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National Woes Test Bay State Economy

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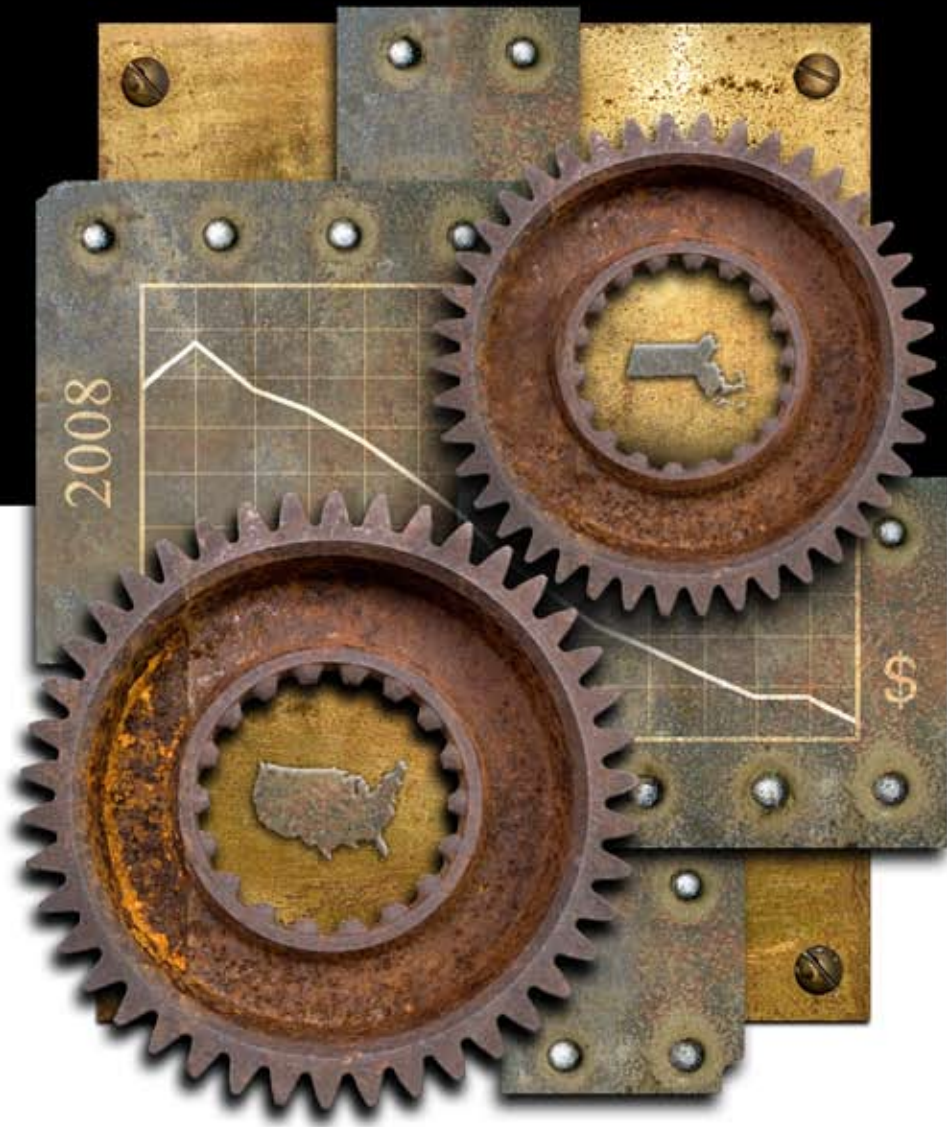
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THE STATE OF THE STATE ECONOMY

ECONOMIC CURRENTS



National Woes Test Bay State Economy

GLOOMY PROJECTIONS THAT THE U.S. ECONOMY MAY FOUNDER ON HIGH ENERGY COSTS AND PLUMMETING HOUSING STARTS COULD PROVE TOO PESSIMISTIC FOR MASSACHUSETTS, GIVEN THE WORLD DEMAND FOR ITS HIGH-TECH AND SCIENTIFIC GOODS AND SERVICES.

ALAN CLAYTON-MATTHEWS

Economic growth is slowing, and is projected to continue to decelerate into the second half of 2008, and then to rebound moderately.

The slowdown is directly related to the impact of the declining housing market, the sub-prime mortgage shakeout in the finance sector, and the high cost of heating oil and gasoline. Credit tightening is threatening to curtail business activity and the solvency of investors and households involved in sub-prime lending or borrowing. High energy prices are reducing non-energy consumer spending. The impact of the declining housing market has already affected the state's economy. Massachusetts is experiencing declines in housing construction and construction employment, and slower growth in consumer spending.

Opposing this drag is the upward force on growth due to national and worldwide demand for the technology-based products and knowledge-based services that Massachusetts supplies. These include information processing equipment and software, pharmaceuticals, biotechnology, scientific research and development, consulting, engineering, and financial services. Foreign demand should provide a countervailing offset to weaker domestic growth, aided by the weak dollar, which makes U.S. products more competitive in world markets.

**Why the slowdown:
housing, credit crunch, oil prices**

Since the financial crisis became apparent in August, the weakening in the housing market has accelerated. According to the U.S. Housing and Urban Development's OFEHO house price index, single house prices in Massachusetts fell at a 6.5 percent rate in the third quarter. Prices declined in almost all regions of Massachusetts, with Massachusetts Association of Realtors' data confirming this renewed weakness. In October, the median price of single-family homes sold was down only 3.2 percent from the prior year. The pace of decline has accelerated, however. Prices in the three-month period ending in October declined at an annual rate of 12 percent from those of the prior three-month period.¹ Sales of single-family homes, which had been stabilizing, continued their downward plunge, falling 11 percent in October from the prior year. Consequently, inventory, measured by active listings, has begun to rise again. Housing permits have remained low in recent months. The annual average for the first three quarters of 2007 is down 34 percent from 2005, the last year before the slowdown. Construction employment in October is down 1.4 percent from a year ago.

The economic effects of the downturn in the housing market have spilled over into the financial sector, causing a liquidity crisis that is constraining general business and consumer lending and threatening to drag the economy into recession. Periods of rapid expansion, like housing in

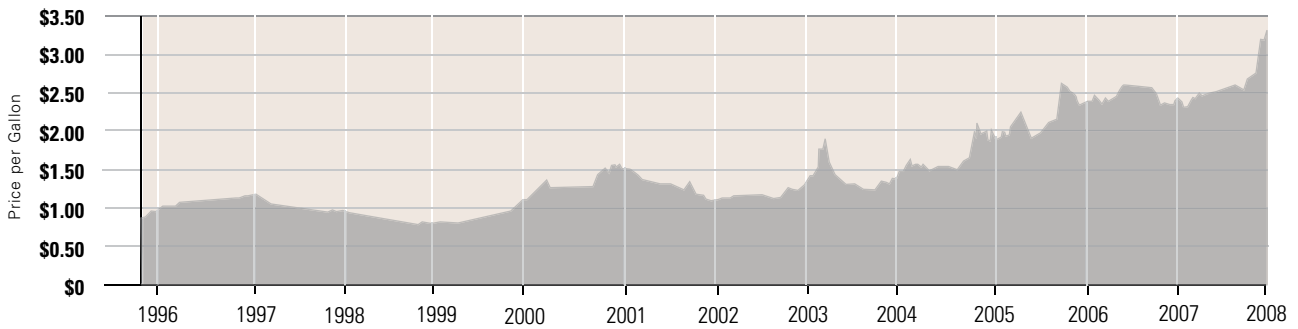
The slowdown is directly related to the impact of the declining housing market, the sub-prime mortgage shakeout in the finance sector, and the high cost of heating oil and gasoline.

the first half of this decade, housing in the late 1980s, and the tech bubble in the late 1990s, are fueled by optimism and greed. Optimism has taken the form of householders who justify purchasing over-priced homes, putting no money down, and submitting to large future interest rate resets because they believe that housing prices are bound to keep increasing, allowing them to sell at a profit or refinance with the increased equity. Greed has taken the form of investors who invent all kinds of new investment vehicles to profit from the frenzy in the mortgage market.

Now that mortgage defaults have risen into the red zone, investors who have borrowed short term to lend long term need cash to pay back short-term debts. Since that cash is not coming from mortgage payments, investors are borrowing from banks or any other source they can find. Banks, in turn, are also invested in the mortgage market, so are also strapped for cash. Everyone wants to borrow; few have the money to lend. The problem is compounded by the complexities of the newly invented financial securities, so credit worthiness of institutional borrowers is unknown, chilling lending from those few who do have cash.

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Figure 1. Home Heating Oil Prices



Source: Massachusetts Division of Energy Resources (DOER)

Financial crises can often be resolved quickly. Losers and winners are identified, bad debts get written off, and financial activity begins anew with a clean slate. At other times, however, the manic phase of optimism and greed switches into one of fear and greed. Panic and the unwillingness to take risks freezes investment activity, resulting in economic recession. At this moment, who knows how this will turn out? Uncertainty rules.

Adding to the downside risk is the effect of high oil prices on household budgets and consumer spending. If home heating oil prices and gasoline prices remain at their current levels (\$3.26 a gallon for oil heat and \$3.04 for gasoline at the pump near the end of November), the 36 percent of Massachusetts households that heat with oil will pay, on average, \$570 more over the 2008 heating year (October 2007 through September 2008) than the year before. Adding in higher expenditures on gasoline that would average \$325 per household over the same period, the additional energy costs could amount to an additional 0.4 percent of personal income.² Given the already tight budgets of many households, and the reduced access to credit, most of this increase will come out of other spending, reducing consumer spending and putting another drag on economic growth this year.

Countervailing the negatives dragging the economy down is the strength of the state's technology, science, and knowledge-based service sectors, which are supported by national and world demand for the products Massachusetts makes and for the services it provides.

Consequently, households are not feeling good about the economy. The MassInsight consumer confidence index for Massachusetts fell from 101 to 82 over the last year ending in October.

Why this may not be enough to send the economy into recession

In the view of many, the probability of recession in 2008 is uncomfortably high. The average assessment of the 54 economists surveyed in January's *Wall Street Journal* survey is that there is a 42 percent chance of a recession in the next 12 months. On a more optimistic note, the survey says there is a 58 percent chance of no recession. We concur with the more likely alternative that Massachusetts economic growth is likely to remain positive in 2008. Countervailing the negatives dragging the economy down is the strength of the state's technology, science, and knowledge-based service sectors, which are supported by national and world demand for the products Massachusetts makes and for the services it provides. Employment in the state's large professional and business services sector is up 2.3 percent in October over the prior year, and up at an annual rate of 1.9 percent in the last three months ending in October over the prior three-month period. Employment growth in the professional, scientific, and technical service component of this sector — which makes up over half of the super sector — is up 3.7 percent from last year and up at an annual rate of 3.4 percent in the last three months.

Although Massachusetts manufacturing employment has continued its slow secular decline, falling 0.9 percent over the year ending in October, employment in computers and electronic equipment — the largest technology manufacturing industry — grew 1.3 percent over the last year, faster than in the rest of the nation. Indicators of national and worldwide information technology output and demand are growing or stable at high levels. Massachusetts merchandise exports have been essentially flat this year, but at a high level. Exports for the first 10 months of 2007 are running 6 percent above last year.

Given the state's higher reliance on technology and science-based products and services, and lower reliance on housing construction, Massachusetts may weather the economic storm better than the nation as a whole.

The outlook from the New England Economic Partnership

The leading index for Massachusetts suggests that economic output growth will slow, from a 2.2 percent annual rate in the fourth quarter to a 1.7 percent annual rate through June of 2008. The New England Economic Partnership's (NEEP) forecast for Massachusetts is projecting a slow-down but no recession, with employment growth slowing to a bare 0.3 percent annualized rate in the second half of 2008. This forecast now seems overly optimistic, given that payroll employment has already fallen at a 0.5 percent annualized rate in the fourth quarter, and that a 1.7 percent rate of real gross state product growth is consistent with further declines in employment as a result of rising productivity.

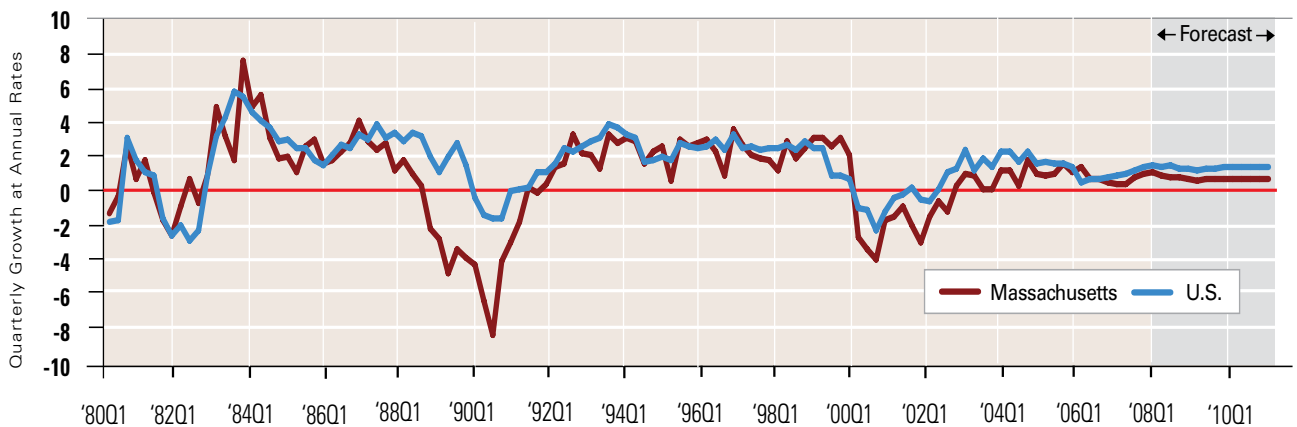
Put in an historical perspective, the current expansion — assuming Massachusetts does not fall into a recession this year — is tepid when compared to that of the

1980s and 1990s. The average annual rate of employment growth during the forecast period (the third quarter of 2007 through the fourth quarter of 2012) is 0.6 percent. Although this is about the same as the long-term average rate of growth of 0.7 percent from 1980 through 2006, it is well below the average for the two prior expansions, of 4.8 percent in the 1980s expansion (1982Q2 – 1989Q1), and 2.2 percent in the 1990s expansion (1992Q2 – 2001Q1).

The U.S. economy is also expected to grow more slowly over the next several years. For the nation as a whole, employment grew at an average annual rate of 1.5 percent over the same 26-year history, while the projected rate is 1.1 percent through 2012. Over the same expansion periods, U.S. employment grew at an annual average rate of 5.2 percent in the 1980s, and 2.3 percent in the 1990s.

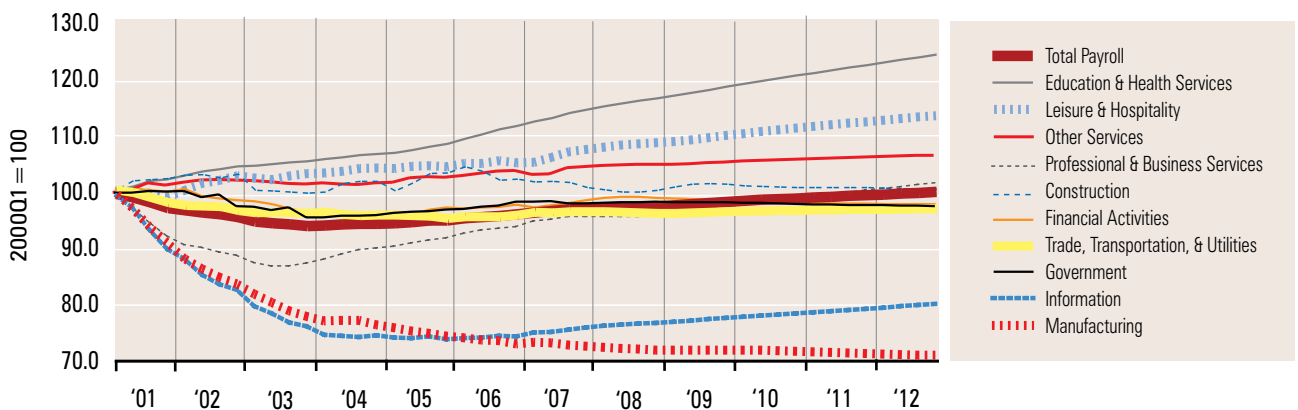
Nevertheless, the state's economy will be growing, as will the population after two years of losses between 2003 and 2005. Massachusetts will continue to be a high-income and high-earnings state. Average wage and salary disbursements per worker at the end of last year were 22 percent higher than in the nation as a whole. By the end of 2012, the differential will have narrowed, but Massachusetts workers

Figure 2. Employment Growth, Massachusetts vs. U.S.



Source: NEEP

Figure 3. Payroll Employment, Massachusetts



Source: NEEP

are still expected to be earning 17 percent more than the national average at the end of the forecast period.

Employment growth by sector

The number of jobs is expected to reach the prior peak (in the first quarter of 2001) in the middle of 2012. The trends will vary substantially by sector.

The fastest-growing North American Industry Classification System (NAICS) super sector will be Education and Health Services, which will grow at an annual average rate of 1.7 percent over the forecast period. Other relatively fast-growing sectors will be Leisure and Hospitality, Professional and Business Services, and Information, each of which will grow at an average annual rate of 1.2 percent over the forecast period. Of these four sectors, the number of jobs in Education and Health Services and Leisure and Hospitality will far surpass their levels at the last employment peak of 2001Q1. The former sector continued to grow throughout the recession, while the latter suffered a relatively brief downturn in the aftermath of 9/11. The strong growth in Professional and Business Services reflects the demand for the state's highly educated and skilled knowledge workers in fields such as consulting, engineering, and scientific research and development. Both Professional and Business Services and Information suffered large job losses during the recession. The former sector is expected to regain all of the jobs lost during the recession, while Information will still be off by nearly 20 percent despite its strong growth, as a result of large losses in software, telecommunications, and publishing during the recession, and a combination of technological change and offshoring in these industries.

Trade, Transportation, and Utilities, Financial Activities, and Other Services will grow at slightly lower rates than overall employment. The number of jobs in Other Services never fell below the 2001Q1 total jobs peak.

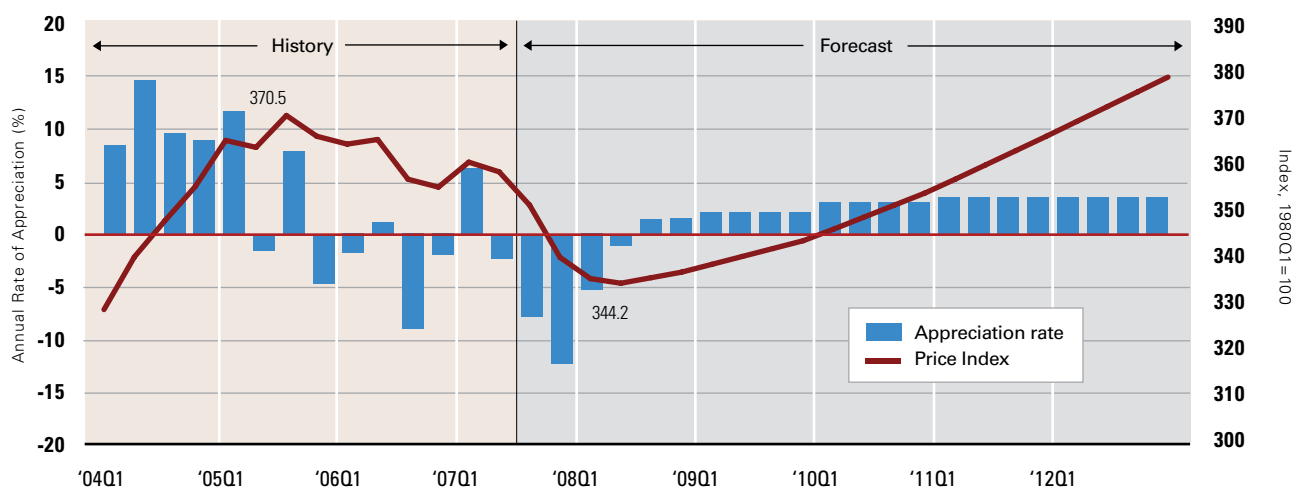
The Finance sector expansion rate of growth will be much less than in the expansions of the 1980s and 1990s. This reflects an expected cooling off in the housing and mortgage markets (refinance activity is already off substantially), the effects of consolidation in banking, and continued outsourcing of back office, information processing, and lower-skilled jobs in money management, mutual funds, and insurance. High-paid jobs such as fund managers will remain in Boston.

Manufacturing and Construction are expected to lose jobs over the forecast period, at annual average rates of 0.6 percent and 0.3 percent respectively. Manufacturing lost 24 percent of its peak-level employment during the recession. Continued job losses at the low rate of 0.6 percent per year actually reflect solid and sustained growth in output, given the high rate of productivity growth in the sector. Construction will finally submit to the reality of declining demand in the face of a weak housing market.

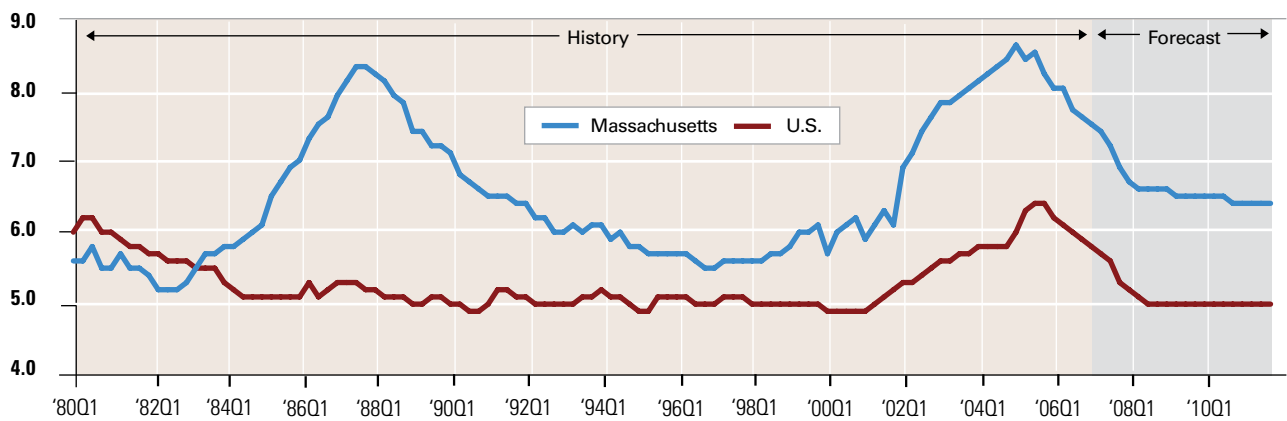
Housing prices have further to fall — a necessary correction

Conditions in the housing market seemed to be improving in early 2007, but then worsened quickly in the summer as the sub-prime debacle disrupted financial markets and foreclosures skyrocketed. Prices fell and sales plummeted in the rest of the year. With rising inventory, tightened credit, slow income growth, and fear of recession, the housing market should continue its decline. There is still downward pressure on prices with no sign of letup in the coming months. If the economy avoids recession and financial markets resume functioning normally, perhaps the bottom will be reached sometime in 2009. Now that the price bubble has been pierced, the price of housing is likely to revert back to a more normal relationship with income. Since 1980, according to the OFHEO index, housing prices in Massachusetts rose faster than in any

Figure 4. Massachusetts Median Existing House Prices, History and Forecast



Sources: National Association of Realtors and the New England Economic Partnership

Figure 5. Ratio of Median House Price to Per Capita Personal Income

Sources: NEEP, Moody's Economy.com

other state in the nation. This was the result of the success of the state's economy in the 1980s and 1990s. Given the severity of the last recession, the out-migration of population, and the prospect for slow growth ahead, the state's economy cannot justify the excessive price premium for residential real estate.

Given the state's higher-than-average income in relation to the rest of the country, it's not surprising that housing costs more here. Higher incomes mean higher demand for housing, and therefore higher prices, than the nation as a whole. But how much higher? If households across the nation spent about the same fraction of incomes on homes, then the house price-to-income ratio would be similar from state to state.

At the beginning of the 1980s, the ratio of housing prices to per capita personal income was roughly the same in Massachusetts as in the nation as a whole. In fact, it was slightly lower, with the median-priced home in Massachusetts costing about 5.5 times per capita personal income, versus about 6 times nationally.

At the peak of the housing bubble in the late 1980s, the ratio of the median single-family house price to per capita personal income in Massachusetts peaked at over 8. The corresponding ratio for the U.S. at this time was about 5. The state's worst recession since the Great Depression led to the restoration of the price-to-income ratio. By 1997, the typical house cost 5.5 times per capita income in Massachusetts, versus 5.0 times in the U.S. as a whole. The roaring economy of the late 1990s, low interest rates, liquid financial markets, and substantial household wealth and income growth drove prices out of line again in Massachusetts, to 8.5 times per capita income at the beginning of 2005, versus a ratio of 6.5 for the U.S.

Now, although the economy has been expanding, and although mortgage interest rates are still low in recent historical terms, forces are driving that ratio back down rapidly toward equilibrium with the rest of the country.

These forces include weak employment growth, moderate — rather than strong — income growth, and an economy of which the trend rate of growth is slower than that of the nation. By the beginning of 2010, the ratio of prices to per capita income is expected to fall to 6.5, versus 5.0 nationally. This will be accomplished by falling house prices through the middle of 2008, and then a rate of house price appreciation that is slower than per capita income growth through 2009. Afterwards, house prices will grow at about the same rate as income.

Although these price declines are not welcomed by existing home owners and are disastrous for many middle- and low-income households who recently purchased houses with little or no equity, they are healthy for the economy. With house prices falling into line with incomes, Massachusetts will once again be affordable for the state's future labor force.

ALAN CLAYTON-MATTHEWS, an associate professor and the director of quantitative methods in the Public Policy Program at the University of Massachusetts Boston, is co-editor of this journal.

NOTES

1. Prices, sales, and listings growth rates are based on seasonally adjusted data. Seasonal adjustments were performed by the author using the Bureau of Labor Statistics' X-12 ARIMA procedure.
2. The methodology for these estimates is available from the author on request.