

Testimony of
Dr. Bo Zhao
Senior Economist, New England Public Policy Center, Federal Reserve Bank of Boston
Tax Revenue Hearing
Massachusetts Senate and House Ways and Means Committees
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Vice Chairwoman Lovely, Chairman Sanchez, Secretary Heffernan, and other members of the Senate and House Ways and Means Committees:

Thank you for the opportunity to provide my testimony. My name is Bo Zhao. I am a senior economist in the New England Public Policy Center at the Federal Reserve Bank of Boston. The mission of the Federal Reserve Bank of Boston is to promote sound growth and financial stability in New England and the nation. The Bank contributes to local communities, the region, and the nation through its high-quality research, regulatory oversights, and financial services, and through its commitment to leadership and innovation. As part of the Bank's Research Department, the New England Public Policy Center was created to promote better public policy in New England by conducting and disseminating objective, high-quality research and analysis of strategically identified regional economic and policy issues.

Based on publicly available data, my testimony provides an overview of the labor markets, housing markets, inflation, and economic outlook for the US, New England, and Massachusetts economies. The views expressed here are my own and do not necessarily represent the views of the Federal Reserve Bank of Boston or the Federal Reserve System.¹

Labor Markets

Total Employment

The US, New England, and Massachusetts continued to post solid job gains through October 2018. Massachusetts experienced an increase of 1.8 percent in non-farm payroll employment between October 2017 and October 2018, which is higher than the national job growth rate of 1.7 percent and the regional job growth rate of 1.5 percent during the same period.²

Massachusetts also outpaced the nation and the region in job gains relative to the pre-Great Recession peak levels (Figure 1). Massachusetts employment in October 2018 was 10.6 percent higher than its pre-recession peak level. In comparison, the US and New England employment

¹ The speaker thanks Lan Ha for excellent research assistance and Jeff Thompson for helpful comments.

² Within New England, New Hampshire recorded the strongest year-over-year job growth rate during the same period at 2.3 percent. Vermont had the weakest year-over-year job growth in the region; its employment decreased by 0.9 percent.

levels in October 2018 were 8.2 percent and 5.8 percent higher than their respective pre-recession peak levels.³

Employment Growth by Industry

In October 2018, construction posted the largest year-over-year job growth rate across sectors in Massachusetts, New England, and the US (Figure 2). Massachusetts saw a 5.1 percent increase in construction jobs over the 12-month period. In addition, Massachusetts outpaced the US in job growth in several sectors including construction, professional and business services, information, and other services.⁴

Unemployment

With robust job growth, the unemployment rates have been trending downward in the US, New England, and Massachusetts since the end of the Great Recession (Figure 3). Now they are all below the pre-recession values.

The unemployment rate in Massachusetts remained lower than that across the region and the nation.⁵ Massachusetts' jobless rate was 3.5 percent in October 2018, while the national unemployment rate reached 3.7 percent, the lowest level since early 1969.⁶

Using an alternative, and the most comprehensive, measure of labor underutilization called the U-6 rate, we see a similar picture of tight labor markets in the US and Massachusetts (Figure 4). The U-6 rate measures the sum of total unemployed, marginally attached workers, and total employed part time for economic reasons, as a percent of the sum of the civilian labor force and all marginally attached workers.⁷ The U-6 rates in the US and Massachusetts show a downward trend since 2010. Both have reached levels below the pre-Great Recession values.

³ All New England states except for Connecticut have recovered the job losses during the Great Recession and seen the employment levels above their respective pre-recession peaks. Connecticut employment in October 2018 was still 0.7 percent lower than its pre-recession peak level.

⁴ All six New England states saw year-over-year increases in employment in construction, manufacturing, and education and health, with construction being the most vibrant sector. The steepest year-over-year employment losses were in the information sector for Maine (-5.5 percent) and Vermont (-6.8 percent).

⁵ As of October 2018, Connecticut had the highest jobless rate at 4.2 percent in New England; New Hampshire retained the lowest unemployment rate in the region at 2.6 percent, which is the third lowest rate across the 50 states. Nationwide, Alaska had the highest unemployment rate at 6.4 percent and Hawaii had the lowest unemployment rate at 2.3 percent.

⁶ The lowest unemployment rate in Massachusetts on the record is 2.6 percent that occurred in May and June 2000.

⁷ The marginally attached workers are people who are not in the labor force, want to work, are available for work, and had looked for a job sometime in the prior 12 months, but had not searched for work in the prior 4 weeks before the survey. Persons employed part time for economic reasons are those who work less than 35 hours per week, want to work full time, are available to do so, and gave economic reasons for working part time (their hours had been cut back by their employers or they were unable to find a full-time job). These individuals are sometimes referred to as involuntary part-time workers.

The most recent U-6 rate in Massachusetts, which is a four-quarter average between 2017Q4 and 2018Q3, was 7.1 percent. It was lower than the national U-6 rate of 7.8 percent during the same period.⁸

Labor Force Participation Rate

The tight labor market conditions have attracted more people in Massachusetts to join the labor force. The state's labor force participation rate has grown continuously since January 2018 (Figure 5). It reached 68.0 percent in October 2018, which is 2.6 percentage points higher than a year before. Massachusetts is the only state in New England with a labor force participation rate higher than its pre-Great Recession peak value. In fact, the last time Massachusetts saw this high labor force participation rate was in 2003.

Recent research by my colleague at the New England Public Policy Center, Dr. Mary Burke, finds that the increasing labor force participation rate among older people (the population aged 65 and over) plays an important role in explaining the increase in the overall labor force participation rate in Massachusetts. In 2008, right in the middle of the Great Recession, the labor force participation rates among the population aged 65 and over were about the same for the US and Massachusetts. Since then, the labor force participation rate of the older population has grown much faster for Massachusetts than for the US. As a result, the gap between the two widened to 3.4 percentage points in 2017 (Figure 6).

Average Hourly Earnings

With a tighter labor market, Massachusetts showed a stronger wage increase than the US. Average hourly earnings for private-sector workers grew 3.0 percent in Massachusetts between October 2017 and October 2018, compared with a 2.4 percent increase across the US during the same period (Figure 7).

Housing Markets

According to the Federal Housing Finance Agency (FHFA) purchase-only House Price Index, house prices continued to rise on a year-over-year basis across the nation and New England and in the state of Massachusetts. The national house price growth rate exceeded the regional and Massachusetts growth rates. Between the third quarter of 2017 and the third quarter of 2018, house prices increased 6.3 percent nationally, 4.8 percent regionally, and 5.3 percent in Massachusetts.⁹

⁸ Nationwide, North Dakota had the lowest U-6 rate of 5.1 percent between 2017Q4 and 2018Q3 while Alaska had the highest U-6 rate of 12.3 percent during the same period. Within New England, New Hampshire had the lowest U-6 rate of 5.8 percent, which is the fifth lowest across the 50 states. Connecticut had the highest U-6 rate in the region at 9.3 percent, which is the fifth highest across the 50 states. Connecticut is the only New England state that had a U-6 rate that was both higher than the national average and its pre-recession value.

⁹ House prices increased between 2017Q3 and 2018Q3 in all 50 states and Washington DC. Rhode Island is the sole state in New England to outpace the US with an annual growth rate of 8.5 percent. Connecticut saw the lowest increase in house prices in the region at 2.2 percent, which was the fifth lowest rate across the 50 states.

House prices across the US and in Massachusetts also surpassed their pre-Great Recession peak levels (Figure 8). The US and Massachusetts house prices in 2018Q3 were 17 percent and 14 percent higher than their corresponding pre-recession peaks.¹⁰

However, house price increases are slowing somewhat, with a more pronounced slowdown for Massachusetts than for the US. The US year-over-year house price increase in 2018Q3 was 0.5 percentage points lower than its year-over-year increase in 2018Q2. In comparison, Massachusetts year-over-year house price increase in 2018Q3 was 0.8 percentage points lower than its year-over-year increase in the prior quarter. According to the Federal Housing Finance Agency, the cooldown of housing markets is mainly attributable to the rising mortgage interest rates.

Inflation

The Greater Boston area experienced higher price increases than the US between September 2017 and September 2018 (Figure 9).¹¹ The Headline Consumer Price Index (CPI) and Core CPI (Headline CPI less food and energy) for the US rose by slightly over 2 percent, while both measures for Boston rose by more than 3 percent. Between Boston and the US, the largest difference in price increases among CPI components is in the category of fuel and utilities. The prices of fuel and utilities in Boston increased 4.6 percent compared with a year before, while the year-over-year increase for the US was only 0.5 percent.¹²

Merchandise Exports

One weakness of the Massachusetts economy is reflected in the decreased value in merchandise exports. The dollar value of merchandise exports from Massachusetts dropped 11.6 percent in the third quarter of 2018, compared with a year before (Figure 10). In contrast, nationwide merchandise exports in 2018Q3 rose by 8.1 percent on the year-over-year basis.

The top three exporter industries in Massachusetts all reported year-over-year drops in export values. Exports of computer and electronic products saw the largest decline at -9.7 percent, followed by exports of chemicals at -9.3 percent and exports of machinery at -6.5 percent. By country of destination, Massachusetts exported more merchandise to China in 2018Q3 compared with a year before, posting an increase of export values of 25.8 percent. However, Massachusetts exports to Canada and Mexico decreased 5.2 percent and 12.3 percent, respectively.

¹⁰ Connecticut house prices in 2018Q3 were still 12 percent below its pre-recession peak level.

¹¹ The Boston-Cambridge-Newton, MA-NH Core Based Statistical Area covered in this measure is comprised of five counties in Massachusetts (Essex, Middlesex, Norfolk, Plymouth, and Suffolk Counties) and two counties in New Hampshire (Rockingham and Strafford Counties).

¹² Electricity prices in the Greater Boston area increased 6.0 percent during the 12-month period while the national average electricity prices dropped 1.2 percent during the same period.

Economic Outlook

National Economic Outlook

At the Federal Open Market Committee's (FOMC) September meeting, Federal Reserve Board members and Federal Reserve Bank presidents provided their economic projections.¹³ They expected positive but slowing economic growth in the coming years (Figure 11).¹⁴ The medians of FOMC participants' projections for the growth rate of real GDP were 3.1 percent for 2018, 2.5 percent for 2019, 2.0 percent for 2020, and 1.8 percent for 2021.¹⁵ Some participants cited "the waning of fiscal stimulus, less accommodative monetary policy, or anticipated appreciation of the dollars as factors contributing to the forecasts for a moderation of real GDP growth over the course of the projection period."

Most FOMC participants expected the unemployment rate to bottom out in 2019 or 2020 and then to rise a little in 2021. The medians of FOMC participants' projections for the unemployment rate were 3.7 percent for 2018, 3.5 percent for 2019, 3.5 percent for 2020, and 3.7 percent for 2021.

Massachusetts Economic Outlook

Based on the estimates provided by Professor Alan Clayton-Matthews at Northeastern University, which were recently published in the *MassBenchmarks* magazine, Massachusetts' economy is expected to grow more slowly in the near term. Massachusetts real GDP grew at an annualized rate of 5.9 percent and 3.3 percent in the second and third quarter of 2018, respectively. It is projected to grow at an annualized rate of 2.1 percent over the next six-month period from October 2018 through March 2019 (Figure 12).¹⁶

Summary

Labor markets continued to strengthen for both the US and Massachusetts. Job gains were strong, on average, in recent months, and the unemployment rates stayed low. House prices kept rising from a year ago, yet the growth rates showed signs of a slowdown. Merchandise exports dropped in Massachusetts on a year-over-year basis. Looking forward, the US and Massachusetts economies are expected to grow at a positive but slower rate in the near term.

Thank you for your time. I am happy to answer any questions regarding my testimony.

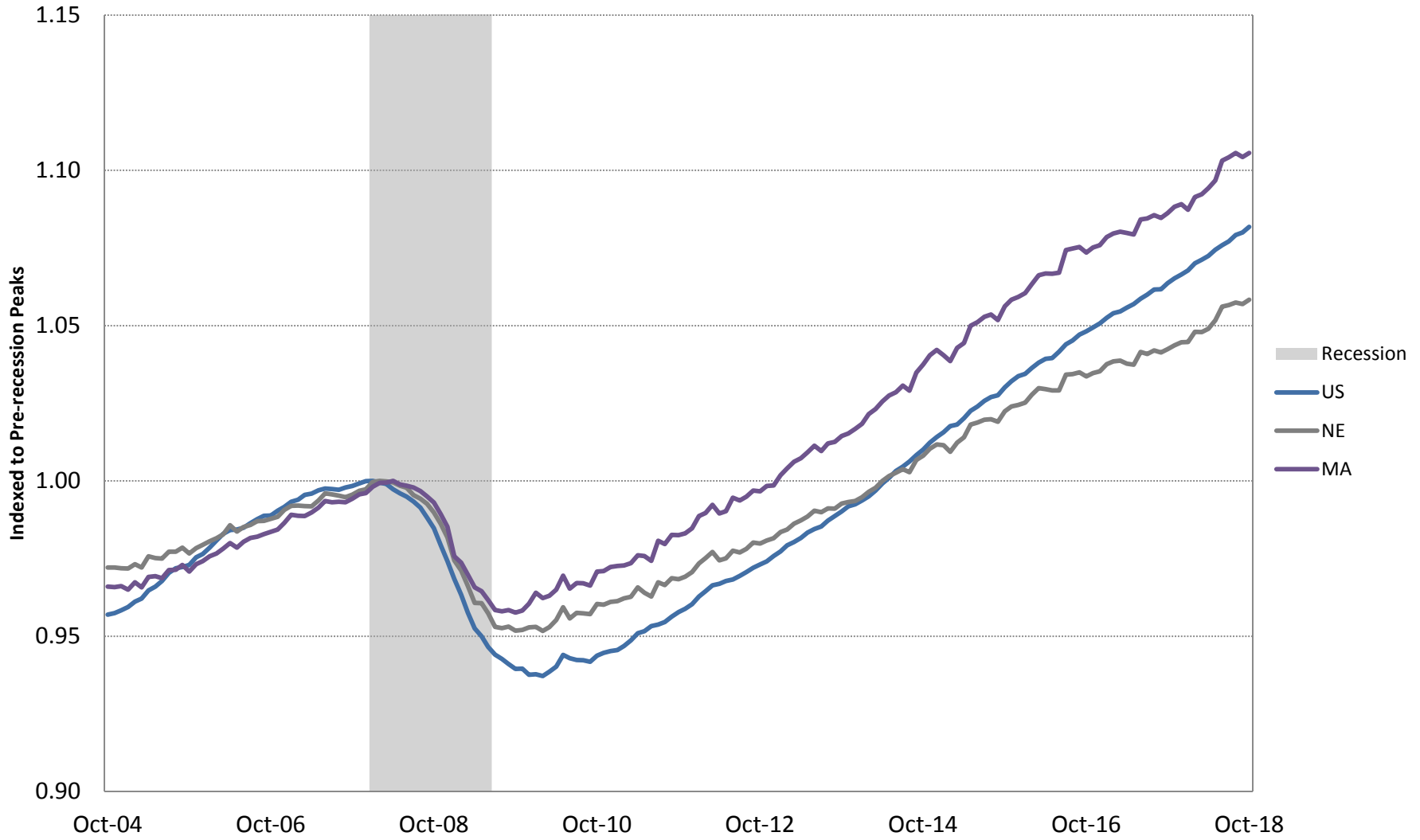
¹³ The medians of projections for total personal consumption expenditures (PCE) price inflation were 2.1 percent for 2018, 2.0 percent for 2019, and 2.1 percent for 2020 and 2021. The medians of projections for core PCE price inflation were 2.0 percent for 2018 and 2.1 percent for 2019, 2020, and 2021.

¹⁴ According to the Conference Board's Consumer Confidence Survey, in November 2018, US consumers' expectations for the next six months regarding business conditions, employment, and income remained the same as a year ago at a historically high level. This measure suggests that consumers are still confident that economic growth will continue at a solid pace into early 2019.

¹⁵ The median is the middle value when the projections are arranged from the lowest to the highest. When there is an even number of projections, the median is the average of the two middle projections.

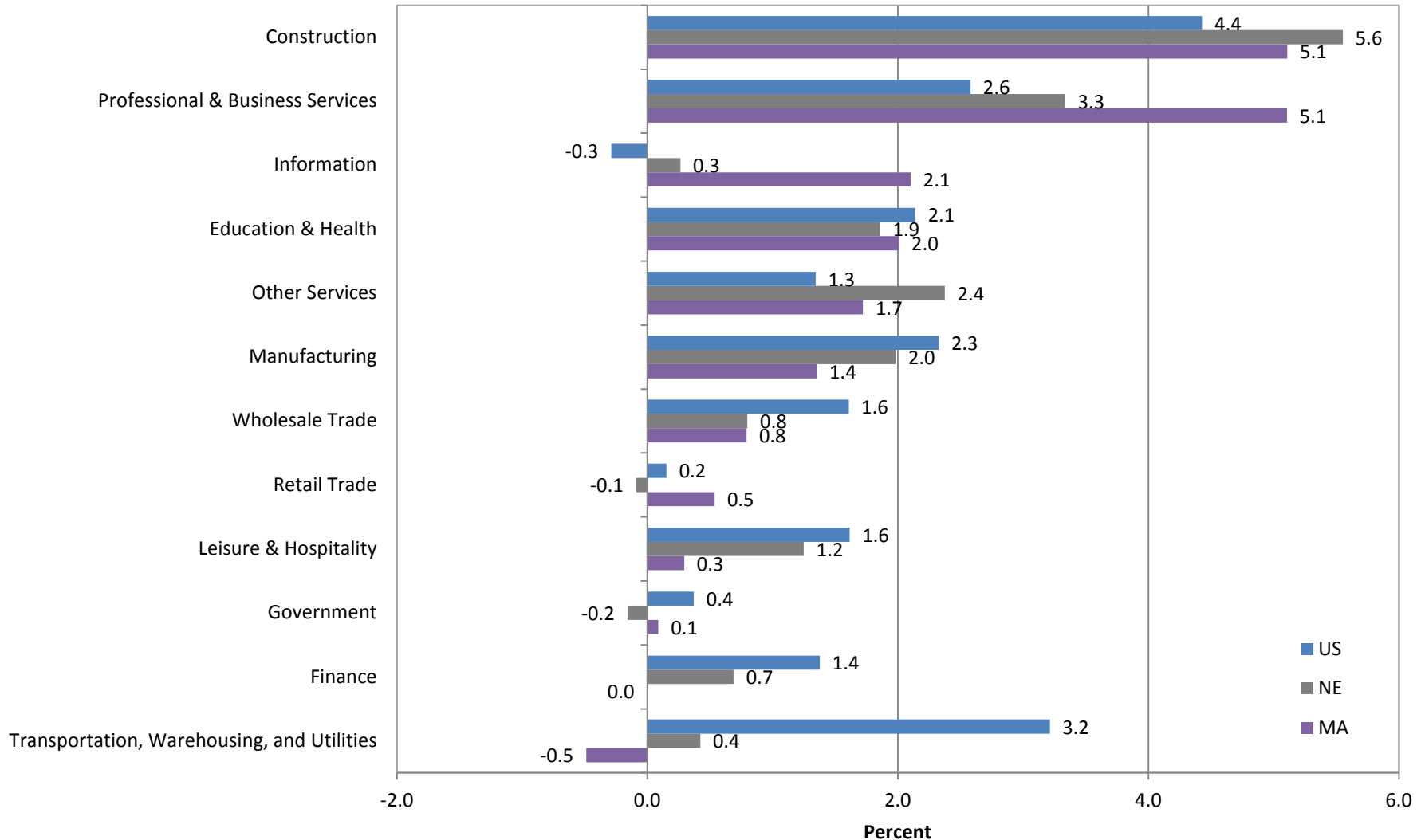
¹⁶ Professor Clayton-Matthews attributed the slowdown in the growth forecast to the fall in the Bloomberg stock index for Massachusetts, the rise in interest rates, and slowdown in wage and salary income growth.

Figure 1. Non-agricultural Employment



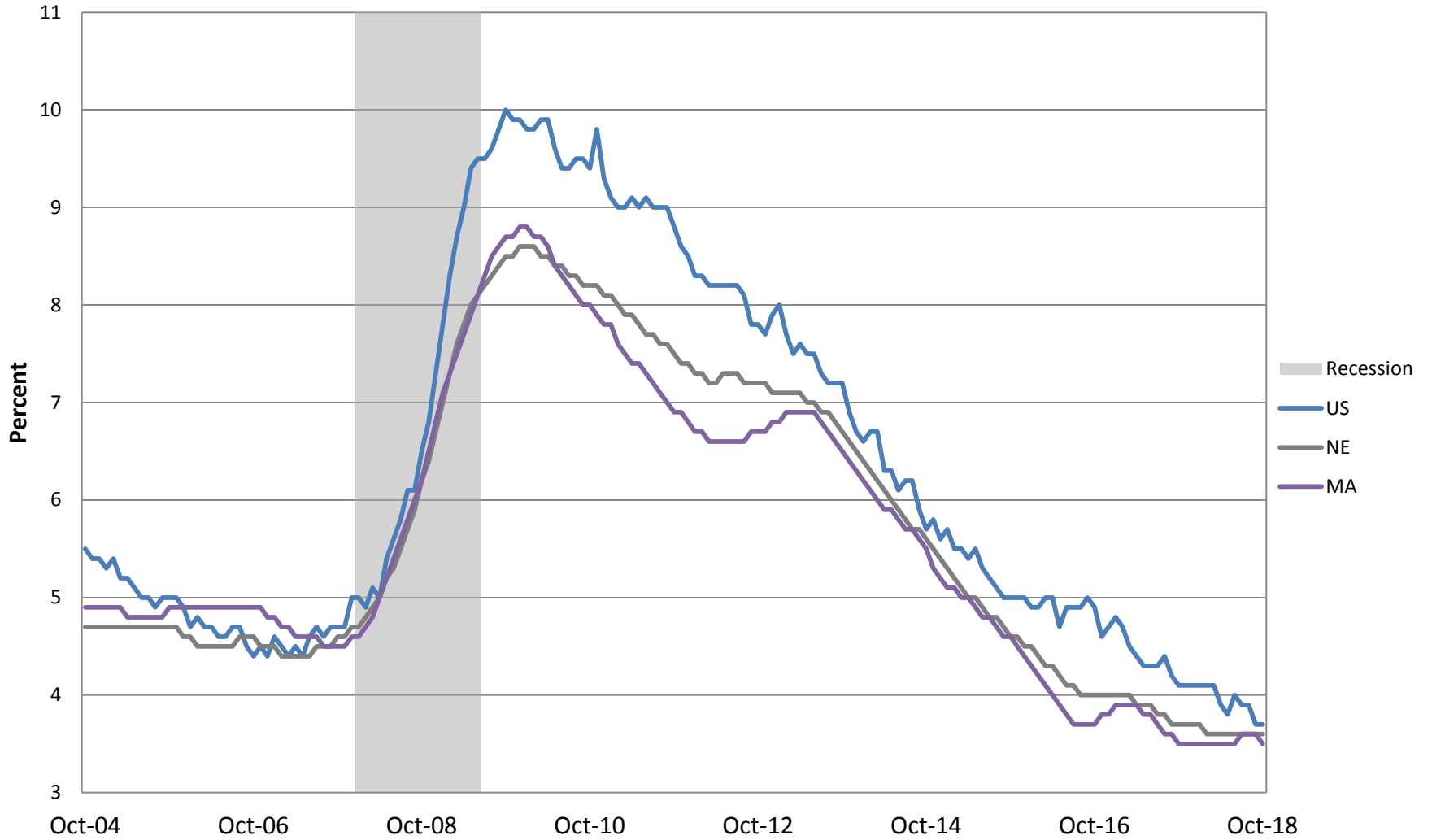
Source: Bureau of Labor Statistics, NBER, Haver Analytics

Figure 2. Employment Growth by Industry
Percent Change, October 2017 – October 2018



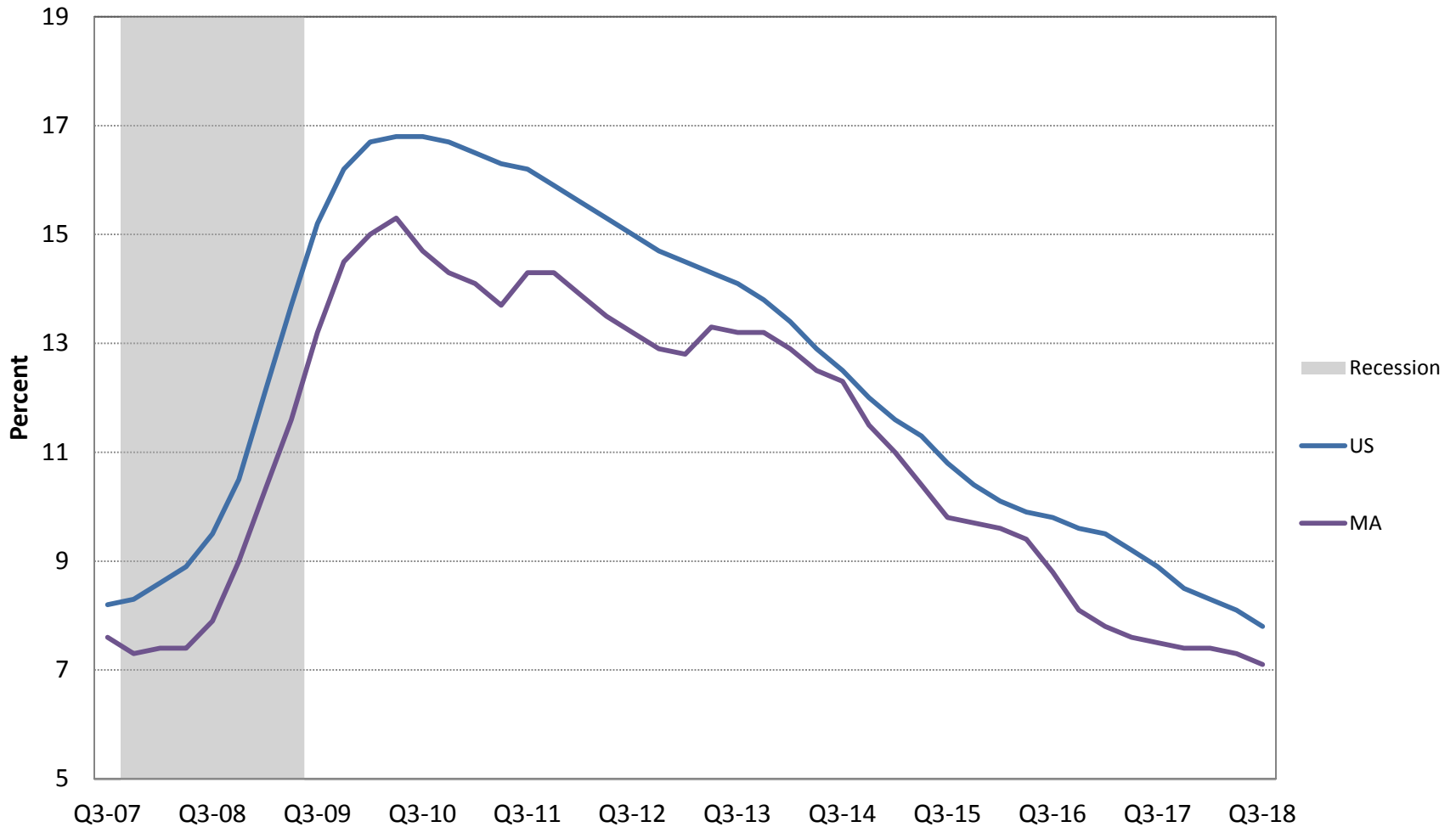
Source: Bureau of Labor Statistics, Haver Analytics

Figure 3. Unemployment Rate



Source: Bureau of Labor Statistics, NBER, Haver Analytics

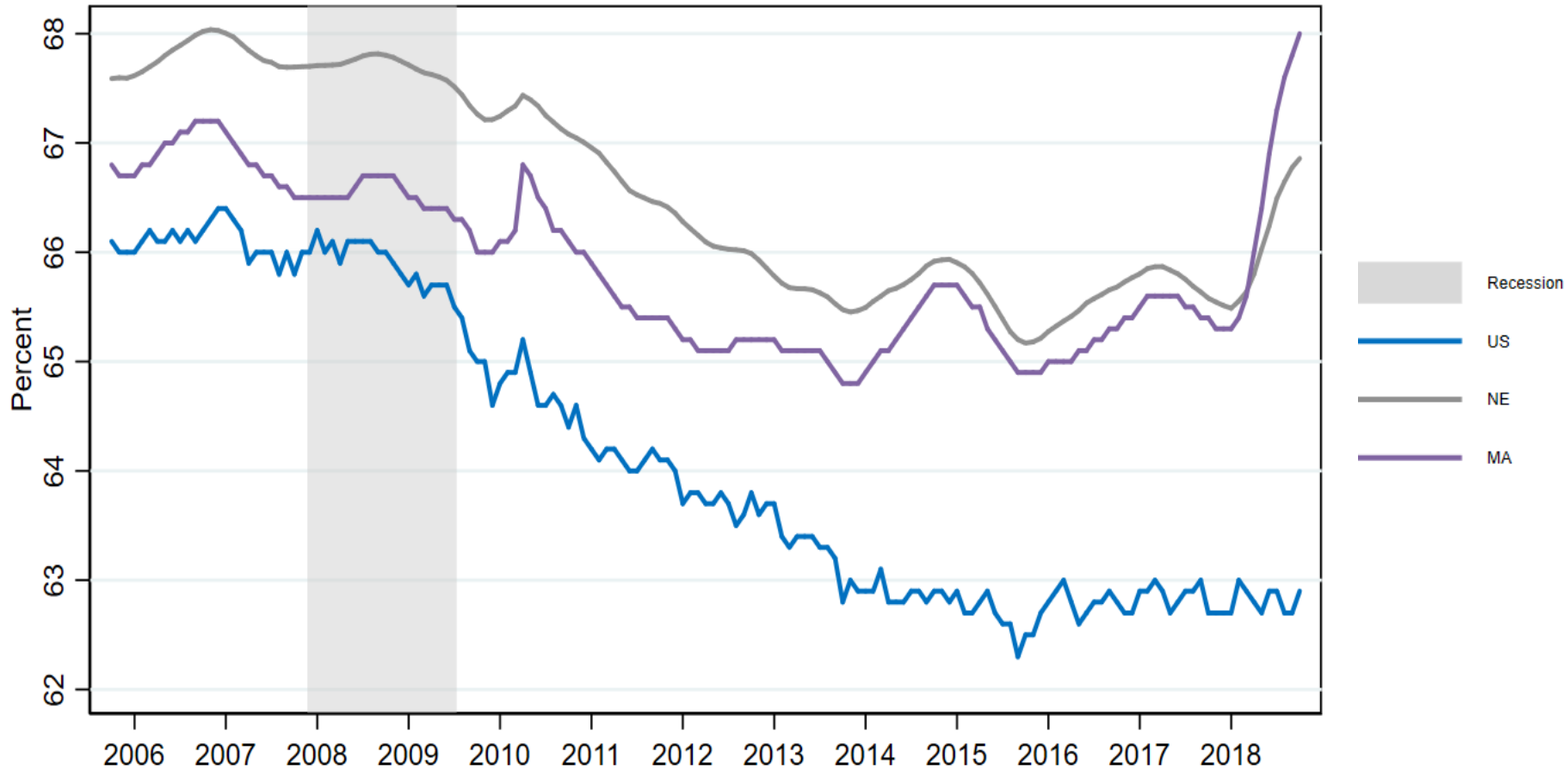
Figure 4. U-6 Rate (4-Quarter Average)



Source: Bureau of Labor Statistics, NBER, Haver Analytics

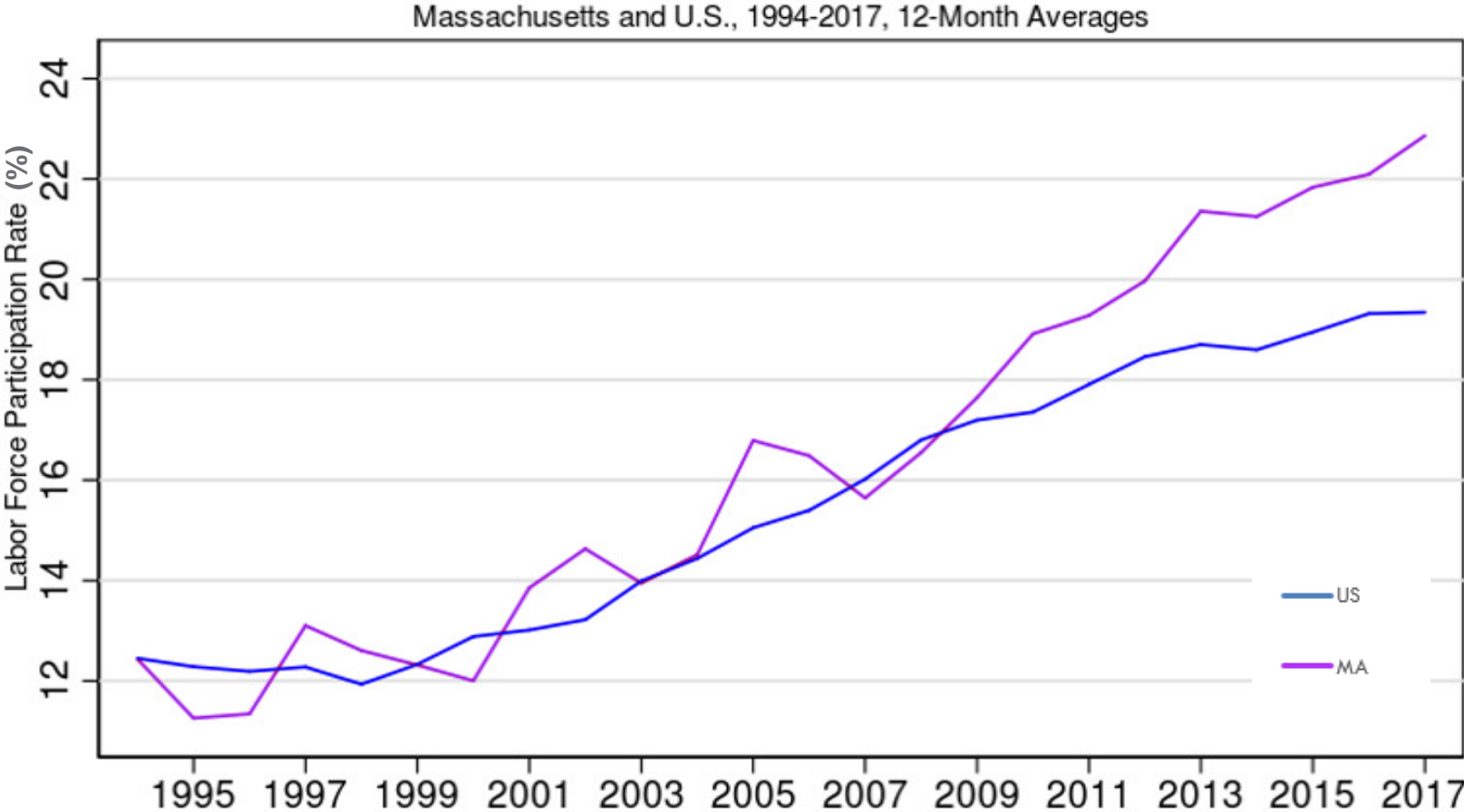
Note: The U-6 rate is calculated as total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers.

Figure 5. Labor Force Participation Rate



Source: Bureau of Labor Statistics, NBER, Haver Analytics
Note: Data are seasonally adjusted.

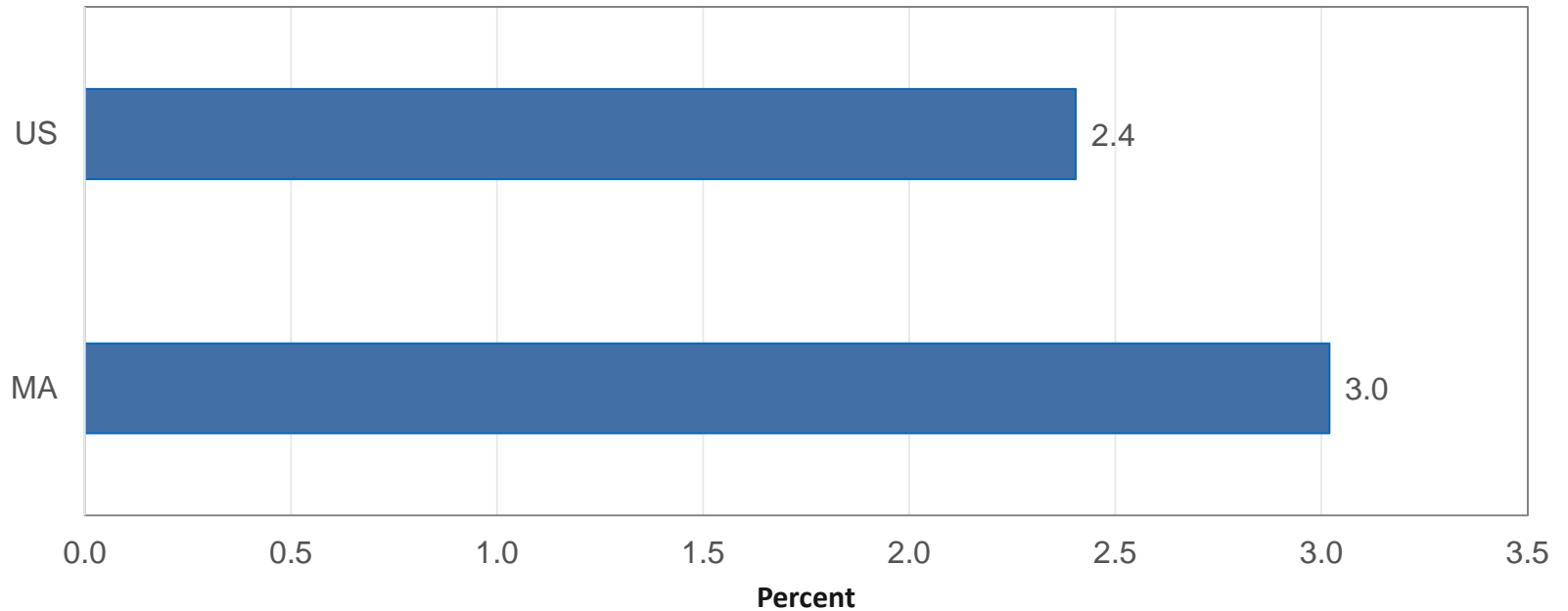
Figure 6. Labor Force Participation Rate, Ages 65 and Over



Source: Mary Burke's calculations based on Bureau of Labor Statistics' Current Population Survey Integrated Public Use Microdata Series (IPUMS-CPS).

Figure 7. Average Hourly Earnings, Total Private-sector Workers

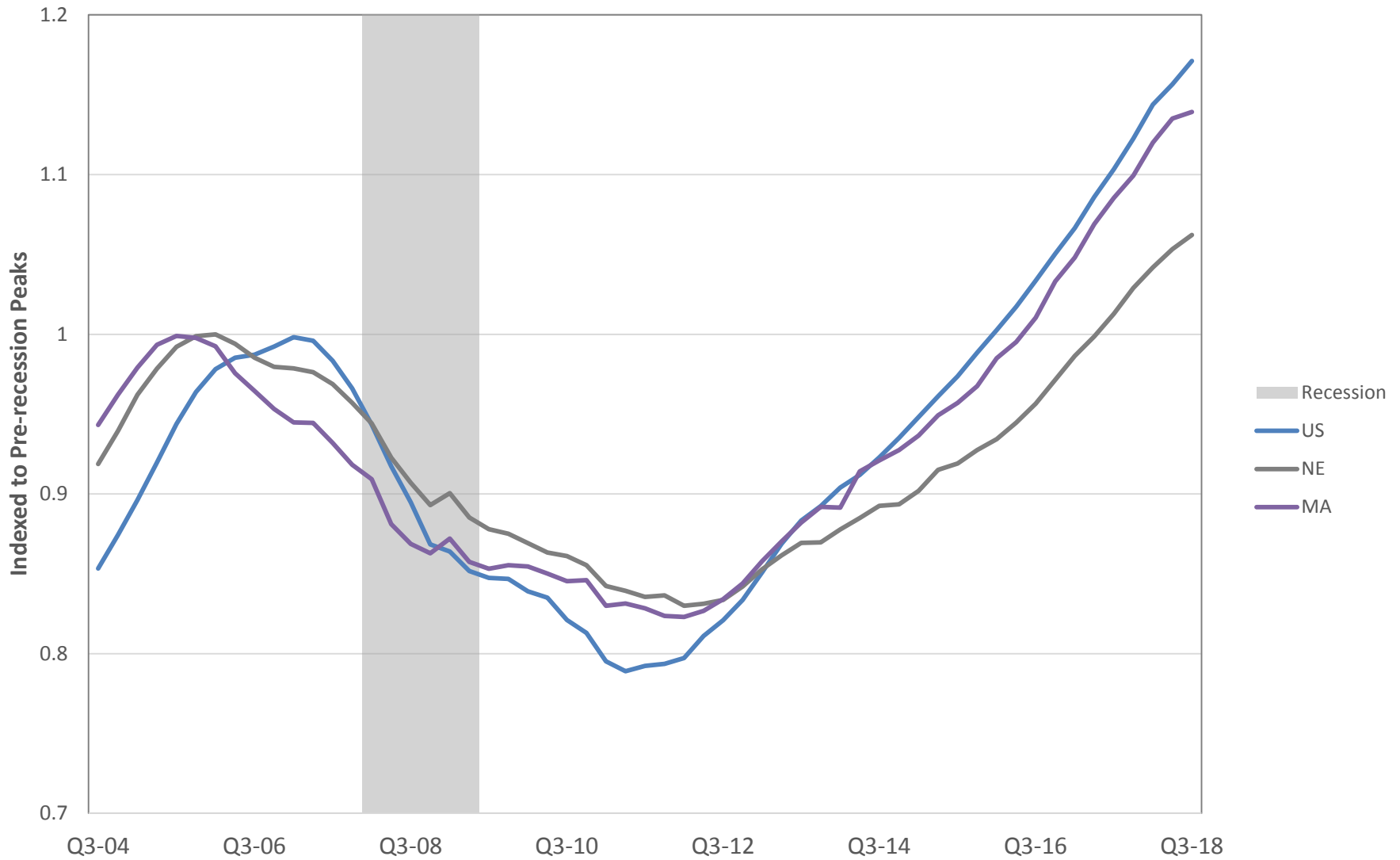
Percent Change, October 2017 – October 2018



Source: Bureau of Labor Statistics, Federal Reserve Bank of St. Louis

Note: Data are not seasonally adjusted.

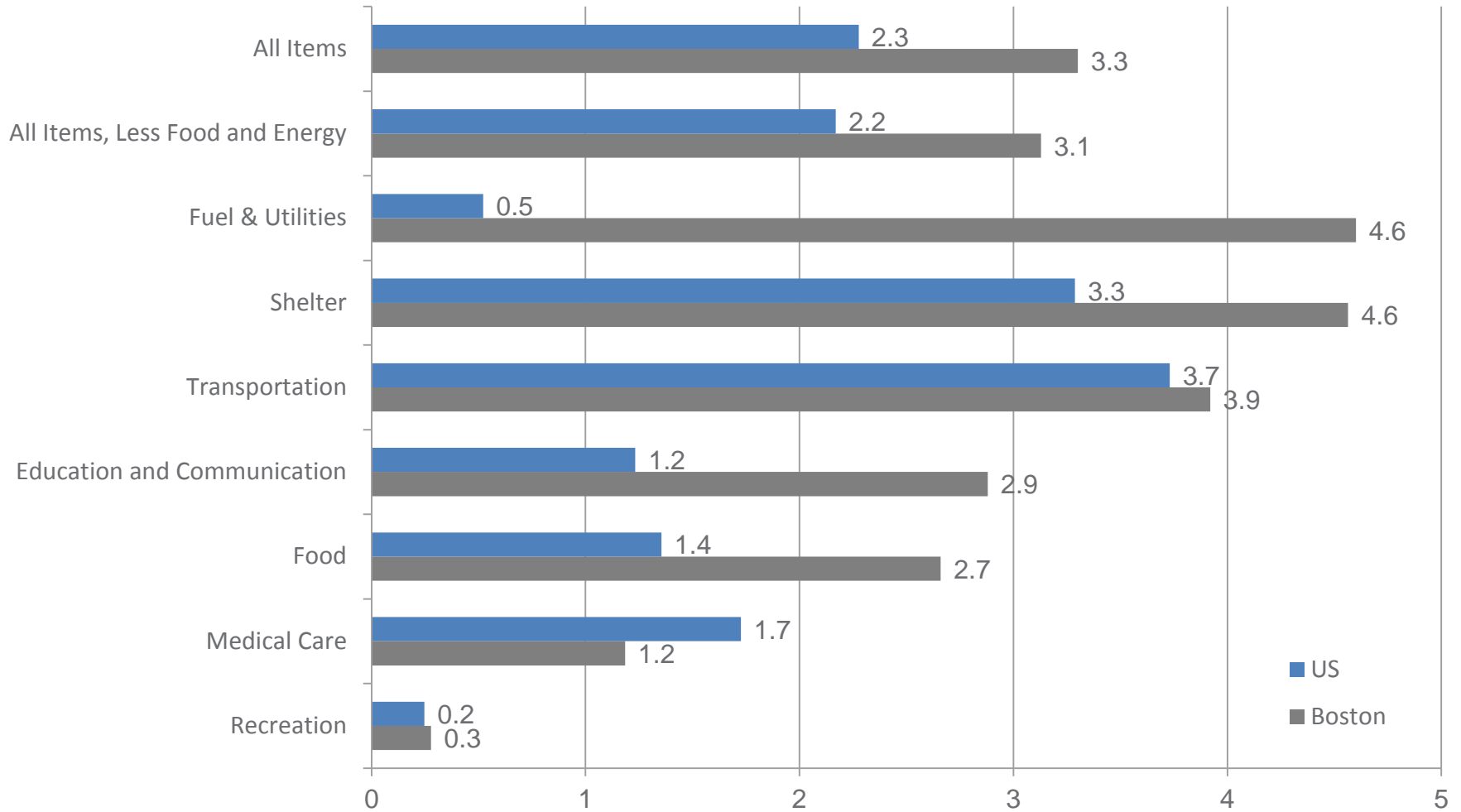
Figure 8. FHFA Purchase-only House Price Index



Source: FHFA, Haver Analytics

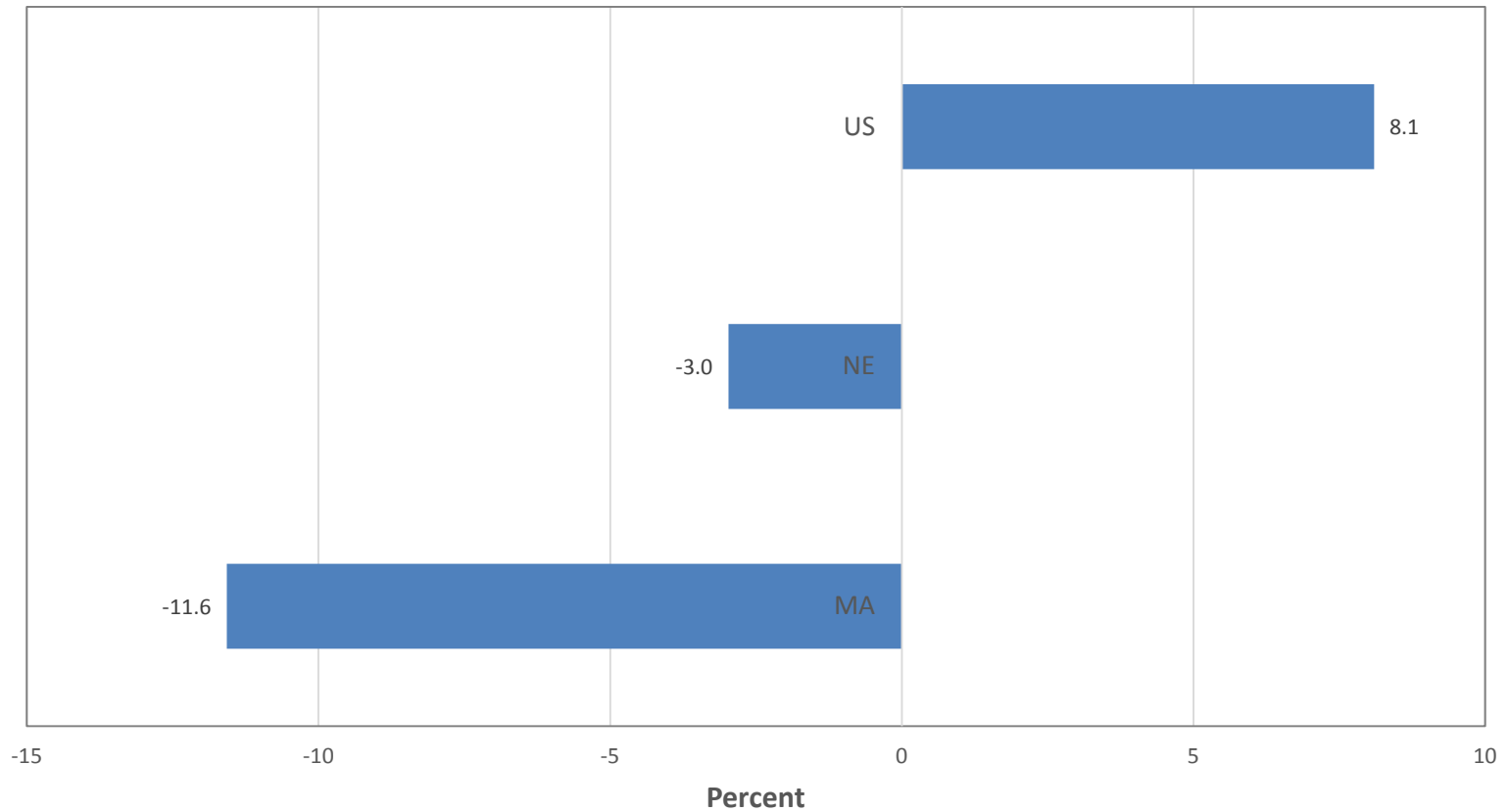
Figure 9. Components of the Consumer Price Index

Percent Change, September 2017 – September 2018



Source: Bureau of Labor Statistics, Haver Analytics

Figure 10. Merchandise Exports
Percent Change, Q3 2017 – Q3 2018



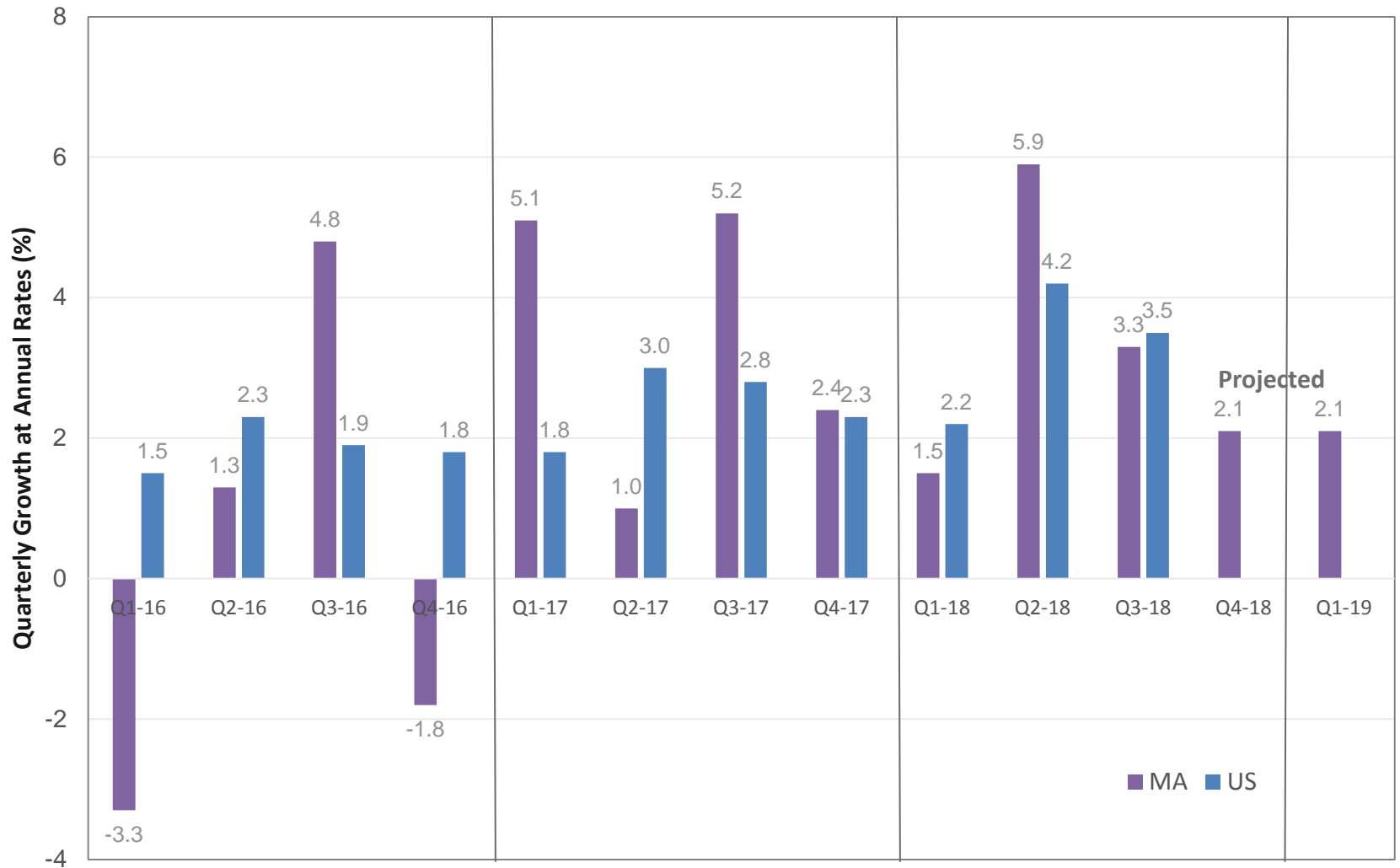
Source: World Institute for Strategic Economic Research (WISER)
Note: Data are not seasonally adjusted.

Figure 11. Economic Projections of Federal Reserve Board Members and Federal Reserve Bank Presidents



Source: Federal Open Market Committee Minutes, September 25-26, 2018

Figure 12. Growth in Real Products, Massachusetts vs. U.S.



Source: U.S., Bureau of Economic Analysis (BEA); Massachusetts: through 2018Q1, BEA; 2018Q2 and later, MassBenchmarks.