.67          |
| 1989 | 22,342        | 169,707       | 7.60          | 18,520        | 77,105         | 4.16          |
| 1990 | 23,043        | 162,800       | 7.07          | 19,477        | 79,100         | 4.06          |
| 2000 | 37,756        | 206,025       | 5.46          | 29,847        | 124,176        | 4.18          |
| 2001 | 38,949        | 233,833       | 6.00          | 30,575        | 128,203        | 4.19          |
| 2002 | 38,973        | 256,418       | 6.58          | 30,804        | 135,480        | 4.40          |
| 2003 | 39,904        | 308,850       | 7.82          | 31,472        | 143,515        | 4.56          |
| 2004 | 41,801        | 331,008       | 7.92          | 32,937        | 151,366        | 4.60          |
| 2005 Q2| 43,690   | 378,758       | 8.67          | 34,488        | 176,459        | 5.12          |

The path that the market will actually follow could be quite different. It is possible, for example, that the housing market could avoid a downturn if price appreciation were to fall below income growth for a considerable period of time. Given the effect of Katrina-related energy prices hikes on consumer confidence, increases in the inventory of unsold homes and anecdotes about price reductions, the downturn may have already begun and may be sharper than this outlook suggests. One chain of events is clear. If prices continue to rise faster than incomes, ultimately the correction will be more drastic and/or longer. In any case, the projected growth in the economy is simply not consistent with recent price gains, especially given the almost certain higher cost of borrowing for mortgages.

Current conditions and outlook

Between the payroll employment peak in February 2001 and the employment trough in January 2004, 207,100 net jobs were lost. Since the employment expansion began in January 2004, only 44,000 of the jobs have been regained, an annual rate of growth of only 0.7 percent.

Labor market conditions appear to be improving, though slowly. The September unemployment rate was 4.7 percent, which was only .2 percentage points lower than the prior year. Initial unemployment claims have averaged below 35,000 for the year ending in September, suggesting an improving job market. Several sectors of the economy have experienced employment gains, including professional business services, health services, construction and retail trade. The net job gains have been spread over the entire spectrum of pay levels. According to employers’ quarterly wage reports (the 202 series), employment growth has been strongest in sectors that pay in the middle quintile of wages, but every quintile of earnings had job growth exceeding 0.5 percent between the first quarter of 2004 and the first quarter of 2005. Average wages for payroll workers are not quite keeping up with inflation, however.

Non-payroll jobs appear to be growing at a significantly faster rate than payroll jobs, as suggested by faster growing proprietors’ income, estimated income tax payments, and self-employment counts on the Current Population Surveys. Although these jobs make up only about 10 percent of total employment, there may be a trend towards greater reliance on contract work as employers try to avoid high health care and pension costs.

Though healthy, the technology sector is not strong enough to pull the rest of the economy up as it did in the expansions of the 1980s and 1990s — at least not yet. Massachusetts merchandise exports, for example, are higher than their prior peak in 2000, but growth in the past year has been flat.

Real gross state product growth, as estimated by the Current Index, has slowed from 2004 and has once again fallen behind that of the nation. In the third quarter of 2005, state gross state product is estimated to have grown at only a 2.6 percent annual rate versus 3.8 percent for U.S. gross domestic product. The three-month average of the Leading Index for Massachusetts for July through September is projecting a continuation of slow growth.
growth through March, at a 2.3 percent annualized rate. The Leading Index for September is bleaker, projecting a meager 1.1 percent rate of growth through March. The September leading index was pulled down by a sharp drop in New England Consumer Confidence, which took the biggest plunge in its history, undoubtedly in response to the energy price shock from Katrina.

Massachusetts lost population in 2004 due to net migration losses of 27,400 persons. This was comprised of a net gain in international migration of 31,500 that was more than offset by a net loss of 58,900 persons to other states (net domestic out-migration). These migration flows have included a net “brain drain” of college students and persons with a bachelor’s or higher college degree. According to the American Community Surveys of 2003 and 2004, the state had a net migration loss of 22,500 such persons in the two-year period ending in April 2004. This is in marked contrast to the last five years of the expansion of the 1990s, when there was a net migration gain of 18,800 “brains” per year in the five-year period ending in April 2000, according to the Decennial Census. The biggest difference between then and now is in the rate of out-migration of college students and college educated persons. The gross out-migration of “brains” averaged 50,700 per year in the 1995–2000 period, while it averaged 82,900 per year in the 2002–2004 period. This difference is widely attributed to the state’s weak labor market and high cost of living.

1 These estimates are based on prices, price indexes, expected price increases for this heating season, and spending on four energy components: electricity, natural gas, home heating oil, and gasoline. Home heating oil prices are from the Massachusetts Division of Energy Resources surveys of heating oil providers. Price indices for the each of the other three components are from the U.S. Bureau of Labor Statistics Boston Metropolitan Consumer Price Index for Urban Consumers. Expected price increases for this heating season are from the Boston Globe, “State OK’s 27.5% rate hike for Mass. Electric,” Peter J. Howe, October 1, 2005. The electric and natural gas price increase estimates from this article are based on rate requests to the Massachusetts Department of Telecommunications and Energy. Spending on these energy components are from the Bureau of Labor Statistics’ Consumer Expenditure Survey. The last year of household budget estimates are for 2003 for the Northeast region, which includes New England, New York, Pennsylvania, and New Jersey. Prices or price increases were applied to the 2003 budgets from the CES to estimate the budgets for the 2005 (October 2004 - September 2005) and 2006 (October 2005 - September 2006) heating seasons. Budgets by income quintile for 2003 are from the CES for the U.S.

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**Figure 4. Growth in Real Product, Massachusetts Current Economic Index vs. U.S. GDP**

![Graph showing growth in real product, Massachusetts Current Economic Index vs. U.S. GDP](image)

Sources: U.S. Bureau of Economic Analysis; University of Massachusetts

**Figure 5. Average Number of Migrants To/From Massachusetts Per Year Who Are Either in College or Who Have a Bachelor’s or Higher Degree**

![Bar chart showing domestic immigration, international immigration, and domestic outmigration](image)