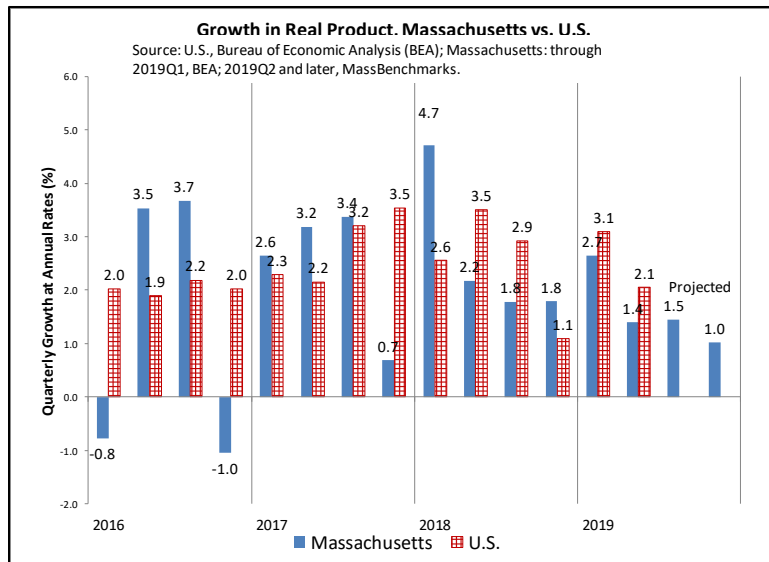


Massachusetts Current and Leading Economic Indices

The Massachusetts Current Economic Index for June was 223.9, up 3.8 percent from May (at annual rates), and up 3.6 percent from June 2018. 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 1978–2018 period. All growth rates below are expressed at seasonally adjusted annual rates.



The Massachusetts Leading Economic Index for June was 1.0 percent, and the three-month average for April through June was 1.5 percent. The leading index is a forecast of the growth in the current index over the next six months, expressed at an annual rate. Thus, it indicates that the economy is expected to grow at an annualized rate of 1.0 percent over the next six months (through December 2019) if productivity were at recent average rates.

In the second quarter of 2019, Massachusetts real gross domestic product grew 1.4 percent according to MassBenchmarks, while U.S. real gross domestic product grew 2.1 percent according to the U.S. Bureau of Economic Analysis. In the first quarter, the U.S. Bureau of Economic Analysis estimated that the state’s economy grew 2.7 percent, while the U.S. economy grew 3.1 percent.

The Massachusetts economy is at full employment with little capacity for labor force and employment growth. The demographic constraints of an aging population are impinging on the state’s growth potential with increasing force. This is evident in the deceleration in employment growth over the last several years. State payroll employment between 2012 and 2016 grew at between 1.7 percent and 2.0 percent each year. In 2017, employment growth slowed to 1.3 percent, and in 2018, to 0.9 percent. Massachusetts gross state product had been growing in step with U.S. gross domestic product growth through this long expansion, but now may be slipping behind, with relatively slower growth in four of the last five quarters. Demographics are also constraining the nation as a whole, but to a lesser extent than in Massachusetts.

In the second quarter, payroll employment in Massachusetts grew at a 0.9 percent annual rate, versus 1.2 percent for the U.S. From the second quarter of last year, employment grew 0.9 percent in Massachusetts versus 1.6 percent in the U.S.

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

	Payroll Employment		Wage and Salary Income /1	
	MA	US	MA	US
2019Q2	0.9%	1.2%	-8.2%	3.6%
2019Q1	2.2%	1.7%	3.0%	3.9%
18Q2 to '19Q2	0.9%	1.6%	1.2%	3.6%

Sources: U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis; Mass. Department of Revenue/MassBenchmarks.

1. Massachusetts is derived from state withholding revenues for 2019Q2. U.S. is estimated by MassBenchmarks for 2019Q2.

The state's unemployment rate in June, at 3.0 percent, has remained lower than that of the U.S., which stood at 3.7 percent in June. The Massachusetts rate is near the historically low rate of 2.6 percent the state recorded at the height of the "Dot-Com" bubble in 2000 and matches the low rate the state achieved near the end of the "Massachusetts Miracle" in 1987. The broader U-6 unemployment rate was 6.5 percent in Massachusetts in June versus 7.2 percent for the U.S. These rates are the lowest they have been in 18 years and would be lower still in Massachusetts if not for the still rather large number of persons – about 100,000 – who would like full-time work but are working only part-time. In 2007 before the recession, the number of such workers was about 75,000.

Unemployment Rates, Massachusetts and the U.S.

	U-3 Rate		U-6 Rate	
	MA	US	MA	US
Jun-19	3.0%	3.7%	6.5%	7.2%
Mar-19	3.0%	3.8%	6.5%	7.3%
Jun-18	3.4%	4.0%	7.0%	7.8%

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

Massachusetts economic growth is expected to be slow in the second half of this year. The leading index is projecting growth of 1.5 percent in the third quarter and 1.0 percent in the fourth quarter. Does this slower projected growth mean that the long expansion is coming to an end? There are downside risks to national and worldwide economic growth (which affect Massachusetts), including

Brexit, the trade war, slower worldwide economic growth, and global tensions. Both the Conference Board's national consumer confidence index and state's Associated Industries of Massachusetts business confidence index have been trending down in the past year, reflecting diminished expectations and rising uncertainty. The lower trend rate of economic growth due to demographic constraints may put the state and nation at risk that moderate downside shocks could tip the scale towards a downturn.

The 10 indicators that comprise the leading index usually do not all move in tandem. Typically, some may indicate an expectation of faster than average growth, while at the same time others may indicate an expectation of slower than average growth. The accompanying table accounts for the contributions of each towards faster or slower growth than the recent underlying trend of [1.7] percent. The index value is their sum.

Contributions of Indicators to the Leading Index		
	June	April-June
Trend	1.7	1.7
Total Nonagricultural Employment	0.2	0.4
Withholding Taxes	-0.1	-0.1
Sales Taxes	0.0	0.1
Unemployment rate	0.1	0.2
Consumer Confidence	-0.4	-0.2
Interest rate spread (10-year less 3-month)	-0.2	-0.2
Bloomberg MA stock index	0.0	-0.1
Initial Unemployment Claims	-0.2	0.0
Construction Employment	0.0	-0.1
Motor Vehicle Sales Taxes	-0.2	-0.2
Total	1.0	1.5
<i>Note: Numbers may not add exactly due to rounding.</i>		

In June, two indicators contributed to a forecast of above-trend growth: total nonagricultural employment, and the unemployment rate. Three indicators contributed to average-trend growth: sales taxes, the Bloomberg stock index for Massachusetts, and construction employment. Five indicators contributed to below-trend growth: withholding taxes, consumer confidence, the interest rate spread between 10-year and 3-month U.S. Treasury securities, initial

unemployment claims, and motor vehicle sales taxes.

For the three-month period April through June, three indicators contributed to a forecast of above-trend growth: total nonagricultural employment, sales taxes, and the unemployment rate. One indicator, initial unemployment claims, contributed to average-trend growth. Six indicators contributed to below-trend growth: withholding taxes, consumer confidence, the interest rate spread between 10-year and 3-month U.S. Treasury securities, the Bloomberg stock index for Massachusetts, construction employment, and motor vehicle sales taxes.

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 1978-2018 trend in the growth of the ratio of output to employment. In the second quarter of 2019 these adjustments subtracted 1.0 percentage points from growth. In the first quarter these adjustments subtracted 0.4 percentage points from growth. For the forecast of state domestic product growth in the third and fourth quarters of this year, these adjustments are expected to subtract 1.2 percent points from growth, the average of the last five years.

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 2019, these adjustments subtracted 1.2 percentage points from growth. In the first quarter, these adjustments subtracted 0.8 percentage points from growth. For the forecast of the third and fourth quarters of this year, these adjustments are expected to subtract 0.2 percentage points from growth, the average amount of the last two years.

Several recent months of the indices 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 except interest rates refer to Massachusetts. The current index is composed of four indicators: nonagricultural employment, withholding taxes, sales taxes, and the unemployment rate. The leading index includes these four current indicators plus the other six (leading) indicators in the contributions table. All the indicators are as of June, except for interest rates and the

Bloomberg stock index for Massachusetts, which are through July 23, 2019, and withholding, sales, and motor vehicle taxes, which are through May. The MassInsight Consumer Confidence Index is usually released every third month. Intervening months are interpolated, and changes in the Conference Board's Consumer Confidence Index for the U.S. are used to extrapolate to the current month of the index, as needed. Series measured in current dollars or values, i.e., withholding taxes, sales taxes, the Bloomberg stock index, and motor vehicle 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 these indices, 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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