Massachusetts Taxpayers Foundation

News Release

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FY 2021 Tax Revenue Forecast – COVID-19 Pandemic

FY 2021 tax revenues are projected to fall by $4.4 billion or 14.1 percent from the January 2020 benchmark. Massive layoffs push the unemployment rate to nearly 18 percent in Q4 FY 2020, causing withholding taxes to decline by $1.2 billion in FY 2021. Shutting down economic activities and the loss of personal income will cost the state $1.5 billion in sales tax revenues largely from plummeting meals and motor vehicle sales. Non-withholding income taxes and corporate payments are expected to fall by $780 million and $760 million, respectively (Table 1).

Table 1 – State Tax Revenues by Category
($ Millions)

	Consensus	7-Apr-20	$	%
Income	17,909	15,882	-2,027	-11.3%
Withholding	14,423	13,176	-1,247	-8.6%
Non-withholding				
Capital Gains	1,590	1,113	-477	-30.0%
Other Non-withhold	1,896	1,593	-303	-16.0%
Sales	7,425	5,921	-1,504	-20.2%
Corporate	3,404	2,643	-761	-22.4%
Other Tax Revenues	2,413	2,310	-103	-4.3%
Total	**31,151**	**26,756**	**-4,395**	**-14.1%**

MTF's President Eileen McAnneny said, "the economic and fiscal fall-out from the pandemic puts an unprecedented strain on the state's budget and resources, surpassing previous fiscal crises because of its sudden and steep onslaught."

McAnneny noted, "although alarming, MTF's projected shortfall does not represent a worst-case scenario. In fact, we project a recovery beginning in July. Should the size, scope, or duration of this public health crisis grow, the numbers would have to be revised to reflect the deteriorating economic outlook. With rapidly-changing economic and fiscal conditions, MTF will update its forecast to reflect more current information as it becomes available."

WITHHOLDING INCOME TAXES PLUNGE FROM MASS LAYOFFS AND LOST WAGES

The administration acted sooner than most states declaring a state of emergency on March 10; K-12 schools were ordered closed, and public gatherings of more than 25 people were banned a week later. On March 24, the administration issued a non-essential business emergency order. Acting early and aggressively to self-isolate should reduce the spread of the virus.

The economic shutdown, earlier than most areas across the U.S., also means that the fiscal impacts arrive sooner. This forecast assumes that these policies lead to a peak in new virus cases in April, abate by June and that economic activities can re-open in early July. If this timetable can be achieved, economic growth should rebound in the first quarter of FY 2021.

Table 2 – Massachusetts Employment Projections

			FY 2021					
	Dec. 2019	20:Q2	20:Q3	20:Q4	21:Q1	21:Q2	21:Q3	21:Q4
Employed	3,697	3,127	3,184	3,312	3,428	3,536	3,616	3,657
Job Losses/Recovered	0	(570)	57	128	115	108	81	40
Unemployed	107	677	620	492	376	268	188	147
Unemployment Rate	2.8%	17.8%	16.3%	12.9%	9.9%	7.0%	4.9%	3.9%

MTF's current estimate – based on a revised employment model – is that the state will lose 570,000 jobs in Q2 2020, pushing the total number of unemployed to 677,000 from 107,000 and raising the unemployment rate to 17.8 percent. The job losses, nearly half of which are from lower-income workers in the leisure and hospitality sector, are estimated to reduce annualized wages by $29 billion or 12 percent of the $246 billion baseline (see Appendix A).

Massachusetts is projected to recover 410,000 jobs during FY 2021 lowering the unemployment rate to 7.0 percent in Q4 FY 2021. Despite this recovery, it should be noted that total employment will not return to pre-crisis levels until 2022.

SALES TAXES SUCCUMB TO SUPPLY AND DEMAND SHOCKS

Following the closing of restaurants, bars, and auto sales departments (repair and maintenance remain open) and curtailed retail hours, the opportunity to buy taxable goods, meals, and vehicles has been reduced mainly to online shopping. Further, many of these establishments may not re-open, thus reducing shopping choices when economic activity commences.

In parallel, the loss of work, furloughs or reduced hours creates financial difficulties that will further limit discretionary spending as people try to pay rents, mortgages, health care costs, student loans, food, utilities, and other basic needs. When stores, bars, and restaurants re-open, assuming people are comfortable returning to crowded spaces, consumers will focus on their financial condition – income and savings – to decide what they can afford. Pent up demand should lead to a spurt in consumption, but after that initial response, purchases will almost certainly be limited by people's confidence in their financial well-being – a task that could take years to rebuild depending on the length of the pandemic.

RISKS TO THE FORECAST

1. How Long the COVID-19 Pandemic Lasts

In MTF's forecast, we assume a peak in new virus cases occurs in April, abates by June, and that economic activities can re-open in early July. If this timetable can be achieved, economic growth should rebound in the first quarter of FY 2021.

This assumption aligns closely with Moody's Analytics best-case scenario as described in its most recent forecast in which it is estimated that new virus cases peak in April or early May and subside in June. If that were to happen, a recovery could start in early July with a 'V' shaped growth spurt in Q1 of FY 2021 due largely to pent up demand. The Massachusetts recovery may happen a little sooner than the nation as a whole, given that we took decisive action earlier than most other states.

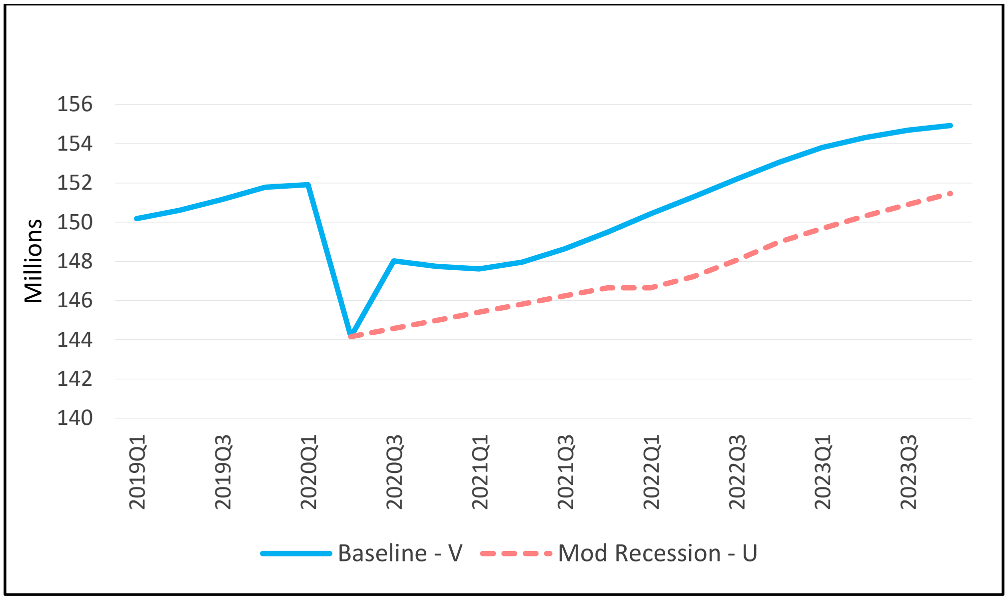
It is important to note that there can be no full economic recovery until consumers feel safe in crowded settings at a level commensurate with pre-crisis behavior. Developing a medical solution such as antivirals or a vaccine for COVID-19, then completing clinical trials, producing mass quantities and distributing the drugs to people at risk could take considerable time.

In the shorter-term, social distancing policies, mass testing to identify positive cases quickly and before people become symptomatic, combined with implementing rigorous contact tracing are critical to re-opening the economy while controlling new virus cases.

A less optimistic scenario considers two factors: (1) that the peak in new cases and abatement shift to summer and fall respectively thereby delaying any re-opening of the economy, and/or (2) the virus re-emerges in periodic waves or in the fall due to its seasonality forcing states to re-instate lockdown policies. If either of these happens, the recovery will look more 'U' shaped (moderate recession – the red dotted line in Figure 1).

Either way, a return to pre-pandemic employment levels of Q1 2020 will take several years to achieve.

Figure 1 – Moody's Analytics Forecast of U.S. Employment, Two Scenarios[1]



2. Does the Massachusetts Recovery Lead or Lag the U.S.?

There are reasons to think Massachusetts will suffer a more severe impact in Q2 2020 from the pandemic than the country as a whole. Therefore, our forecast assumes that the state's recovery will be steeper and longer than other parts of the country.

Moody's Analytics assessment of regional disparities in risks concludes that several coastal states ranking high in key attributes are more vulnerable to economic shocks from the pandemic (Table 3). Their list includes Massachusetts, along with California, Washington, New York, Florida, and Louisiana. Further, Boston is among the 15 most vulnerable metro areas to the pandemic effects.

Table 3 – Assessing Regional Disparities

• Exposure to the virus – the number of cases and level of international travel
• Demographics – density, the percent of the population age 65+, levels of migration
• Global interconnectedness – the number of airline passengers, percent of export trade
• Tourism – accommodations employment
• Finance - securities industry reliance, investment income share
• Commodities - reliance on oil, agriculture

One measure – initial UI claims in Massachusetts for the past three weeks (March 21 - April 4) – supports this theory. Massachusetts shuttered its economy in mid-March, sooner and more aggressively than most states, suggesting that the impacts on the labor market will be more

[1] Revised March 27, 2020.

profound in April. Massachusetts had 470,000 claims, which represents 12.7 percent of Q1 2020 employment, whereas the national figure of 16.8 million initial UI claims represents 11 percent of employed, approximately 1.5 percent lower.

3. Will the $2.2 Trillion Relief Package Suffice?

No. The $2.2 trillion package – 10 percent of U.S. GDP – was designed to moderate the economic disruptions from the pandemic in Q2 2020. These funds are expected to be fully distributed and used by July. If an economic recovery is delayed beyond July, the damage will be far greater.

What is clear is that the $2.2 trillion CARES Act, signed into law just two weeks ago, is already viewed as insufficient to mitigate the economic impacts of the pandemic. Congress is currently negotiating a fourth relief package of between $250 billion and $500 billion that may include another $250 billion for the Paycheck Protection Program for small businesses, $100 billion for hospitals and health care centers, and $150 billion for state and local governments.

Further, Moody's Analytics baseline model, upon which MTF's forecast is based, assumes a separate COVID-19 package in the fall to help stimulate an economic recovery. If a stimulus bill fails to materialize, the recovery would be delayed, and the costs to revitalize the economy would swell.

4. Can the Federal Reserve Prevent a Second Financial Crisis?

The Federal Reserve has taken unprecedented steps with virtually unlimited firepower to erect a firewall between the real economy and the financial system. In addition to supporting main street businesses, major corporations, states and municipalities, households and consumers, the Fed must ensure the continued functioning of credit markets.

In addition to that herculean task, the Fed must also monitor several risks of ongoing concern greatly exacerbated by the pandemic:

- Maintaining liquidity in overnight purchase agreements (repo market) where trillions of dollars of debt are traded for cash each day by global financial firms
- Liquidity and credit concerns in the municipal bond market that may affect state and local governments, hospitals, airports, and colleges and universities access and costs of borrowing
- Turmoil with highly leveraged corporate debt of $2.8 trllion as reduced revenues from the pandemic make it harder to repay creditors
- Preserving the shadow banking system which has accumulated $15 trillion in assets and may lack sufficient capital to survive

A financial crisis akin to 2009 on top of the pandemic would disrupt the global economy.

Appendix A – Estimated Loss of Massachusetts Employment and Wages

Percentages of potential job cuts by industry sector and sub-sector in Column 'B' are placeholder estimates that will be replaced with BLS data when it is released in early May and updated monthly.

Employment in Thousands	A	B	C	D	E	F
	Empl	Assume	Empl	Avg Weekly	Tot Annual Payroll - $bns	
	000's	Pct Cut	Cut	Wages	Baseline	Cut
Construction						
Construction of buildings	34	10%	3.4	1,483	2.6	0.3
Heavy and Civil Engineering	14	10%	1.4	1,483	1.0	0.1
Specialty Trade Contractors	113	10%	11.3	1,483	8.7	0.9
Manufacturing	243	25%	60.6	1,630	20.6	5.1
Wholesale Trade	125	10%	12.5	1,837	11.9	1.2
Retail Trade						
Food and beverage	99	6%	5.9	706	3.6	0.2
General Merchandise Stores	56	25%	14.0	706	2.1	0.5
Clothing and Clothing Accessories Stores	33	25%	8.2	706	1.2	0.3
Furniture and Home Furnishings Stores	10	35%	3.6	706	0.4	0.1
Electronics and Appliance Stores	8	35%	2.7	706	0.3	0.1
Building Material and Garden Equipment	25	35%	8.6	706	0.9	0.3
Sporting Goods, Hobby, Musical	14	35%	4.9	706	0.5	0.2
Health and Personal Care Stores	27	10%	2.7	706	1.0	0.1
Motor Vehicle and Parts Dealers	39	25%	9.7	706	1.4	0.4
Other	40	25%	10.0	706	1.5	0.4
Transportation and Warehousing	105	25%	26.3	1,055	5.8	1.4
Information	94	5%	4.7	2,274	11.1	0.6
Financial Activities						
Real Estate and Rental and Leasing	49	20%	9.8	2,301	5.9	1.2
Banking & Insurance	174	10%	17.4	2,301	20.8	2.1
Professional and Business Services						
Professional and Technical	349	5%	17.5	2,553	46.4	2.3
Management of Companies	74	3%	2.2	2,512	9.7	0.3
Administrative and Waste Services	179	3%	5.4	974	9.1	0.3
Education						
Elementary and secondary	34	0%	0.0	1,307	2.3	0.0
Colleges, Universities, and Professional Schools	117	20%	23.4	1,307	8.0	1.6
Other education	22	5%	1.1	1,307	1.5	0.1
Health Care						
Hospitals	200	0%	0.0	1,467	15.2	0.0
Nursing and Residential Care	105	0%	0.0	745	4.1	0.0
Social Assistance	151	0%	0.0	571	4.5	0.0
Ambulatory	191	5%	9.6	1,288	12.8	0.6
Leisure and Hospitality						
Food Services and Drinking Places	269	65%	174.7	551	7.7	5.0
Arts, Entertainment, and Recreation	25	75%	18.7	551	0.7	0.5
Amusement, Gambling, and Recreation	38	75%	28.8	551	1.1	0.8
Accomodations	38	75%	28.7	551	1.1	0.8
Other	10	10%	1.0	551	0.3	0.0
Government						
Federal	46	0%	0.0	1,586	0.0	0.0
State	130	0%	0.0	1,586	3.8	0.0
Local	281	0%	0.0	1,586	10.7	0.0
Other Services	138	30%	41.5	764	5.5	1.6
Total	**3,697**	**15%**	**570**	**1,277**	**246**	**29**

Source: U.S. Bureau of Labor Statistics. Baseline data - December 2019
Wage data from Massachusetts Labor Market Information, Employment and Wages Report (ES-202), Q2 2019

Appendix B – Fiscal 2020 Tax Revenue Outlook

Policymakers are challenged to construct a budget for fiscal 2021, which begins July 1, 2020, despite imperfect information and the countervailing imperative for critical public services amid the COVID-19 crisis. At the same time, decision-makers are required to align revenue and spending to close out fiscal year 2020, which ends June 30, 2020.

Through March 2020, the Commonwealth collected approximately $21.1 billion in fiscal 2020, $235 million above the year-to-date DOR benchmark, and $26 million above the MTF estimate.

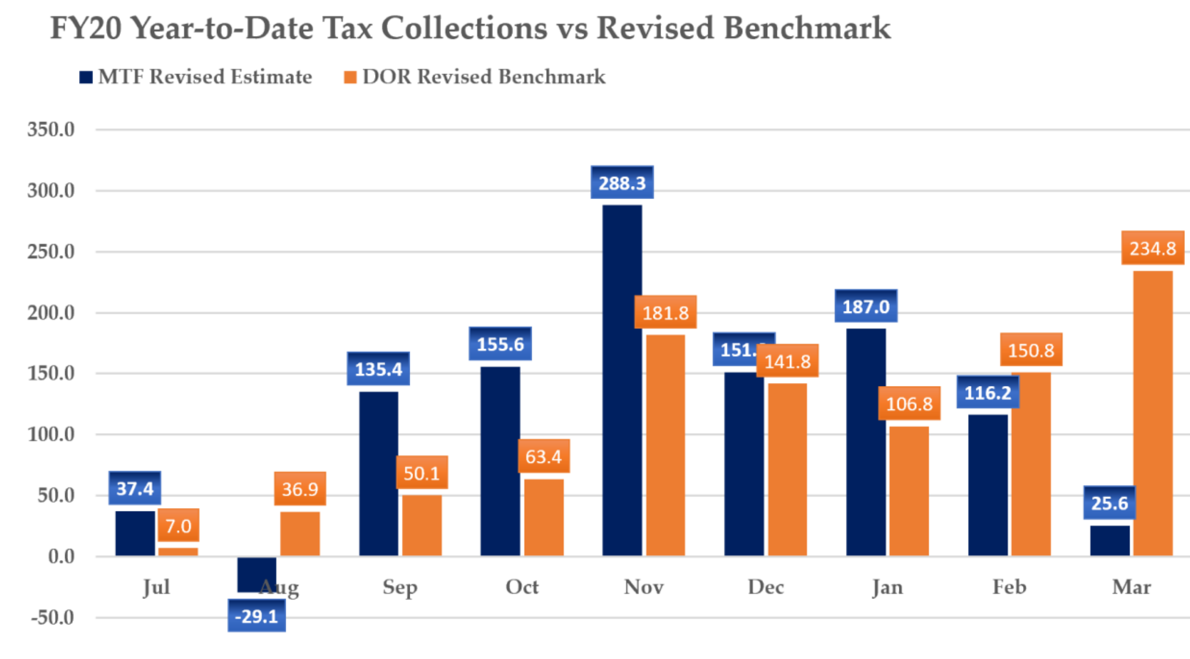


Figure B-1: Fiscal 2020 tax collections year-to-date variance to revised benchmark

Like the fiscal 2021 forecast, a fiscal 2020 tax projection is limited by data availability and the unknown impact of the responses to the crisis by the federal government, the Federal Reserve, and other actors. As a result of these issues, MTF has not used its econometric model to forecast tax collections for the rest of the fiscal year. The key questions relate to how much tax revenue will decline as a result of the crisis response efforts and how much tax revenue will be deferred due to the extension of the tax filing deadline to July 15, 2020, potentially generating cash flow issues for the Commonwealth.

How Much Will Tax Revenue Decline vs Expectations due to COVID-19?

As MTF wrote recently:

> "Capital gains tax revenue was likely to underperform before COVID-19.
>
> Tax revenue generated from realized capital gains is both very difficult to predict and a volatile component of the state's tax system. The Commonwealth offsets a portion of the risk associated with this tax type by imposing a revenue volatility cap that requires

capital gains tax revenue above a statutory threshold be deposited in the state's "rainy day" fund, the Commonwealth Stabilization Fund (CSF). In fiscal 2018 and 2019, this mechanism triggered deposits of more than $1.2 billion to the CSF.

In fiscal 2020, the capital gains tax revenue estimate was revised to $1.815 billion as part of the consensus tax revenue agreement between the Baker Administration and legislature. This amount exceeds the $1.26 billion statutory threshold by approximately $555 million, which is currently slated for deposit in the CSF.

Capital gains tax revenue is difficult to forecast. One measure with some value as a proxy is capital gains distributions from mutual funds. Each year (usually November/December), mutual funds distribute their gains to investors and typically represent taxable income, though exceptions apply. As depicted in Figure 2, capital gains tax collections tend to align with the number of funds with "large" capital gains distributions (those that represent more than 10 percent of the Net Asset Value of the fund).

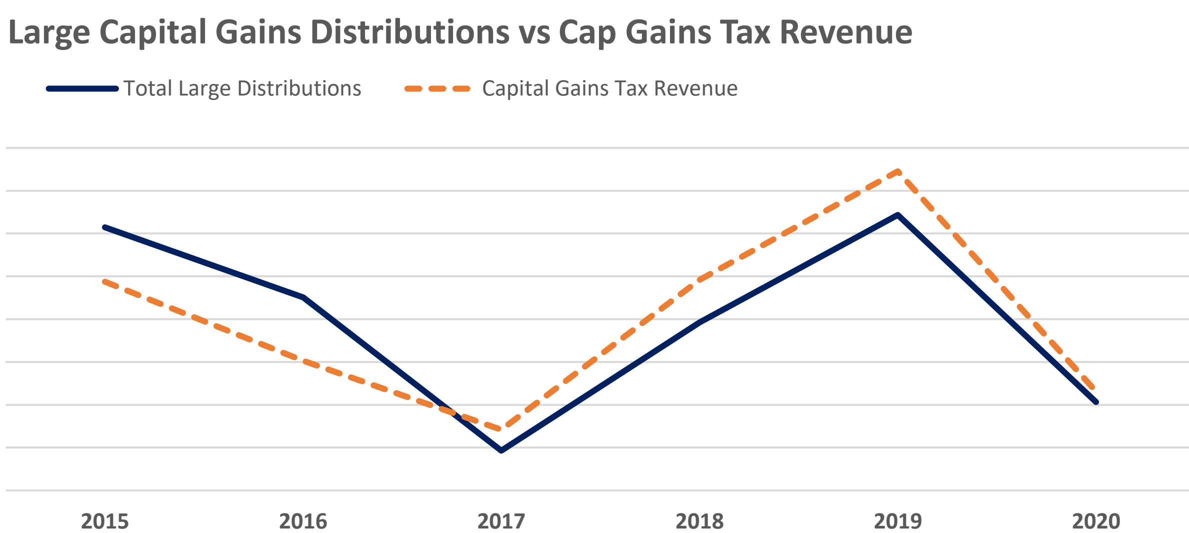


Figure B-2: A normalized comparison of large capital gains distributions suggests a strong correlation with capital gains tax collections, FY15-FY20E. Large capital gains data per Cap Gains Valet. Capital gains tax collections per MA DOR.

If this pattern holds again in fiscal 2020, it implies capital gains tax revenue of approximately $1.312 billion, just $52 million above the statutory threshold or $503 million less than anticipated. This is significant because it would wipe away most of the deposit to the CSF. More importantly, however, it reduces the total tax revenue base for fiscal 2021 tax growth forecasts by $503 million."[2]

[2] For more information, see *COVID-19 Impact: Moving the Tax Filing Deadline*, Massachusetts Taxpayers Foundation, May 27, 2020.

In the absence of a projection from an econometric model, tax scenario planning offers useful guidance to policymakers. Assuming the shortfall noted above in capital gains tax collection revenue and that other non-withheld income is consistent with expectations (since much of this activity is in final payments from the tax year 2019 and not impacted by recent events), variances in withheld income tax and all other categories will impact total collections as depicted in Figure B-3.

FY20 Tax Collections vs Revised Benchmark				
FY20 Revised Benchmark	30,289.2		Collected YTD	21,063.8
Estimated Cap Gains Shortfall	-503.2			
Collections vs Benchmark (Excluding NWI)				
Apr-Jul vs Est	*Apr-Jul Collections*	*Apr-Jul Shortfall*	*vs Full-Year Estimate*	*Total Collections*
0.0%	6,581.5	0.0	-503.2	29,786.0
-2.5%	6,416.9	-164.5	-667.8	29,621.4
-5.0%	6,252.4	-329.1	-832.3	29,456.9
-7.5%	6,087.9	-493.6	-996.8	29,292.4
-10.0%	5,923.3	-658.1	-1,161.4	29,127.8

Figures in $ millions. Assumes Other NWI at benchmark.

Figure B-3: Tax shortfall scenarios using MTF monthly

With respect to tax collections for fiscal 2020, this analysis does not provide a revised projection for the remainder of the year, but instead provides a sense of scale for the potential impact on Commonwealth tax revenues from the COVID-19 pandemic in the last quarter of the fiscal year.

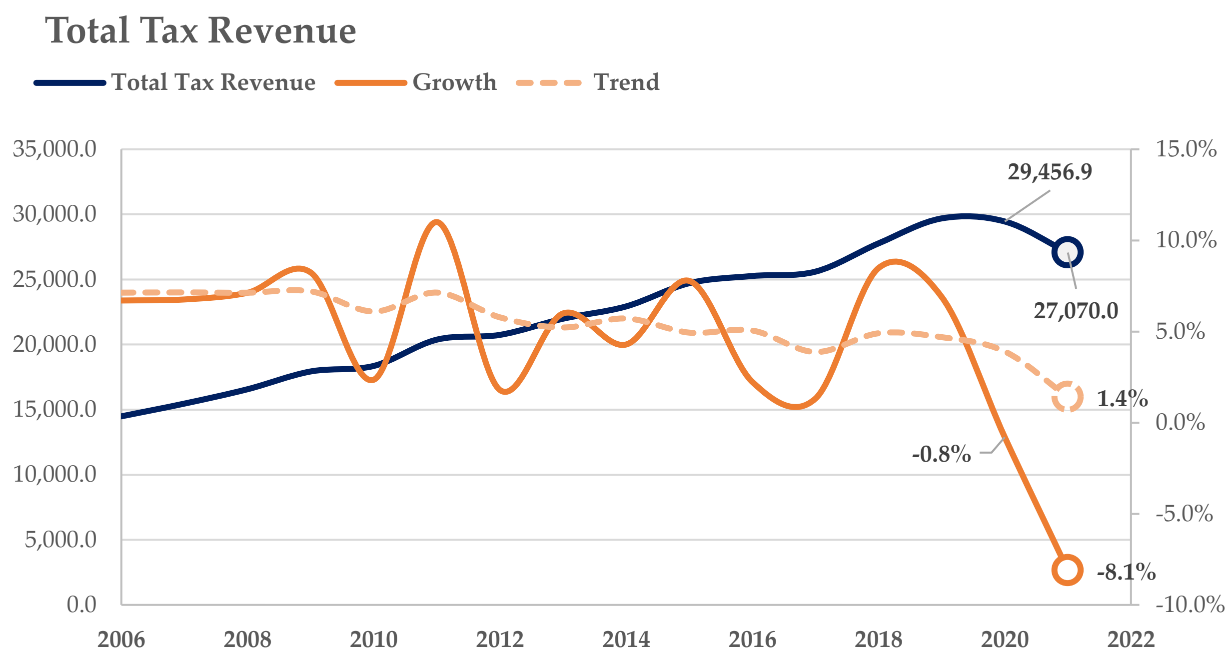
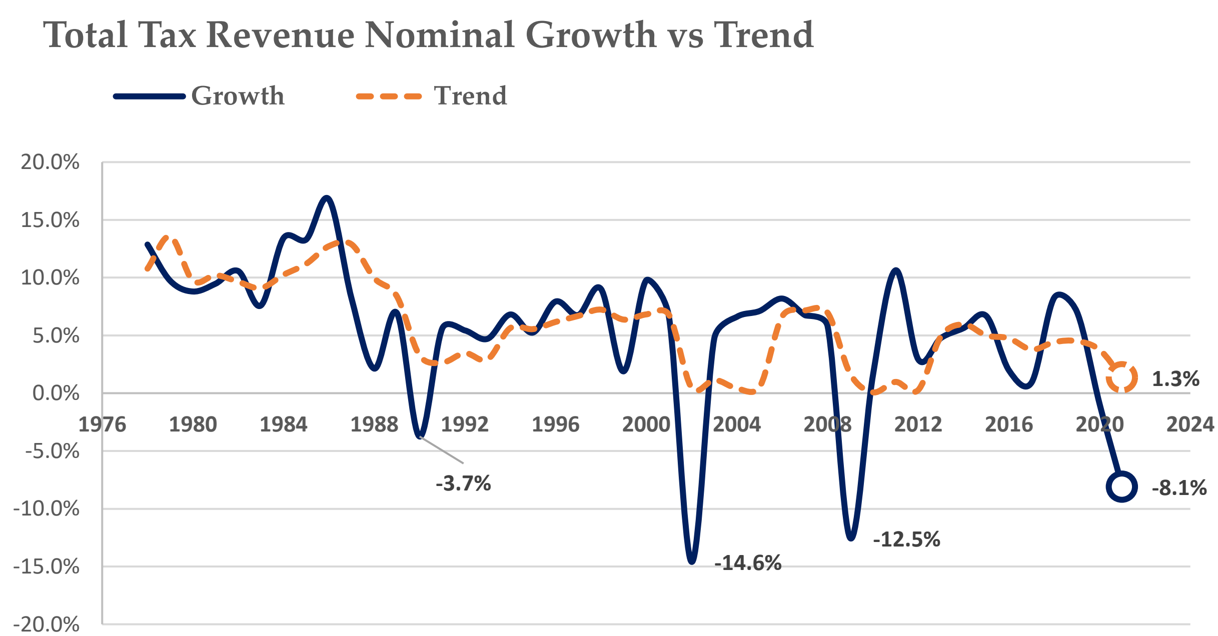


Figure B-4: Implied total tax revenue and nominal growth vs trend



Non-Tax Revenue

Non-Tax Revenue Summary	
Upside vs 1/23/20 Estimates	
Federal Reimbursements	?
Unclaimed Bottle Deposits	?
Subtotal, Upside	0.0
Risk vs 1/23/20 Estimates	
Lottery	?
Gaming Revenue (Budgeted)	-30.8
Exposures	
RMV	-23.9
Fees, Fines, Penalties	-18.4
Secretary of State	-8.5
Other	-16.9
Subtotal, Non-Tax Revenue	-98.6
Total, Non-Tax Revenue Risk	**-98.6**

Exposures assume identified categories underperform expectations by 4 percent
Figures in $ millions.

While tax revenue represents the largest share of the Commonwealth's revenue profile, non-tax revenue such as federal reimbursements, departmental revenue, and transfers from authorities, are important components as well. Prior to the onset of COVID-19, budget expectations anticipated that more than $19.4 billion, or more than 40 percent of total budgeted revenue, would come from these source types. Like tax revenue, these expectations should be lowered to reflect the sharp decrease in economic activity as a result of the pandemic.

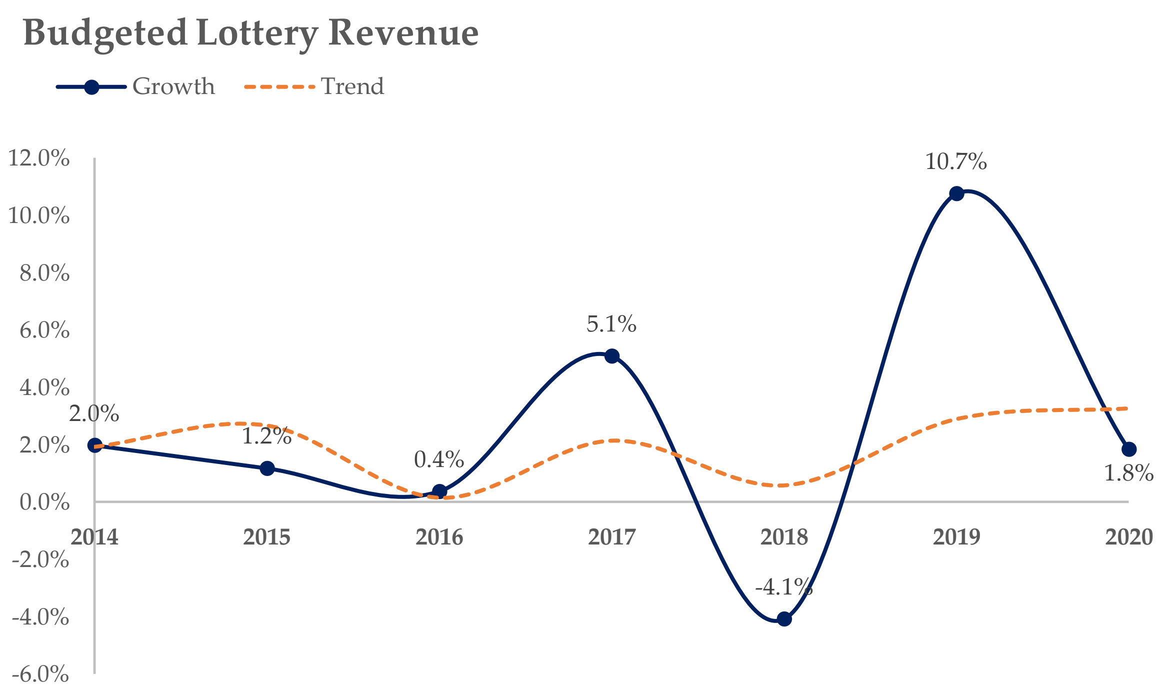
Upside vs Expectations
The federal response to COVID-19 in recent weeks will flow into Massachusetts as enhanced reimbursement rates for MassHealth and other programs, though the magnitude of the federal intervention is not yet known. For context, between fiscal 2009 and fiscal 2013, approximately $7.4 billion came to Massachusetts through the American Recovery and Reinvestment Act (ARRA, i.e., "stimulus").

The key questions for budget managers will be to identify how much of the federal intervention will arrive in the state and be attributed as reimbursement for fiscal 2020 costs versus fiscal 2021 expenses, whether the revenue offsets operating costs, capital expenses, or other programmatic costs otherwise supported by the trust or federal grant activity.

Downside vs Expectations

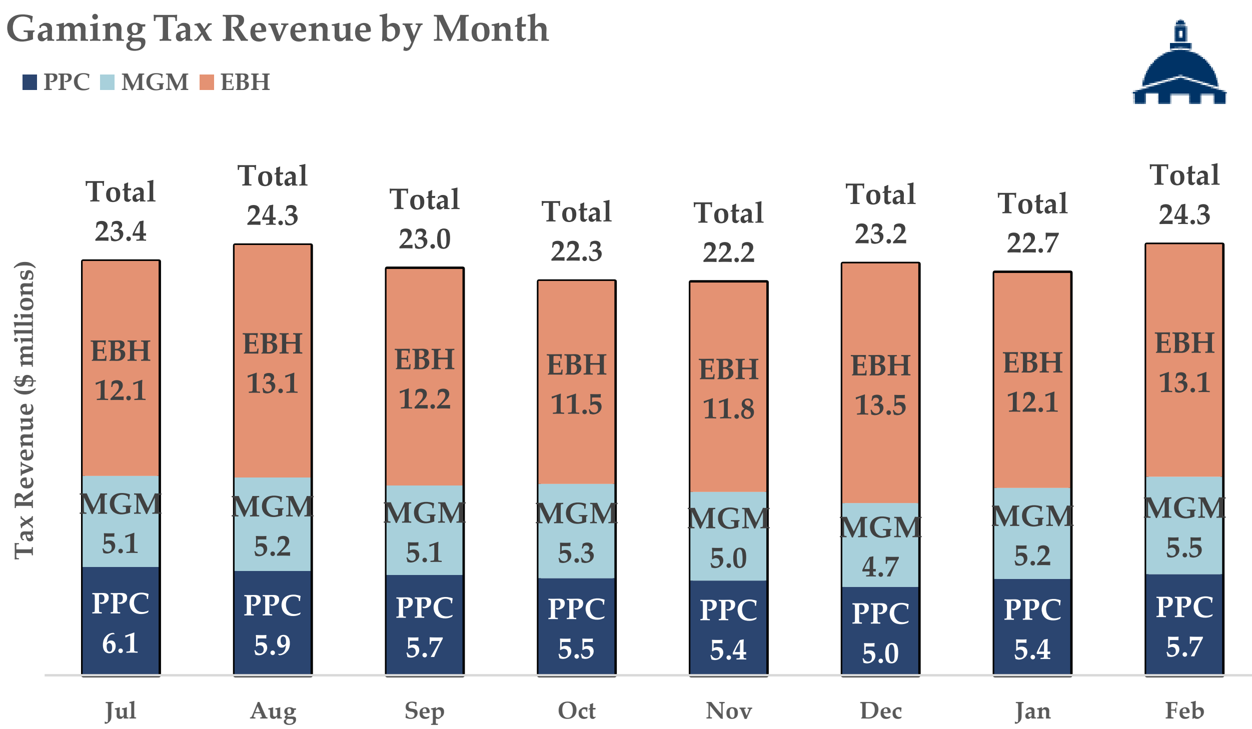
Lottery

Financial reports from the Massachusetts Lottery have already highlighted sharp declines in lottery revenue. The fiscal 2020 budget assumed approximately $1.12 billion in lottery revenue as of January 22, 2020, an increase of $20 million or 1.8 percent over fiscal 2019 actuals. Other than tax revenue, this represents the single largest revenue source exposure. There is not enough data available at this time to forecast lottery revenue for the full fiscal year.



Gaming

The Massachusetts Gaming Commission ordered the suspension of operations at the Commonwealth's three gaming facilities effective March 15, 2020. Through February 2020, gaming revenue had generated approximately $185 million in total revenue, of which approximately $137 million, or 74 percent, supports budgeted spending.



If the MGC operation suspension ends on May 4, the 50-day disruption will reduce gaming revenue by approximately $42 million, of which $31 million supports budgeted spending.

Other Exposures

While the COVID-19 impact will vary considerably among revenue sources, fees, fines, and penalties activity seems to have the highest risk exposure as reduced economic activity generates less licensing and registration fees, inspection penalties, permitting charges, and other similar revenue. Using an assumption that such activity is down 10 percent compared to expectations during the final four months of fiscal 2020 (March-June), the Commonwealth could face revenue shortfalls of at least an additional $68 million, including $24 million from the Registry of Motor Vehicles, $18 million in various fees, fines, and penalties from the Division of Insurance, trial courts, and other agencies, about $9 million in various Secretary of the Commonwealth fees, and $17 million from other sources.