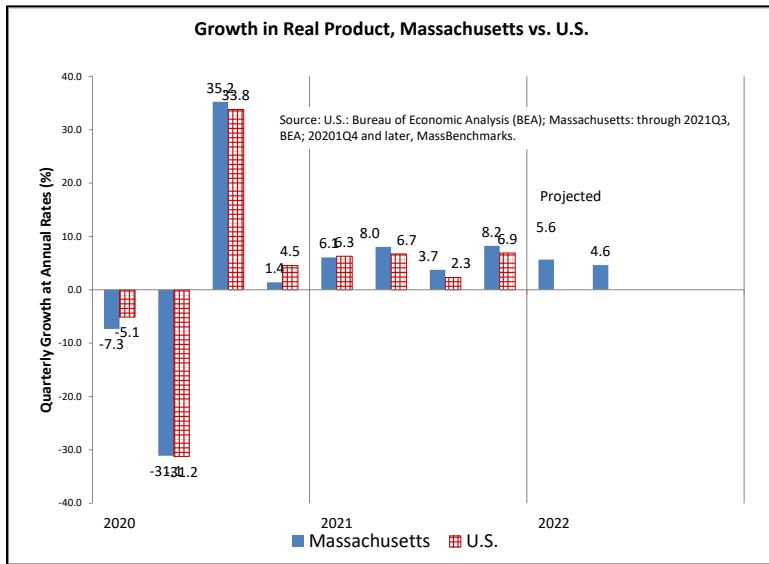


Massachusetts Current and Leading Economic Indices

The Massachusetts Current Economic Index for December was 222.7, up 9.7 percent from November (at annual rates), and up 12.4 percent from December 2020. 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 1978–2020 period.



The Delta variant contributed to slower growth in the third quarter, and the Omicron variant only began to affect the state and national economies at the end of the fourth quarter. The fourth

In the fourth quarter of 2021, Massachusetts real gross domestic product (GDP) increased at an 8.2 percent annualized rate, according to MassBenchmarks, while U.S. GDP increased at a 6.9 percent rate according to the U.S. Bureau of Economic Analysis (BEA). In the third quarter, according to the BEA, Massachusetts GDP grew by 3.7 percent while U.S. GDP grew by 2.3 percent.

The strong growth in the fourth quarter reflects in part the respite from COVID infections in the fall.

Employment and Earnings Growth at Annual Rates, Massachusetts and the U.S.

	Payroll Employment		Wage and Salary Income /1	
	MA	US	MA	US
	2021Q4	6.1%	3.6%	8.6%
2021Q3	7.0%	6.7%	12.3%	11.4%
20Q4 to '21Q4	6.1%	4.3%	11.2%	9.1%

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

1. Massachusetts and U.S. wage and salary income for 2021Q4 is estimated by MassBenchmarks.

Payroll employment in the fourth quarter grew at annual rate of 6.1 percent in Massachusetts, faster than the 3.6 percent pace for the U.S. This compares with jobs growth of 7.0 percent in Massachusetts in the third quarter versus 6.7 percent for the U.S. Relative to the fourth quarter of 2020, the number of jobs in Massachusetts increased 6.1 percent versus 4.3 percent for the U.S. However, the state still has 4.1 percent fewer payroll jobs relative to

the pre-pandemic peak in February 2020. The gap in the U.S. is less, at 2.3 percent of the February 2020 peak.

Unemployment Rates, Massachusetts and the U.S.				
	U-3 Rate		U-6 Rate	
	MA	US	MA	US
Dec-21	3.9%	3.9%	8.8%	7.3%
Sep-21	5.2%	4.8%	9.1%	8.5%
Dec-20	8.4%	6.7%	13.3%	11.7%

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

The unemployment rate in Massachusetts fell to 3.9 percent in December, from 5.2 percent in September. During the same period, the U.S. unemployment rate fell from 4.8 percent in September to 3.9 percent in December. In December 2020, the unemployment rate was 8.4 percent in Massachusetts and 6.7 percent in the U.S. While labor markets are tight, there is still room

for employment growth, if the virus cooperates. The number of unemployed in the state, at 145,000 in December, is still substantially above the level of 105,000 in February 2020, and the labor force participation rate, at 65.4 percent, is 1.0 percentage point below February 2020.

Massachusetts wage and salary income in the fourth quarter, estimated from state withholding taxes net of unemployment insurance withholding, grew at an 8.6 percent annual rate. This compares with MassBenchmarks' estimate of U.S. wage and salary growth of 8.5 percent in the fourth quarter. According to the BEA, wage and salary growth in the third quarter was 12.3 percent for Massachusetts and 11.4 percent for the U.S. The core rate of consumer price inflation – the CPI excluding food and energy – was 2.5 percent in the fourth quarter and 4.0 percent in the third quarter in the Boston metropolitan area, lower than the national CPI of 5.5 percent in the fourth quarter and 5.3 percent in the third quarter. This means that in the second half of last year, average real wage and salary income per payroll worker kept up with inflation locally, but nationally lagged behind inflation by almost one per cent on an annual basis.

Spending on goods subject to the regular state sales taxes and motor vehicle sales taxes rose at 13.5 percent in the fourth quarter, after declining by 12.9 percent in the third quarter, pointing to robust spending by Massachusetts residents and businesses in the fourth quarter.

In the first half of this year, the leading index suggests a moderate slowdown in Massachusetts GDP growth from the strong pace of the fourth quarter, but growth that still reflects a recovery towards a post-pandemic economy. The leading index is projecting growth of 5.6 percent in the first quarter of this year and 4.6 percent in the second quarter. However, there are downside risks. Unease about the future is reflected in weaker consumer confidence and falling stock prices, which in turn reflect concerns about the effect of the virus on the economy, the difficult task of fighting inflation, and international unrest.

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 1978-2020 trend in the growth of the ratio of output to employment. In the fourth quarter of 2021 these adjustments added 1.5 percentage points to growth. In the third

quarter these adjustments subtracted 5.9 percentage points from growth. In the first and second quarters of this year these adjustments are not expected to affect 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 2021 these adjustments subtracted 3.4 percentage points from growth. In the third quarter these adjustments subtracted 3.0 percentage points from growth. These adjustments are expected to subtract 2.4 percentage points from growth in the first quarter of this year and to subtract 1.5 percentage points from growth in the second quarter.

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.

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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