

FY20 Recap

After adding back income tax deferrals, FY20 tax revenues totaled \$29.609 billion, 0.3% less than FY19, and \$680 million less than the benchmark of \$30.289 billion.

June 2020 Tax Collection Summary (in \$ millions)					
Preliminary as of November 6, 2020					
FY20 YTD as of June					
	06/2020 YTD Actual Collections	06/2020 YTD v. 06/2019 YTD \$ Fav/(Unfav)	06/2020 YTD v. 06/2019 YTD % Fav/(Unfav)	06/2020 YTD Actual vs Benchmark \$ Fav/(Unfav)	06/2020 YTD Actual vs Benchmark % Fav/(Unfav)
Income					
Income Withholding	13,736	528	+4.0%	(4)	-0.0%
Income Est. Payments	2,350	(118)	-4.8%	(227)	-8.8%
Income Returns/Bills	3,051	(37)	-1.2%	199	+7.0%
Income Refunds Net (outflow)	(1,776)	(112)	-6.7%	(93)	-5.5%
Subtotal Non-withheld Income	3,625	(266)	-6.8%	(121)	-3.2%
Subtotal Income	17,361	262	+1.5%	(125)	-0.7%
Sales & Use					
Sales - Regular	4,905	217	+4.6%	(131)	-2.6%
Sales - Meals	1,077	(139)	-11.4%	(204)	-15.9%
Sales - Motor Vehicles	828	(66)	-7.4%	(100)	-10.8%
Subtotal Sales & Use	6,810	12	+0.2%	(435)	-6.0%
Corporate & Business - Total	2,924	(384)	-11.6%	(46)	-1.5%
All Other	2,514	27	+1.1%	(74)	-2.9%
Total Tax Collections	29,609	(83)	-0.3%	(680)	-2.2%
Notes: (1) The figures above exclude Tax-Related Settlements & Judgments exceeding \$10 million each. The certified total for these was \$0.0 million in June 2020 and \$23.8 million during FY20 YTD.					
(2) The June and year-to-date benchmarks reflect the revised full Fiscal Year 2020 benchmark of \$30.289 billion.					

FY20 tax revenue performance was impacted by several pandemic-related factors.

- **The outbreak of COVID-19**, and subsequent effects on consumers and businesses as well as the mitigation measures adopted by governments across the country, resulted in a deep recession officially starting in February 2020. According to the U.S. Bureau of Economic Analysis, similar to the national pattern,

FY20 Recap

the state real GDP decreased by 4.3% in the first quarter of Calendar Year 2020, and 31.6% in the second quarter of Calendar Year 2020. Naturally, the recession resulted in a 10.1% decline in tax revenues in the last quarter of Fiscal Year 2020.

- **Fiscal and monetary policies** adopted by the federal government in response to the COVID-19 crisis provided support to individuals and businesses as well as state & local governments. These policies helped boost state tax revenue performance.
- Another important factor impacting FY20 tax revenue was the **extension of various tax return and payment deadlines**. To mitigate the impact of the pandemic on taxpayers, the Commonwealth extended the filing and payment deadlines for several tax types:
 - The monthly remittance of sales tax, meals tax and room occupancy excise was suspended for certain small businesses, beginning with returns and payments originally due in March 2020. These returns and payments are now due May 20th, 2021.
 - For meals tax vendors and room occupancy operators that were too large to qualify for the extended due dates, the Department announced penalty waivers for that same period.
 - Penalties were also waived for 2019 corporate excise returns originally due in April if they were filed and paid by July 15th.

FY20 Recap

- You may know that the April 15th deadline for 2019 income tax filings and payments was moved to July 15th, consistent with action by the federal government and other states collecting income tax. The deadlines for 2020 estimated payment installments originally due in April and June were also delayed. However, these extensions did not impact FY20 revenues in the same manner as the extension of sales, meals, and room occupancy taxes. Legislation enacted earlier this year required the Comptroller to record as FY20 revenue any income tax payments and refunds attributable to 2019 returns that were received in July and August 2020. All other tax deferrals and penalty waivers I described resulted in a shift of tax revenue from FY20 to FY21.

FY21 Year-to-Date Collections

FY2021 Year-to-Date Collections Through November 2020			
(in \$ millions)			
FY21 YTD as of November			
	11/2020 YTD Actual Collections	11/2020 YTD v. 11/2019 YTD \$ Fav/(Unfav)	11/2020 YTD v. 11/2019 YTD % Fav/(Unfav)
Income			
Income Withholding	5,651	249	4.6%
Income Est. Payments	695	(88)	-11.2%
Income Returns/Bills	316	(0)	0.0%
Income Refunds Net (outflow)	(219)	31	12.5%
Subtotal Non-withheld Income	791	(57)	-6.7%
Subtotal Income	6,442	193	3.1%
Sales & Use			
Sales - Regular	2,228	173	8.4%
Sales - Meals	390	(176)	-31.2%
Sales - Motor Vehicles	409	37	10.0%
Subtotal Sales & Use	3,027	33	1.1%
Corporate & Business - Total	986	114	13.1%
All Other	1,010	(198)	-16.4%
Total Tax Collections	11,464	142	1.3%
Note:			
1) The figures above exclude Tax-Related Settlements & Judgments exceeding \$10 million each. The total for these was \$0.0 million in November 2020 and \$14.6 million in FY21 YTD.			
2) Regular sales, meals, and room taxes deferred for the period of March 2020 through April 2021 are expected to be paid in May 2021.			

FY21 Tax Revenue Forecasts

FY21 Tax Revenue Forecasts Based on Vendors' Economic Projections (\$Million)
(Settlements are not included)

	FY20 Preliminary				FY21 Estimate in Budget Signed on 12/11/20 ⁽²⁾			FY21 Tax Revenue Forecasts							
	Upper Bound		Lower Bound												
	vs FY20 Benc (\$)	vs FY20 Benc (%)	vs FY19 Actual(%)	vs FY20 Prel (\$)	vs FY20 Prel (%)	vs FY20 Prel (\$)	vs FY20 Prel (%)	vs FY21 Est in Budg (\$)	vs FY20 Prel (\$)	vs FY20 Prel (%)	vs FY21 Est in Budg (\$)				
Total Tax Collections:	\$29,609	-\$680	-2.2%	-0.3%	\$28,123	-\$1,486	-5.0%	\$28,667	-\$942	-3.2%	\$544	\$26,967	-\$2,643	-8.9%	-\$1,157
Total Income	\$17,361	-\$125	-0.7%	1.5%	\$16,180	-\$1,181	-6.8%	\$16,359	-\$1,002	-5.8%	\$179	\$15,972	-\$1,389	-8.0%	-\$208
Income Withholding	\$13,736	-\$4	0.0%	4.0%	\$13,531	-\$205	-1.5%	\$13,352	-\$385	-2.8%	(\$179)	\$13,199	-\$537	-3.9%	(\$332)
Income Est Payments (Cash)	\$2,350	-\$227	-8.8%	-4.8%	\$1,913	-\$437	-18.6%	\$2,061	-\$288	-12.3%	\$149	\$1,976	-\$374	-15.9%	\$63
Income Returns/Bills	\$3,051	\$199	7.0%	-1.2%	\$2,612	-\$439	-14.4%	\$2,797	-\$254	-8.3%	\$185	\$2,694	-\$357	-11.7%	\$82
Income Refunds (Cash)	\$1,776	\$93	5.5%	6.7%	\$1,876	\$100	5.6%	\$1,851	\$76	4.3%	(\$25)	\$1,897	\$121	6.8%	\$21
Not-withheld (1)	\$3,625	-\$121	-3.2%	-6.8%	\$2,649	-\$976	-26.9%	\$3,007	-\$618	-17.0%	\$358	\$2,772	-\$852	-23.5%	\$124
Sales & Use	\$6,810	-\$435	-6.0%	0.2%	\$6,959	\$148	2.2%	\$7,152	\$342	5.0%	\$194	\$6,381	-\$429	-6.3%	-\$577
Regular Sales	\$4,905	-\$131	-2.6%	4.6%	\$5,241	\$336	6.8%	\$5,322	\$417	8.5%	\$81	\$4,677	-\$228	-4.7%	-\$564
Meals	\$1,077	-\$204	-15.9%	-11.4%	\$862	-\$215	-20.0%	\$923	-\$154	-14.3%	\$61	\$819	-\$258	-24.0%	(\$43)
Motor Vehicles	\$828	-\$100	-10.8%	-7.4%	\$856	\$28	3.4%	\$908	\$80	9.6%	\$51	\$885	\$57	6.9%	\$29
Corporate & Business	\$2,924	-\$46	-1.5%	-11.6%	\$2,925	\$0	0.0%	\$3,052	\$128	4.4%	\$128	\$2,610	-\$314	-10.7%	-\$314
All Other	\$2,514	-\$74	-2.9%	1.1%	\$2,061	-\$454	-18.0%	\$2,104	-\$410	-16.3%	\$43	\$2,004	-\$510	-20.3%	-\$57

(1) Capital Gains Taxes \$1,659 \$9 0.6% -19.1% \$1,210 -\$449 -27.1% \$1,384 -\$275 -16.6% \$174 \$1,213 -\$446 -26.9% \$3

(2) Excluding sales tax acceleration, which has one-time revenue impact of \$267 million in FY21.

FY22 Tax Revenue Forecasts

FY22 Tax Revenue Forecasts Based on Vendors' Economic Projections (\$Million)
(Settlements are not included)

	FY20 Preliminary				FY21 Estimate in Budget Signed on 12/11/20 ⁽¹⁾			FY22 Tax Revenue Forecasts									
	Upper Bound		Lower Bound														
	vs FY20 Benc (\$)	vs FY20 Benc (%)	vs FY19 Actual(%)	vs FY20 Prel (\$)	vs FY20 Prel (%)	vs FY21 Est in Budg (\$)	vs FY21 Est in Budg (%)	vs FY21 Proj (\$)	vs FY21 Proj (%)	vs FY21 Est in Budg (\$)	vs FY21 Est in Budg (%)	vs FY21 Proj (\$)	vs FY21 Proj (%)	vs FY21 Est in Budg (\$)	vs FY21 Est in Budg (%)		
Total Tax Collections:	\$29,609	-\$680	-2.2%	-0.3%	\$28,123	-\$1,486	-5.0%	\$30,610	\$1,943	6.8%	\$2,486	8.8%	\$27,828	\$862	3.2%	-\$295	-1.0%
Total Income	\$17,361	-\$125	-0.7%	1.5%	\$16,180	-\$1,181	-6.8%	\$17,614	\$1,255	7.7%	\$1,434	8.9%	\$16,103	\$131	0.8%	-\$77	-0.5%
Income Withholding	\$13,736	-\$4	0.0%	4.0%	\$13,531	-\$205	-1.5%	\$14,241	\$890	6.7%	\$710	5.3%	\$13,282	\$83	0.6%	-\$249	-1.8%
Income Est Payments (Cash)	\$2,350	-\$227	-8.8%	-4.8%	\$1,913	-\$437	-18.6%	\$2,233	\$172	8.3%	\$320	16.8%	\$1,943	-\$33	-1.7%	\$30	1.6%
Income Returns/Bills	\$3,051	\$199	7.0%	-1.2%	\$2,612	-\$439	-14.4%	\$2,966	\$169	6.1%	\$354	13.6%	\$2,754	\$60	2.2%	\$142	5.4%
Income Refunds (Cash)	\$1,776	\$93	5.5%	6.7%	\$1,876	\$100	5.6%	\$1,827	-\$25	-1.3%	-\$49	-2.6%	\$1,876	-\$21	-1.1%	\$0	0.0%
Not-withheld (1)	\$3,625	-\$121	-3.2%	-6.8%	\$2,649	-\$976	-26.9%	\$3,373	\$366	12.2%	\$724	27.3%	\$2,821	\$48	1.7%	\$172	6.5%
Sales & Use	\$6,810	-\$435	-6.0%	0.2%	\$6,959	\$148	2.2%	\$7,596	\$443	6.2%	\$637	9.2%	\$6,747	\$365	5.7%	-\$212	-3.0%
Regular Sales	\$4,905	-\$131	-2.6%	4.6%	\$5,241	\$336	6.8%	\$5,557	\$235	4.4%	\$316	6.0%	\$5,066	\$389	8.3%	-\$175	-3.3%
Meals	\$1,077	-\$204	-15.9%	-11.4%	\$862	-\$215	-20.0%	\$1,066	\$142	15.4%	\$204	23.6%	\$862	\$43	5.2%	\$0	0.0%
Motor Vehicles	\$828	-\$100	-10.8%	-7.4%	\$856	\$28	3.4%	\$973	\$65	7.2%	\$117	13.7%	\$819	-\$66	-7.5%	-\$37	-4.3%
Corporate & Business	\$2,924	-\$46	-1.5%	-11.6%	\$2,925	\$0	0.0%	\$3,157	\$105	3.4%	\$233	8.0%	\$2,920	\$309	11.9%	-\$5	-0.2%
All Other	\$2,514	-\$74	-2.9%	1.1%	\$2,061	-\$454	-18.0%	\$2,243	\$139	6.6%	\$182	8.8%	\$2,059	\$56	2.8%	-\$1	-0.1%
(1) Capital Gains Taxes	\$1,659	\$9	0.6%	-19.1%	\$1,210	-\$449	-27.1%	\$1,644	\$260	18.8%	\$434	35.9%	\$1,210	-\$3	-0.3%	\$0	0.0%

(2) Excluding sales tax acceleration, which has one-time revenue impact of \$267 million in FY21.

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	FY21 Q1	FY21 Q2-Q4	FY 2021	FY 2022	FY 2023	FY 2024
US economic variables													
Real GDP													
Moody's Analytics Optimistic (S1)	2.2%	3.4%	2.0%	2.0%	2.9%	2.5%	-1.1%	-2.9%	3.2%	1.6%	6.4%	3.3%	1.8%
Moody's Analytics Baseline	2.2%	3.4%	2.0%	2.0%	2.9%	2.5%	-1.1%	-2.9%	2.0%	0.7%	4.2%	4.3%	2.8%
Moody's Analytics Pessimistic (S3)	2.2%	3.4%	2.0%	2.0%	2.9%	2.5%	-1.1%	-2.9%	0.1%	-0.7%	-0.2%	4.1%	4.1%
Moody's Analytics Pessimistic (S4)	2.2%	3.4%	2.0%	2.0%	2.9%	2.5%	-1.1%	-2.9%	-0.2%	-0.9%	-2.6%	1.6%	4.2%
IHS Markit Optimistic	2.2%	3.4%	2.0%	2.0%	2.9%	2.5%	-1.1%	-2.9%	2.8%	1.3%	3.1%	2.5%	2.8%
IHS Markit Baseline	2.2%	3.4%	2.0%	2.0%	2.9%	2.5%	-1.1%	-2.9%	1.8%	0.6%	2.2%	2.6%	2.7%
IHS Markit Pessimistic	2.2%	3.4%	2.0%	2.0%	2.9%	2.5%	-1.1%	-2.9%	0.5%	-0.4%	1.6%	3.1%	2.7%
Corporate Profits													
Moody's Analytics Optimistic (S1)	3.5%	1.9%	-7.6%	5.1%	-0.8%	2.1%	-6.0%	-13.8%	6.9%	1.4%	22.2%	4.5%	3.0%
Moody's Analytics Baseline	3.5%	1.9%	-7.6%	5.1%	-0.8%	2.1%	-6.0%	-13.8%	3.1%	-1.4%	16.7%	3.7%	3.5%
Moody's Analytics Pessimistic (S3)	3.5%	1.9%	-7.6%	5.1%	-0.8%	2.1%	-6.0%	-13.8%	-7.9%	-9.5%	-4.0%	10.3%	7.8%
Moody's Analytics Pessimistic (S4)	3.5%	1.9%	-7.6%	5.1%	-0.8%	2.1%	-6.0%	-13.8%	-9.2%	-10.4%	-14.3%	5.0%	8.4%
IHS Markit Optimistic	3.5%	1.9%	-7.6%	5.1%	-0.8%	2.1%	-6.0%	25.4%	-0.1%	6.7%	-5.2%	8.5%	11.9%
IHS Markit Baseline	3.5%	1.9%	-7.6%	5.1%	-0.8%	2.1%	-6.0%	25.4%	-3.8%	3.9%	-7.9%	7.9%	8.6%
IHS Markit Pessimistic	3.5%	1.9%	-7.6%	5.1%	-0.8%	2.1%	-6.0%	25.4%	-5.1%	3.0%	-12.3%	9.9%	7.3%
S&P500 (Calendar year)													
Moody's Analytics Optimistic (S1)	19.1%	17.5%	6.8%	1.5%	17.0%	12.1%	6.1%	N.A.	N.A.	9.1%	15.2%	6.8%	1.9%
Moody's Analytics Baseline	19.1%	17.5%	6.8%	1.5%	17.0%	12.1%	6.1%	N.A.	N.A.	9.1%	3.8%	2.4%	0.6%
Moody's Analytics Pessimistic (S3)	19.1%	17.5%	6.8%	1.5%	17.0%	12.1%	6.1%	N.A.	N.A.	9.1%	-24.4%	4.4%	7.1%
Moody's Analytics Pessimistic (S4)	19.1%	17.5%	6.8%	1.5%	17.0%	12.1%	6.1%	N.A.	N.A.	9.1%	-36.4%	-11.8%	4.3%
IHS Markit Optimistic	19.1%	17.5%	6.8%	1.5%	17.0%	12.1%	6.1%	N.A.	N.A.	9.8%	12.5%	1.2%	2.2%
IHS Markit Baseline	19.1%	17.5%	6.8%	1.5%	17.0%	12.1%	6.1%	N.A.	N.A.	8.9%	10.6%	0.7%	2.2%
IHS Markit Pessimistic	19.1%	17.5%	6.8%	1.5%	17.0%	12.1%	6.1%	N.A.	N.A.	9.6%	5.8%	-2.0%	3.0%
Unemployment Rate													
Moody's Analytics Optimistic (S1)	6.8%	5.7%	5.0%	4.7%	4.1%	3.8%	6.0%	8.8%	7.0%	7.5%	5.2%	4.0%	3.8%
Moody's Analytics Baseline	6.8%	5.7%	5.0%	4.7%	4.1%	3.8%	6.0%	8.8%	7.4%	7.8%	7.0%	5.4%	4.5%
Moody's Analytics Pessimistic (S3)	6.8%	5.7%	5.0%	4.7%	4.1%	3.8%	6.0%	8.8%	8.3%	8.4%	10.0%	8.4%	6.5%
Moody's Analytics Pessimistic (S4)	6.8%	5.7%	5.0%	4.7%	4.1%	3.8%	6.0%	8.8%	8.4%	8.5%	11.0%	11.4%	9.3%
IHS Markit Optimistic	6.8%	5.7%	5.0%	4.7%	4.1%	3.8%	6.0%	8.8%	5.8%	6.5%	4.4%	4.1%	3.9%
IHS Markit Baseline	6.8%	5.7%	5.0%	4.7%	4.1%	3.8%	6.0%	8.8%	6.2%	6.9%	5.2%	4.5%	4.2%
IHS Markit Pessimistic	6.8%	5.7%	5.0%	4.7%	4.1%	3.8%	6.0%	8.8%	6.7%	7.3%	6.0%	5.3%	4.7%
Bank Prime Rate													
Moody's Analytics Optimistic (S1)	3.3%	3.3%	3.4%	3.7%	4.5%	5.3%	4.4%	3.3%	3.2%	3.2%	3.3%	3.6%	3.9%
Moody's Analytics Baseline	3.3%	3.3%	3.4%	3.7%	4.5%	5.3%	4.4%	3.3%	3.2%	3.2%	3.2%	3.3%	3.6%
Moody's Analytics Pessimistic (S3)	3.3%	3.3%	3.4%	3.7%	4.5%	5.3%	4.4%	3.3%	3.2%	3.2%	3.2%	3.3%	3.3%
Moody's Analytics Pessimistic (S4)	3.3%	3.3%	3.4%	3.7%	4.5%	5.3%	4.4%	3.3%	3.2%	3.2%	3.2%	3.3%	3.3%
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%	3.3%	3.3%
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%	3.3%
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	FY21 Q1	FY21 Q2-Q4	FY 2021	FY 2022	FY 2023	FY 2024
Federal Funds Rate													
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%	0.4%	0.8%
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%	0.1%	0.5%
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%
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%
IHS Markit Optimistic	0.1%	0.1%	0.3%	0.6%	1.4%	2.2%	1.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%
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%	0.1%	0.1%
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%
Massachusetts economic variables													
Real Gross State Product													
Moody's Analytics Optimistic (S1)	0.6%	4.0%	2.1%	1.9%	3.4%	2.7%	-1.3%	-3.7%	1.8%	0.4%	6.5%	3.6%	2.0%
Moody's Analytics Baseline	0.6%	4.0%	2.1%	1.9%	3.4%	2.7%	-1.3%	-3.7%	0.6%	-0.5%	4.1%	4.7%	3.2%
Moody's Analytics Pessimistic (S3)	0.6%	4.0%	2.1%	1.9%	3.4%	2.7%	-1.3%	-3.7%	-1.4%	-2.0%	-0.7%	4.3%	4.5%
Moody's Analytics Pessimistic (S4)	0.6%	4.0%	2.1%	1.9%	3.4%	2.7%	-1.3%	-3.7%	-1.7%	-2.2%	-3.3%	1.5%	4.6%
IHS Markit Optimistic	0.6%	4.0%	2.1%	1.9%	3.4%	2.7%	-1.3%	-3.3%	2.7%	1.2%	3.1%	2.6%	2.9%
IHS Markit Baseline	0.6%	4.0%	2.1%	1.9%	3.4%	2.7%	-1.3%	-3.3%	1.8%	0.5%	2.1%	2.6%	2.7%
IHS Markit Pessimistic	0.6%	4.0%	2.1%	1.9%	3.4%	2.7%	-1.3%	-3.3%	0.6%	-0.4%	1.6%	3.2%	2.8%
Wages & Salaries													
Moody's Analytics Optimistic (S1)	3.8%	6.6%	4.1%	4.1%	5.6%	5.1%	1.5%	-0.1%	2.3%	1.7%	6.7%	5.4%	5.4%
Moody's Analytics Baseline	3.8%	6.6%	4.1%	4.1%	5.6%	5.1%	1.5%	-0.1%	1.6%	1.2%	4.6%	5.8%	5.8%
Moody's Analytics Pessimistic (S3)	3.8%	6.6%	4.1%	4.1%	5.6%	5.1%	1.5%	-0.1%	-0.7%	-0.5%	-2.2%	3.9%	7.4%
Moody's Analytics Pessimistic (S4)	3.8%	6.6%	4.1%	4.1%	5.6%	5.1%	1.5%	-0.1%	-1.1%	-0.9%	-4.1%	0.6%	6.7%
IHS Markit Optimistic	3.8%	6.6%	4.1%	4.1%	5.6%	5.1%	1.5%	-0.2%	5.4%	4.0%	6.1%	4.5%	5.0%
IHS Markit Baseline	3.8%	6.6%	4.1%	4.1%	5.6%	5.1%	1.5%	-0.2%	4.5%	3.3%	4.8%	4.4%	4.9%
IHS Markit Pessimistic	3.8%	6.6%	4.1%	4.1%	5.6%	5.1%	1.5%	-0.2%	2.9%	2.1%	3.0%	3.5%	4.5%
Personal Income													
Moody's Analytics Optimistic (S1)	2.3%	7.0%	4.7%	4.2%	5.3%	4.5%	6.3%	12.5%	7.4%	8.6%	1.4%	5.8%	5.4%
Moody's Analytics Baseline	2.3%	7.0%	4.7%	4.2%	5.3%	4.5%	6.3%	12.5%	6.7%	8.1%	-0.1%	6.0%	5.5%
Moody's Analytics Pessimistic (S3)	2.3%	7.0%	4.7%	4.2%	5.3%	4.5%	6.3%	12.5%	0.5%	3.4%	-2.3%	4.5%	6.5%
Moody's Analytics Pessimistic (S4)	2.3%	7.0%	4.7%	4.2%	5.3%	4.5%	6.3%	12.5%	-0.2%	2.8%	-4.6%	2.6%	5.9%
IHS Markit Optimistic	2.3%	7.0%	4.7%	4.2%	5.3%	4.5%	6.3%	8.7%	-1.6%	0.9%	1.9%	4.1%	4.8%
IHS Markit Baseline	2.3%	7.0%	4.7%	4.2%	5.3%	4.5%	6.3%	8.7%	-2.4%	0.3%	0.8%	4.0%	4.8%
IHS Markit Pessimistic	2.3%	7.0%	4.7%	4.2%	5.3%	4.5%	6.3%	8.7%	-3.6%	-0.7%	-0.4%	3.2%	4.1%
Employment													
Moody's Analytics Optimistic (S1)	1.7%	2.1%	1.9%	1.7%	1.2%	1.1%	-3.5%	-10.8%	-3.5%	-5.4%	5.0%	3.3%	1.6%
Moody's Analytics Baseline	1.7%	2.1%	1.9%	1.7%	1.2%	1.1%	-3.5%	-10.8%	-3.7%	-5.5%	4.3%	3.8%	1.8%
Moody's Analytics Pessimistic (S3)	1.7%	2.1%	1.9%	1.7%	1.2%	1.1%	-3.5%	-10.8%	-4.8%	-6.4%	0.7%	3.1%	2.8%
Moody's Analytics Pessimistic (S4)	1.7%	2.1%	1.9%	1.7%	1.2%	1.1%	-3.5%	-10.8%	-5.0%	-6.5%	-0.4%	1.0%	2.5%
IHS Markit Optimistic	1.7%	2.1%	1.9%	1.7%	1.2%	1.1%	-3.5%	-10.8%	-1.6%	-4.0%	6.0%	2.7%	1.4%
IHS Markit Baseline	1.7%	2.1%	1.9%	1.7%	1.2%	1.1%	-3.5%	-10.8%	-2.3%	-4.5%	5.2%	2.9%	1.5%
IHS Markit Pessimistic	1.7%	2.1%	1.9%	1.7%	1.2%	1.1%	-3.5%	-10.8%	-3.2%	-5.2%	4.6%	3.0%	2.0%

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	FY21 Q1	FY21 Q2-Q4	FY 2021	FY 2022	FY 2023	FY 2024
Retail Sales													
Moody's Analytics Optimistic (S1)	2.8%	3.5%	2.6%	3.4%	5.2%	4.6%	-0.5%	-4.7%	5.1%	2.5%	7.4%	6.8%	5.0%
Moody's Analytics Baseline	2.8%	3.5%	2.6%	3.4%	5.2%	4.6%	-0.5%	-4.7%	3.8%	1.6%	4.5%	6.2%	4.8%
Moody's Analytics Pessimistic (S3)	2.8%	3.5%	2.6%	3.4%	5.2%	4.6%	-0.5%	-4.7%	0.6%	-0.8%	-1.6%	7.0%	6.9%
Moody's Analytics Pessimistic (S4)	2.8%	3.5%	2.6%	3.4%	5.2%	4.6%	-0.5%	-4.7%	-0.3%	-1.4%	-5.0%	3.9%	8.1%
IHS Markit Optimistic	3.6%	3.3%	1.8%	3.9%	4.8%	2.7%	1.8%	6.1%	9.7%	8.8%	2.2%	2.3%	3.6%
IHS Markit Baseline	3.6%	3.3%	1.8%	3.9%	4.8%	2.7%	1.8%	6.1%	8.2%	7.7%	0.8%	2.3%	3.4%
IHS Markit Pessimistic	3.6%	3.3%	1.8%	3.9%	4.8%	2.7%	1.8%	6.1%	6.5%	6.4%	-0.2%	2.3%	3.0%
Unemployment Rate													
Moody's Analytics Optimistic (S1)	6.3%	5.2%	4.3%	3.8%	3.6%	3.1%	6.3%	12.4%	9.2%	10.0%	5.9%	3.8%	3.1%
Moody's Analytics Baseline	6.3%	5.2%	4.3%	3.8%	3.6%	3.1%	6.3%	12.4%	9.4%	10.2%	7.2%	4.8%	3.7%
Moody's Analytics Pessimistic (S3)	6.3%	5.2%	4.3%	3.8%	3.6%	3.1%	6.3%	12.4%	10.0%	10.6%	9.2%	7.0%	5.2%
Moody's Analytics Pessimistic (S4)	6.3%	5.2%	4.3%	3.8%	3.6%	3.1%	6.3%	12.4%	10.1%	10.7%	9.9%	9.0%	7.2%
IHS Markit Optimistic	6.3%	5.2%	4.3%	3.8%	3.6%	3.1%	6.3%	12.4%	7.4%	8.6%	5.0%	4.1%	3.6%
IHS Markit Baseline	6.3%	5.2%	4.3%	3.8%	3.6%	3.1%	6.3%	12.4%	8.0%	9.1%	5.9%	4.7%	4.1%
IHS Markit Pessimistic	6.3%	5.2%	4.3%	3.8%	3.6%	3.1%	6.3%	12.4%	8.5%	9.5%	6.6%	5.4%	4.5%
Housing Starts													
IHS Markit Optimistic	23.5%	-2.5%	20.0%	2.0%	-0.7%	-19.9%	2.9%	1.2%	2.1%	1.9%	7.7%	2.7%	1.2%
IHS Markit Baseline	23.5%	-2.5%	20.0%	2.0%	-0.7%	-19.9%	2.9%	1.2%	-1.8%	-1.0%	5.4%	4.3%	2.8%
IHS Markit Pessimistic	23.5%	-2.5%	20.0%	2.0%	-0.7%	-19.9%	2.9%	1.2%	-4.0%	-2.6%	1.5%	4.0%	5.1%
Housing Permits													
Moody's Analytics Optimistic (S1)	20.8%	9.0%	-0.2%	2.9%	15.7%	-18.1%	11.4%	0.5%	11.4%	8.8%	28.7%	12.9%	2.7%
Moody's Analytics Baseline	20.8%	9.0%	-0.2%	2.9%	15.7%	-18.1%	11.4%	0.5%	6.1%	4.8%	30.8%	9.8%	-4.9%
Moody's Analytics Pessimistic (S3)	20.8%	9.0%	-0.2%	2.9%	15.7%	-18.1%	11.4%	0.5%	-9.4%	-7.1%	0.2%	12.0%	8.7%
Moody's Analytics Pessimistic (S4)	20.8%	9.0%	-0.2%	2.9%	15.7%	-18.1%	11.4%	0.5%	-12.7%	-9.6%	-12.3%	1.0%	19.6%
Home Sales													
Moody's Analytics Optimistic (S1)	-3.0%	0.2%	15.2%	-5.3%	-8.2%	-2.9%	3.8%	23.7%	12.7%	15.4%	-6.2%	5.7%	2.1%
Moody's Analytics Baseline	-3.0%	0.2%	15.2%	-5.3%	-8.2%	-2.9%	3.8%	23.7%	10.9%	14.1%	-10.0%	2.8%	2.6%
Moody's Analytics Pessimistic (S3)	-3.0%	0.2%	15.2%	-5.3%	-8.2%	-2.9%	3.8%	23.7%	-9.1%	-0.9%	-38.7%	34.3%	15.0%
Moody's Analytics Pessimistic (S4)	-3.0%	0.2%	15.2%	-5.3%	-8.2%	-2.9%	3.8%	23.7%	-13.1%	-3.9%	-50.5%	38.3%	17.7%

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