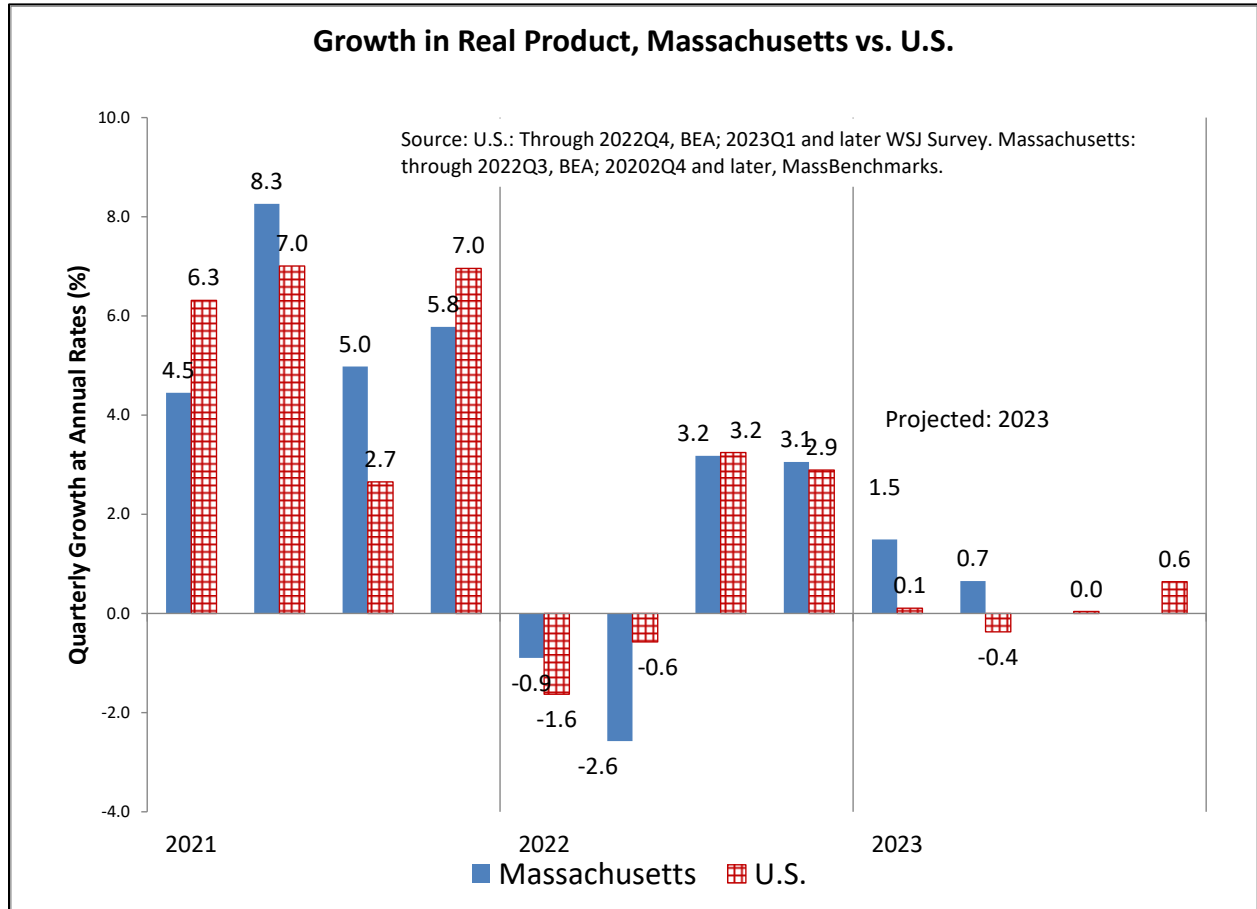


# Massachusetts Current and Leading Economic Indices

The Massachusetts Current Economic Index for December was 238.7, up 14.0 percent from November (at annual rates), and up 6.5 percent from December 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 fourth quarter of 2022, Massachusetts real gross domestic product (GDP) increased at a 3.1 percent annualized rate, according to MassBenchmarks, while U.S. GDP increased at a 2.9 percent annualized rate according to the U.S. Bureau of Economic Analysis (BEA). In the third quarter of 2022, the BEA estimates that both Massachusetts and the U.S. increased at an annual rate of 3.2 percent. In the first and second quarters of 2022, the BEA’s estimates for both state and national growth were negative: for Massachusetts, -0.9 percent in the first quarter and -2.6 percent in the second quarter; for the U.S., -1.6 percent in the first quarter and -0.6 percent in the second quarter. For the year, fourth quarter to fourth quarter GDP growth was 0.7 percent for Massachusetts versus 1.0 percent for the U.S.

In the fourth quarter – and in the third – both the state and national economies exhibited signs of a healthy, growing economy in terms of a strong labor market, low unemployment, and declining

inflation, although these indicators belie a softening of growth that appears to be emerging this year.

Employment and Earnings Growth at Annual Rates, Massachusetts and the U.S.				
	Payroll Employment		Wage and Salary Income /1	
	MA	US	MA	US
2022Q4	4.2%	2.1%	-1.3%	5.0%
2022Q3	2.5%	3.1%	7.7%	7.0%
21Q4 to '22Q4	3.9%	3.3%	5.5%	5.9%

Sources: U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis; MassBenchmarks.

1. Massachusetts wage and salary income for 2022Q4 is estimated by MassBenchmarks.

Massachusetts payroll employment grew at an annual rate of 4.2 percent in the fourth quarter, faster than the 2.1 percent rate of the U.S. This follows employment growth of 2.5 percent for Massachusetts and 3.1 percent for the U.S. in the third quarter. From the fourth quarter of 2021 to the fourth quarter of 2022, payroll employment grew 3.9 percent in Massachusetts and 3.3 percent for the U.S. Unemployment continued to fall, to 3.3 percent in December for the state and 3.5 percent for the nation. In December of 2021, unemployment rates were 4.6 percent for Massachusetts and 3.9 percent for the U.S.

Unemployment Rates, Massachusetts and the U.S.				
	U-3 Rate		U-6 Rate	
	MA	US	MA	US
Dec-22	3.3%	3.5%	8.5%	6.5%
Sep-22	3.4%	3.5%	5.9%	6.7%
Dec-21	4.6%	3.9%	7.4%	7.3%

Sources: U.S. Bureau of Labor Statistics/ MassBenchmarks.

Inflation has been decelerating. In Massachusetts, the Consumer Price Index (CPI) grew at a 4.8 percent annualized rate in the fourth quarter from the third quarter, falling from a 6.0 percent annualized rate in the third quarter relative to the second. For the U.S. the corresponding measure of inflation grew at a 3.1 percent rate in the fourth quarter relative to 5.7 percent in the third quarter. Relative to the fourth quarter of 2021, prices were 7.0 percent higher in the fourth quarter of 2022 in Massachusetts and 7.1 percent higher in the U.S.

CPI-U Inflation, Boston Metro and the U.S.				
	All Items		Core	
	BOS	US	BOS	US
2022Q4	4.8%	3.1%	2.6%	4.4%
2022Q3	6.0%	5.7%	4.6%	6.4%
21Q4 to '22Q4	7.0%	7.1%	4.7%	6.0%

Sources: U.S. Bureau of Labor Statistics, CPI-U; Core inflation excludes food and energy. For Boston, the CPI is available for odd months only -- January, March, etc. Even months are interpolated. Boston seasonally adjusted by MassBenchmarks.

Massachusetts tax revenues in the fourth quarter give conflicting indications of income versus spending growth. Wage and salary income as estimated from state withholding tax revenue declined at a 1.3 percent annual rate, while

spending on items subject to the state's sales tax – which includes most goods and motor vehicles – grew at a 22.1 percent annual rate.

In the case of wage and salary income, the modest decline may reflect a weaker than usual bonus season, as stock and bond prices fell during the last year. Massachusetts wage and salary income is more sensitive to swings in bonuses than the nation due to its concentration in the financial investment sector. Timing of the receipt of withholding tax revenues can also affect quarter to quarter estimates of this income component. In the third quarter of 2022, the BEA estimates that Massachusetts wage and salary income grew at a 7.7 annualized rate. For the U.S., wage and salary income grew at a 5.0 percent annualized rate in the fourth quarter and at a 7.0 percent annualized rate in the third quarter, according to the BEA.

In the case of spending in Massachusetts, the strong fourth quarter result may reflect timing of purchases or receipt of tax revenues. This spending declined at a 4.3 percent rate in the third quarter, making the average annual growth about 9.0 percent over the third and fourth quarters combined. Spending on these taxable items grew 8.3 percent from the fourth quarter of 2021 to the fourth quarter of 2022.

Despite the apparently healthy fourth quarter, economists expect growth to slow this year in response to higher interest rates as the Federal Reserve Bank tries to engineer a soft landing. Interest rate sensitive sectors like housing, and investment activity of firms that rely on low borrowing costs, have been significantly affected. Household excess savings boosted by the large federal stimulus in response to COVID-19 are largely depleted, resulting in a softening in consumer spending. The rate of job openings, although still high, has been falling for several months both in Massachusetts as well as in the country as a whole. Several tech companies that went on a hiring spree in 2021 are freezing hiring or laying off workers. In Massachusetts, initial unemployment claims, that in April were at an historically low level of under 18,000, have been trending upward, doubling to about 36,000 in December. That is not an alarming level, but it is consistent with a weakening job market. Nationally, unemployment duration is lengthening, another indicator of softening labor market conditions.

The Massachusetts leading index is projecting annualized GDP growth of 1.5 percent in the first quarter of this year, slowing to 0.6 percent in the second quarter. The mean projection for U.S. GDP by the January survey of economists by the Wall Street Journal is for only a 0.1 percent annualized rate of growth in the first quarter, and a 0.4 percent decline in the second quarter, with a 61 percent probability of a recession this year.

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 fourth quarter of 2022 these adjustments subtracted 1.6 percentage points from growth. In the third quarter of 2022 these adjustments subtracted 2.3 percentage points from growth. In the second quarter of 2022 these adjustments subtracted 6.2 percentage points from growth. In the first quarter of 2022 these adjustments subtracted 8.5 percentage points from growth. In the first and second quarters of 2023 these adjustments are expected to subtract 1.6 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 fourth quarter of 2022 these adjustments subtracted 1.4 percentage points from growth. In the third quarter these adjustments subtracted 0.3 percentage points from growth. In the second quarter these adjustments subtracted 2.6 percent points from growth. In the first quarter of 2022 these adjustments subtracted 3.6 percentage points from growth. These adjustments are expected to add 0.6 percentage points to growth in the first quarter of this year and 1.8 percentage points to growth in the second quarter of this year.

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 December, and the withholding and sales taxes are through November.

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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January 27, 2023