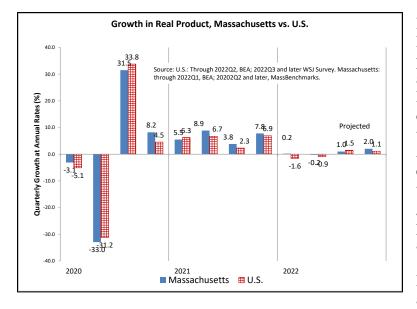
Massachusetts Current and Leading Economic Indices

The Massachusetts Current Economic Index for June was 232.1, down 2.9 percent from May (at annual rates), and up 9.2 percent from June 2021. The current index is normalized to 100 in July 1987 and is calibrated to grow at the same rate as Massachusetts real gross domestic product over the 1978–2021 period.



In the second quarter of 2022, Massachusetts real gross domestic product decreased at a 0.2 percent annualized rate, according to MassBenchmarks, while U.S. GDP decreased at a 0.9 rate according to the U.S. Bureau of Economic Analysis (BEA). In the first quarter of this year, according to the BEA, Massachusetts GDP grew at an annual rate of 0.2 percent while U.S. GDP declined at an annual rate of 1.6 percent.

Economic growth in both the U.S. and Massachusetts has slowed to a

halt in the first half of this year despite a strong labor market with good employment gains, a low unemployment rate and a surplus of job openings. This seeming contradiction is explained by several factors that are common to both the nation and the state. One is that productivity per worker has been declining. Job growth has been led by sectors such as leisure and hospitality that

| Employment and Earnings Growth at Annual Rates, Massachusetts and the U.S. | | | | | | |
|---|-----------------------|------|------------------------------|-------|--|--|
| | Payroll Employment | | Wage and Salary Income /1 | | | |
| | MA | US | MA | US | | |
| 2022Q2 | 3.6% | 3.4% | 12.9% | 8.8% | | |
| 2022Q1 | 5.2% | 4.7% | 11.8% | 9.8% | | |
| 21Q2 to '22Q2 | 4.9% | 4.4% | 10.9% | 11.2% | | |
| Sources: U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis; MassBenchmarks. | | | | | | |
| 1. Massachusetts ar 2022Q2 is estimate | | - | • | e for | | |

have lower-skilled and lower-paid workers. In this environment of labor shortages, employers have been "labor hording", holding on to workers despite slowdowns in demand and lower utilization of employees. Also, COVID-19 has increased absences from work. whether for illness or care of sick children. Another important factor is inflation. Per-worker wages and salaries are not keeping up with inflation, and on average are falling in real terms. Total personal incomes, though rising, are just barely keeping up with inflation. This limits real consumer spending, which accounts for two thirds of the

economy. Finally, increases in interest rates are doing their job in slowing the economy, damping the demand for residential construction and lowering asset prices, with indirect effects on confidence of consumers and businesses, which are likely to affect current and future spending.

Massachusetts payroll employment in the second quarter grew at an annual rate of 3.6 percent, roughly the same as the 3.4 percent pace for the U.S. This compares with job growth of 5.2 percent in the first quarter in Massachusetts versus 4.7 percent for the U.S. Relative to the second quarter of last year, the number of jobs increased 4.9 percent in Massachusetts and 4.4 percent in the U.S. However, in June the state still had 2.0 percent fewer payroll jobs relative to the prepandemic peak in February 2020. The gap in the U.S. has virtually disappeared, in June only 0.3 percent below the pre-pandemic peak.

| Unemployment Rates, Massachusetts and the | | | | | | | |
|---|----------|------|----------|------|--|--|--|
| U.S. | | | | | | | |
| | U-3 Rate | | U-6 Rate | | | | |
| | MA | US | MA | US | | | |
| Jun-22 | 3.7% | 3.6% | 5.6% | 6.7% | | | |
| Mar-22 | 4.3% | 3.6% | 6.2% | 6.9% | | | |
| Jun-21 | 6.0% | 5.9% | 9.1% | 9.8% | | | |
| Sources: U.S. Bureau of Labor Statistics/ MassBenchmarks. | | | | | | | |

The unemployment rate in Massachusetts fell to 3.7 percent in June, down from 4.3 percent in March. During this same period, the U.S. unemployment rate held steady at 3.6 percent. In June of 2021, the unemployment rate for Massachusetts stood at 6.0 percent versus 5.9 percent for the U.S. In June, the labor force participation rate for Massachusetts was 66.0

percent, unchanged since March and a notch above that of the February 2020 (65.9 percent). The U.S. labor force participation rate in June was 62.2 percent, 1.2 percentage points below February 2020. The broader U-6 unemployment measure in June was 5.6 percent for Massachusetts and 6.7 percent for the U.S. In Massachusetts in June, the number of persons who want full time work but are working part time, and the number of workers who are only marginally attached to the workforce are at levels that preceded the pre-pandemic peak.

| CPI Inflation, Boston Metro and the U.S. | | | | | | |
|---|-----------|-------|------|------|--|--|
| | All Items | | Core | | | |
| | BOS | US | BOS | US | | |
| 2022Q2 | 8.2% | 10.5% | 4.7% | 6.6% | | |
| 2022Q1 | 10.8% | 9.2% | 8.1% | 6.5% | | |
| 21Q2 to '22Q2 | 7.5% | 8.6% | 4.9% | 6.0% | | |
| | | | | | | |
| Sources: U.S. Bureau of Labor Statistics, CPI-U; Core | | | | | | |
| inflation excludes food and energy. Quarterly CPI for | | | | | | |
| Boston is the average of the first and third months for | | | | | | |
| quarters 1 and 3, and the mid-month for quarters 2 and 4. | | | | | | |

Wage and salary income continued to grow robustly in the second quarter. In Massachusetts, MassBenchmarks estimates that wage and salary income grew 12.9 percent at an annual rate, while wage and salary income in the U.S. grew at an 8.8 percent rate. These far exceed the growth in jobs, meaning that average per-worker wages and salaries were rising briskly. The BEA estimates that wage and salary income growth in the first quarter was 11.8 percent

for Massachusetts and 9.8 percent for the U.S. at annual rates. Relative to the second quarter of last year, MassBenchmarks estimates that wage and salary income grew 10.9 percent in Massachusetts and 11.2 percent in the U.S. Although wage and salary income per worker has

been growing briskly over the past year -6.0 percent in Massachusetts and 6.8 percent in the U.S. from the second quarter last year, these incomes have not kept up with inflation. The Bureau of Labor Statistics' measure of CPI inflation was 7.5 percent in the Boston Metropolitan Area and 8.6 percent in the U.S. from the second quarter of last year (the Boston measure was May 2021 to May 2022 – the survey is every other month in Boston). This means that real wage and salary income per worker in the second quarter was less than a year ago.

The outlook for the rest of the year is for slow growth, but the level of uncertainty remains high. MassBenchmarks estimates the annualized rate of real GPD growth for Massachusetts will be 1.0 percent in the third quarter and 2.0 percent in the fourth quarter. The mean forecast from the July Wall Street Journal survey of economists for the U.S. is 1.5 percent in the third quarter and 1.1 percent in the fourth quarter. Measures of consumer confidence and business confidence, for example, from the Conference Board for the U.S. and from the Associated Industries of Massachusetts for Massachusetts businesses, are falling, and various surveys of economists put the probability of a recession in the next 12 months at roughly 50 percent.

The current and historical quarterly estimates for state domestic product growth include adjustments for changes in productivity growth. These adjustments are estimates of the quarterly deviations from the 1978-2021 trend in the growth of the ratio of output to employment. In the second quarter of 2022, these adjustments subtracted 5.9 percentage points from growth. In the first quarter of 2022, these adjustments subtracted 7.8 percentage points from growth. In the third and fourth quarters of this year, these adjustments are expected to subtract 3.5 percentage points from growth.

The current and historical quarterly estimates also include "cyclical" adjustments, as the relationship between the growth in the current indicators and that of gross domestic product changes over the course of the business cycle. In the second quarter of 2022, these adjustments subtracted 2.7 percent from growth. In the first quarter of 2022, these adjustments subtracted 3.6 percentage points from growth. These adjustments are expected to subtract 1.2 percentage points from growth in the third quarter of this year and to subtract 2.4 percentage points from growth in the fourth quarter. Furthermore, most analysts see risks to growth as skewed towards the downside.

Several recent months of the current index are revised each release. These revisions are a result of the statistical method used to create the index, as well as revisions in the underlying indicators.

All the indicators in the current index refer to Massachusetts. The current index is composed of four indicators: nonagricultural employment, withholding taxes, sales taxes, and the unemployment rate. Withholding taxes and sales taxes are deflated by the U.S. consumer price index for all urban consumers, excluding food and energy. The employment and the unemployment rate are through June, and the withholding and sales taxes are through May.

For a description of the methodology used to construct this index, see: Alan Clayton-Matthews and James H. Stock, "An application of the Stock/Watson index methodology to the Massachusetts economy", *Journal of Economic and Social Measurement*, vol. 25 (1998/1999), pp. 183-233.

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