

# FY21 Recap

## FY2021 Tax Collections Summary (in \$ millions)

|   | <b>FY2021 Actual<br/>Collections</b> | \$ Change from<br>FY2020 Actual<br>Fav/(Unfav) | % Change from<br>FY2020 Actual<br>Fav/(Unfav) | \$ Change From<br>FY2021<br>Benchmark<br>Fav/(Unfav) | % Change From<br>FY2021<br>Benchmark<br>Fav/(Unfav) |
|---|--------------------------------------|--|---|--|---|
| <b>Income</b>                           |                                      |  |   |  |   |
| Income Withholding                      | 14,719                               | 983  | 7.2%  | 688  | 4.9%  |
| Income Est. Payments                    | 2,942                                | 592  | 25.2%   | 729  | 33.0%   |
| Income Returns/Bills                    | 3,659                                | 609  | 19.9%   | 1,347  | 58.3%   |
| Income Refunds Net (outflow)            | (1,727)                              | 49   | 2.7%  | 149  | 7.9%  |
| Subtotal Non-withheld Income            | 4,874                                | 1,249  | 34.5%   | 2,225  | 84.0%   |
| <b>Subtotal Income</b>                  | <b>19,593</b>                        | <b>2,232</b>                                   | <b>12.9%</b>                                  | <b>2,913</b>   | <b>17.5%</b>  |
| <b>Sales &amp; Use</b>                  |                                      |  |   |  |   |
| Sales - Regular                         | 5,832                                | 927  | 18.9%   | 341  | 6.2%  |
| Sales - Meals                           | 948                                  | (130)  | -12.0%  | 120  | 14.6%   |
| Sales - Motor Vehicles                  | 1,054                                | 226  | 27.3%   | 198  | 23.2%   |
| <b>Subtotal Sales &amp; Use</b>         | <b>7,834</b>                         | <b>1,023</b>                                   | <b>15.0%</b>                                  | <b>660</b>   | <b>9.2%</b>   |
| <b>Corporate &amp; Business - Total</b> | <b>4,116</b>                         | <b>1,192</b>                                   | <b>40.8%</b>                                  | <b>892</b>   | <b>27.7%</b>  |
| <b>All Other</b>                        | <b>2,594</b>                         | <b>80</b>                                      | <b>3.2%</b>                                   | <b>582</b>   | <b>28.9%</b>  |
| <b>Total Tax Collections</b>            | <b>34,137</b>                        | <b>4,528</b>                                   | <b>15.3%</b>                                  | <b>5,047</b>   | <b>17.3%</b>  |

Note: The figures above exclude Tax-Related Settlements & Judgments exceeding \$10 million each. The total for these was \$0.0 million in June 2021 and \$32.9 million in FY21.

## FY21 Recap

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- Revenue collections for FY21 totaled \$34.137 billion, \$5.047 billion above the FY21 benchmark and \$4.528 billion more than the amount collected in FY20.
- The positive results reflect the Commonwealth's ongoing economic recovery, federal fiscal and monetary policies, financial market performance, and the easing of COVID-19 restrictions.
- FY21's positive results were broad-based, with each major revenue category exceeding both benchmark and prior year results. Meals tax, a component of sales tax, did decline by \$130 million from FY20, but collections improved towards the end of the fiscal year.

# FY22 Year-to-Date Collections

## FY22 Year-to-Date (YTD) Tax Collections Summary as of November 2021 (in \$ millions)

Preliminary as of December 3, 2021

### FY22 YTD as of November 2021

|   | FY21 YTD<br>Actual<br>Collections | \$ Change vs.<br>FY21 YTD<br>Fav/(Unfav) | % Change vs.<br>FY21 YTD<br>Fav/(Unfav) | \$ Change vs.<br>FY22 YTD<br>Benchmark<br>Fav/(Unfav) | % Change vs.<br>FY22 YTD<br>Benchmark<br>Fav/(Unfav) |
|---|-----------------------------------|--|---|---|--|
| <b>Income</b>                           |                                   |  |   |   |  |
| Income Withholding                      | 6,138                             | 488                                      | 8.6%                                    | 131   | 2.2%   |
| Income Est. Payments                    | 1,006.4                           | 311.5                                    | 44.8%                                   | 140   | 16.1%  |
| Income Returns/Bills                    | 444                               | 127                                      | 39.8%                                   | 85  | 23.8%  |
| Income Refunds Net (outflow)            | (267)                             | (48)                                     | -21.9%                                  | (2)   | -0.8%  |
| Subtotal Non-withheld Income            | 1,184                             | 390                                      | 49.2%                                   | 223   | 23.2%  |
| <b>Subtotal Income</b>                  | <b>7,322</b>                      | <b>878</b>                               | <b>13.6%</b>                            | <b>354</b>  | <b>5.1%</b>  |
| <b>Sales &amp; Use</b>                  |                                   |  |   |   |  |
| Sales - Regular                         | 2,566                             | 339                                      | 15.2%                                   | 40  | 1.6%   |
| Sales - Meals                           | 593                               | 203                                      | 52.1%                                   | 35  | 6.2%   |
| Sales - Motor Vehicles                  | 445                               | 36                                       | 8.7%                                    | 32  | 7.8%   |
| Subtotal Sales & Use                    | 3,605                             | 578                                      | 19.1%                                   | 107   | 3.1%   |
| <b>Corporate &amp; Business - Total</b> | <b>1,373</b>                      | <b>386</b>                               | <b>39.1%</b>                            | <b>272</b>  | <b>24.7%</b>   |
| <b>All Other</b>                        | <b>1,312</b>                      | <b>303</b>                               | <b>30.1%</b>                            | <b>181</b>  | <b>16.0%</b>   |
| <b>Total Tax Collections</b>            | <b>13,612</b>                     | <b>2,145</b>                             | <b>18.7%</b>                            | <b>914</b>  | <b>7.2%</b>  |

Note:

The figures above exclude Tax-Related Settlements & Judgments exceeding \$10 million each. The total for these was \$0.0 million in November 2021 and \$13.6 million in FY22 YTD.

## FY22 Tax Revenue Forecasts

### FY22 Tax Revenue Forecasts Based on Vendors' Economic Projections (\$Million)

*(Settlements are not included)*

|                                 | FY21 Actual Collections |                      |                     |                       | FY22 Benchmark  |                        |                       | FY22 Tax Revenue Forecasts |                       |                      |                |                        |                       |                      |                |  |
|---------------------------------|-------------------------|----------------------|---------------------|-----------------------|-----------------|------------------------|-----------------------|----------------------------|-----------------------|----------------------|----------------|------------------------|-----------------------|----------------------|----------------|--|
|                                 |                         |                      |                     |                       |                 |                        |                       | Upper Bound                |                       |                      |                | Lower Bound            |                       |                      |                |  |
|                                 |                         | vs FY21<br>Benc (\$) | vs FY21<br>Benc (%) | vs FY20<br>Actual (%) |                 | vs FY21<br>Actual (\$) | vs FY21<br>Actual (%) | vs FY21<br>Actual (\$)     | vs FY21<br>Actual (%) | vs FY22<br>Benc (\$) |                | vs FY21<br>Actual (\$) | vs FY21<br>Actual (%) | vs FY22<br>Benc (\$) |                |  |
| <b>Total Tax Collections:</b>   | <b>\$34,137</b>         | <b>\$5,047</b>       | <b>17.3%</b>        | <b>15.3%</b>          | <b>\$34,401</b> | <b>\$263</b>           | <b>0.8%</b>           | <b>\$36,623</b>            | <b>\$2,486</b>        | <b>7.3%</b>          | <b>\$2,222</b> | <b>\$35,726</b>        | <b>\$1,589</b>        | <b>4.7%</b>          | <b>\$1,325</b> |  |
| <b>Total Income</b>             | <b>\$19,593</b>         | <b>\$2,913</b>       | <b>17.5%</b>        | <b>12.9%</b>          | <b>\$19,941</b> | <b>\$348</b>           | <b>1.8%</b>           | <b>\$20,694</b>            | <b>\$1,101</b>        | <b>5.6%</b>          | <b>\$753</b>   | <b>\$20,288</b>        | <b>\$695</b>          | <b>3.5%</b>          | <b>\$348</b>   |  |
| <b>Income Withholding</b>       | <b>\$14,719</b>         | <b>\$688</b>         | <b>4.9%</b>         | <b>7.2%</b>           | <b>\$15,310</b> | <b>\$591</b>           | <b>4.0%</b>           | <b>\$15,561</b>            | <b>\$842</b>          | <b>5.7%</b>          | <b>\$251</b>   | <b>\$15,477</b>        | <b>\$757</b>          | <b>5.1%</b>          | <b>\$166</b>   |  |
| Income Est Payments (Cash)      | \$2,942                 | \$729                | 33.0%               | 25.2%                 | \$2,841         | -\$101                 | -3.4%                 | \$3,015                    | \$73                  | 2.5%                 | \$174          | \$2,877                | -\$65                 | -2.2%                | \$36           |  |
| Income Returns/Bills            | \$3,659                 | \$1,347              | 58.3%               | 19.9%                 | \$3,584         | -\$75                  | -2.1%                 | \$4,050                    | \$391                 | 10.7%                | \$466          | \$3,882                | \$223                 | 6.1%                 | \$298          |  |
| Income Refunds (Cash)           | \$1,727                 | (\$149)              | -7.9%               | -2.7%                 | \$1,795         | \$68                   | 3.9%                  | \$1,932                    | \$205                 | 11.9%                | \$137          | \$1,947                | \$220                 | 12.7%                | \$152          |  |
| <b>Not-withheld (1)</b>         | <b>\$4,874</b>          | <b>\$2,225</b>       | <b>84.0%</b>        | <b>34.5%</b>          | <b>\$4,630</b>  | <b>-\$243</b>          | <b>-5.0%</b>          | <b>\$5,133</b>             | <b>\$259</b>          | <b>5.3%</b>          | <b>\$503</b>   | <b>\$4,812</b>         | <b>-\$62</b>          | <b>-1.3%</b>         | <b>\$181</b>   |  |
| <b>Sales &amp; Use</b>          | <b>\$7,834</b>          | <b>\$660</b>         | <b>9.2%</b>         | <b>15.0%</b>          | <b>\$7,864</b>  | <b>\$30</b>            | <b>0.4%</b>           | <b>\$8,477</b>             | <b>\$643</b>          | <b>8.2%</b>          | <b>\$613</b>   | <b>\$8,353</b>         | <b>\$520</b>          | <b>6.6%</b>          | <b>\$490</b>   |  |
| Regular Sales                   | \$5,832                 | \$341                | 6.2%                | 18.9%                 | \$5,762         | -\$70                  | -1.2%                 | \$6,161                    | \$329                 | 5.6%                 | \$399          | \$6,102                | \$270                 | 4.6%                 | \$340          |  |
| Meals                           | \$948                   | \$120                | 14.6%               | -12.0%                | \$1,139         | \$192                  | 20.2%                 | \$1,223                    | \$275                 | 29.0%                | \$83           | \$1,206                | \$258                 | 27.3%                | \$67           |  |
| Motor Vehicles                  | \$1,054                 | \$198                | 23.2%               | 27.3%                 | \$962           | -\$92                  | -8.7%                 | \$1,093                    | \$39                  | 3.7%                 | \$131          | \$1,046                | -\$9                  | -0.8%                | \$84           |  |
| <b>Corporate &amp; Business</b> | <b>\$4,116</b>          | <b>\$892</b>         | <b>27.7%</b>        | <b>40.8%</b>          | <b>\$3,979</b>  | <b>-\$137</b>          | <b>-3.3%</b>          | <b>\$4,594</b>             | <b>\$477</b>          | <b>11.6%</b>         | <b>\$615</b>   | <b>\$4,243</b>         | <b>\$127</b>          | <b>3.1%</b>          | <b>\$264</b>   |  |
| <b>All Other</b>                | <b>\$2,594</b>          | <b>\$582</b>         | <b>28.9%</b>        | <b>3.2%</b>           | <b>\$2,617</b>  | <b>\$23</b>            | <b>0.9%</b>           | <b>\$2,859</b>             | <b>\$264</b>          | <b>10.2%</b>         | <b>\$242</b>   | <b>\$2,841</b>         | <b>\$247</b>          | <b>9.5%</b>          | <b>\$224</b>   |  |
| (1) Capital Gains Taxes         | \$2,584                 | \$1,174              | 83.2%               | 55.7%                 | \$2,615         | \$32                   | 1.2%                  | \$2,713                    | \$129                 | 5.0%                 | \$98           | \$2,409                | -\$174                | -6.8%                | -\$206         |  |

# FY23 Tax Revenue Forecasts

## FY23 Tax Revenue Forecasts Based on Vendors' Economic Projections (\$Million)

(Settlements are not included)

|                                 | FY21 Actual Collections |                     |                       |              | FY22 Benchmark         |                       |              | FY23 Tax Revenue Forecasts |                     |                      |                     |              |                      |                     |                      |                     |             |
|---------------------------------|-------------------------|---------------------|-----------------------|--------------|------------------------|-----------------------|--------------|----------------------------|---------------------|----------------------|---------------------|--------------|----------------------|---------------------|----------------------|---------------------|-------------|
|                                 |                         |                     |                       |              |                        |                       |              | Upper Bound                |                     |                      |                     | Lower Bound  |                      |                     |                      |                     |             |
|                                 | vs FY21<br>Benc (\$)    | vs FY21<br>Benc (%) | vs FY20<br>Actual (%) |              | vs FY21<br>Actual (\$) | vs FY21<br>Actual (%) |              | vs FY22<br>Proj (\$)       | vs FY22<br>Proj (%) | vs FY22<br>Benc (\$) | vs FY22<br>Benc (%) |              | vs FY22<br>Proj (\$) | vs FY22<br>Proj (%) | vs FY22<br>Benc (\$) | vs FY22<br>Benc (%) |             |
| <b>Total Tax Collections:</b>   | <b>\$34,137</b>         | <b>\$5,047</b>      | <b>17.3%</b>          | <b>15.3%</b> | <b>\$34,401</b>        | <b>\$263</b>          | <b>0.8%</b>  | <b>\$37,684</b>            | <b>\$1,061</b>      | <b>2.9%</b>          | <b>\$3,283</b>      | <b>9.5%</b>  | <b>\$36,484</b>      | <b>\$758</b>        | <b>2.1%</b>          | <b>\$2,083</b>      | <b>6.1%</b> |
| <b>Total Income</b>             | <b>\$19,593</b>         | <b>\$2,913</b>      | <b>17.5%</b>          | <b>12.9%</b> | <b>\$19,941</b>        | <b>\$348</b>          | <b>1.8%</b>  | <b>\$21,344</b>            | <b>\$650</b>        | <b>3.1%</b>          | <b>\$1,403</b>      | <b>7.0%</b>  | <b>\$20,758</b>      | <b>\$469</b>        | <b>2.3%</b>          | <b>\$817</b>        | <b>4.1%</b> |
| <b>Income Withholding</b>       | <b>\$14,719</b>         | <b>\$688</b>        | <b>4.9%</b>           | <b>7.2%</b>  | <b>\$15,310</b>        | <b>\$591</b>          | <b>4.0%</b>  | <b>\$16,407</b>            | <b>\$846</b>        | <b>5.4%</b>          | <b>\$1,097</b>      | <b>7.2%</b>  | <b>\$15,978</b>      | <b>\$502</b>        | <b>3.2%</b>          | <b>\$668</b>        | <b>4.4%</b> |
| Income Est Payments (Cash)      | \$2,942                 | \$729               | 33.0%                 | 25.2%        | \$2,841                | -\$101                | -3.4%        | \$2,895                    | -\$120              | -4.0%                | \$54                | 1.9%         | \$2,803              | -\$74               | -2.6%                | -\$38               | -1.4%       |
| Income Returns/Bills            | \$3,659                 | \$1,347             | 58.3%                 | 19.9%        | \$3,584                | -\$75                 | -2.1%        | \$3,981                    | -\$69               | -1.7%                | \$397               | 11.1%        | \$3,854              | -\$28               | -0.7%                | \$270               | 7.5%        |
| Income Refunds (Cash)           | \$1,727                 | (\$149)             | -7.9%                 | -2.7%        | \$1,795                | \$68                  | 3.9%         | \$1,939                    | \$7                 | 0.4%                 | \$144               | 8.1%         | \$1,878              | -\$70               | -3.6%                | \$83                | 4.6%        |
| Not-withheld (1)                | \$4,874                 | \$2,225             | 84.0%                 | 34.5%        | \$4,630                | -\$243                | -5.0%        | \$4,937                    | -\$196              | -3.8%                | \$306               | 6.6%         | \$4,779              | -\$32               | -0.7%                | \$149               | 3.2%        |
| <b>Sales &amp; Use</b>          | <b>\$7,834</b>          | <b>\$660</b>        | <b>9.2%</b>           | <b>15.0%</b> | <b>\$7,864</b>         | <b>\$30</b>           | <b>0.4%</b>  | <b>\$8,733</b>             | <b>\$256</b>        | <b>3.0%</b>          | <b>\$869</b>        | <b>11.1%</b> | <b>\$8,508</b>       | <b>\$154</b>        | <b>1.8%</b>          | <b>\$644</b>        | <b>8.2%</b> |
| Regular Sales                   | \$5,832                 | \$341               | 6.2%                  | 18.9%        | \$5,762                | -\$70                 | -1.2%        | \$6,296                    | \$136               | 2.2%                 | \$534               | 9.3%         | \$6,168              | \$67                | 1.1%                 | \$406               | 7.1%        |
| Meals                           | \$948                   | \$120               | 14.6%                 | -12.0%       | \$1,139                | \$192                 | 20.2%        | \$1,265                    | \$42                | 3.5%                 | \$126               | 11.0%        | \$1,225              | \$19                | 1.6%                 | \$85                | 7.5%        |
| Motor Vehicles                  | \$1,054                 | \$198               | 23.2%                 | 27.3%        | \$962                  | -\$92                 | -8.7%        | \$1,172                    | \$79                | 7.2%                 | \$209               | 21.8%        | \$1,114              | \$69                | 6.6%                 | \$152               | 15.8%       |
| <b>Corporate &amp; Business</b> | <b>\$4,116</b>          | <b>\$892</b>        | <b>27.7%</b>          | <b>40.8%</b> | <b>\$3,979</b>         | <b>-\$137</b>         | <b>-3.3%</b> | <b>\$4,705</b>             | <b>\$111</b>        | <b>2.4%</b>          | <b>\$726</b>        | <b>18.2%</b> | <b>\$4,365</b>       | <b>\$121</b>        | <b>2.9%</b>          | <b>\$385</b>        | <b>9.7%</b> |
| <b>All Other</b>                | <b>\$2,594</b>          | <b>\$582</b>        | <b>28.9%</b>          | <b>3.2%</b>  | <b>\$2,617</b>         | <b>\$23</b>           | <b>0.9%</b>  | <b>\$2,902</b>             | <b>\$44</b>         | <b>1.5%</b>          | <b>\$285</b>        | <b>10.9%</b> | <b>\$2,854</b>       | <b>\$13</b>         | <b>0.5%</b>          | <b>\$237</b>        | <b>9.1%</b> |
| (1) Capital Gains Taxes         | \$2,584                 | \$1,174             | 83.2%                 | 55.7%        | \$2,615                | \$32                  | 1.2%         | \$2,356                    | -\$357              | -13.2%               | -\$260              | -9.9%        | \$2,198              | -\$211              | -8.8%                | -\$417              | -15.9%      |

# U.S and Massachusetts Economic Forecast Table

## (Percent Change from Prior Fiscal Year)

|  | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY2022<br>Q1 | FY2022<br>Q2-Q4 | FY 2022 | FY 2023 | FY 2024 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|--------------|-----------------|---------|---------|---------|
| <b>US economic variables</b>                     |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| <b>Real GDP</b>                                  |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | 2.0%    | 3.0%    | 1.8%    | 1.9%    | 2.8%    | 2.4%    | -0.9%   | 1.6%    | 4.9%         | 5.9%            | 5.6%    | 4.9%    | 1.8%    |
| November 2021 Moody's Analytics Baseline         | 2.0%    | 3.0%    | 1.8%    | 1.9%    | 2.8%    | 2.4%    | -0.9%   | 1.6%    | 4.9%         | 5.1%            | 5.0%    | 3.6%    | 2.7%    |
| November 2021 Moody's Analytics Pessimistic (S3) | 2.0%    | 3.0%    | 1.8%    | 1.9%    | 2.8%    | 2.4%    | -0.9%   | 1.6%    | 4.9%         | 2.8%            | 3.3%    | -0.8%   | 2.9%    |
| November 2021 Moody's Analytics Pessimistic (S4) | 2.0%    | 3.0%    | 1.8%    | 1.9%    | 2.8%    | 2.4%    | -0.9%   | 1.6%    | 4.9%         | 2.4%            | 3.0%    | -2.4%   | 0.7%    |
| November 2021 IHS Markit Optimistic              | 2.0%    | 3.0%    | 1.8%    | 1.9%    | 2.8%    | 2.4%    | -0.9%   | 1.6%    | 4.9%         | 5.8%            | 5.5%    | 4.8%    | 2.9%    |
| November 2021 IHS Markit Baseline                | 2.0%    | 3.0%    | 1.8%    | 1.9%    | 2.8%    | 2.4%    | -0.9%   | 1.6%    | 4.9%         | 4.5%            | 4.6%    | 3.8%    | 2.6%    |
| November 2021 IHS Markit Pessimistic             | 2.0%    | 3.0%    | 1.8%    | 1.9%    | 2.8%    | 2.4%    | -0.9%   | 1.6%    | 4.9%         | 3.3%            | 3.7%    | 3.2%    | 2.9%    |
| <b>Corporate Profits</b>                         |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | 3.5%    | 1.9%    | -7.4%   | 5.0%    | 0.9%    | 3.2%    | -8.8%   | 29.0%   | 26.4%        | 14.5%           | 17.2%   | 7.0%    | 5.7%    |
| November 2021 Moody's Analytics Baseline         | 3.5%    | 1.9%    | -7.4%   | 5.0%    | 0.9%    | 3.2%    | -8.8%   | 29.0%   | 26.4%        | 12.3%           | 15.5%   | 4.1%    | 4.4%    |
| November 2021 Moody's Analytics Pessimistic (S3) | 3.5%    | 1.9%    | -7.4%   | 5.0%    | 0.9%    | 3.2%    | -8.8%   | 29.0%   | 26.4%        | 0.7%            | 6.6%    | -13.8%  | 10.6%   |
| November 2021 Moody's Analytics Pessimistic (S4) | 3.5%    | 1.9%    | -7.4%   | 5.0%    | 0.9%    | 3.2%    | -8.8%   | 29.0%   | 26.4%        | -0.5%           | 5.7%    | -22.6%  | 6.1%    |
| November 2021 IHS Markit Optimistic              | 3.5%    | 1.9%    | -7.4%   | 5.0%    | 0.9%    | 3.2%    | -8.8%   | 29.0%   | 19.3%        | 5.0%            | 8.3%    | 4.1%    | 4.9%    |
| November 2021 IHS Markit Baseline                | 3.5%    | 1.9%    | -7.4%   | 5.0%    | 0.9%    | 3.2%    | -8.8%   | 29.0%   | 19.3%        | 0.1%            | 4.5%    | 0.9%    | 5.4%    |
| November 2021 IHS Markit Pessimistic             | 3.5%    | 1.9%    | -7.4%   | 5.0%    | 0.9%    | 3.2%    | -8.8%   | 29.0%   | 19.3%        | -3.9%           | 1.4%    | 0.0%    | 3.8%    |
| <b>S&amp;P500 (Calendar year)</b>                |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | 19.1%   | 17.5%   | 6.8%    | 1.5%    | 17.0%   | 12.1%   | 6.1%    | 10.5%   | N.A.         | N.A.            | 31.1%   | 9.9%    | -0.5%   |
| November 2021 Moody's Analytics Baseline         | 19.1%   | 17.5%   | 6.8%    | 1.5%    | 17.0%   | 12.1%   | 6.1%    | 10.5%   | N.A.         | N.A.            | 31.1%   | -0.4%   | -4.1%   |
| November 2021 Moody's Analytics Pessimistic (S3) | 19.1%   | 17.5%   | 6.8%    | 1.5%    | 17.0%   | 12.1%   | 6.1%    | 10.5%   | N.A.         | N.A.            | 31.1%   | -23.1%  | -2.1%   |
| November 2021 Moody's Analytics Pessimistic (S4) | 19.1%   | 17.5%   | 6.8%    | 1.5%    | 17.0%   | 12.1%   | 6.1%    | 10.5%   | N.A.         | N.A.            | 31.1%   | -28.8%  | -12.3%  |
| November 2021 IHS Markit Optimistic              | 19.1%   | 17.5%   | 6.8%    | 1.5%    | 17.0%   | 12.1%   | 6.1%    | 10.5%   | N.A.         | N.A.            | 32.0%   | 16.1%   | 0.5%    |
| November 2021 IHS Markit Baseline                | 19.1%   | 17.5%   | 6.8%    | 1.5%    | 17.0%   | 12.1%   | 6.1%    | 10.5%   | N.A.         | N.A.            | 32.7%   | 9.6%    | -1.9%   |
| November 2021 IHS Markit Pessimistic             | 19.1%   | 17.5%   | 6.8%    | 1.5%    | 17.0%   | 12.1%   | 6.1%    | 10.5%   | N.A.         | N.A.            | 31.7%   | 6.0%    | -3.1%   |
| <b>Unemployment Rate</b>                         |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | 6.8%    | 5.7%    | 5.0%    | 4.7%    | 4.1%    | 3.8%    | 6.0%    | 6.9%    | 5.1%         | 3.9%            | 4.2%    | 3.0%    | 3.0%    |
| November 2021 Moody's Analytics Baseline         | 6.8%    | 5.7%    | 5.0%    | 4.7%    | 4.1%    | 3.8%    | 6.0%    | 6.9%    | 5.1%         | 4.1%            | 4.4%    | 3.5%    | 3.5%    |
| November 2021 Moody's Analytics Pessimistic (S3) | 6.8%    | 5.7%    | 5.0%    | 4.7%    | 4.1%    | 3.8%    | 6.0%    | 6.9%    | 5.1%         | 6.2%            | 5.9%    | 8.7%    | 7.0%    |
| November 2021 Moody's Analytics Pessimistic (S4) | 6.8%    | 5.7%    | 5.0%    | 4.7%    | 4.1%    | 3.8%    | 6.0%    | 6.9%    | 5.1%         | 6.3%            | 6.0%    | 9.3%    | 10.2%   |
| November 2021 IHS Markit Optimistic              | 6.8%    | 5.7%    | 5.0%    | 4.7%    | 4.1%    | 3.8%    | 6.0%    | 6.9%    | 5.1%         | 3.9%            | 4.2%    | 3.1%    | 3.3%    |
| November 2021 IHS Markit Baseline                | 6.8%    | 5.7%    | 5.0%    | 4.7%    | 4.1%    | 3.8%    | 6.0%    | 6.9%    | 5.1%         | 4.2%            | 4.4%    | 3.5%    | 3.6%    |
| November 2021 IHS Markit Pessimistic             | 6.8%    | 5.7%    | 5.0%    | 4.7%    | 4.1%    | 3.8%    | 6.0%    | 6.9%    | 5.1%         | 4.5%            | 4.6%    | 4.1%    | 4.1%    |
| <b>Bank Prime Rate</b>                           |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | 3.3%    | 3.3%    | 3.4%    | 3.7%    | 4.5%    | 5.3%    | 4.4%    | 3.3%    | 3.3%         | 3.3%            | 3.3%    | 3.6%    | 4.8%    |
| November 2021 Moody's Analytics Baseline         | 3.3%    | 3.3%    | 3.4%    | 3.7%    | 4.5%    | 5.3%    | 4.4%    | 3.3%    | 3.3%         | 3.2%            | 3.2%    | 3.5%    | 4.4%    |
| November 2021 Moody's Analytics Pessimistic (S3) | 3.3%    | 3.3%    | 3.4%    | 3.7%    | 4.5%    | 5.3%    | 4.4%    | 3.3%    | 3.3%         | 3.2%            | 3.2%    | 3.2%    | 3.2%    |
| November 2021 Moody's Analytics Pessimistic (S4) | 3.3%    | 3.3%    | 3.4%    | 3.7%    | 4.5%    | 5.3%    | 4.4%    | 3.3%    | 3.3%         | 3.2%            | 3.2%    | 3.2%    | 3.2%    |
| November 2021 IHS Markit Optimistic              | 3.3%    | 3.3%    | 3.4%    | 3.7%    | 4.5%    | 5.3%    | 4.5%    | 3.3%    | 3.3%         | 3.3%            | 3.3%    | 3.6%    | 4.0%    |
| November 2021 IHS Markit Baseline                | 3.3%    | 3.3%    | 3.4%    | 3.7%    | 4.5%    | 5.3%    | 4.5%    | 3.3%    | 3.3%         | 3.3%            | 3.3%    | 3.3%    | 3.8%    |
| November 2021 IHS Markit Pessimistic             | 3.3%    | 3.3%    | 3.4%    | 3.7%    | 4.5%    | 5.3%    | 4.5%    | 3.3%    | 3.3%         | 3.3%            | 3.3%    | 3.3%    | 3.3%    |

# U.S and Massachusetts Economic Forecast Table

## (Percent Change from Prior Fiscal Year)

|  | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY2022<br>Q1 | FY2022<br>Q2-Q4 | FY 2022 | FY 2023 | FY 2024 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|--------------|-----------------|---------|---------|---------|
| <b>Federal Funds Rate</b>                        |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | 0.1%    | 0.1%    | 0.3%    | 0.6%    | 1.4%    | 2.2%    | 1.3%    | 0.1%    | 0.1%         | 0.1%            | 0.1%    | 0.5%    | 1.6%    |
| November 2021 Moody's Analytics Baseline         | 0.1%    | 0.1%    | 0.3%    | 0.6%    | 1.4%    | 2.2%    | 1.3%    | 0.1%    | 0.1%         | 0.1%            | 0.1%    | 0.3%    | 1.2%    |
| November 2021 Moody's Analytics Pessimistic (S3) | 0.1%    | 0.1%    | 0.3%    | 0.6%    | 1.4%    | 2.2%    | 1.3%    | 0.1%    | 0.1%         | 0.1%            | 0.1%    | 0.1%    | 0.1%    |
| November 2021 Moody's Analytics Pessimistic (S4) | 0.1%    | 0.1%    | 0.3%    | 0.6%    | 1.4%    | 2.2%    | 1.3%    | 0.1%    | 0.1%         | 0.1%            | 0.1%    | 0.1%    | 0.1%    |
| November 2021 IHS Markit Optimistic              | 0.1%    | 0.1%    | 0.3%    | 0.6%    | 1.4%    | 2.2%    | 1.3%    | 0.1%    | 0.1%         | 0.2%            | 0.1%    | 0.4%    | 0.9%    |
| November 2021 IHS Markit Baseline                | 0.1%    | 0.1%    | 0.3%    | 0.6%    | 1.4%    | 2.2%    | 1.3%    | 0.1%    | 0.1%         | 0.1%            | 0.1%    | 0.2%    | 0.6%    |
| November 2021 IHS Markit Pessimistic             | 0.1%    | 0.1%    | 0.3%    | 0.6%    | 1.4%    | 2.2%    | 1.3%    | 0.1%    | 0.1%         | 0.1%            | 0.1%    | 0.1%    | 0.1%    |
| <b>Massachusetts economic variables</b>          |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| <b>Real Gross State Product</b>                  |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | 0.6%    | 3.6%    | 2.2%    | 1.3%    | 3.2%    | 3.3%    | -0.7%   | 1.2%    | 4.6%         | 6.7%            | 6.2%    | 5.3%    | 1.8%    |
| November 2021 Moody's Analytics Baseline         | 0.6%    | 3.6%    | 2.2%    | 1.3%    | 3.2%    | 3.3%    | -0.7%   | 1.2%    | 4.6%         | 5.8%            | 5.5%    | 3.9%    | 2.9%    |
| November 2021 Moody's Analytics Pessimistic (S3) | 0.6%    | 3.6%    | 2.2%    | 1.3%    | 3.2%    | 3.3%    | -0.7%   | 1.2%    | 4.6%         | 3.5%            | 3.8%    | -0.8%   | 3.0%    |
| November 2021 Moody's Analytics Pessimistic (S4) | 0.6%    | 4.0%    | 2.1%    | 1.9%    | 3.4%    | 3.3%    | -0.7%   | 1.2%    | 4.6%         | 3.1%            | 3.5%    | -2.5%   | 0.6%    |
| November 2021 IHS Markit Optimistic              | 0.6%    | 3.6%    | 2.2%    | 1.3%    | 3.2%    | 3.3%    | -0.7%   | 1.2%    | 4.5%         | 6.3%            | 5.8%    | 5.2%    | 3.1%    |
| November 2021 IHS Markit Baseline                | 0.6%    | 3.6%    | 2.2%    | 1.3%    | 3.2%    | 3.3%    | -0.7%   | 1.2%    | 4.5%         | 5.0%            | 4.9%    | 4.1%    | 2.7%    |
| November 2021 IHS Markit Pessimistic             | 0.6%    | 3.6%    | 2.2%    | 1.3%    | 3.2%    | 3.3%    | -0.7%   | 1.2%    | 4.5%         | 4.0%            | 4.1%    | 3.6%    | 3.1%    |
| <b>Wages &amp; Salaries</b>                      |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | 3.8%    | 6.6%    | 4.3%    | 3.8%    | 5.5%    | 5.2%    | 2.5%    | 4.2%    | 8.4%         | 6.6%            | 7.0%    | 6.9%    | 5.3%    |
| November 2021 Moody's Analytics Baseline         | 3.8%    | 6.6%    | 4.3%    | 3.8%    | 5.5%    | 5.2%    | 2.5%    | 4.2%    | 8.4%         | 5.8%            | 6.4%    | 4.9%    | 5.3%    |
| November 2021 Moody's Analytics Pessimistic (S3) | 3.8%    | 6.6%    | 4.3%    | 3.8%    | 5.5%    | 5.2%    | 2.5%    | 4.2%    | 8.4%         | 2.3%            | 3.7%    | -3.0%   | 5.0%    |
| November 2021 Moody's Analytics Pessimistic (S4) | 3.8%    | 6.6%    | 4.3%    | 3.8%    | 5.5%    | 5.2%    | 2.5%    | 4.2%    | 8.4%         | 1.9%            | 3.5%    | -4.5%   | 1.1%    |
| November 2021 IHS Markit Optimistic              | 3.8%    | 6.6%    | 4.3%    | 3.8%    | 5.5%    | 5.2%    | 2.5%    | 4.2%    | 8.7%         | 9.0%            | 9.0%    | 8.6%    | 6.3%    |
| November 2021 IHS Markit Baseline                | 3.8%    | 6.6%    | 4.3%    | 3.8%    | 5.5%    | 5.2%    | 2.5%    | 4.2%    | 8.7%         | 8.0%            | 8.2%    | 7.6%    | 5.7%    |
| November 2021 IHS Markit Pessimistic             | 3.8%    | 6.6%    | 4.3%    | 3.8%    | 5.5%    | 5.2%    | 2.5%    | 4.2%    | 8.7%         | 7.1%            | 7.5%    | 5.9%    | 4.7%    |
| <b>Personal Income</b>                           |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | 2.1%    | 6.9%    | 4.7%    | 3.9%    | 4.8%    | 4.8%    | 5.4%    | 6.4%    | 4.3%         | 1.5%            | 2.2%    | 6.2%    | 4.9%    |
| November 2021 Moody's Analytics Baseline         | 2.1%    | 6.9%    | 4.7%    | 3.9%    | 4.8%    | 4.8%    | 5.4%    | 6.4%    | 4.3%         | 0.7%            | 1.5%    | 4.4%    | 5.1%    |
| November 2021 Moody's Analytics Pessimistic (S3) | 2.1%    | 6.9%    | 4.7%    | 3.9%    | 4.8%    | 4.8%    | 5.4%    | 6.4%    | 4.3%         | -2.3%           | -0.7%   | -2.3%   | 4.5%    |
| November 2021 Moody's Analytics Pessimistic (S4) | 2.1%    | 6.9%    | 4.7%    | 3.9%    | 4.8%    | 4.8%    | 5.4%    | 6.4%    | 4.3%         | -3.1%           | -1.3%   | -4.7%   | 1.7%    |
| November 2021 IHS Markit Optimistic              | 2.1%    | 6.9%    | 4.7%    | 3.9%    | 4.8%    | 4.8%    | 5.4%    | 6.4%    | 3.5%         | 1.2%            | 1.8%    | 6.4%    | 5.9%    |
| November 2021 IHS Markit Baseline                | 2.1%    | 6.9%    | 4.7%    | 3.9%    | 4.8%    | 4.8%    | 5.4%    | 6.4%    | 3.5%         | 0.2%            | 1.0%    | 5.0%    | 5.2%    |
| November 2021 IHS Markit Pessimistic             | 2.1%    | 6.9%    | 4.7%    | 3.9%    | 4.8%    | 4.8%    | 5.4%    | 6.4%    | 3.5%         | -0.8%           | 0.2%    | 3.4%    | 4.4%    |
| <b>Employment</b>                                |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | 1.7%    | 2.1%    | 1.9%    | 1.7%    | 1.2%    | 1.1%    | -3.1%   | -5.1%   | 6.2%         | 6.6%            | 6.5%    | 4.6%    | 1.0%    |
| November 2021 Moody's Analytics Baseline         | 1.7%    | 2.1%    | 1.9%    | 1.7%    | 1.2%    | 1.1%    | -3.1%   | -5.1%   | 6.2%         | 6.1%            | 6.1%    | 3.7%    | 1.0%    |
| November 2021 Moody's Analytics Pessimistic (S3) | 1.7%    | 2.1%    | 1.9%    | 1.7%    | 1.2%    | 1.1%    | -3.1%   | -5.1%   | 6.2%         | 4.1%            | 4.6%    | -0.8%   | 1.8%    |
| November 2021 Moody's Analytics Pessimistic (S4) | 1.7%    | 2.1%    | 1.9%    | 1.7%    | 1.2%    | 1.1%    | -3.1%   | -5.1%   | 6.2%         | 3.9%            | 4.5%    | -1.6%   | -0.8%   |
| November 2021 IHS Markit Optimistic              | 1.7%    | 2.1%    | 1.9%    | 1.7%    | 1.2%    | 1.1%    | -3.1%   | -5.1%   | 6.2%         | 5.6%            | 5.8%    | 3.9%    | 1.7%    |
| November 2021 IHS Markit Baseline                | 1.7%    | 2.1%    | 1.9%    | 1.7%    | 1.2%    | 1.1%    | -3.1%   | -5.1%   | 6.2%         | 5.1%            | 5.4%    | 3.7%    | 1.7%    |
| November 2021 IHS Markit Pessimistic             | 1.7%    | 2.1%    | 1.9%    | 1.7%    | 1.2%    | 1.1%    | -3.1%   | -5.1%   | 6.2%         | 5.0%            | 5.3%    | 3.3%    | 1.6%    |

# U.S and Massachusetts Economic Forecast Table

## (Percent Change from Prior Fiscal Year)

|  | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY2022<br>Q1 | FY2022<br>Q2-Q4 | FY 2022 | FY 2023 | FY 2024 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|--------------|-----------------|---------|---------|---------|
| <b>Retail Sales</b>                              |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | 2.8%    | 3.6%    | 2.6%    | 3.4%    | 5.2%    | 5.0%    | -0.3%   | 15.1%   | 16.4%        | 10.7%           | 12.1%   | 6.9%    | 4.2%    |
| November 2021 Moody's Analytics Baseline         | 2.8%    | 3.6%    | 2.6%    | 3.4%    | 5.2%    | 5.0%    | -0.3%   | 15.1%   | 16.4%        | 9.5%            | 11.1%   | 4.8%    | 3.4%    |
| November 2021 Moody's Analytics Pessimistic (S3) | 2.8%    | 3.6%    | 2.6%    | 3.4%    | 5.2%    | 5.0%    | -0.3%   | 15.1%   | 16.4%        | 4.9%            | 7.6%    | -3.0%   | 6.7%    |
| November 2021 Moody's Analytics Pessimistic (S4) | 2.8%    | 3.6%    | 2.6%    | 3.4%    | 5.2%    | 5.0%    | -0.3%   | 15.1%   | 16.4%        | 4.0%            | 6.9%    | -6.7%   | 2.6%    |
| November 2021 IHS Markit Optimistic              | 4.2%    | 3.2%    | 1.8%    | 3.8%    | 4.5%    | 2.8%    | -1.1%   | 13.1%   | 12.1%        | 8.6%            | 9.4%    | 3.7%    | 2.9%    |
| November 2021 IHS Markit Baseline                | 4.2%    | 3.2%    | 1.8%    | 3.8%    | 4.5%    | 2.8%    | -1.1%   | 13.1%   | 12.1%        | 6.7%            | 8.0%    | 1.8%    | 2.4%    |
| November 2021 IHS Markit Pessimistic             | 4.2%    | 3.2%    | 1.8%    | 3.8%    | 4.5%    | 2.8%    | -1.1%   | 13.1%   | 12.1%        | 4.7%            | 6.5%    | 1.3%    | 1.7%    |
| <b>Unemployment Rate</b>                         |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | 6.3%    | 5.3%    | 4.4%    | 3.9%    | 3.7%    | 3.2%    | 6.0%    | 7.6%    | 5.0%         | 3.8%            | 4.1%    | 2.7%    | 2.2%    |
| November 2021 Moody's Analytics Baseline         | 6.3%    | 5.3%    | 4.4%    | 3.9%    | 3.7%    | 3.2%    | 6.0%    | 7.6%    | 5.0%         | 4.0%            | 4.2%    | 3.0%    | 2.6%    |
| November 2021 Moody's Analytics Pessimistic (S3) | 6.3%    | 5.3%    | 4.4%    | 3.9%    | 3.7%    | 3.2%    | 6.0%    | 7.6%    | 5.0%         | 5.4%            | 5.3%    | 6.6%    | 5.1%    |
| November 2021 Moody's Analytics Pessimistic (S4) | 6.3%    | 5.3%    | 4.4%    | 3.9%    | 3.7%    | 3.2%    | 6.0%    | 7.6%    | 5.0%         | 5.5%            | 5.4%    | 7.0%    | 7.2%    |
| November 2021 IHS Markit Optimistic              | 6.2%    | 5.2%    | 4.4%    | 3.9%    | 3.7%    | 3.2%    | 6.0%    | 7.6%    | 5.0%         | 4.2%            | 4.4%    | 3.0%    | 2.9%    |
| November 2021 IHS Markit Baseline                | 6.2%    | 5.2%    | 4.4%    | 3.9%    | 3.7%    | 3.2%    | 6.0%    | 7.6%    | 5.0%         | 4.4%            | 4.6%    | 3.3%    | 3.2%    |
| November 2021 IHS Markit Pessimistic             | 6.2%    | 5.2%    | 4.4%    | 3.9%    | 3.7%    | 3.2%    | 6.0%    | 7.6%    | 5.0%         | 4.7%            | 4.8%    | 3.9%    | 3.7%    |
| <b>Housing Starts</b>                            |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 IHS Markit Optimistic              | 23.6%   | -2.5%   | 19.8%   | 2.1%    | -0.4%   | -18.1%  | 7.7%    | 12.7%   | 0.7%         | -7.9%           | -6.1%   | -1.8%   | 2.0%    |
| November 2021 IHS Markit Baseline                | 23.6%   | -2.5%   | 19.8%   | 2.1%    | -0.4%   | -18.1%  | 7.7%    | 12.7%   | 0.7%         | -9.4%           | -7.2%   | -3.3%   | 1.4%    |
| November 2021 IHS Markit Pessimistic             | 23.6%   | -2.5%   | 19.8%   | 2.1%    | -0.4%   | -18.1%  | 7.7%    | 12.7%   | 0.7%         | -13.7%          | -10.6%  | -6.8%   | 2.8%    |
| <b>Housing Permits</b>                           |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | 20.8%   | 9.0%    | -0.2%   | 2.9%    | 15.7%   | -18.7%  | 9.5%    | 12.3%   | 13.9%        | -2.4%           | 1.0%    | 18.8%   | 7.2%    |
| November 2021 Moody's Analytics Baseline         | 20.8%   | 9.0%    | -0.2%   | 2.9%    | 15.7%   | -18.7%  | 9.5%    | 12.3%   | 13.9%        | -7.6%           | -3.2%   | 14.9%   | 3.6%    |
| November 2021 Moody's Analytics Pessimistic (S3) | 20.8%   | 9.0%    | -0.2%   | 2.9%    | 15.7%   | -18.7%  | 9.5%    | 12.3%   | 13.9%        | -19.1%          | -12.3%  | -17.5%  | 7.5%    |
| November 2021 Moody's Analytics Pessimistic (S4) | 20.8%   | 9.0%    | -0.2%   | 2.9%    | 15.7%   | -18.7%  | 9.5%    | 12.3%   | 13.9%        | -22.0%          | -14.5%  | -27.7%  | -3.0%   |
| <b>Home Sales</b>                                |         |         |         |         |         |         |         |         |              |                 |         |         |         |
| November 2021 Moody's Analytics Optimistic (S1)  | -3.0%   | 0.2%    | 15.2%   | -5.3%   | -8.2%   | -2.9%   | 3.8%    | 17.0%   | -9.2%        | -1.5%           | -3.5%   | 6.2%    | 7.2%    |
| November 2021 Moody's Analytics Baseline         | -3.0%   | 0.2%    | 15.2%   | -5.3%   | -8.2%   | -2.9%   | 3.8%    | 17.0%   | -9.2%        | -3.7%           | -5.1%   | 0.1%    | 10.4%   |
| November 2021 Moody's Analytics Pessimistic (S3) | -3.0%   | 0.2%    | 15.2%   | -5.3%   | -8.2%   | -2.9%   | 3.8%    | 17.0%   | -9.2%        | -19.1%          | -16.5%  | -25.4%  | 29.9%   |
| November 2021 Moody's Analytics Pessimistic (S4) | -3.0%   | 0.2%    | 15.2%   | -5.3%   | -8.2%   | -2.9%   | 3.8%    | 17.0%   | -9.2%        | -22.4%          | -19.0%  | -36.8%  | 28.7%   |

Note: For S&P500, the numbers are by calendar year with one-year lag.