



FY 2019

Economic and Revenue Outlook

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Receipts Overview

The Economic and Revenue Outlook is a volume designed to enhance the presentation and transparency of the FY 2019 Executive Budget. The book provides detailed information on the economic and receipt projections underlying the Executive Budget. The economic analysis and forecasts presented in this volume are also used in the development of the expenditure projections where spending trends are impacted by economic conditions.

Executive Budget Financial Plan receipts include a variety of taxes, fees and assessments, charges for State-provided services, Federal grants, and other miscellaneous receipts, as well as collection of a payroll mobility tax on businesses in the MTA region. The Economic and Revenue Outlook includes receipt information required by Article VII of the State Constitution and Section 22 of the State Finance Law and provides information to supplement extensive reporting enhancements undertaken in recent years. The Division of the Budget (DOB) believes the information will aid the Legislature and the public in fully understanding and evaluating the economic assumptions and receipts estimates underlying the FY 2019 Executive Budget. The multi-year tax and miscellaneous receipts estimates are prepared by DOB with the assistance of the Department of Taxation and Finance (DTF) and other agencies which collect State receipts, and are predicated on economic analysis and forecasts. To the extent they are material, sources of receipts not referenced in this volume are discussed in the presentations of the agencies primarily responsible for executing the programs financed by such receipts. The *Economic, Revenue and Spending Methodologies* are available at the Division of the Budget's website at www.budget.ny.gov. The Methodology volume provides a comprehensive review of the methods used in determining the economic and tax receipt projections.

The Economic and Revenue Outlook is presented in the following general sections:

- **Financial Plan Receipts and Projections:** Provides a summary of Financial Plan receipts for the current year and the FY 2019 Budget year by tax category and fund type.
- **FY 2019 Revenue Actions:** Summarizes the revenue actions proposed with the FY 2019 Executive Budget.
- **Economic Backdrop:** Provides a detailed description of the Division's forecast of key economic indicators for the national and New York State economies.
- **Comparison of New York State Tax Structure to Other States:** Compares the New York tax structure and burden to other states.
- **Tax Receipts Explanation:** Provides a detailed report for each tax and miscellaneous receipts source describing historical receipts and projections for the current and upcoming budget years, the impact of legislation proposed with the FY 2019 Executive Budget, and significant legislation that has been enacted.
- **Dedicated Fund Tax Receipts:** Provides a report on dedicated tax receipt estimates, with an emphasis on transportation-related dedicated taxes.

- **Audit and Compliance Receipts:** Provides data and analysis to better understand receipts collections.

Economic Outlook

At the ripe old age of eight and one-half years, the current expansion shows no evidence of tiring. Indeed, the expansion is now just four months shy of becoming the second longest expansion since 1850 and still going strong. The U.S. economy rebounded impressively in 2017 from the impact of a global malaise that lasted from the third quarter of 2015 through the first quarter of 2017, with U.S. exports exhibiting real declines in four of those seven quarters. Following one of the weakest episodes of the current expansion, the U.S. economy bounced back during the middle two quarters of last, displaying two consecutive quarters of growth above 3 percent for the first time since the middle of 2014. With consumer spending continuing to be fueled by a strong labor market, energy prices on the rise, and virtually all areas of the global economy coming back to life, real U.S. GDP growth is likely to post two consecutive years of growth slightly above its recent 2.2 percent average in 2018 and 2019. However, starting in 2019, economic growth is expected gradually drift downward toward its long-run potential growth of about 2 percent. Real growth in U.S. GDP of 2.5 percent is projected for 2018, following growth of 2.3 percent for 2017.

The Budget Division forecast includes no direct impact from the recently enacted Tax Cut and Jobs Act. The impact of the new federal tax law on the real economy is assessed to be small, particularly for the current year. There is little doubt that prospects for tax reductions played a role in boosting sentiment, as measured by numerous economic surveys. But the pick-up in both sentiment and equity prices has been a global phenomenon and not just an artifact of domestic U.S. policy. Given the multinational flavor of the preponderance firms in the major stock indexes, it is not surprising that the uptick in global growth has been a key factor in sending equity markets to record heights. The impact of the lower tax rate on after-tax corporate earnings is surely another. However, with fully 75.8 percent of the tax cut's benefit to the household sector going to the top 23.5 percent of taxpayers, the stimulatory impact is likely to be small. Moreover, for 2018 the upside risk due to the tax cut is likely to be offset by the downside risk that the recovery from last summer's devastating storms pulled economic activity forward from this year. Similarly, the new tax law is not expected to significantly alter the trajectory of business investment spending over the near-term, a view that is supported both by survey and research results. The upside risk to investment spending due to the tax law balances commensurately against the risk of either a trade war or even military conflict. Finally, implementing a tax cut with an unemployment rate hovering close to 4 percent and excess global capacity on the wane creates the risk of both higher interest rates and higher inflation. While the Federal Reserve appears to have no intention of obstructing whatever positive benefits may flow from the tax cuts, there is little doubt that the central bank will act to keep inflation expectations well anchored.

Despite the pick-up in both national and global growth, New York State's private sector labor market continued to decelerate in 2017. Nevertheless, private job growth remains well-above historical average rates of growth, and continues to be led by health care, education, construction, leisure and hospitality, and professional and business services. Tourism continues to be one of the State's major growth industries, but the global slowdown and the strong dollar likely altered the

mix between domestic and international visitors, who tend to spend more per visit. The pick-up in global growth, is expected to help turn that tide. Moreover, the State's weakening real estate market, which was also exacerbated by the global malaise, led to slower growth in construction and real estate services jobs, but is expected to stabilize in 2018. State private sector job growth of 1.3 percent is projected for 2018, following estimated growth of 1.4 percent in 2017. Growth in government jobs of 0.3 percent is expected to result in slightly lower growth in total State employment of 1.1 percent for 2018.

Last year was the second of two exceedingly turbulent years for Wall Street. Equity market prices grew 17.0 percent in 2017 on an annual average basis, following virtually no growth during the prior year. However, in a low-volatility, rising interest rate environment, characterized by low trading revenue growth and rising interest expenses, there is reason to maintain a cautious outlook for bonus payments for the season in progress. Consequently, the Budget Division projects finance and insurance sector bonus growth of 4.4 percent for the State fiscal year in progress. The deceleration in the State's labor market is expected to result in non-bonus wage growth of 3.8 percent for FY 2018, resulting in overall State wage growth of 3.8 percent as well. Bonus growth is expected to remain virtually unchanged for FY 2019, which along with a stabilizing labor market is expected to lift total wage growth to 4.2 percent. Overall personal income growth of 3.6 percent is estimated for FY 2018, accelerating to 4.3 percent for FY 2019. The current fiscal year estimate for State finance and insurance sector bonuses represents the second consecutive year of moderate single-digit growth, which in turn follows two back-to-back years of decline. The recent weakness in bonuses highlights the risk posed by this all-important sector to the State economy and revenues. But with finance and insurance sector employment still below its pre-recession peak, recent employment and wage trends also highlight the State's success in diversifying away from this volatile sector since the financial crisis.

For further details, please see the *Economic Backdrop* section of this volume.

The Revenue Situation

All Funds estimated tax receipts growth of 6.2 percent in FY 2018 is attributable to:

- A rebound in withholding growth to 5.2 percent (from 2.7 percent in FY 2017) based on stronger bonus growth;
- An increase in tax year 2017 personal income tax estimated payments of 30.8 percent. Unlike a typical tax year, taxpayers were incentivized to accurately reflect, and to the maximum extent possible pay, such liability by December 31, 2017 given the significant loss of federal deductibility of such payments after tax year 2018. The sunset of a federal ten-year window to repatriate foreign hedge fund earnings also helped fuel this growth;
- Consumption/use tax growth of 3.3% most heavily influenced by robust sales tax growth of 4.6 percent offset by a continuing trend decline in cigarette consumption and highway use tax refunds related to a litigation settlement;
- An increase in business tax receipts (5.3 percent) from a rebound in audit collections, moderate corporate profits growth, lack of the tax rate cut embedded in tax year 2016, insurance premiums tax growth associated with a growing economy and reduced insurance tax credit claims related to the bankruptcy of a life insurance carrier in a prior year; and
- Strong growth in other tax receipts of 10.8 percent due to two estate tax payments of \$100 million or more.

All Funds projected tax receipts decline of two percent in FY 2019 is attributable to:

- A decline in personal income tax receipts of 3.3 percent. This is due almost entirely to the boom in estimated payments in December 2017, which exceeded prior plan estimates by \$2.5 billion, causing a projected timing loss of \$1.9 billion in April 2019 estimated payments. Absent this timing related shift, personal income tax receipts would rise 4.3 percent;
- Consumption and use tax growth of 5.4 percent, boosted by Executive Budget proposals related to cigars, opioids, vapor products, fair taxation of Internet-based purchases and repeal of an outdated exemption;
- Growth in business tax receipts of 11.5 percent stemming from increased corporate profits growth, progress on regulations and Executive Budget legislation to defer large tax credit claims;
- A decline in other tax receipts of 8.7 percent assuming a return to an historically average number of payments over \$25 million; and
- The shift of MTA payroll tax receipts (about \$1.5 billion) to off-Budget accounting.

Overall base growth (i.e. absent law changes) in tax receipts is dependent on many factors. In general, base tax receipts growth rates are determined by economic changes including, but not limited to, changes in interest rates, prices, wages, employment, non-wage income, capital gains realizations, taxable consumption, corporate profits, household net worth, real estate prices and gasoline prices. Federal law changes can influence taxpayer behavior, which often alters base tax receipts. State taxes account for approximately half of total All Funds receipts.

The projections of Federal receipts generally correspond to the anticipated spending levels of a variety of programs including Medicaid, public assistance, mental hygiene, education, public health, and other activities, including extraordinary aid.

Where noted, certain tables in the following section display General Fund tax receipts that exclude amounts transferred to the General Fund in excess of amounts needed for certain debt service obligations (e.g., PIT receipts in excess of the amount transferred for debt service on revenue bonds).

The following table displays growth rates for actual and base tax receipts for FY 1995 through FY 2022. The forecast growth rates assume continued economic growth. Should a recession occur prior to FY 2022, one or more of these forecast growth rates could be much lower or negative.

ALL FUNDS ACTUAL AND BASE TAX RECEIPTS GROWTH
(percent growth)

State Fiscal Year	Actual Receipts	Base Receipts	Inflation Adjusted Base Receipts
FY 1995	0.1	1.5	(1.1)
FY 1996	2.6	3.6	0.8
FY 1997	2.0	2.5	(0.5)
FY 1998	3.7	5.6	3.8
FY 1999	7.2	7.9	6.2
FY 2000	7.5	9.1	6.4
FY 2001	7.9	10.1	6.9
FY 2002	(4.9)	(4.2)	(6.4)
FY 2003	(6.7)	(8.0)	(10.5)
FY 2004	8.2	5.8	3.2
FY 2005	13.4	11.5	7.9
FY 2006	10.2	9.3	5.7
FY 2007	9.7	12.6	9.2
FY 2008	3.7	6.6	3.5
FY 2009	(0.8)	(3.2)	(6.4)
FY 2010	(3.2)	(12.7)	(13.1)
FY 2011	5.6	3.2	1.3
FY 2012	5.6	8.1	5.1
FY 2013	3.1	4.5	2.6
FY 2014	5.1	6.1	4.6
FY 2015	1.9	4.0	2.9
FY 2016	2.7	5.2	4.8
FY 2017*	(0.4)	0.2	(1.2)
FY 2018*	6.2	6.1	3.9
FY 2019**	(2.0)	(0.2)	(2.3)
FY 2020**	8.0	8.7	6.3
FY 2021**	2.9	5.3	3.0
FY 2022**	3.9	5.3	3.0
	Actual Change	Base Change	Adjusted Base Change
Historical Average			
FY 1995 to FY 2017	3.7	3.9	1.6
Forecast Averages			
FY 2018 to FY 2022	3.8	5.0	2.8
FY 2019 to FY 2022	3.2	4.8	2.5
Historical Recessions	(3.9)	(7.0)	(9.1)
Historical Expansions	5.3	6.2	3.8
*Estimated Receipts		**Projected Receipts	

ALL FUNDS RECEIPTS
(millions of dollars)

	FY 2017 Results	FY 2018 Current	Change	FY 2019 Proposed	Change	FY 2020 Projected	Change	FY 2021 Projected	Change	FY 2022 Projected	Change
Personal Income Tax	47,565	50,935	7.1%	49,244	-3.3%	53,891	9.4%	55,500	3.0%	57,948	4.4%
Consumption/Use Taxes	16,212	16,754	3.3%	17,664	5.4%	18,380	4.1%	18,928	3.0%	19,494	3.0%
Business Taxes	6,979	7,346	5.3%	8,198	11.6%	8,903	8.6%	9,104	2.3%	9,310	2.3%
Other Taxes	2,236	2,479	10.9%	2,263	-8.7%	2,379	5.1%	2,476	4.1%	2,578	4.1%
Payroll Mobility Tax	1,380	1,438	4.2%	0	-100.0%	0	0.0%	0	0.0%	0	0.0%
Total State Taxes	74,372	78,952	6.2%	77,369	-2.0%	83,553	8.0%	86,008	2.9%	89,330	3.9%
Miscellaneous Receipts	26,594	27,829	4.6%	27,959	0.5%	26,166	-6.4%	25,235	-3.6%	25,650	1.6%
Federal Receipts	55,406	57,777	4.3%	57,878	0.2%	58,589	1.2%	59,214	1.1%	60,732	2.6%
Total All Funds Receipts	156,372	164,558	5.2%	163,206	-0.8%	168,308	3.1%	170,457	1.3%	175,712	3.1%

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ALL FUNDS LEGISLATION

(\$ in millions)*

	FY 2019	FY 2020	FY 2021	FY 2022
Personal Income Tax	6	24	85	67
Maintain 2017 Empire State Child Tax Credit Benefits	0	0	0	0
Close the Carried Interest Loophole	0	0	0	0
Allow the Department of Taxation and Finance to Appeal Tax Appeals Tribunal Decisions	0	5	5	5
Clarify New York Residency Requirements for Tax Purposes	0	0	3	3
Provide for Expedited Processing of Child Care Tax Credit Payments Using State Data	0	5	5	5
Extend the Statute of Limitations on Amended Personal Income Tax Returns	3	3	3	3
Provide for Employee Wage Reporting Consistency	0	0	0	0
Allow Warrantless Tax Debt to be Assessed Against Unclaimed Funds	3	3	3	3
Defer Business Related Tax-Credit Claims	0	8	66	48
Consumption/Use Taxes	318	486	471	456
Increase the Vending Machine Sales Tax Exemption	0	0	2	3
Impose an Internet Fairness Conformity Tax	80	159	159	159
Discontinue the Energy Services Sales Tax Exemption	96	128	128	128
Provide Responsible Person Sales Tax Relief for Minority LLC Owners	0	0	0	0
Simplify Taxes on the Resale of Prepared Food	0	0	0	0
Convert the Veterinary Sales Tax Credit Into an Exemption	0	0	0	0
Improve Cigar Tax Enforcement	12	23	23	23
Impose a Health Tax on Vapor Products	3	5	5	5
Establish an Opioid Epidemic Surcharge	127	171	154	138
Amend the Local Sales Tax Statute for Technical Changes	0	0	0	0
Business Taxes	82	270	96	79
Enhance the New York Youth Jobs Program	0	0	0	0
Extend the Hire a Vet Credit for Two Years	0	0	(37)	(37)
Defer Business Related Tax-Credit Claims	82	270	133	116
Other Actions	180	193	213	213
Provide for Consistency Within the Real Estate Transfer Tax	0	0	0	0
Simplify Video Lottery Gaming (VLG) Rate and Additional Commission Provisions	22	20	20	20
Extend Certain Tax Rates and Certain Simulcasting Provisions for One Year	0	0	0	0
Eliminate the Video Lottery Gaming Hold Harmless Transfer Provision	0	0	0	0
Allow Breeding Funds to be Used for Equine Aftercare	0	0	0	0
Amend Racing Operations Provisions	0	0	0	0
Impose a Vehicle Safety Inspection Fee	3	3	3	3
Modernize Highway Right of Way Fees	15	30	50	50
Impose a Healthcare Insurance Windfall Profit Fee	140	140	140	140
Simplify the Taxation of State-Owned Land	0	0	0	0
Extend Telecom Mass Property Assessments for Four Years	0	0	0	0
Amend Real Property Tax Law For Various Technical Amendments	0	0	0	0
Total All Funds Legislation Change	586	973	865	815

*Rounded to the nearest million, revenue and gaming proposals only.

Personal Income Tax

PERSONAL INCOME TAX (millions of dollars)											
	FY 2017	FY 2018		FY 2019		FY 2020		FY 2021		FY 2022	
	Results	Current	Change	Proposed	Change	Projected	Change	Projected	Change	Projected	Change
STATE/ALL FUNDS	47,565	50,935	7.1%	49,244	-3.3%	53,891	9.4%	55,500	3.0%	57,948	4.4%
Gross Collections	56,517	61,060	8.0%	60,335	-1.2%	65,591	8.7%	66,417	1.3%	69,884	5.2%
Refunds (Incl. State/City Offset)	(8,952)	(10,125)	-13.1%	(11,091)	-9.5%	(11,700)	-5.5%	(10,917)	6.7%	(11,936)	-9.3%
GENERAL FUND¹	32,535	35,616	9.5%	34,523	-3.1%	38,096	10.3%	39,364	3.3%	41,244	4.8%
Gross Collections	56,517	61,060	8.0%	60,335	-1.2%	65,591	8.7%	66,417	1.3%	69,884	5.2%
Refunds (Incl. State/City Offset)	(8,952)	(10,125)	-13.1%	(11,091)	-9.5%	(11,700)	-5.5%	(10,917)	6.7%	(11,936)	-9.3%
STAR	(3,139)	(2,585)	17.6%	(2,410)	6.8%	(2,322)	3.7%	(2,261)	2.6%	(2,217)	1.9%
RBTF	(11,891)	(12,734)	-7.1%	(12,311)	3.3%	(13,473)	-9.4%	(13,875)	-3.0%	(14,487)	-4.4%

¹Excludes Transfers.

All Funds PIT receipts for FY 2018 are estimated to total \$50.9 billion, an increase of \$3.4 billion (7.1 percent) from FY 2017 results. This increase is driven by growth in withholding and estimated payments for tax year 2017. Growth in these categories is partially offset by declines in final returns and extension payments attributable to the 2016 tax year, in addition to an increase in total refunds.

The following table summarizes, by component, actual receipts for FY 2017 and forecast amounts through FY 2022.

ALL FUNDS PERSONAL INCOME TAX FISCAL YEAR COLLECTION COMPONENTS (millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Results	Current	Proposed	Projected	Projected	Projected
Receipts						
Withholding	37,524	39,459	41,314	42,557	43,543	45,651
Estimated Payments	14,972	17,734	14,921	18,723	18,366	19,530
Current Year	10,912	14,278	12,729	13,742	12,583	13,535
Prior Year ¹	4,060	3,456	2,192	4,981	5,783	5,995
Final Returns	2,588	2,441	2,599	2,748	2,908	3,032
Current Year	260	271	286	301	316	331
Prior Year ¹	2,328	2,170	2,313	2,447	2,592	2,701
Delinquent	1,433	1,426	1,501	1,563	1,600	1,671
Gross Receipts	56,517	61,060	60,335	65,591	66,417	69,884
Refunds						
Prior Year ¹	5,199	6,338	6,699	6,890	7,282	8,151
Previous Years	474	500	522	552	582	613
Current Year ¹	1,750	1,750	1,750	1,750	1,750	1,750
Advanced Credit Payment	678	689	1,247	1,709	479	573
State/City Offset ¹	851	848	873	799	824	849
Total Refunds	8,952	10,125	11,091	11,700	10,917	11,936
Net Receipts	47,565	50,935	49,244	53,891	55,500	57,948

¹These components, collectively, are known as the "settlement" on the prior year's tax liability.

Withholding in FY 2018 is estimated to be \$1.9 billion (5.2 percent) higher than FY 2017 results, driven by moderate wage growth partially associated with improved bonus growth. Extension payments related to tax year 2016 are expected to decline by \$604 million (14.9 percent), primarily due to declines in capital gains resulting, in part, from taxpayer uncertainty regarding potential tax year 2017 Federal tax rate cuts. Estimated payments for tax year 2017 are projected to increase by \$3.4 billion (30.8 percent), driven by a combination of 9.9 percent growth in nonwage income and taxpayer behavior, stemming from the Federal Tax Cuts and Jobs Act of 2017 and expiration of the Federal 10-year window to repatriate foreign hedge fund earnings. FY 2018 final return payments and delinquencies are projected to decline by \$147 million (5.7 percent) and \$7 million (0.5 percent), respectively.

The projected growth in total refunds of \$1.2 billion (13.1 percent) includes increases of \$1.1 billion (21.9 percent) in prior tax year (2016) refunds, \$26 million (5.5 percent) in previous tax year (2015 and earlier) refunds, and \$11 million (1.6 percent) in advanced credit payments related to tax year 2017, partially offset by a \$3 million (0.4 percent) decline in the state-city offset.

General Fund PIT receipts are net of deposits to the STAR Fund, which provides property tax relief, and the Revenue Bond Tax Fund (RBTF), which supports debt service payments on State PIT revenue bonds. General Fund PIT receipts for FY 2018 of \$35.6 billion are projected to increase by \$3.1 billion (9.5 percent) from FY 2017 results, mainly reflecting the increase in All Funds receipts noted above. RBTF deposits are projected to be \$12.7 billion and the STAR transfer is projected to be \$2.6 billion.

All Funds PIT receipts for FY 2019 of \$49.2 billion are projected to decrease by \$1.7 billion (3.3 percent) from FY 2018 estimates. Gross PIT receipts are projected to decrease 1.2 percent, reflecting withholding that is projected to grow by \$1.9 billion (4.7 percent), offset by estimated payments related to tax year 2018 that are projected to decline by \$1.5 billion (10.8 percent), extension payments related to tax year 2017 that are projected to decrease by \$1.3 billion (36.6 percent). The decline in extension payments reflects taxpayer behavior related the Federal Tax Cuts and Jobs Act of 2017, which caused taxpayers to accelerate New York State tax liability payments into December 2017 to take advantage of the final year of uncapped state and local tax deductions. Final returns are expected to increase by \$158 million (6.5 percent) and delinquencies are projected to increase \$75 million (5.3 percent) from the prior year. Total refunds are projected to increase by \$966 million (9.5 percent) from the prior year, primarily due to the property tax relief credit enacted in 2015 and the recent conversions of New York City STAR benefits into State tax credits.

General Fund PIT receipts for FY 2019 of \$34.5 billion are projected to decrease by \$1.1 billion (3.1 percent). RBTF deposits are projected to be \$12.3 billion, and the STAR transfer is projected to be \$2.4 billion.

All Funds PIT receipts for FY 2020 of \$53.9 billion are projected to increase by \$4.6 billion (9.4 percent) from FY 2019 estimates. Gross PIT receipts are projected to increase 8.7 percent, reflecting withholding that is projected to grow by \$1.2 billion (3 percent) and total estimated payments that are projected to grow by \$3.8 billion (25.5 percent), partially offset by a projected increase in total refunds of \$609 million (5.5 percent).

The relatively low withholding growth rate reflects the expiration of the FY 2018 Enacted Budget two-year high-income surcharge extension, scheduled to sunset after tax year 2019. The strong growth in total estimated payments is primarily driven by a projected increase of \$2.8 billion (127.2 percent) in extensions for tax year 2018, driven by an unwinding of the aforementioned New York State tax liability payment acceleration as taxpayers revert to estimated payment timing that falls in line with historical norms. Estimated payments related to tax year 2019 are projected to grow by \$1 billion (8 percent) and final returns are expected to increase by \$149 million (5.7 percent). Delinquencies are projected to increase \$62 million (4.1 percent) from the prior year.

General Fund PIT receipts for FY 2020 of \$38.1 billion are projected to increase by \$3.6 billion (10.3 percent). RBTF deposits are projected to be \$13.5 billion, and the STAR transfer is projected to be \$2.3 billion.

All Funds PIT receipts in FY 2021 are projected to increase by \$1.6 billion to \$55.5 billion, while General Fund PIT receipts are projected to total \$39.4 billion. This projected modest growth is driven by the scheduled expiration of the high-income surcharge rate extension beginning in tax year 2020, combined with continued phase-in of the FY 2017 Enacted Budget middle income tax cuts.

Consumption/Use Taxes

CONSUMPTION/USE TAXES (millions of dollars)											
	FY 2017 Results	FY 2018 Current	Change	FY 2019 Proposed	Change	FY 2020 Projected	Change	FY 2021 Projected	Change	FY 2022 Projected	Change
STATE/ALL FUNDS	16,212	16,754	3.3%	17,664	5.4%	18,380	4.1%	18,928	3.0%	19,494	3.0%
Sales Tax	13,869	14,510	4.6%	15,266	5.2%	15,963	4.6%	16,562	3.8%	17,174	3.7%
Cigarette and Tobacco Taxes	1,236	1,177	-4.8%	1,152	-2.1%	1,119	-2.9%	1,076	-3.8%	1,035	-3.8%
Motor Fuel Tax	519	515	-0.8%	512	-0.6%	507	-1.0%	504	-0.6%	501	-0.6%
Highway Use Tax	138	96	-30.4%	142	47.9%	142	0.0%	143	0.7%	145	1.4%
Alcoholic Beverage Taxes	258	262	1.6%	267	1.9%	272	1.9%	276	1.5%	281	1.8%
Opioid Epidemic Surcharge	0	0	0.0%	127	0.0%	171	34.6%	154	-9.9%	138	-10.4%
Medical Marihuana Excise Tax	1	2	100.0%	2	0.0%	2	0.0%	2	0.0%	2	0.0%
Taxicab Surcharge	64	59	-7.8%	59	0.0%	59	0.0%	59	0.0%	59	0.0%
Auto Rental Tax	127	133	4.7%	137	3.0%	145	5.8%	152	4.8%	159	4.6%
GENERAL FUND¹	7,101	7,386	4.0%	7,752	5.0%	8,087	4.3%	8,361	3.4%	8,644	3.4%
Sales Tax	6,483	6,784	4.6%	7,139	5.2%	7,467	4.6%	7,748	3.8%	8,035	3.7%
Cigarette and Tobacco Taxes	360	340	-5.6%	346	1.8%	348	0.6%	337	-3.2%	328	-2.7%
Alcoholic Beverage Taxes	258	262	1.6%	267	1.9%	272	1.9%	276	1.5%	281	1.8%

¹Excludes Transfers.

All Funds consumption/use tax receipts for FY 2018 are projected to total \$16.8 billion, a \$542 million (3.3 percent) increase from FY 2017 results. Sales tax receipts are projected to increase \$641 million (4.6 percent) from the prior year, reflecting base growth (i.e., absent law changes) of 4.6 percent. This base growth stems from projected disposable income and consumption growth. Cigarette and tobacco tax collections are projected to decrease by \$59 million (4.8 percent), reflecting a trend decline in taxable cigarette consumption. Highway use tax (HUT) collections are projected to decrease by \$42 million (30.4 percent) due to a \$44 million

increase in refund payments resulting from the Independent Owner Operator Drivers Association v. New York Department of Taxation and Finance court decision. Motor fuel tax collections are projected to decrease by \$4 million (0.8 percent), reflecting higher refunds, which are partially offset by slight growth in both taxable motor fuel and diesel fuel consumption. Taxicab surcharge receipts are estimated to decline by \$5 million (7.8 percent) resulting from consumers choosing alternative transportation services not subject to the surcharge. Auto rental tax receipts are projected to increase by \$6 million (4.7 percent). A new opioid epidemic surcharge would generate \$127 million in FY 2019.

General Fund sales tax receipts are net of deposits to the Local Government Assistance Tax Fund (25 percent), and the Sales Tax Revenue Bond Fund (25 percent), which support debt service payments on bonds issued under LGAC and State Sales Tax Revenue Bond programs. Receipts in excess of the debt service requirements of the funds and the local assistance payments to New York City, or its assignee, are transferred back to the General Fund.

General Fund consumption/use tax receipts for FY 2018 are projected to total nearly \$7.4 billion, a \$285 million (4 percent) increase from FY 2017 results. This increase largely reflects the All Funds sales and use tax and cigarette and tobacco tax trends, noted above.

All Funds consumption/use tax receipts for FY 2019 are projected to total over \$17.7 billion, a \$910 million (5.4 percent) increase from FY 2018 estimates. The projected \$756 million (5.2 percent) increase in sales tax receipts reflects sales tax base growth of 3.3 percent related to the projected slower growth in both the consumption of taxable goods and disposable income. Sales tax cash growth is boosted by Executive Budget proposals to provide for taxation of Internet-based purchases and repeal of an outdated exemption. HUT receipts are projected to increase \$46 million (47.9 percent) as long-term trend levels are resumed following the previous year's refund increases noted above. A continued trend decline in taxable cigarette consumption is also projected, but is partially offset by proposals to improve cigar tax enforcement and impose a health tax on vapor products.

General Fund consumption/use tax receipts are projected to be \$7.8 billion in FY 2019, a \$366 million (5 percent) increase from FY 2018. The projected increase largely reflects the All Funds sales and use tax and cigarette and tobacco tax trends, noted above.

All Funds consumption/use tax receipts for FY 2020 are projected to be \$18.4 billion, a \$716 million (4.1 percent) increase from FY 2019. The projected \$697 million (4.6 percent) increase in sales tax receipts reflects sales tax base growth of 3.9 percent and the tobacco tax proposals noted above, and is slightly offset by a trend decline in taxable cigarette consumption. FY 2020 General Fund consumption/use tax receipts are projected to increase to \$8.1 billion, a \$335 million (4.3 percent) increase from FY 2019 projections.

All Funds consumption/use tax receipts are projected to reach \$18.9 billion (3 percent growth) in FY 2021, largely representing base growth in sales tax receipts which are slightly offset by a continued trend decline in taxable cigarette consumption. General Fund consumption/use tax receipts are projected to increase to \$8.4 billion (3.4 percent growth) in FY 2021, reflecting the All Funds sales and use tax and cigarette and tobacco tax trends, noted above.

Business Taxes

BUSINESS TAXES (millions of dollars)											
	FY 2017	FY 2018		FY 2019		FY 2020		FY 2021		FY 2022	
	Results	Current	Change	Proposed	Change	Projected	Change	Projected	Change	Projected	
STATE/ALL FUNDS	6,979	7,346	5.3%	8,198	11.6%	8,903	8.6%	9,104	2.3%	9,310	2.3%
Corporate Franchise Tax	3,166	3,286	3.8%	4,341	32.1%	4,986	14.9%	5,114	2.6%	5,232	2.3%
Corporation and Utilities Tax	720	737	2.4%	710	-3.7%	724	2.0%	734	1.4%	743	1.2%
Insurance Tax	1,580	1,721	8.9%	1,868	8.5%	1,956	4.7%	2,098	7.3%	2,186	4.2%
Bank Tax	389	505	29.8%	143	-71.7%	71	-50.3%	0	-100.0%	0	0.0%
Petroleum Business Tax	1,124	1,097	-2.4%	1,136	3.6%	1,166	2.6%	1,158	-0.7%	1,149	-0.8%
GENERAL FUND	4,761	5,108	7.3%	5,809	13.7%	6,432	10.7%	6,597	2.6%	6,756	2.4%
Corporate Franchise Tax	2,476	2,559	3.4%	3,479	36.0%	4,073	17.1%	4,164	2.2%	4,238	1.8%
Corporation and Utilities Tax	538	565	5.0%	540	-4.4%	550	1.9%	556	1.1%	562	1.1%
Insurance Tax	1,410	1,539	9.1%	1,668	8.4%	1,749	4.9%	1,877	7.3%	1,956	4.2%
Bank Tax	337	445	32.0%	122	-72.6%	60	-50.8%	0	-100.0%	0	0.0%
Petroleum Business Tax	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%

All Funds business tax receipts for FY 2018 are projected to total over \$7.3 billion, an increase of \$371 million (5.3 percent) from FY 2017 results. The estimate reflects increases for all business taxes apart from a \$23 million decline in the petroleum business tax (PBT).

Corporation franchise tax receipts are projected to increase \$120 million (3.8 percent) in FY 2018, reflecting higher audits and minimal growth in gross receipts. FY 2017 results were negatively impacted by a cut in the business income tax rate from 7.1 to 6.5 percent as well as a shortfall in cash remittances on tax year 2015 final returns. This lack of March 2017 cash remittances indicated taxpayers significantly overpaid on 2015 liability during previous quarterly estimated payment events. Taxpayers made much lower estimated payments in December 2017 than expected, possibly indicating their estimated 2017 liability has declined from earlier in the year. It is also possible taxpayers overpaid on 2016 liability reducing the need to remit cash during 2017. This will not be known until taxpayers file their 2016 final returns. Audit receipts are projected to increase in FY 2018 (by \$115 million) as a greater number of large cases are expected to be closed.

Corporation and utilities tax receipts are projected to increase \$17 million (2.4 percent) in FY 2018. Higher audits received from telecommunication companies are partially offset by weakness in 2017 liability payments from both telecommunication and utility taxpayers.

Insurance tax receipts for FY 2018 are projected to increase \$141 million (8.9 percent) from FY 2017. Projected growth in tax year 2017 liability as well as lower expected credit claims for assessments paid to the Life Insurance Guaranty Corporation (LIGC) account for the year-over-year increase. The LIGC exists to protect policyholders from the insolvency of their life insurers. This is the second year of refund claims for the credit for assessments paid earlier.

Receipts from the repealed bank tax (all from prior liability periods) are projected to increase by \$115 million in FY 2018, stemming from higher audit receipts (additional \$60 million) and smaller prior period adjustments.

PBT receipts are projected to decline \$23 million (2 percent) in FY 2018, primarily due to the 5 percent decrease in the PBT rate index effective January 1, 2017, partially offset by the projected 5 percent increase in the PBT rate index effective January 1, 2018.

General Fund business tax receipts for FY 2018 of \$5.1 billion are projected to increase \$347 million (7.3 percent) from FY 2017 results, reflecting the All Funds trends discussed above.

All Funds business tax receipts for FY 2019 of \$8.2 billion are projected to increase by \$848 million (11.5 percent) from current estimates. The corporation franchise tax receipts increase of \$1.1 billion (32.1 percent) reflects projected growth in corporate profits, higher audits, and progress toward completion of corporate reform regulations by the Department of Taxation and Finance. The corporation and utilities tax receipts decline of \$27 million (3.7 percent) is primarily attributable to higher FY 2018 audits related to telecommunication companies that are not expected to recur.

Insurance tax receipts for FY 2019 of \$1.9 billion are projected to increase \$147 million (8.5 percent) from current year estimates. Projected growth in insurance tax premiums combined with lower expected LIGC credit claims contribute to this year-over-year growth. Receipts from the repealed bank tax are projected to decrease by \$362 million (71.7 percent) in FY 2019, due to lower projected audit receipts. PBT receipts are projected to increase \$35 million (3.2 percent) in FY 2019, primarily due to a 5 percent increase in the PBT rate index effective January 1, 2018, paired with a projected 5 percent increase in the PBT rate index effective January 1, 2019.

General Fund business tax receipts for FY 2019 of \$5.8 billion are projected to increase \$701 million (13.7 percent) from current year estimates, reflecting the All Funds trends discussed above.

All Funds business tax receipts for FY 2020 of \$8.9 billion are projected to increase by \$705 million (8.6 percent), and General Fund business tax receipts are projected to increase to \$6.4 billion (10.7 percent growth) from FY 2019 projections. The increase is primarily reflective of growth in corporation franchise tax receipts driven by higher gross receipts and lower refunds. Increases in projected corporation and utilities tax, insurance tax, and PBT receipts are partially offset by a decline in projected bank tax receipts.

All Funds business tax receipts for FY 2021 reflect projected trends in corporate profits, taxable insurance premiums, electric utility consumption and prices, the consumption of taxable telecommunications services, and automobile fuel consumption and fuel prices. In FY 2021, All Funds business tax receipts are projected to increase to \$9.1 billion (2.3 percent growth), and General Fund business tax receipts are projected to increase to nearly \$6.6 billion (2.6 percent growth).

Other Taxes

OTHER TAXES (millions of dollars)											
	FY 2017 Results	FY 2018 Current	Change	FY 2019 Proposed	Change	FY 2020 Projected	Change	FY 2021 Projected	Change	FY 2022 Projected	Change
STATE/ALL FUNDS	2,236	2,479	10.9%	2,263	-8.7%	2,379	5.1%	2,476	4.1%	2,578	4.1%
Estate Tax	1,091	1,314	20.4%	1,033	-21.4%	1,092	5.7%	1,155	5.8%	1,220	5.6%
Real Estate Transfer Tax	1,126	1,147	1.9%	1,212	5.7%	1,269	4.7%	1,303	2.7%	1,340	2.8%
Pari-Mutuel Taxes	16	15	-6.3%	15	0.0%	15	0.0%	15	0.0%	15	0.0%
All Other Taxes	3	3	0.0%	3	0.0%	3	0.0%	3	0.0%	3	0.0%
GENERAL FUND¹	1,110	1,332	20.0%	1,051	-21.1%	1,110	5.6%	1,173	5.7%	1,238	5.5%
Estate Tax	1,091	1,314	20.4%	1,033	-21.4%	1,092	5.7%	1,155	5.8%	1,220	5.6%
Pari-Mutuel Taxes	16	15	-6.3%	15	0.0%	15	0.0%	15	0.0%	15	0.0%
All Other Taxes	3	3	0.0%	3	0.0%	3	0.0%	3	0.0%	3	0.0%

¹Excludes Transfers.

All Funds other tax receipts for FY 2018 are estimated to total nearly \$2.5 billion, an increase of \$243 million (10.9 percent) from FY 2017 results. This is primarily due to an estimated \$223 million (20.4 percent) increase in estate tax receipts which is a result of two unusually large payments of greater than \$100 million that are partially offset by the continued phase-in of the increased filing threshold. Real estate transfer tax receipts grew at a tepid 1.9 percent due to weak growth in the Manhattan luxury market and declines in transaction volume and sales prices in the New York City commercial real estate market.

General Fund other tax receipts are estimated to be above \$1.3 billion in FY 2018, an increase of \$222 million (20 percent) from FY 2017 results, reflecting the estate tax receipts increase noted above.

All Funds other tax receipts for FY 2019 are projected to be under \$2.3 billion, a \$216 million (8.7 percent) decrease from FY 2018 estimates. The \$281 million (21.4 percent) projected decline in estate tax receipts reflects a return to a historical number and average payment value of super-large (i.e., over \$25 million) payments, as well as the continuation of the phase-in of the increased filing threshold. Real estate transfer tax receipts are projected to increase by \$65 million (5.7 percent), reflecting projected growth in housing starts and housing prices.

General Fund other tax receipts for FY 2019 are projected to be below \$1.1 billion, declining \$281 million (21.1 percent) from FY 2018 estimates owing to the projected decline in estate tax receipts noted above.

All Funds other tax receipts for FY 2020 are projected to be just under \$2.4 billion, a \$116 million (5.1 percent) increase from FY 2019 projections. Estate tax receipts are projected to increase by \$59 million (5.7 percent) in FY 2020, reflecting projected growth in household net worth. The \$57 million (4.7 percent) projected increase in real estate transfer tax receipts in FY 2020 reflects projected growth in housing starts and prices.

General Fund other tax receipts for FY 2020 are projected to total just over \$1.1 billion, an increase of \$59 million (5.6 percent), resulting from the projected increase in estate tax receipts noted above.

All Funds other tax receipts for FY 2021 reflect projected trend growth in household net worth, housing starts, and housing prices. All Funds other tax receipts are projected to be nearly \$2.5 billion (4.1 percent growth) in FY 2021.

General Fund other tax receipts are projected to be slightly below \$1.2 billion (5.7 percent growth) in FY 2021.

Miscellaneous Receipts

All Funds miscellaneous receipts include moneys received from HCRA financing sources, SUNY tuition and patient income, lottery receipts for education, assessments on regulated industries, Tribal-State compact revenue, Extraordinary Monetary Settlements and a variety of fees. As such, miscellaneous receipts are driven in part by year-to-year variations in health care surcharges and other HCRA resources, bond proceeds, tuition income revenue and other miscellaneous receipts.

MISCELLANEOUS RECEIPTS											
(millions of dollars)											
	FY 2017	FY 2018		FY 2019		FY 2020		FY 2021		FY 2022	
	Results	Current	Change	Proposed	Change	Projected	Change	Projected	Change	Projected	
ALL FUNDS	26,594	27,829	4.6%	27,959	0.5%	26,166	-6.4%	25,235	-3.6%	25,650	1.6%
General Fund	3,813	2,946	-22.7%	2,019	-31.5%	2,028	0.4%	2,001	-1.3%	1,882	-5.9%
Special Revenue Funds	17,686	17,121	-3.2%	17,772	3.8%	17,172	-3.4%	17,030	-0.8%	17,133	0.6%
Capital Projects Funds	4,637	7,292	57.3%	7,703	5.6%	6,497	-15.7%	5,735	-11.7%	6,167	7.5%
Debt Service Funds	458	470	2.6%	465	-1.1%	469	0.9%	469	0.0%	468	-0.2%

All Funds miscellaneous receipts are projected to total \$27.8 billion in FY 2018, an increase of 4.6 percent from FY 2017 results. This increase is primarily due to higher bond financed capital spending on a year-over-year basis. Bond-financed capital expenses are paid from the General Fund (or Short-Term Investment Pool) in the first instance and subsequently reimbursed with authority bond proceeds, at which time they are captured as miscellaneous receipts.

All Funds miscellaneous receipts are projected to remain constant from FY 2018 to FY 2019, and are projected to decline annually thereafter, reflecting the impact of Extraordinary Monetary Settlements received in FY 2018, and a decrease in bond proceeds reimbursements in later years, which subsequently corresponds to the spending out of bond-financed capital projects.

Federal Grants

FEDERAL GRANTS (millions of dollars)											
	FY 2017	FY 2018		FY 2019		FY 2020		FY 2021		FY 2022	
	Results	Current	Change	Proposed	Change	Projected	Change	Projected	Change	Projected	
ALL FUNDS	55,406	57,777	4.3%	57,878	0.2%	58,589	1.2%	59,214	1.1%	60,732	2.6%
General Fund	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Special Revenue Funds	52,725	55,434	5.1%	55,376	-0.1%	56,287	1.6%	56,954	1.2%	58,474	2.7%
Capital Projects Funds	2,608	2,270	-13.0%	2,429	7.0%	2,229	-8.2%	2,187	-1.9%	2,187	0.0%
Debt Service Funds	73	73	0.0%	73	0.0%	73	0.0%	73	0.0%	71	-2.7%

Aid from the Federal government helps to pay for a variety of programs including Medicaid, public assistance, mental hygiene, school aid, public health, transportation, and other activities. Annual changes to Federal grants generally correspond to changes in federally-reimbursed spending. Accordingly, DOB typically projects Federal reimbursements will be received in the State fiscal year in which spending occurs, but due to the variable timing of Federal grant receipts, actual results often differ from the projections.

All Funds Federal grants projections primarily reflect the continuation of growth in Federal Medicaid spending related to Federal health care transformation initiatives, partly offset by the projected phase-down of Federal disaster assistance aid. All Federal receipts are subject to Congressional authorization, appropriations and budget action.

With the Trump administration and the current Congress, many of the policies that drive Federal aid may be subject to change. At this time it is not possible to assess the potential fiscal impact of policies that may be proposed and adopted by the Trump administration and current Congress. If Federal funding to the State were reduced, this could have a materially adverse impact on the Updated Financial Plan. The FY 2018 Enacted Budget includes authorization to develop a mitigation plan to offset the impact of significant Federal funding reductions.

Revenue Actions

The FY 2019 Budget includes a net positive increment of \$586 million in FY 2019 All Funds receipts reflecting the revenue actions contained in this budget. The accompanying table summarizes the revenue proposals by type of action required and provides a short description of the proposal, the date that the proposal will become effective, the Fund type where revenue will be deposited, and the incremental revenue gain or loss from the proposed action. This table represents gross revenue adds and reductions without any adjustments for associated spending changes, movements across funds or General Fund spending offsets. For more detailed explanations on these actions, please see The Revenue Actions section of the Executive Budget Briefing Book.

REVENUE ACTIONS (millions of dollars)							
Agency	Description	Effective Date	Fund Type	General Fund		All Funds	
				FY 2019	FY 2020	FY 2019	FY 2020
Responding to Federal Tax Reform							
DTF	Maintain 2017 Empire State Child Tax Credit Benefits	1/1/2018	GFTX	-	-	-	-
Tax Cuts and Credits							
DTF	Enhance the New York Youth Jobs Program	1/1/2018	GFTX	-	-	-	-
DTF	Increase the Vending Machine Sales Tax Exemption	6/1/2018	GFTX	-	-	-	-
Tax Reform and Simplification Actions							
DTF	Close the Carried Interest Loophole	1/1/2018	GFTX	-	-	-	-
DTF	Allow the Department of Taxation and Finance to Appeal Tax Appeals Tribunal Decisions	4/1/2018	GFTX	-	5	-	5
DTF	Clarify New York Residency Requirements for Tax Purposes	1/1/2019	GFTX	-	-	-	-
DTF	Impose an Internet Fairness Conformity Tax	9/1/2018	GFTX	75	150	80	159
DTF	Discontinue the Energy Services Sales Tax Exemption	6/1/2018	GFTX/SRTX	90	120	96	128
DTF	Provide Responsible Person Sales Tax Relief for Minority LLC Owners	6/1/2018	GFTX	-	-	-	-
DTF	Simplify Taxes on the Resale of Prepared Food	6/1/2018	GFTX	-	-	-	-
DTF	Convert the Veterinary Sales Tax Credit Into an Exemption	6/1/2018	GFTX	-	-	-	-
DTF	Simplify the Taxation of State-Owned Land	4/1/2018	GFTX	-	-	-	-
Enforcement Initiatives							
DTF	Provide for Expedited Processing of Child Care Tax Credit Payments Using State Data	4/1/2018	GFTX	-	5	-	5
DTF	Extend the Statute of Limitations on Amended Personal Income Tax Returns	4/1/2018	GFTX	3	3	3	3
DTF	Provide for Employee Wage Reporting Consistency	1/1/2019	GFTX	-	-	-	-
DTF	Allow Warrantless Tax Debt to be Assessed Against Unclaimed Funds	4/1/2018	GFTX	3	3	3	3
DTF	Improve Cigar Tax Enforcement	9/1/2018	GFTX	12	23	12	23
DTF	Provide for Consistency Within the Real Estate Transfer Tax	4/1/2018	GFTX	-	-	-	-
Key:							
CF = Capital Projects Fund	Gf = General Fund	SF = Special Revenue Funds					
DF = Debt Service Fund	MR = Miscellaneous Receipt	TX = Tax					

Revenue Actions



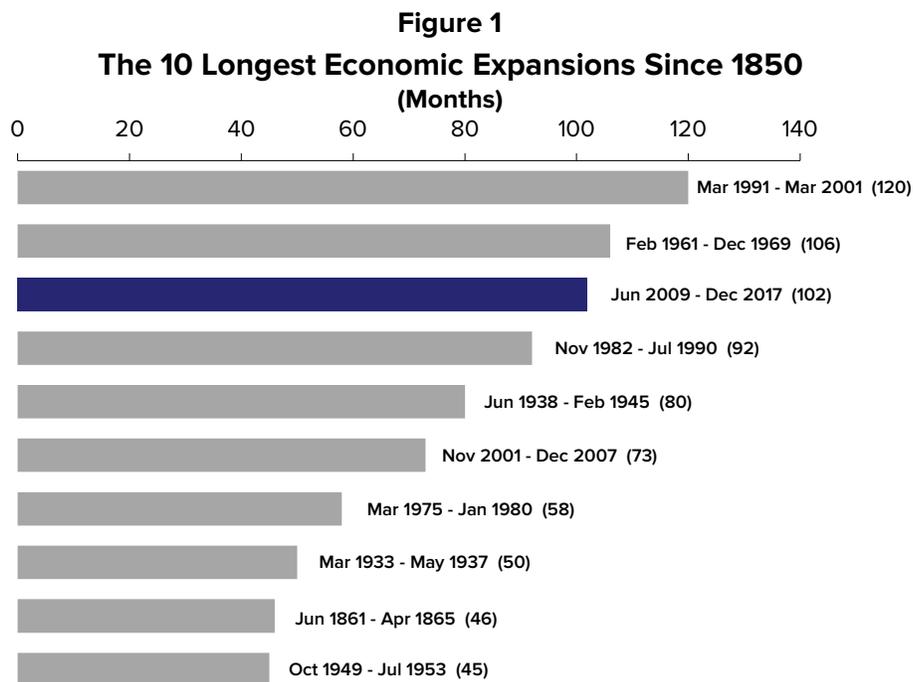
Agency	Description	Effective Date	Fund Type	General Fund		All Funds	
				FY 2019	FY 2020	FY 2019	FY 2020
Tax Law Extenders							
DTF	Extend the Hire a Vet Credit for Two Years	1/1/2019	GFTX	-	-	-	-
DTF	Extend Telecom Mass Property Assessments for Four Years	4/1/2018	GFTX	-	-	-	-
School Tax Relief (STAR) Program Actions							
DTF	Maintain Basic and Enhanced Exemption Benefits at Existing Levels	4/1/2018	GFTX	49	95	-	-
DTF	Make Participation in Income Verification Program (IVP) Mandatory	4/1/2018	GFTX	35	35	-	-
DTF	Require Manufactured Home Parcel Reporting	4/1/2018	GFTX	-	-	-	-
DTF	Require Filing of Real Property Transfer Reports	1/1/2019	GFTX	-	-	-	-
Other Revenue Actions							
DTF	Defer Business Related Tax-Credit Claims	1/1/2018	GFTX	82	278	82	278
DTF	Impose a Health Tax on Vapor Products	10/1/2018	GFTX	3	5	3	5
DTF	Establish an Opioid Epidemic Surcharge	4/1/2018	SRTX	-	-	127	171
Gaming Initiatives							
Gaming	Simplify Video Lottery Gaming (VLG) Rate and Additional Commission Provisions	4/1/2018	SFMR	-	-	22	20
Gaming	Extend Certain Tax Rates and Certain Simulcasting Provisions for One Year	4/1/2018	GFTX	-	-	-	-
Gaming	Eliminate the Video Lottery Gaming Hold Harmless Transfer Provision	4/1/2018	SFMR	-	-	-	-
Gaming	Allow Breeding Funds to be Used for Equine Aftercare	4/1/2018	SFMR	-	-	-	-
Gaming	Amend Racing Operations Provisions	4/1/2018	SFMR	-	-	-	-
Fee Actions							
DOT	Impose a Vehicle Safety Inspection Fee	4/1/2018	GFMR	3	3	3	3
DOT	Modernize Highway Right of Way Fees	4/1/2018	CPMR	-	-	15	30
DTF	Impose a Healthcare Insurance Windfall Profit Fee	1/1/2018	SFMR	-	-	140	140
Technical Amendments							
DTF	Amend the Local Sales Tax Statute for Technical Changes	4/1/2018	GFTX	-	-	-	-
ORPS	Amend Real Property Tax Law For Various Technical Amendments	4/1/2018	GFTX	-	-	-	-
TOTAL REVENUE ACTIONS				356	725	586	973

Key:
 CF = Capital Projects Fund GF = General Fund SF = Special Revenue Funds
 DF = Debt Service Fund MR = Miscellaneous Receipt TX = Tax

Economic Backdrop

Overview

At the ripe old age of eight and one-half years, the current expansion shows no evidence of tiring. Indeed, the expansion is now four months shy of becoming the second longest expansion since 1850 and still going strong (see Figure 1). The U.S. economy rebounded impressively in 2017 from the impact of a global malaise that lasted from the third quarter of 2015 through the first quarter of 2017, with U.S. exports exhibiting real declines in four of those seven quarters. Following one of the weakest episodes of the current expansion, the U.S. economy bounced back during the middle two quarters of last year, displaying two consecutive quarters of growth above 3 percent for the first time since the middle of 2014. With consumer spending continuing to be fueled by a strong labor market, energy prices on the rise, and virtually all areas of the global economy coming back to life, real U.S. GDP growth is likely to post two consecutive years of growth slightly above its recent 2.2 percent average in 2018 and 2019. However, starting in 2019, economic growth is expected gradually to drift downward toward its long-run potential growth of about 2 percent. Real growth in U.S. GDP of 2.5 percent is projected for 2018, following growth of 2.3 percent for 2017.



Source: NBER, <http://www.nber.org/cycles/cyclesmain.html>.

The Budget Division forecast includes no direct impact from the Tax Cut and Jobs Act (H.R. 1, which became law on December 22, 2017). The impact of the new federal tax law on the real economy is assessed to be small, particularly for the current year. There is little doubt that prospects for tax reductions played a role in boosting sentiment, as measured by numerous economic surveys. But the pick-up in both sentiment and equity prices has been a global phenomenon and not just an artifact of domestic U.S. policy. Given the multinational flavor of the preponderance firms in the

major stock indexes, it is not surprising that the uptick in global growth has been a key factor in sending equity markets to record heights. The impact of the lower tax rate on after-tax corporate earnings is surely another. However, with fully 75.8 percent of the tax cut's benefit to the household sector going to the top 23.5 percent of taxpayers, the stimulatory impact is likely to be small. Moreover, for 2018 the upside risk due to the tax cut is likely to be offset by the downside risk that the recovery from last summer's devastating storms pulled economic activity forward from this year. Similarly, the new tax law is not expected to significantly alter the trajectory of business investment spending over the near-term, a view that is supported both by survey and research results. The upside risk to investment spending due to the tax law balances commensurately against the risk of either a trade war or even military conflict. Finally, implementing a tax cut with an unemployment rate hovering close to 4 percent and excess global capacity on the wane creates the risk of both higher interest rates and higher inflation. While the Federal Reserve appears to have no intention of obstructing whatever positive benefits may flow from the tax cuts, there is little doubt that the central bank will act to keep inflation expectations well anchored.

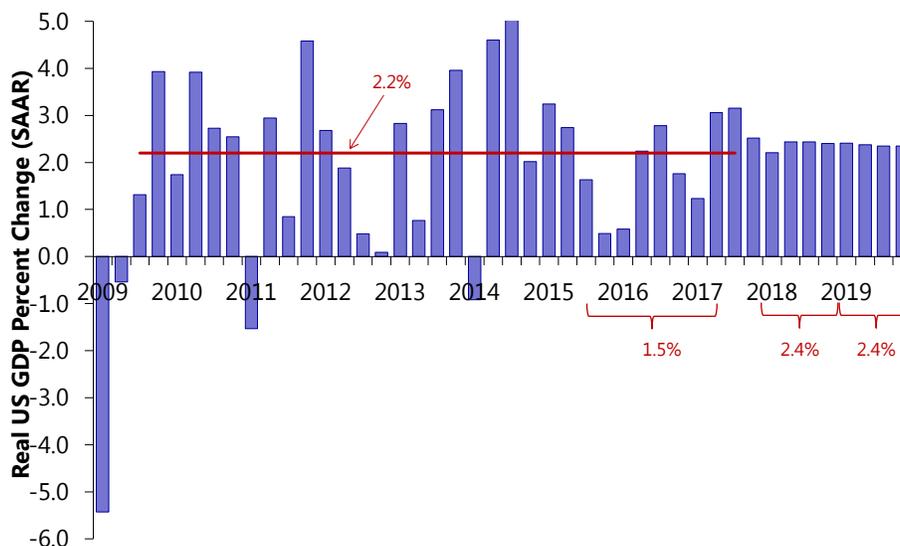
Despite the pick-up in both national and global growth, New York State's private sector labor market continued to decelerate in 2017. Nevertheless, private job growth remains well-above historical average rates of growth, and continues to be led by health care, education, construction, leisure and hospitality, and professional and business services. Tourism continues to be one of the State's major growth industries, but the global slowdown and the strong dollar likely altered the mix between domestic and international visitors, who tend to spend more per visit. The pick-up in global growth, is expected to help turn that tide. Moreover, the State's weakening real estate market, which was also exacerbated by the global malaise, led to slower growth in construction and real estate services jobs, but is expected to stabilize in 2018. State private sector job growth of 1.3 percent is projected for 2018, following estimated growth of 1.4 percent in 2017. Growth in government jobs of 0.3 percent is expected to result in slightly lower growth in total State employment of 1.1 percent for 2018.

Last year was the second of two exceedingly turbulent years for Wall Street. Equity market prices grew 17.0 percent in 2017 on an annual average basis, following virtually no growth during the prior year. However, in a low-volatility, rising interest rate environment, characterized by low trading revenue growth and rising interest expenses, there is reason to maintain a cautious outlook for bonus payments for the season in progress. Consequently, the Budget Division projects finance and insurance sector bonus growth of 4.4 percent for the State fiscal year in progress. The deceleration in the State's labor market is expected to result in non-bonus wage growth of 3.8 percent for FY 2018, resulting in overall State wage growth of 3.8 percent as well. Bonus growth is expected to remain virtually unchanged for FY 2019, which along with a stabilizing labor market is expected to lift total wage growth to 4.2 percent. Overall personal income growth of 3.6 percent is estimated for FY 2018, accelerating to 4.3 percent for FY 2019. The current fiscal year estimate for State finance and insurance sector bonuses represents the second consecutive year of moderate single-digit growth, which in turn follows two back-to-back years of decline. The recent weakness in bonuses highlights the risk posed by this all-important sector to the State economy and revenues. But with finance and insurance sector employment still below its pre-recession peak, recent employment and wage trends also highlight the State's success in diversifying away from this volatile sector since the financial crisis.

The National Economy

Although the U.S. economic expansion is in its ninth year, 2018 may represent a watershed as the first full year where virtually all of the international economy is in synch, a powerful tailwind, which heretofore had been missing. As indicated in Figure 1 above, annualized quarterly growth over the life of the current expansion has averaged a meager 2.2 percent through the third quarter of 2017, the most recent for which data are available (see Figure 2).¹ However, synchronized global growth is expected for much of this year, resulting in greater global demand for U.S. exports and stronger pre-tax corporate profits. Moreover, with oil prices at their highest levels since June 2015, energy sector investment and employment are increasing. Finally, household balance sheets are the strongest since the recovery began, with the unemployment rate now below where it was on the eve of the financial crisis. Against this economic backdrop, the U.S. Congress enacted the Tax Cuts and Jobs Act (TCJA), which is estimated by the nonpartisan Joint Committee on Taxation (JCT), to add between \$1.0 trillion and \$1.5 trillion to the national debt over the next 10 years.²

Figure 2
US Economic Growth Improving But To Remain Below 3 Percent



Source: Moody's Analytics; DOB staff estimates.

Table 1 summarizes the major provisions of the Tax Cuts and Jobs Act (TCJA) for the 2018 and 2019 tax years. Despite its heavy estimated price tag, the plan's contribution to real U.S. GDP growth for both years is likely to be quite small, and as such, represents one of many risks to the Budget Division forecast. The TCJA is not expected to substantially boost consumer spending because its benefits were made temporary to conform with congressional "Pay-As-You-Go" budget rules and

¹ For a more detailed discussion, see *FY 2018 Economic and Revenue Outlook*, p. 25.

<https://www.budget.ny.gov/pubs/executive/eBudget1718/economicRevenueOutlook/economicRevenueOutlook.pdf>.

² Based on a static analysis, the JCT estimates that the TCJA will add \$1.456 trillion to the national debt over 10 years starting from 2018, or about \$1.0 trillion after considering macroeconomic feedback effects

are largely directed toward wealthy households who have the largest marginal propensity to save. JCT's analysis indicates that only 24% of the benefit will go to households with incomes below \$100,000, estimated to represent 77% of all tax filers in 2019.

Table 1

ESTIMATED BUDGET EFFECTS OF THE "TAX CUTS AND JOBS ACT"		
Calendar Years 2018 - 2019		
[Billions of Dollars]		
Provision	2018	2019
I. Individual Tax Reform	-100.4	-218.3
- 10%, 12%, 22%, 24%, 32%, 35%, and 37% income tax rate brackets (sunset 12/31/25)	-125.5	-138.6
- Modify standard deduction (\$12,000 for singles, \$24,000 for married filing jointly, \$18,000 for HoH) (sunset 12/31/25)	-76.3	-84.7
- Repeal of deduction for personal exemptions (sunset 12/31/25)	124.4	141.3
- Allow 20 percent deduction of qualified business income and certain dividends for individuals and for gross income of agricultural or horticultural cooperatives (sunset 12/31/25)	-36.9	-50.5
- Modification of child tax credit: \$2,000 not indexed (sunset 12/31/25)	-39.1	-77.2
- Others	52.9	-8.6
II. Business Tax Reform	-161.6	-123.2
- 21 Percent Corporate Tax Rate	-135.1	-122.0
- Extension, expansion, and phase down of bonus depreciation (sunset 12/31/26)	-32.5	-36.5
- Others	6.0	35.3
III. International Tax Reform	91.9	26.2
- Deduction for dividends received by domestic corporations from certain foreign corporations	-23.7	-29.6
- Treatment of deferred foreign income upon transition to participation exemption system of taxation and mandatory inclusion at two-tier rate (8-percent rate for illiquid assets, 15.5-percent rate for liquid assets)	104.8	31.2
- Others	10.8	24.5
NET TOTAL	-170.1	-315.3

Source: Joint Committee on Taxation, table x-67-17; DOB staff estimates.

As indicated in Table 1, the combined net benefit to all sectors from the individual income tax, business tax, and international tax changes total approximately \$170 billion in 2018 and \$315 billion in 2019. Based on the JCT analysis, the direct benefit to U.S. household is estimated to total \$187 billion and \$259 billion in each year, respectively. Prior experience with tax cuts of similar magnitude indicates that households can be expected to spend between 25 percent to 40 percent of these gains, but there is good reason to believe that the actual marginal propensity to consume

(MPC) may be closer to the low end of this range. First, unlike the payroll tax holiday implemented in 2011, the benefits due to the TCJA are skewed to upper income strata. Moreover, the large numbers of baby boomers who are approaching retirement also points toward a large portion being saved. Applying an MPC of 25 percent, DOB estimates that real consumer spending could increase by \$40 billion in 2018 and \$55 billion in 2019 due to the tax cuts. After adjusting for the portion that could leak out due to imports, this additional spending could increase real GDP growth by about two tenths of a percentage point in both 2018 and 2019. There is substantial uncertainty surrounding these estimates.

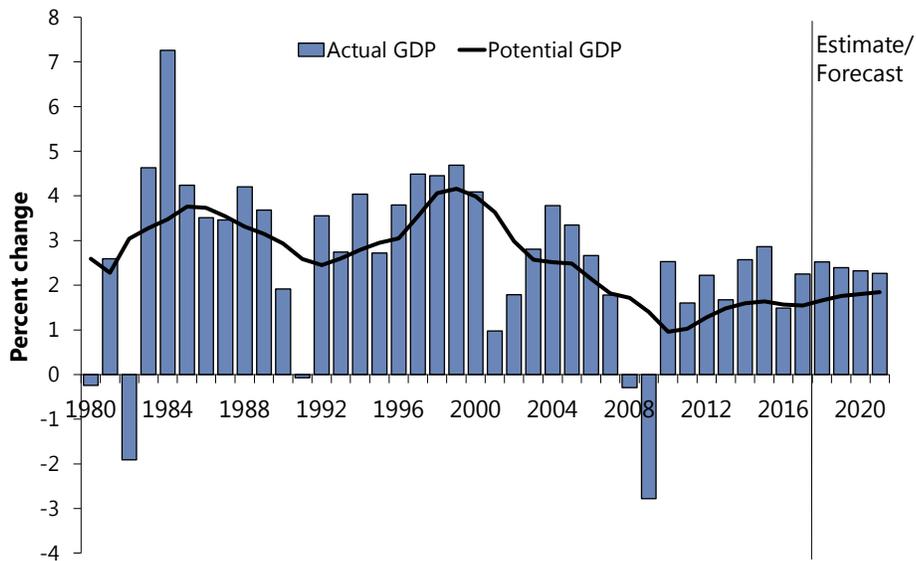
The TCJA's business tax cuts will lift after-tax earnings but not necessarily change the trajectory of investment spending. Research indicates that business investment is largely demand driven. Hence, without substantial evidence that U.S. households will significantly increase their spending plans, businesses are unlikely to risk additional capital. In addition, evidence from the 2004 repatriation holiday indicates that lower taxes are more likely to devote the additional funds to raising dividends and stock buybacks rather than to investment. Finally, with interest rates still near historic lows, there is little evidence that the corporate sector has been holding back on investment due to a limited availability of funds. In addition, the repatriation of cash held overseas in response to a temporarily lower tax rate could put upward pressure on the dollar, negatively affecting export growth, without any increased investment.

The TCJA also eliminates the interest deduction on home equity debt and mortgage debt in excess of \$750,000, and limits the combined deduction for state and local income and property taxes to \$10,000, all of which could negatively affect the housing market. Ballooning government deficits and debt could ultimately limit federal government spending, reminiscent of the early years of the recovery when the public sector was a persistent drag on national economic growth. Finally, implementing a deficit-financed tax cut when the unemployment rate is already at a 17-year low and global growth is accelerating could be a recipe for higher inflation. If deemed necessary to keep inflation expectations safely moored, the Federal Reserve could resort to additional monetary tightening, pushing interest rates higher to restrain price growth. These unintended consequences represent constraints on the contribution of the tax cuts to growth.

One unfortunate drawback of the design of the TCJA is the absence of a pledge that taxes saved or taxes collected will be used to fund investment. Although investment growth accelerated over the course of 2017, the cumulative impact of years of weak investment growth has been very slow growth in the business sector's stock of plant and equipment, which in turn reduces growth in the economy's long-run production capacity, a concept known as "potential GDP growth." The essential components of potential GDP growth are the size of the labor force, the capital stock, and productivity, as they determine the economy's long-run capacity to produce. As illustrated in Figure 3, potential GDP growth tends to fall during recessions, as discouraged workers drop out of the labor force and investment falls, and rise during expansions as workers re-enter the labor force and firms step up business spending anew. Economic growth tends to exceed potential growth during expansions, but can only do so for short periods before inflationary pressures build. The economy's growth rate must eventually converge to its potential growth rate, keeping the economy on a relatively modest growth path, with inflation well within the Federal Reserve's target range.

Figure 3 indicates that potential GDP growth fell modestly in both 2016 and 2017 owing primarily to the weakness in investment spending in 2015 and 2016, including two consecutive quarters of decline during that period. Potential GDP growth is expected to gradually rise as the expansion continues, plateauing at an annualized rate of only 2.2 percent, the weakest of the postwar period. Weak labor force growth related to retiring baby boomers and low rates of labor force participation even among prime age workers are also in part responsible for weak potential growth, developments that make investment even more critical to raising productivity and economic growth. Government policies that fail to promote investment in infrastructure, plant and equipment, and the workforce are unlikely to have more than a temporary impact on growth since rising inflation and interest rates will tend to choke off any lasting impact.

Figure 3
Real Growth in Actual and Potential U.S. GDP

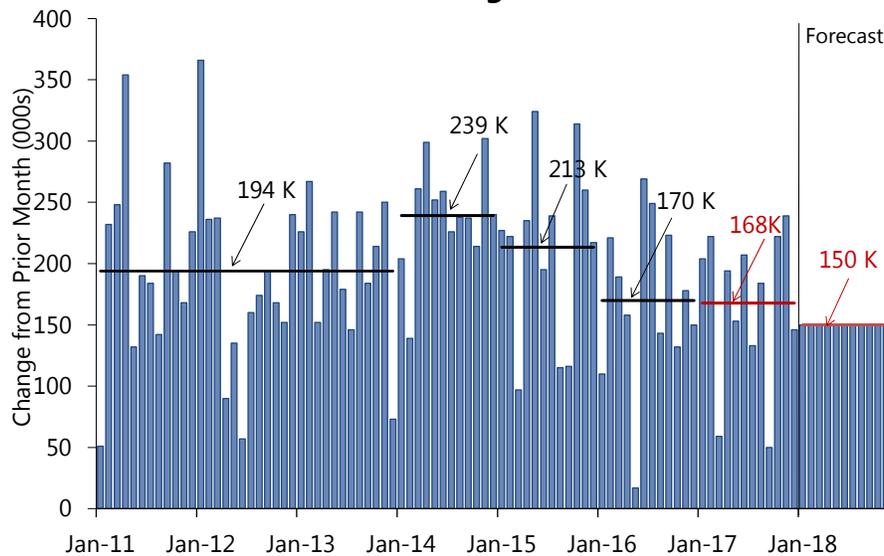


Note: Displayed values pertain to GDP growth.
Source: Moody's Analytics; Congressional Budget Office; DOB staff estimates.

The Labor Market to Ease Further

The U.S. labor market slowed, albeit barely, in 2017, eking out monthly private sector job gains of 168,000, only 2,000 below the 2016 average (see Figure 4). As the expansion continues to mature, employment is expected to slow further in 2018, with private nonagricultural job growth of 1.5 percent projected for the current year on an annual average basis, following growth of 1.9 percent and 1.7 percent for 2016 and 2017, respectively. Monthly public sector gains fell much further from an average of 17,000 jobs in 2016 to only 3,500 in 2017. Public sector job growth of 0.4 percent is projected for the current year, virtually unchanged from last year’s performance, but down substantially from its 2016 growth of 0.9 percent. On balance, total employment growth is projected to fall to 1.4 percent in 2018, following growth of 1.8 percent in 2016 and 1.5 percent in 2017. Slower job growth combined with faster output growth implies a modest improvement in productivity growth for this year.

Figure 4
Private Job Gains Slowing as Slack Diminishes



Source: Moody's Analytics; DOB staff estimates.

Employment gains were slightly lower in 2017 but continued to be widespread. Only the utilities and information sectors lost jobs in 2017, although both sectors will see upward revisions when BLS releases its benchmark revision on February 2, 2018.³ Growth will continue to be led by construction and the professional and business services industries, with education, healthcare, transportation and warehousing also showing strong growth, but all of these sector are expected to add jobs at a slower pace in 2018 (see Table 2).

³ See [CES Preliminary Benchmark Announcement](#).

Table 2
JOB GROWTH TO SLOW FURTHER IN 2018

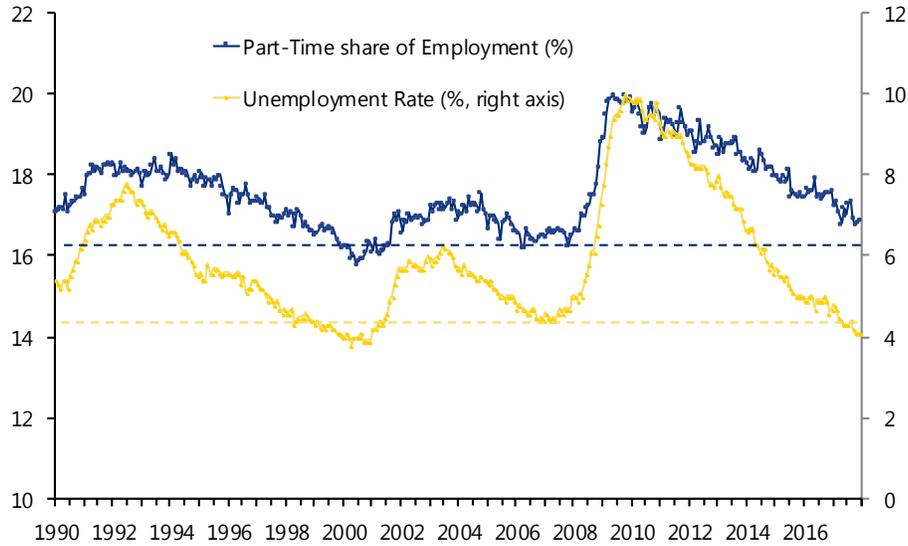
	2016	2017	2018	
	%Change	%Change	Jobs Added	% Change
Total Private	1.9	1.7	1,908	1.5
Natural Resources and Mining	(16.6)	4.5	23	3.2
Utilities	(0.0)	(0.4)	2	0.3
Construction	3.9	2.8	187	2.7
Manufacturing	0.1	0.7	55	0.4
Wholesale Trade	0.2	1.0	40	0.7
Retail Trade	1.4	0.1	92	0.6
Transportation and Warehousing	2.4	1.8	94	1.9
Information	0.8	(1.6)	(17)	(0.6)
Finance and Insurance	1.8	1.7	72	1.1
Real Estate, Rental, and Leasing	2.6	2.7	36	1.6
Professional and Technical Services	3.2	3.0	228	2.5
Management, Admin. Support, and Waste Services	2.1	2.9	283	2.4
Education Services	2.6	2.3	78	2.1
Health Care and Social Assistance Services	2.7	2.2	364	1.9
Leisure, Hospitality, and Other Services	2.5	1.8	377	1.7
Government	0.9	0.4	87	0.4
Total	1.8	1.5	1,995	1.4

Source: Moody's Analytics; DOB staff estimates.

With continued, albeit slower growth in employment, the Budget Division projects the national unemployment rate to continue its downward path from an average of 4.4 percent for 2017 to 4.1 percent in 2018, implying very little change from its current level. The rate of decline in the unemployment rate is markedly diminishing as it reaches or falls below the vicinity of the non-accelerating inflation rate of unemployment, or NAIRU, i.e., the unemployment rate below which inflationary pressures begin to build. However, the precise value of the NAIRU remains uncertain as policymakers continue to debate just how much slack remains in the labor market after seven years of substantial job growth. The Budget Division estimate for this year's annual average unemployment rate is distinctly below the prerecession low of 4.4 percent.

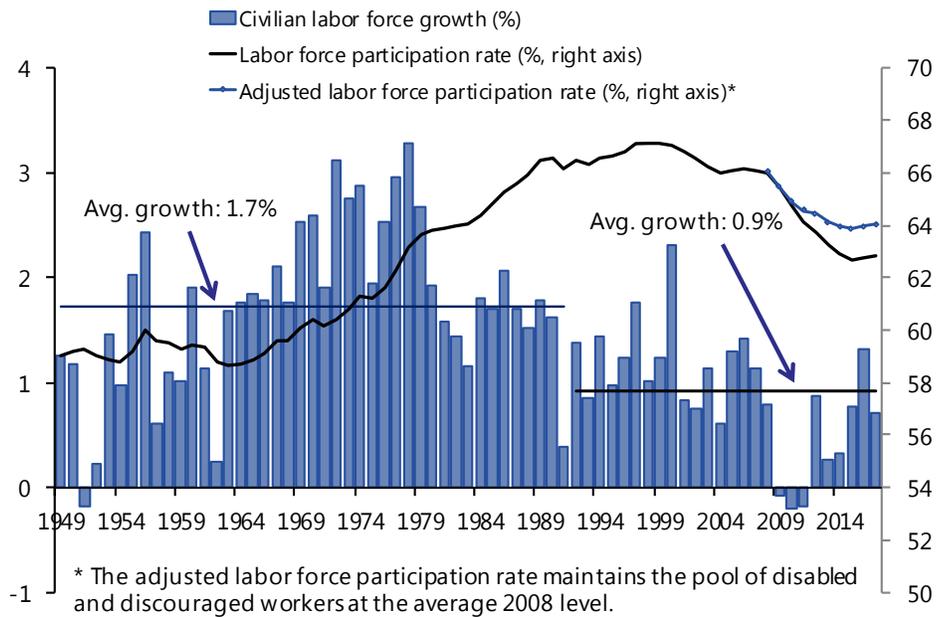
Despite the creation of 17.6 million jobs since early 2010, the current expansion boasts the second weakest labor market recovery of the postwar era, with only the 2002-07 expansion exhibiting slower growth. Thus, the labor market may still be making up for lost ground. Some slack remains in the form of both unemployment and underemployment. While the overall unemployment rate is low, the long-term unemployed (27 weeks or more) and those who are not in the labor force but would like to have a job are both still above prerecession levels. Another source of underemployment is part-time work. As a share of employment, this measure has not yet declined to pre-recession lows (see Figure 5). Included in this category may be "gig" workers, who work for themselves on tasks as they can find them. This type of work has blossomed in recent years as the Internet and mobile apps have made it easier for the worker and customer to connect. Approximately 20 percent of part-time workers want to be working full-time, and would choose to change their labor market status from self-employed to payroll employee. That transformation would add to payroll employment but leave the labor force and the unemployment rate unchanged.

Figure 5
The Share of Part-Time Work Remains Elevated



Note: Dotted lines denote pre-recession lows.
Source: Moody's Analytics

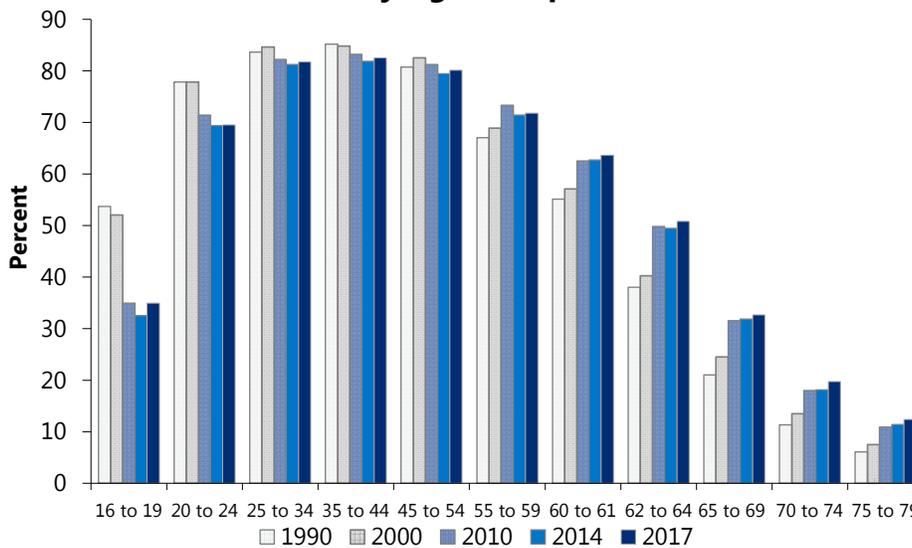
Figure 6
National Labor Force Trends



Source: Moody's Analytics.

Labor force data suggest that there are still many individuals who are not in the labor force but wish to be, as well as workers already in the labor force but wish to work more. The labor force participation rate (LFPR) is defined as the percentage of the population 16 and older who either are employed or seeking employment. As illustrated in Figure 6, the LFPR fell precipitously between the start of the Great Recession and the end of 2015, falling 3.7 percentage points from its pre-recession peak in 2007, but has remained virtually unchanged since then, ending 2017 at 62.7 percent. This pattern is due to both secular and cyclical factors. Understanding these factors is critical to assessing the degree of slack that exists in the labor market and, in turn, how much more payroll employment can rise before the inflation rate can be expected to accelerate.

Figure 7
Labor Force Participation Rates
by Age Group



Source: U.S. Bureau of Labor Statistics.

Secular factors, such as the aging of the baby boomer generation, have also contributed to the decline in the LFPR, and many of these older workers who left the labor force are unlikely to return no matter how strong the economy. As demonstrated in Figure 7, labor force participation rates tend to fall substantially for older workers. The participation rate for those aged 55 to 59 was above 70 percent in 2017, but only slightly above 19 percent among those 65 and over. Thus, as the very large baby boom generation moves through those age cohorts with declining labor force participation rates, overall labor force participation rates will fall, all else constant. The CBO and the Council of Economic Advisors (CEA) both conclude in their research that about half of the decline in labor force participation after the fourth quarter of 2007 can be attributed to the aging of the population.⁴ Baby boomers will continue to reach retirement age in elevated numbers until 2029;

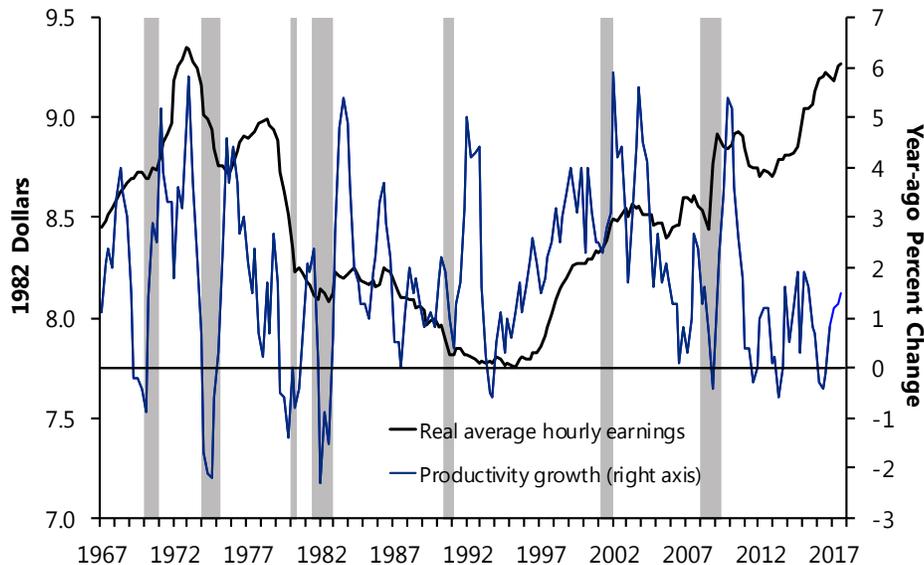
⁴ Congressional Budget Office “The Slow Recovery of the Labor Market”, Congress of the United States, February 2014; Council of Economic Advisers, “The Labor Force Participation Rate Since 2007: Causes and Policy Implications.” July 2014.

correspondingly, the decline in labor force participation attributable to aging will continue, potentially at a more rapid pace in the coming years.

Some additional labor market trends are also illuminated in Figure 7. Over the decades, the participation rates of younger cohorts have declined as more young people attend school, and participation rates among the two oldest cohorts have increased as better health and higher life expectancy increased both the ability and the need for a longer work life. Participation rates among those aged 55 to 59 has continued to fall in recent years, most likely because this group found it difficult to find a job during and following the recession. However, participation rates among all three prime working age groups (ages 25–54) were also lower in 2017 than they were during the first full year of the expansion in 2010, further evidence of the corrosive impact that weak economic growth has had on the labor market. On a more optimistic note, the participation rate for each of these groups rose, albeit slightly, between 2014 and 2017, perhaps signaling that stronger economic growth has indeed drawn more prime-age workers into the labor force. But the continuation of that process will likely be slow, as the stigma associated with long-term unemployment, together with the erosion of job skills over time, can make it difficult for the long-term unemployed to find new work, leading many to drop out of the labor force permanently.

Another development associated with the decline in labor force participation among prime age workers was an increase in the number of working-age people in the U.S. who are not in the labor force for reasons of disability. Since 2010 more than three million working-age people have left the labor force due to disability, representing 2.0 percent of the labor force, although the number has declined several hundred thousand in the last several months. BLS data indicate that the combined total of discouraged workers and workers not in the labor force because of disability has grown 14.0 percent since the recession's first year (2008). If that total had remained at its 2008 level, the labor force participation rate would have been an estimated 1.2 percentage points higher in 2017 (see Figure 6).

Figure 8
Productivity Growth and Real Private Average Hourly Earnings



Note: Shaded areas represent U.S. recessions.
Source: Moody's Analytics.

Average hourly earnings in the private sector has risen through much of the expansion. Growth accelerated during 2015 and 2016, but plateaued near 2.5 percent in 2017. While growth has been positive in real terms, it has been more subdued than what might be expected at this stage of the expansion. Historically, wages also align with productivity growth. Until very recently, productivity growth has remained very weak throughout the slow but steady expansion, mustering only 0.7 percent growth on average since the first quarter of 2011. This is due in part to the weak rates of output and investment growth that have characterized this expansion. However, there may be some downward pressures on average hour earnings and average wages that obscure a more robust growth in hourly earnings for many workers. One study posits that real wages grow little or even decline a bit for white male workers once they reach their mid- to late 40's.⁵ Another study suggests that the growth of the average wage is depressed by the flows in and out of the labor force. As aging baby boomers retire, there is an outflow of high wage earners from the workforce, simultaneous with an inflow of younger workers who, on average, earn less than those retiring. This flow has been larger than average as the expansion draws in a larger than average number of unemployed and new entrants.⁶ The Budget Division projects nominal average wage growth to accelerate in 2018 to 2.1 percent from 1.3 percent in 2017. Total wage growth is also projected to increase to 3.7 percent, up from 3.1 percent growth in 2017. Total personal income growth of 3.9 percent is projected for 2018, up from 3.0 percent in 2017.

⁵ Robert Rich, Joseph Tracy and Ellen Fu, "U.S. Real Wage Growth: Aging's Effect on the Average," Federal Reserve Bank of New York, *Liberty Street Economics* (blog), September 28, 2016, <http://liberystreeteconomics.newyorkfed.org/2016/09/us-real-wage-growth-slowing-down-with-age.html>.

⁶ Mary C. Daly, Bart Hobijn and Joseph Pedtke, "The Good News on Wage Growth", Federal Reserve Bank of San Francisco (SF Fed Blog), August 14, 2017, <https://www.frbsf.org/our-district/about/sf-fed-blog/wage-growth-good-news>.

Persistently low productivity growth has presented a puzzle for much of the expansion. Even within the manufacturing sector, where production is highly automated, productivity growth remains unusually flat. Some research points to a secular decline owing to the notion that transformational advances like those of the late 19th and early 20th centuries that spawned decades of high productivity growth are unlikely to be repeated going forward. Productivity growth, defined as output per worker, can be decomposed into its two component parts, output growth and employment growth. If the former exceeds the latter, then productivity growth will rise, if job growth exceeds output growth, then productivity growth will fall as it did early in the current expansion. If productivity tends to be supply-side driven, then employment will rise in advance of a rise in output and productivity will fall, or if workers are replaced with robots or artificial intelligence, employment will fall in advance of (or possibly simultaneously with) output growth and productivity will rise. But if productivity tends to be demand side driven, then output growth will tend to lead employment growth, causing productivity to rise. Statistical test results indicate that output growth does tend to lead job growth, suggesting that it may be the low growth environment itself that is restraining growth in productivity.⁷

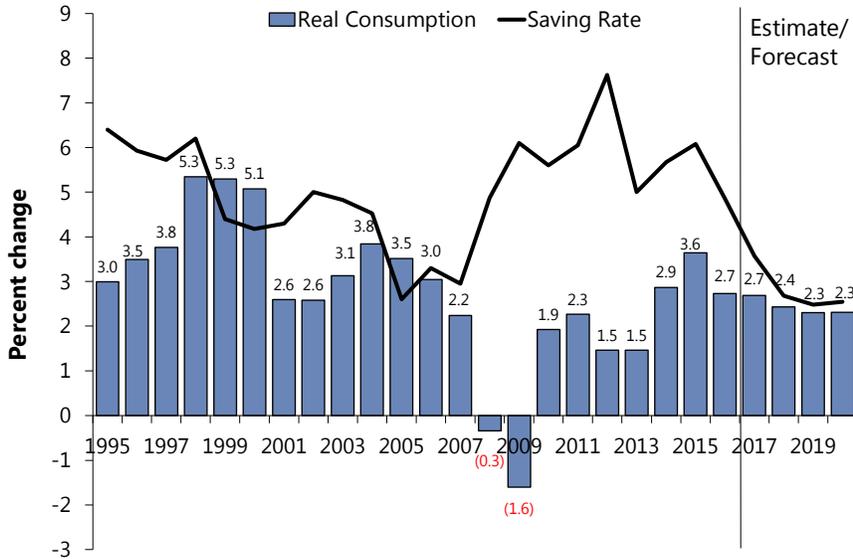
Household Spending Remains Robust

Coming into 2018, household spending remains the engine of US economic growth, supported by robust gains in the labor market, record high asset values, and the improved health of the household balance sheet. Although Hurricanes Harvey and Irma temporarily disrupted economic activity in a large swath of nation, the recovery from the storms appears to be proceeding at a brisk pace. Indeed, light vehicle sales saw two of its strongest months of the expansion in September and October, as Gulf Coast residents wasted no time replacing autos destroyed by intense and prolonged rains and flooding. Auto sales have since fallen back but remain above their summer 2017 levels, while holiday retail sales appear to have been strong. On balance, the Budget Division estimates real consumption grew 2.7 percent in 2017, unchanged from 2016, but well above the 1.8 percent average growth that characterized the first four full years of the expansion.

Going forward, however, household spending is expected to decelerate toward its long-term trend as employment growth slows and households seek to rebuild their savings, particularly those approaching retirement age. Indeed, the saving rate has exhibited a downward trend, falling from over 6 percent in 2015 to 3.6 percent in 2017 (see Figure 9). While this trend likely represents pent-up demand from the early phase of the recovery, it is expected to be short-lived. The Budget Division projects real growth in consumption spending of 2.4 percent for 2018, with growth expected to remain below 2.5 percent over the rest of the forecast horizon as overall economic growth converges to the economy's long-run potential.

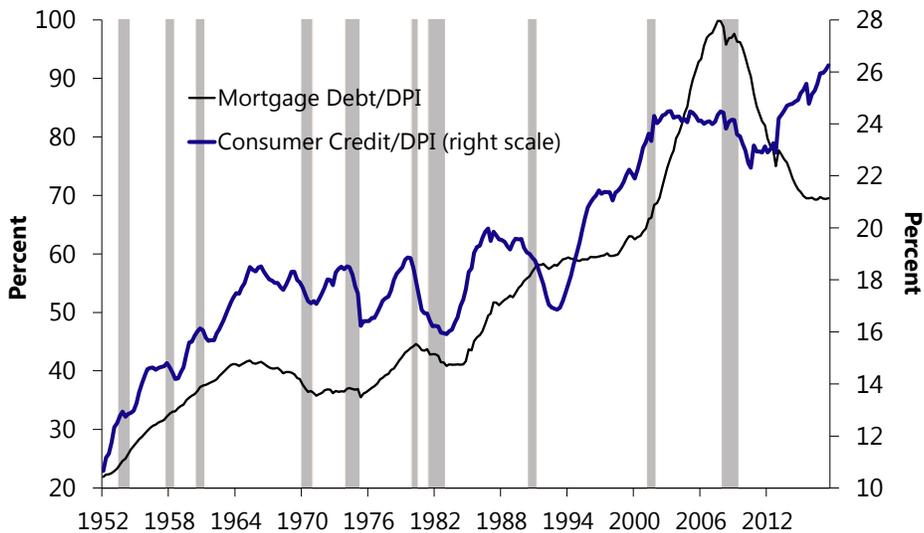
⁷ A Granger causality test was performed using real U.S. GDP and private sector employment over the period from 1990Q1 through 2016Q3. The null hypothesis that employment growth does not Granger cause output growth could not be rejected at the 5 percent level; the null hypothesis that output growth does not Granger cause employment growth is rejected at less than the 1 percent level, with an optimal lag length of six quarters.

Figure 9
Household Spending and Saving Rate



Note: Displayed values pertain to real consumption growth.
Source: Moody's Analytics; DOB staff estimates.

Figure 10
Home Mortgage Debt and Consumer Credit Relative to Disposable Income



Note: Shaded areas represent U.S. recessions.
Source: Moody's Analytics.

With the collapse of the housing bubble well in the rearview mirror, mortgage debt as a share of disposable personal income has finally bottomed out (see Figure 10). However, other forms of consumer debt have continued to rise, including auto debt. For this reason, it is likely that a good portion of the looming tax cut associated with TCJA will be either saved or used to pay down debt.

Despite the recent decline in the saving rate, there has been a substantial improvement in household balance sheets over the course of the expansion based on Federal Reserve aggregate household net worth data. By the third quarter of 2017, households had gained \$41.3 trillion in net worth, or \$28.9 trillion above the previous pre-recession peak. But this buildup was almost entirely based on the recovery of financial wealth. Financial assets bottomed out in the first quarter of 2009 and by the third quarter of 2011 exceeded their 2007 prior peak. Financial asset wealth had risen approximately \$25.6 trillion above its prerecession peak since then. In contrast, real estate wealth declined continuously through the second quarter of 2011 and did not recover the \$6.8 trillion lost between 2006 and 2011 until the fourth quarter of 2016. As of the third quarter of 2017, real estate wealth had only risen \$1.3 trillion above its prerecession peak since.

The aggregate data may be telling only part of the story. Since financial wealth is so highly concentrated, meaningful heterogeneity across households is likely being lost. Table 2 compares the median value of asset holdings for various strata of households that have asset holdings, sorted by income. In 2007, just as the financial crisis was brewing, households in the top income decile had 238 times more in financial asset wealth than households in the bottom quintile. By 2016, that ratio had jumped to 909. The data in Table 2, confirm that the spectacular growth in household net worth referenced above was highly concentrated among the wealthiest households. In contrast, nonfinancial wealth was much less concentrated and wealth derived from the value of a household's primary residence is even less concentrated.

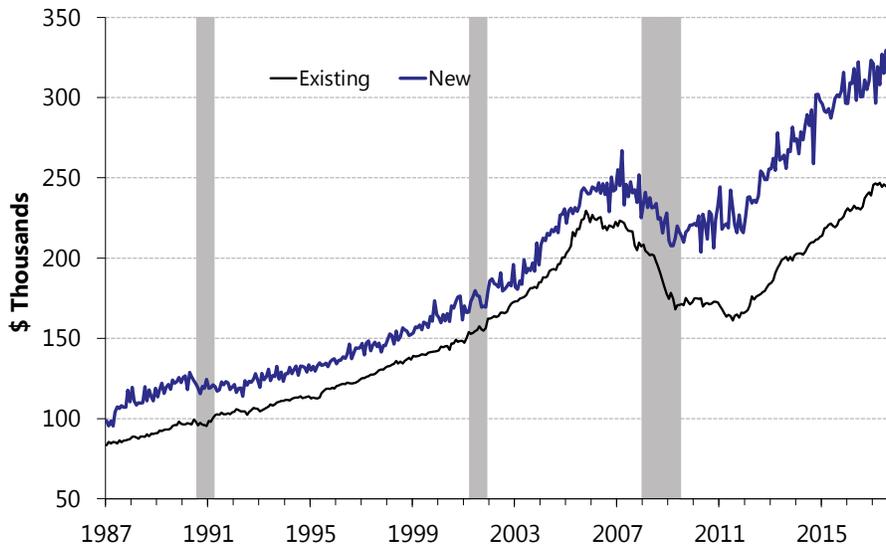
Table 3

**MEDIAN VALUES FOR FAMILIES WITH ASSET HOLDINGS
BY PERCENTILE OF INCOME
(Dollars in Thousands)**

Asset type	<u>Bottom Quintile</u>	<u>20-39.9</u>	<u>40-59.9</u>	<u>60-79.9</u>	<u>80-89.9</u>	<u>Top Decile</u>	<u>Ratio of top decile to bottom quintile</u>			
							<u>2016</u>	<u>2013</u>	<u>2010</u>	<u>2007</u>
Financial assets	\$1	\$5	\$19	\$63	\$179	\$818	909	567	501	238
Nonfinancial assets	\$23	\$66	\$127	\$210	\$337	\$896	39	31	32	20
Primary residence	\$86	\$120	\$150	\$190	\$275	\$550	6	6	5	5

Source: Federal Reserve Board, 2007, 2010, 2013, 2016 Survey of Consumer Finances Chartbook .

Figure 11
U.S. Median Home Prices Rebounding

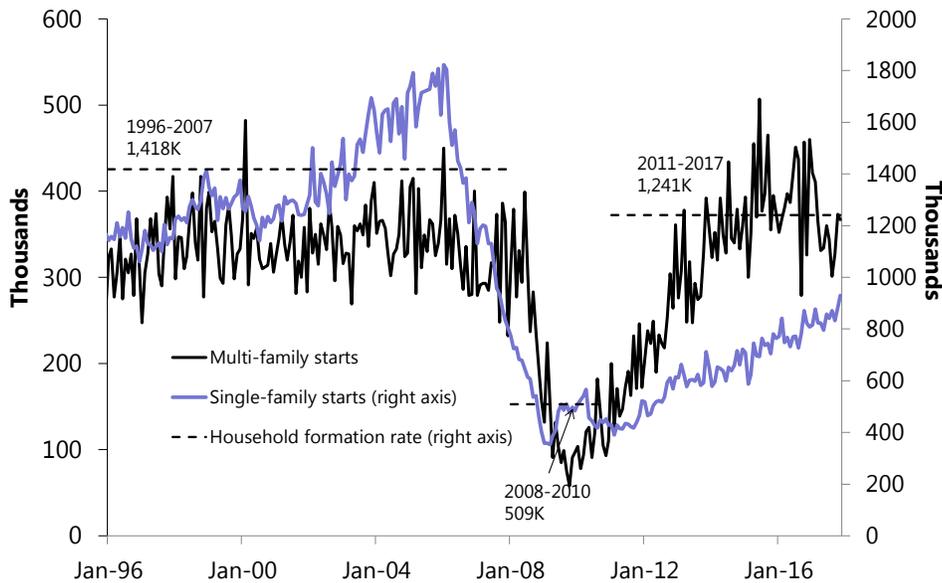


Note: Shaded areas represent U.S. recessions.
Source: Moody's Analytics.

For low income households, the home is not only the most important asset, but in many cases the only asset a family may own. Thus, the continued recovery of the housing market is critical to maintaining the momentum of the economic expansion. However, residential investment saw real declines during four of the most recent eight quarters for which data are available. Existing home sales seem to be constrained by the relatively slow recovery of existing home prices (see Figure 11), while new housing starts are constrained by a shortage of skilled construction workers. Unusually warm winter weather appears to have pulled new residential construction forward into the first quarter of 2017, which was immediately followed by two consecutive quarters of decline. Real residential investment growth of close to 10 percent is expected for the fourth quarter, due in part to the rebuilding and repair of homes damaged or destroyed by Hurricanes Harvey and Irma, with growth falling closer to 7 percent in the first quarter of 2018, although weather effects create downside risk to that estimate.

The Budget Division projects growth in real private residential investment of 4.7 percent for 2018, following 1.6 percent growth in 2017. As employment and income prospects improve, household formation is expected to remain well above the recession lows, fueling the demand for new home construction. Consistent with a rebound from Hurricanes Harvey and Irma, the Budget Division is projecting quarterly growth in real residential fixed investment of above 6.0 percent through the end of 2018. This growth is from extremely low levels of investment. At the height of the housing boom in 2005, real private residential construction represented 6.1 percent of total real GDP. This share is only 3.5 percent based on the most recent four quarters of available data through 2017Q3. Given the delay with which the housing market has joined the recovery, this critical market can be expected to continue to provide future stimulus to the expansion as it matures, creating upside risk to the longer-term forecast.

Figure 12
Household Formation Recovering But Multi-families Still Outpacing Single-family Construction



Source: Moody's Analytics.

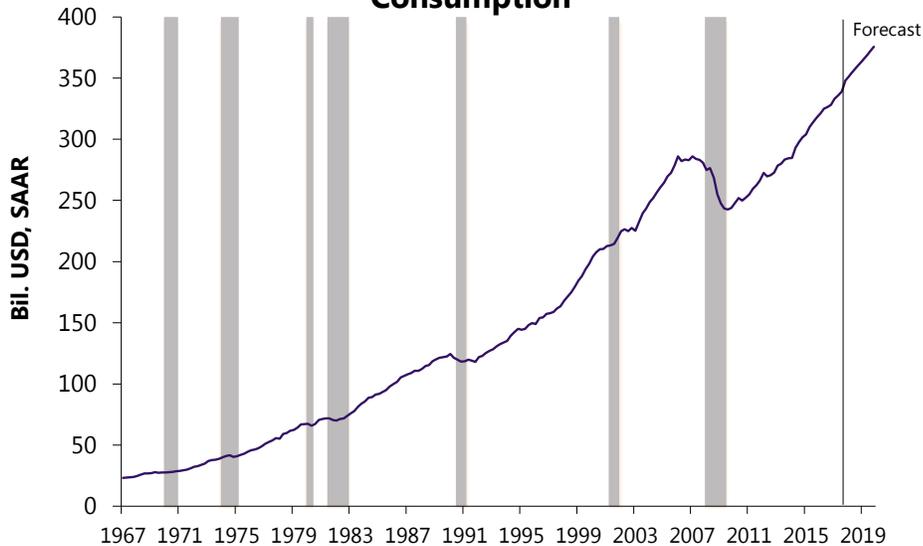
A key trend supporting continued strength in residential housing is the rise in the household formation rate since the depths of the recession, illustrated in Figure 12. The average rate of household formation for the period from 2011 through 2017, the most recent year for which data is available, is well above the recession period. While much of the housing bubble originated from a building boom in single-family homes, the collapse and the ensuing tight market for mortgage credit resulted in a significant decrease in both single-family and multi-family starts. The recovery, however, has been substantially stronger for multi-family housing which has been stabilized at the pre-recession level. In contrast, single-family starts remain more than 50 percent below their pre-recession peak.

The weak growth in single-family housing starts is consistent with an average household formation rate that is well below its pre-recession level. Data suggests that Millennials are less likely than previous generations of young adults to be married and to have a child. An analysis of Current Population Survey (CPS) data finds that only 42 percent of Millennial 25- to 35-year-olds were married and living with their spouse in 2016, while 82 percent of 25- to 35-year-olds were married and living with a spouse in 1963.⁸ Moreover, 56 percent of Millennial 25- to 35-year-olds did not have a child of their own living with them in 2016, while fewer than half of Gen Xers and Boomers were childless at a similar stage of life.

⁸ <http://www.pewresearch.org/fact-tank/2017/02/13/americans-are-moving-at-historically-low-rates-in-part-because-millennials-are-staying-put/>

Figure 13

Furnishings and Durable Household Equipment Consumption

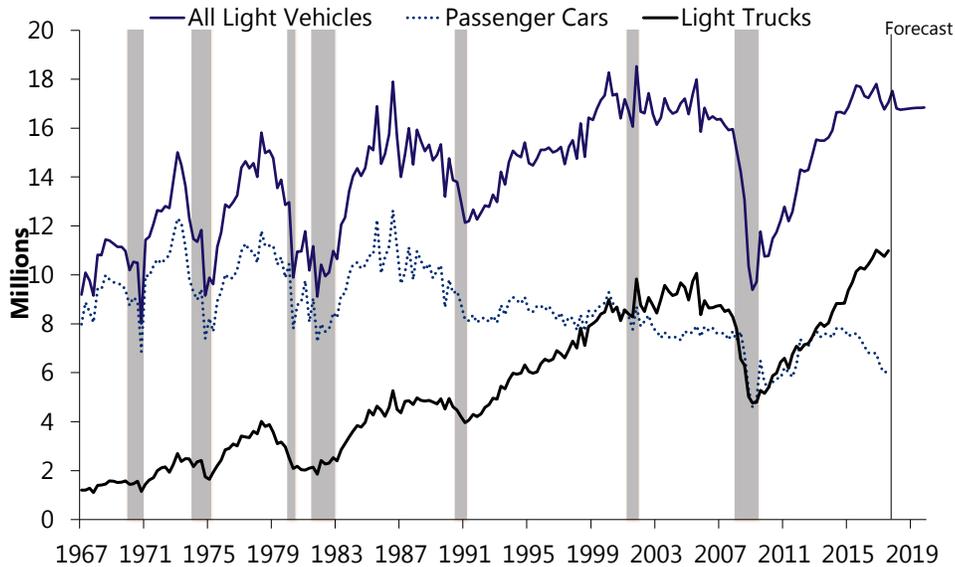


Note: Shaded areas represent U.S. recessions.
Source: Moody's Analytics; DOB staff estimates.

The reason behind these apparent life-style changes is more uncertain, although financial constraints are likely playing a significant part. Compared with the credit conditions faced by Gen X young adults a generation before, lending standards are much tighter, making it more difficult for Millennial 25- to 35-year-olds to get a mortgage. Similarly, student debt may be deterring young adults from home ownership too. Whether by choice or by circumstance, Millennials appear to have shifted their preferences away from home ownership toward renting. CPS data indicate that only 37 percent of Millennials lived in owner-occupied housing not owned by their parents in 2016, whereas 56 percent of early Baby Boomer 25- to 35-year-olds lived in owner-occupied housing in 1981. Therefore, consumer spending on durable goods is likely to be restrained by such a preference shift because homeowners tend to spend more on home improvement and other complementary goods, such as furniture, appliances, and autos than do renters. Figure 13 shows the steep decline in nominal consumption of furnishings and durable household equipment following the housing market crisis. This spending failed to achieve its pre-crisis level until the second quarter of 2014, a testament to the duration of the housing market's long slow healing process.

Figure 14 shows the precipitous decline in passenger car and light truck sales that followed on the heels of the housing market collapse, two years before the technical start of the recession. As a result, the average age of light vehicles on the road rose from 9.5 years in 2005 to 10.8 years in 2011, fueling the strong upward trend that started shortly after the recovery began and remains ongoing. Light vehicle sales were thought to have peaked at the end of 2016, but the recovery from the last summer's storms appears to have breathed new life into this sector at the end of last year, possibly pulling sales forward from 2018. Thus, the outlook for auto sales remains robust though sales are expected gradually slow going forward.

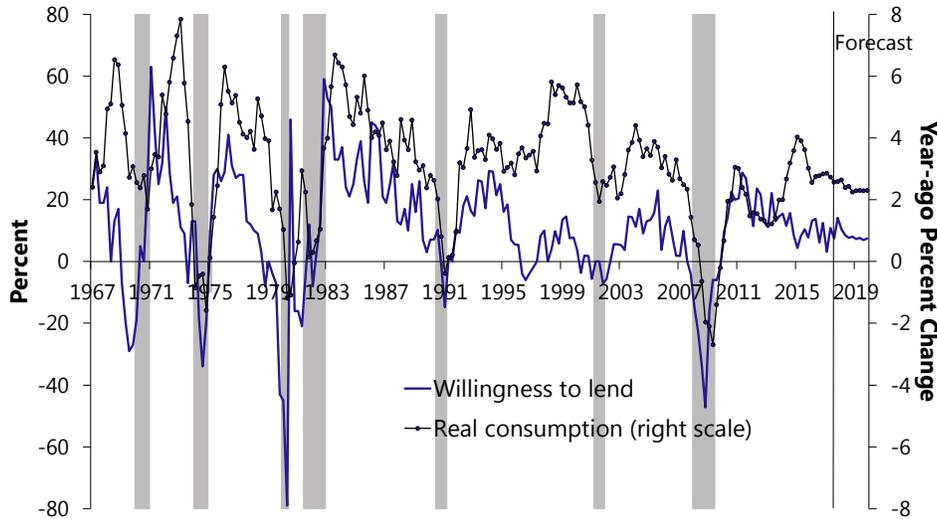
Figure 14
Passenger Car and Light Truck Sales



Note: Shaded areas represent U.S. recessions.
Source: Moody's Analytics; DOB staff estimates.

As credit markets are the life-blood of any economy, their health is critical to the advance of the current expansion. Figure 15 compares real consumption growth to bank willingness to lend to consumers, as measured by the Federal Reserve Board's Senior Loan Officer Survey. Credit market conditions are improving but are still tight for consumers compared to earlier expansions. Banks' desire to lend to households improved over the past six years, but the pace has slowed significantly since 2015 and we expect this to continue. The two most important determinants of banks' willingness to extend consumer credit are short-term interbank borrowing costs, which are expected to increase now that the Federal Reserve has started to normalize the federal funds rate, and default risk, which tends to be inversely related to economic growth. Higher interbank borrowing costs could be especially detrimental to the supply of mortgage lending if long-term rates do not rise and the yield curve should narrow. In contrast, default rates are expected to continue falling. On balance, credit conditions are expected to be looser in 2018, but the rate of improvement is expected to slow.

Figure 15
Improvement in Credit Conditions Slowing



Note: Senior Loan Officers Survey data measures net percentage of banks reporting increased willingness to lend to consumers; shaded areas represent US recessions.
Source: Moody's Analytics; DOB staff estimates.

With all of these supports in place, robust growth in household spending can be expected to continue through 2018, though at a slower pace than in 2017. Real spending for services and nondurable goods is projected to rise 2.1 percent in 2018, following growth of 2.2 percent for 2017. Real growth of 5.4 percent is projected for the more cyclical durable goods component for 2018, following a 6.4 percent increase in 2017. However, there are both upside and downside risks to the forecast. On the upside, the TCJA should give disposable income a temporary boost next year. Although most of the benefits from the tax cuts will flow to high income earners, who generally have a low propensity to consume, the rise in disposable income may still provide a small boost to real consumption this year and next.

On the downside, mortgage rates have been rising since the Federal Reserve Bank started to shrink its balance sheet at the beginning of October, and the 30-year mortgage rate is close to 4 percent again. It is too early to tell if the Federal Reserve's continued rate hike and the recent rise in long-term rates are having a negative impact on home sales. As prospective home buyers anticipate even higher rates in the future, home sales may get pulled forward in order to take advantage of what are still historically low rates. But higher mortgage rates will ultimately hurt affordability and limit housing price increases and real estate transactions going forward. Moreover, the TCJA reduces the \$1 million limit for the home-mortgage-interest deduction to \$750,000 and caps the combined state income tax and local property tax deduction at \$10,000, both of which may have negative impact on the housing markets, especially in those high-price and high-tax states.

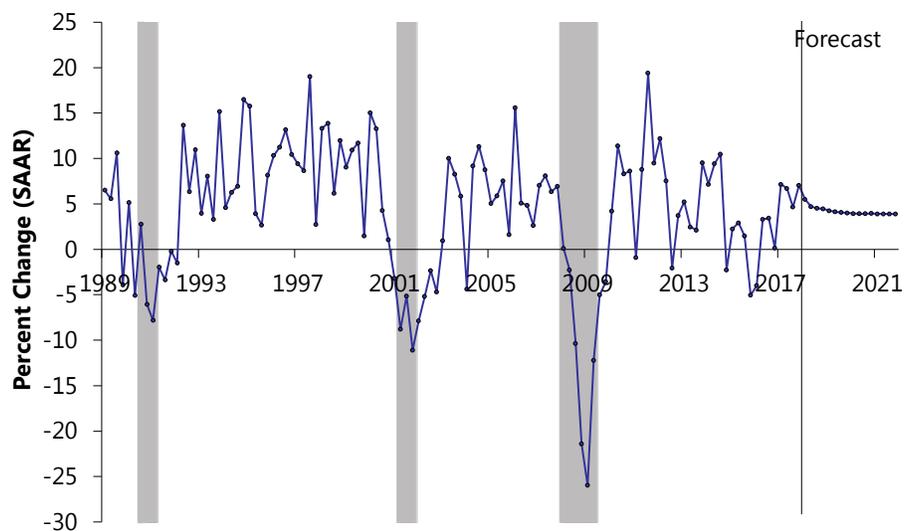
In addition, crude oil prices rose to \$60 per barrel at the end of 2017 and are still on the rise. Although higher energy costs enhance the profitability of the nation's energy producing sector, they may restrain consumers and businesses spending on other goods and services, particularly on products that are complementary to energy use, such as automobiles, transportation services, and

leisure activity. Going forward, the Budget Division expects oil prices to stabilize around \$60 per barrel. However, any development that substantially reduces world oil supplies, including further resolve on the part of oil producing nations to prop up prices, could result in a surge of oil prices and crimp household spending.

Business Fixed Investment on the Rise

Nonresidential fixed investment – that is, business spending on equipment, intellectual property products (IPP) and structures that, generally, are used in the production process of goods and services – is expected to increase at a faster pace in 2018 before settling back into a slower but steady pace in the years beyond. Total real nonresidential fixed investment is expected by the Budget Division to increase 5.4 percent in 2018 after growth of 4.7 percent in 2017, declining to increases of 4.3 percent and 4.0 percent in 2019 and 2020, respectively. Equipment investment growth is expected to accelerate to 7.4 percent in 2018, after growing 4.8 percent in 2017, while real investment in structures is expected to rise 1.9 percent, down from 5.2 percent growth in 2017. The Budget Division expects real IPP investment growth to increase to 5.2 percent in 2018 following a 4.3 percent gain in 2017.

Figure 16
Real Nonresidential Fixed Investment Remains Subdued



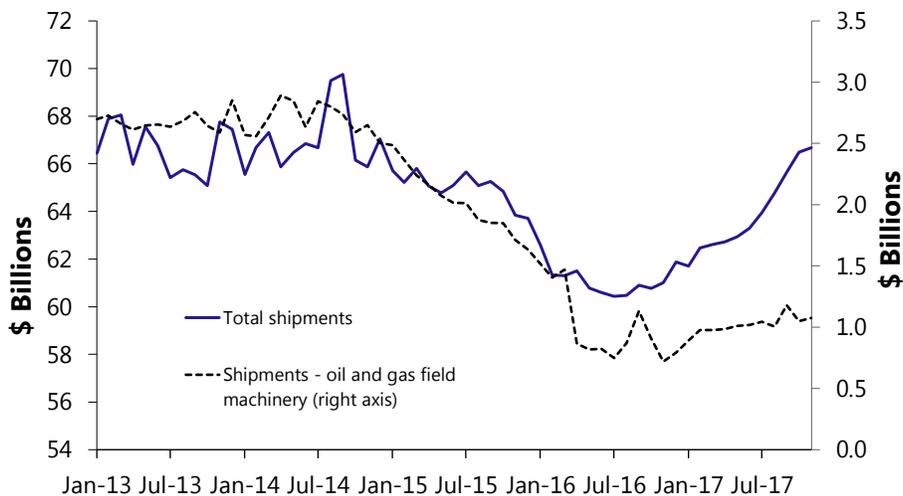
Source: Moody's Analytics; DOB staff estimates.

Real business fixed investment has been on an upswing since early 2017 (see Figure 16), consistent with steady growth in household spending, but perhaps more importantly, improved financial conditions for the energy producing sector in the form of higher prices, and improving global growth. The growth in investment spending has been unequivocally led by equipment investment, which came back to life in 2017 after falling 3.4 percent in 2016. As indicated in Figure 17, the impact of energy sector developments on investment cannot be overstated. The decline in shipments of

nondefense capital goods excluding aircraft, a good proxy for business equipment spending, starting in the middle of 2014 was clearly led by oil and gas field machinery, which fell 75 percent between April 2014 and November 2016. However, the upturn in total shipments has outstripped the improvement in energy related equipment, pointing to more favorable developments outside the energy sector as well. Real private investment in intellectual property products (software; research and development; as well as entertainment, literary or artistic originals) also held its own in 2017, after increasing 6.3 percent in 2016, but IPP growth has tended to be more stable than either equipment or structures.

Figure 17

Nondefense Capital Goods Excluding Aircraft: Turning Up?



Source: Moody's Analytics.

In the wake of the Great Recession, real fixed business investment in structures, the smallest of the three major business investment types, has also been the weakest and the most volatile. As of the third quarter of 2017, the most recent quarter for which data are available, real business investment in structures was still 14.7 percent below the series' most recent peak, attained in the second quarter of 2008. A spurt of 14.8 percent growth in 2017's first quarter faded to 7.0 percent in Q2 before falling 7.0 percent in Q3. The recent behavior of structures investment in part likely reflects a certain amount of "payback" for overbuilding associated with the real estate boom just prior to the downturn. A Federal Reserve Bank of Cleveland study estimates that overbuilding of nonresidential structures accelerated in the first half of the 2000s and began to decline just before the start of the recession.⁹ The authors estimate that by 2008 the overhang in retail trade, defined as the stock of

⁹ The authors obtain an estimate of the overhang of structures as the percentage difference between the actual stock of structures and their optimal level. The optimum stock of structures is based on the idea that a firm should construct a new building only if it expects that the cost of doing so will be smaller than the discounted value-added the building will be likely to generate in the future. See Filippo Occhino and Margaret Jacobson, "The Overhang of Structures before and since the Great Recession," *Economic Commentary*, 2014-04, Federal Reserve Bank of Cleveland. Available at

buildings in excess of what economic conditions and growth prospects call for, was close to 50 percent and about 25 percent in manufacturing. While they also show that these overhangs tended to fall during and after the Great Recession, the high pre-recession levels of investment in structures are not likely to reappear anytime soon, given their relatively long lives, which the authors estimate at 24 years on average.

Another part of the explanation for the recent weakness in business structures investment has to do with the shale boom in the U.S. and the earlier bust in global oil prices, since the mining exploration, shafts, and wells category is a component of real structures investment. Mining exploration, shafts, and wells was 19.2 percent of structures investment in 2007, but had swelled to nearly 30 percent share by 2011. In that year investment in mining exploration, shafts and wells jumped 26.4 percent while investment in other types of business structures either stalled or fell – real private investment in structures edged up just 2.3 percent overall. But in 2016, investment in the mining segment fell 43.2 percent, with its share falling to 12.2 percent, due to weakness in global oil prices. Following a shallow decline estimated for the fourth quarter, structures investment is expected to experience average quarterly growth of about 4 percent for 2018 as energy prices stabilize just below \$60 per barrel, as measured by the refiners' acquisition price for imported oil.

The extent to which nonresidential fixed investment will be affected by the Federal Tax Cuts and Jobs Act (TCJA) remains to be seen. While proponents of the legislation argue that it will spur investment, past experience indicates that the response of investment to tax cuts is uncertain at best. The Budget Division forecast does not include any effects on business fixed investment from this new legislation, in part because of the uncertainty conferred by historical experience. For example, the Tax Reform Act of 1986 lowered the corporate tax rate from 46 percent to 34 percent, but real business fixed investment increased just 0.1 percent in 1987, following growth of 16.7 percent in 1984, 6.6 percent in 1985, and a 1.7 percent decline in 1986. Investment subsequently grew at the moderate pace of 5.0 percent in 1988 and 5.7 percent in 1989.

At one extreme of the debate on the investment incentives in the TCJA is the work of Benzell, Kotlikoff, and Lagarda, whose paper argues that U.S. GDP would rise between 3 percent and 5 percent, while the capital stock would increase by between 12 percent and 20 percent depending on the year in question.¹⁰ An analysis done by the Tax Policy Center (TPC), a research center under the aegis of the Urban Institute and the Brookings Institution, says that while the TCJA does contain incentives for investment, its effects on federal deficits through 2025 would counteract them by producing higher interest rates.¹¹ Both studies agree that the top 1 percent of taxpayers are the major beneficiaries of the policy.

<https://www.clevelandfed.org/Newsroom%20and%20Events/Publications/Economic%20Commentary/2014/The%20Overhang%20of%20Structures%20before%20and%20since%20the%20Great%20Recession.aspx>

¹⁰ The authors employ a 90-generation overlapping generations model known as the Global Gaidar Model. See Seth G. Benzell, Laurence J. Kotlikoff and Guillermo Lagarda, "Simulating The Republican 'Unified Framework' Tax Plan," October 17, 2017, p 1. Available at https://kotlikoff.net/sites/default/files/Simulating%20the%20Unified%20Framework%20Tax%20Reform%20Plan_0.pdf. Accessed January 9, 2018.

¹¹ Benjamin R. Page, Joseph Rosenberg, James R. Nunns, Jeffrey Rohaly and Daniel Berger, "Macroeconomic Analysis of the Tax Cuts and Jobs Act," December 20, 2017, p. 2. Available at <http://www.taxpolicycenter.org/publications/macroeconomic-analysis-tax-cuts-and-jobs-act/full>. Accessed January 9, 2018.

Research shows that the causal link between real output growth and real investment growth goes in the direction of the former to the latter, and not the other way around. This link was demonstrated empirically in recent research at the Federal Reserve Bank of St. Louis based on use of the Granger causality test.¹² Generally, one variable is said to “Granger cause” another variable if past values of the first variable are useful in predicting the second variable. Wen (2007) used quarterly real U.S. GDP minus inventory investment for output; real business fixed investment as the investment concept; and real consumption of nondurable goods and services for real consumption. Using quarterly data from 1966 to 2015, the Budget Division finds that Wen’s results continue to hold, namely that 1) real consumption growth in the previous period “causes” current output growth in the Granger sense; 2) growth of real output in the previous period “Granger causes” real investment in the current period; 3) therefore, since the relationships are transitive, they imply that past real consumption growth also “Granger causes” contemporaneous real investment growth. Thus, anticipated lukewarm growth in consumption bolsters the case for slow growth in real investment.

Additional testing also reaffirmed Wen’s assessment that the Granger causation is one-way, i.e., investment does not Granger-cause consumption. Applying Wen’s methods to real consumption of durable goods finds that the same relationships hold for that series as well. While the decision to invest in nonresidential structures and equipment is a complex one, involving considerations of tax policy, interest rates, profitability and other factors, these results indicate that the macroeconomic environment plays a key role in real business fixed investment growth. On the other hand, statistical tests also indicate that real interest rates Granger-cause real investment; thus, it can also be expected that as the Federal Reserve continues its monetary policy normalization process, bringing interest rates up to more “usual” levels, a countervailing restraining influence will be in place.

Additional evidence of the importance of demand factors on investment *vis-à-vis* tax law changes comes from the Institute for Supply Management’s (ISM) *Semiannual Economic Forecast*, the latest being released during the first half of December 2017. In manufacturing, 39.9 percent of survey respondents said that their firms had increased capital spending plans for the coming 12 months during the prior six months, while fully 43.8 percent said they had made no changes in plans for capital spending and 16.3 percent said their firms had cut capital spending plans. When asked the reasons for the changes in their capital spending plans, 66 percent said “general business outlook” while only 5.8 percent selected “prospects for business tax reform.” The ISM said that 2.9 percent responded “prospects for regulatory reform.”

The ISM report shows that responses were qualitatively the same from the non-manufacturing industries. Only 35.5 percent of the service industry supply-management executives reported that capital spending plans had increased, while 42.2 percent said there had been no change and 22.3 percent reported plans for diminished capital spending. When asked the follow-up question as to why, 66.9 percent cited “general business outlook” and only 4.3 percent said “prospects for business tax reform.” The response “prospects for regulatory reform” was selected by 1.8 percent, the ISM said. The report also said that manufacturing supply executives expect capital expenditures

¹² Li Wen, “Granger Causality and Equilibrium Business Cycle Theory,” Federal Reserve Bank of St. Louis *Review*, volume 89, number 3, 195-205, May/June 2007. Available at <http://research.stlouisfed.org/publications/review/07/05/Wen.pdf>

will increase 2.7 percent in 2018, down from 8.7 percent in 2017, while non-manufacturing managers anticipate a 3.8 percent increase in capital spending in 2018, down from 7 percent in the just-concluded year.¹³

Finally, annual business investment growth averaged only 3.4 percent over the five years from 2013 through 2017. This relatively slow increase in investment has not been for lack of resources. Strong earnings growth early in the recovery allowed large businesses to accumulate funds that potentially could have been used for capital spending. However, the financial environment is only one component of the complex array of factors that firms consider when contemplating investment in factories, department stores, and other structures, as well as equipment and software. Standard economic theory posits that profit-maximizing firms are assumed to choose a level of investment that achieves an optimal long-run relationship between the expected level of sales and the stock of plant and equipment for a given set of current and expected future input and output prices. In addition, decreases in the cost of acquiring and using capital goods (the “user cost of capital”) also induce firms to increase investment spending. Factors that reduce the user cost of capital include a decline in the prices of new investment goods, falling inflation-adjusted borrowing costs, increasing equity prices, and changes in the tax code, such as the creation of investment tax credits.

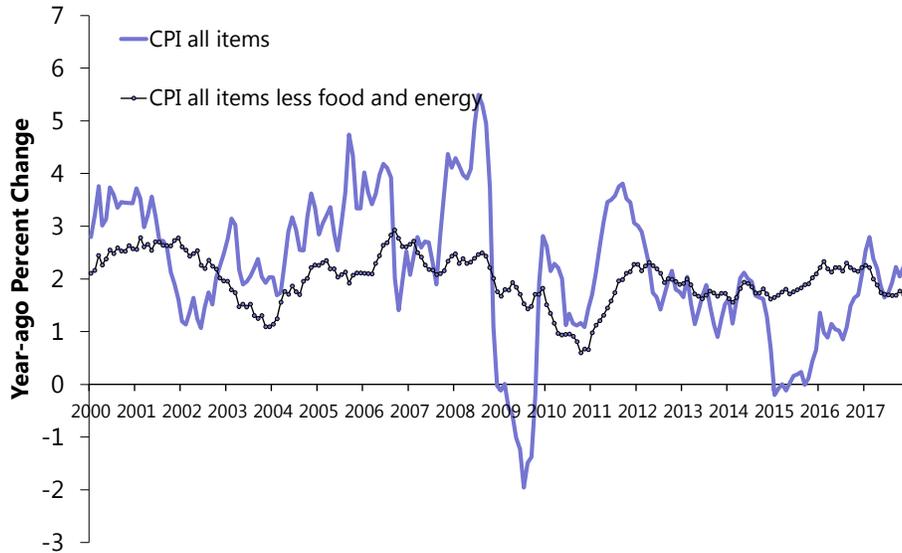
Thus, low interest rates and favorable tax treatment programs support investment growth, but have existed in abundance since early in the recovery. Anticipated growth in sales is also necessary to induce investment. This helps to explain the relatively tepid growth of real investment recently – with weak and uneven growth coming out of the Great Recession, real investment has also generally been sluggish. In the absence of a reliable customer base, no business can be induced to spend, tax incentives notwithstanding.

Outlook for Inflation

History shows that inflation turns up late in business cycle expansions, but as the global economy becomes increasingly integrated, historical experience becomes less informative as to when that turn might take place. Moreover, with the U.S. now an important player as an energy supplier, energy price dynamics have been radically altered. Thus, it is quite uncertain as to when or whether U.S. inflation will rebound in the next 12 months. Low inflation has helped convince the markets that the Fed will not follow through on its policy forecast, as markets are pricing in just one hike next year and term premiums have not reacted to the Fed's increasingly hawkish balance sheet plans. Low inflation, along with solid growth, has also helped underpin the “Goldilocks” trade in the markets, with low bond yields, low spreads and strong equity markets.

¹³ “Economic Growth Continues in 2018,” Institute for Supply Management, December 11, 2017. Available at <https://www.instituteforsupplymanagement.org/about/MediaRoom/newsreleasedetail.cfm?ItemNumber=30638>. Accessed January 8, 2018.

Figure 18
General vs. Core Inflation



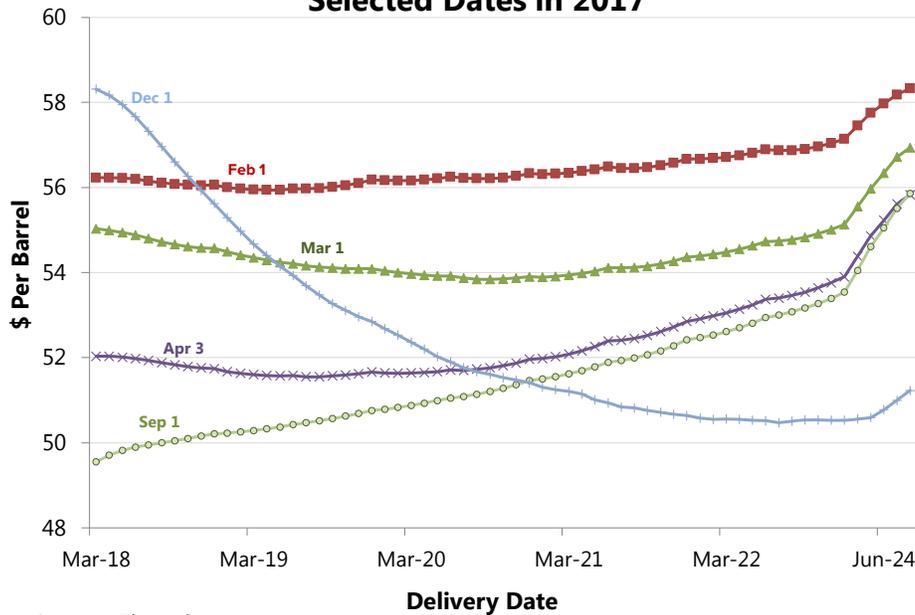
Source: Moody's Analytics.

Inflation, as measured by the Consumer Price Index (CPI), posted a 2.1 percent rate in 2017, following a much more modest 1.3 percent in 2016 and a mere 0.1 percent in 2015. Core inflation, which excludes the volatile food and energy components, paints a different, more stable picture (see Figure 18), posting a rate of 1.8 percent for 2017, following a stronger 2.2 percent in 2016 and 1.8 percent in 2015. Headline inflation is expected to accelerate but only modestly to 2.2 percent in 2018, as energy prices stabilize and non-energy prices continue to firm, including prices for housing, education and other services, and non-oil imports. Medical price inflation is also only expected to advance modestly to 2.6 percent in 2018, following growth of 2.5 percent in 2017 and 3.8 percent in 2016.

The low inflation rates for 2015 and 2016 primarily reflect the volatile energy price gyrations of the last few years. After a more than two-year slide that started in the summer of 2014, energy prices began to show signs of a slow resurgence at the end of 2016. In February 2016, West Texas Intermediate (WTI) crude oil hit \$30.32 per barrel, its lowest monthly price since September 2003, but has been recovering since, hovering near \$60 in early January 2018.

Due to the extreme volatility in global energy prices, the Budget Division uses the most recent futures contract curve to guide its oil price forecast. Figure 19 indicates just how changeable market participants' expectations have been over the course of 2017. Contract prices negotiated on March 1, 2017, for delivery one year out settled at \$55 per barrel, while that same contract negotiated in September 1 dropped below \$50, jumping up by almost \$9 by December 1. The Budget Division anticipates that oil prices, as represented by the refiners' acquisition price for a barrel of imported oil, will average \$56.5 in 2018, up from \$49.1 in 2017. In the third quarter of 2017, the per barrel price of WTI crude exceeded the refiners' acquisition price by \$0.50.

Figure 19
WTI Crude Oil Futures Contract Curves for Selected Dates in 2017



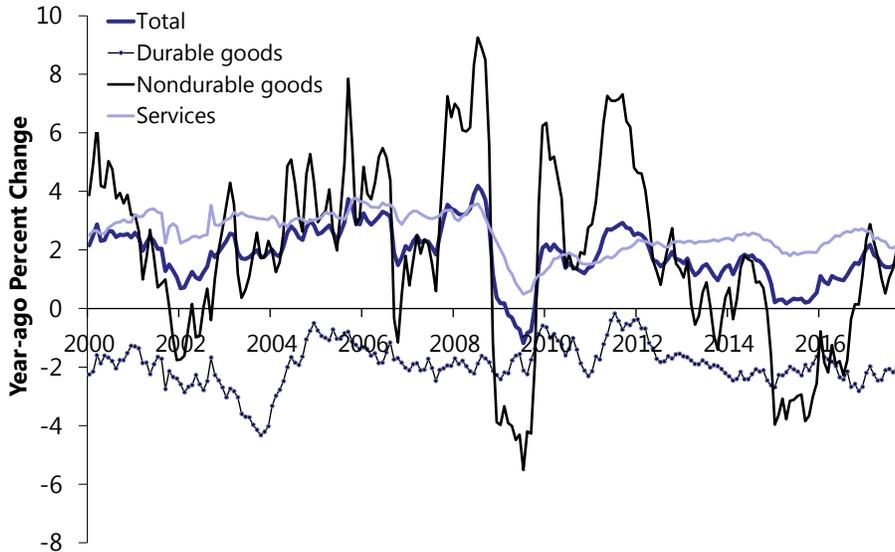
Source: Bloomberg.

According to the federal Energy Information Administration (EIA), a \$1-per-barrel change in the price of crude oil translates into a change of about 2.4 cents per gallon of gasoline. The EIA says that in addition to the price of crude oil, retail gasoline prices also reflect refining costs and profit margins; retail and distribution costs and associated profit margins; and taxes. The latter two factors reflect the retail contribution and are more stable relative to the first two more-volatile factors, which the EIA says cause most of the variation in gasoline prices at the pump. Thus while gasoline prices move with crude oil prices the effect is not as pronounced. The EIA’s latest *Short-Term Energy Outlook*, issued in early January 2018, anticipated an average regular gasoline price of \$2.57 per gallon at the pump nationwide in 2018, up from an average of \$2.42 per gallon in 2017.

The price index for personal consumption expenditures (PCE), a measure of inflation closely watched by the Federal Reserve, traces a path like that of the headline CPI but more muted. But its three major components: consumer durable goods, consumer nondurable goods and services, can display quite different behavior (see Figure 20). For example, in November 2017 while the overall PCE index was 1.7 percent higher than its year-ago level, the index for services grew 2.3 percent, the nondurables index was up 1.9 percent, and the index for durable goods showed a decrease of 1.5 percent. Consumer durable goods prices have been falling since the mid-1990s. This trend continues, due in part to ongoing declines in prices for consumer electronics. In contrast, nondurable prices have been much more volatile than either durable goods or services prices, as they include energy-derived goods such as gasoline and heating oil. Note that nondurables account for some 25 percent of consumer expenditures, as opposed to the roughly 10 percent share that goes to durable goods.

Figure 20

Price Index for Personal Consumption Expenditures (PCE)



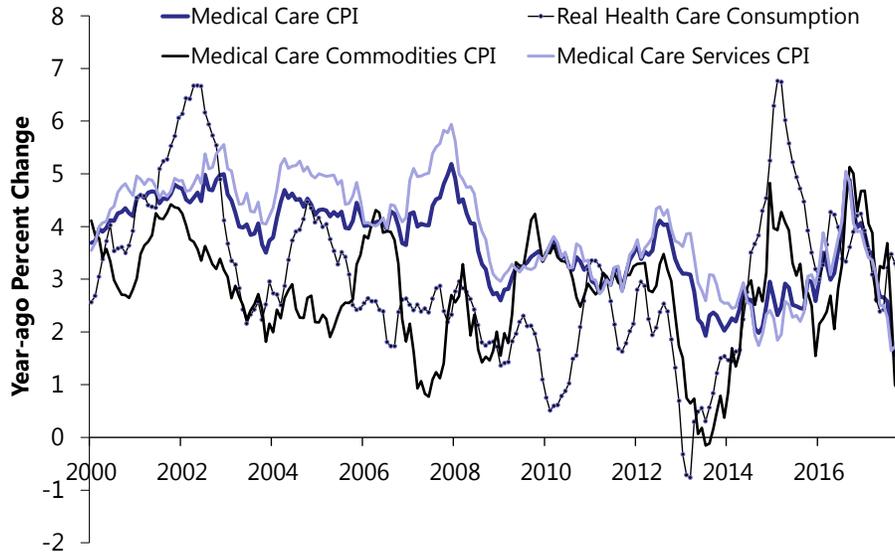
Source: Moody's Analytics.

While some components have been restraining the general inflation rate, housing costs have been one factor that has been working to push inflation higher. The shelter component of the CPI grew 3.3 percent in 2017, following growth of 3.4 percent in 2016 and 3.1 percent in 2015. Meanwhile the CPI for rent of primary residence has been growing more quickly, rising 3.8 percent in 2017, following an increase of virtually the same magnitude in 2016. The shelter/rental differential is likely due in part to the relative preference for renting over home ownership that has manifest since the end of the recession, but which may change as the economy continues to strengthen.

Prior to the Great Recession, the medical care component of the CPI was growing at a rapid pace, prompting concern and straining the budgets of both consumers and governments. But growth in the medical CPI became much more restrained during the recession – as shown in Figure 21, the decline in price growth was accompanied by a decline in utilization, as represented by the inflation-adjusted health care component of personal consumption expenditures (PCE). But as Figure 21 clearly indicates, this trend has been reversing. Real health care spending growth increased at an average pace of 3.0 percent on a year-ago basis in 2014, rising to 5.1 percent in 2015 before easing to 4.4 percent average growth in 2016 and further down to 3.0 percent during the first 11 months of 2017. At the same time, the medical CPI averaged 2.4 percent growth in 2014 and 2.6 percent growth in 2015, accelerating to 3.8 percent in 2016, before slowing to 2.5 percent in 2017.

Figure 21

Medical Care Spending and Prices



Source: Moody's Analytics.

The medical care CPI comprises two major components, commodities and services, and as indicated in Figure 21, both had displayed a declining trend until 2014 and the implementation of the ACA. Both components saw strong growth in 2016 and both eased in 2017. Commodities inflation, which includes the prices of medicinal drugs, medical equipment and supplies, fell to 2.8 percent in 2017, from 3.4 percent in 2016 and a similar 3.3 percent in 2015. The deceleration in 2017 was largely attributable to a deceleration in prescription drug prices from 4.8 percent and 4.6 percent in 2016 and 2015, respectively, to 3.4 percent in 2017. The brisk pace of the prior two years was partly due to a combination of short supply and reduced competition as pharmaceutical companies have pursued acquisitions. In addition to changes in the structure of the industry, there was an upsurge in approvals by the federal Food and Drug Administration (FDA) of so-called “specialty drugs,” which the federal Centers for Medicare and Medicaid Services defines as drugs costing more than \$600 per month. But in 2016, the pricing practices of pharmaceutical companies captured substantial public scrutiny, resulting in pressure on the industry to reduce price growth. Moreover, the FDA has more recently been attempting to expedite the drug approval process to increase competition in the generics market.

Medical care services inflation also decelerated in 2017 to 2.4 percent, down from 3.9 percent in 2016, but virtually matching the 2015 rate of 2.4 percent. Medical services inflation in 2017 was led by 4.6 percent inflation for hospitals and related services, which was partially offset by inflation of only 1.6 percent in the health insurance component. Because of their large size, the payment rates of public payers such as Medicare and Medicaid strongly influence how private insurers negotiate prices. Indeed, the share of the U.S. population covered by these programs is growing even larger due to both demographic trends, such the aging of the Baby Boom generation, and expanded coverage under the ACA, further increasing the pricing power of public sector programs. For

example, under the Medicare Access and Chip Reauthorization Act of 2015, the growth in Medicare's rate of payment to physicians is locked in at 0.5 percent through 2019. The ongoing impact of these pricing pressures are expected to result in a much more subdued pace of medical care price inflation over the medium term than were observed prior to the Great Recession.

Finally, the slow pace of growth that has characterized the current expansion from its inception and the increasing integration of the global economy have both been forces putting downward pressure on inflation. As the pace of growth steps up domestically, and global growth becomes more synchronous, those sources of disinflation will dissipate going forward. For example, the import price index excluding fuels fell for four consecutive years on an annual average basis from 2013 through 2016, but in 2017, the index rose 1.0 percent, the fastest pace since 2011. Continued global growth and weakening of the U.S. dollar will contribute further to this trend and represents an upside risk to the Budget Division inflation forecast.

Monetary Policy: Normalization in a Changing Environment

As the Trump administration begins to reshape the leadership of the Federal Reserve System, monetary policy seems set to continue on a path of gradual normalization. Policymakers at the nation's central bank no doubt hope that normalization can be attained in time to give the bank sufficient monetary policy tools to be able to confront the next recession, when it occurs.

The Federal Open Market Committee (FOMC), the part of the Fed that deliberates over and directs monetary policy, has not only continued raising its target band for the federal funds rate, but it also began gradually to shrink the reserve bank's asset holdings, starting in October 2017. The two main parts of the normalization process thus were finally both in motion late last year, years after they were proposed. This took place despite continued mixed progress on the Fed's legally required mandate to achieve "full employment" and "stable prices."

The Budget Division expects that with inflation finally reaching the FOMC's goal of 2 percent, the effective federal funds rate will rise from its 1.0 percent annual average in 2017 to 1.8 percent in 2018 and 2.3 percent in 2019. These projections are consistent with three short-term rate hikes by the FOMC in March, June, and December 2018, and two more rate hikes in 2019. Correspondingly, the 10-year Treasury yield is expected to climb from 2.3 percent in 2017 to 2.8 percent in 2018, before reaching 3.3 percent in 2019.

The Budget Division's expectations for the federal funds rate over the next two years are roughly consistent with what the Federal Reserve Board members and Federal Reserve Bank presidents themselves project. According to the "Summary of Economic Projections" (SEP) released at the end of the December monetary policy meeting, participants foresaw a median year-end federal funds rate of 2.1 percent for 2018, ranging between 1.9 percent and 2.4 percent. The SEP shows a movement of 75 basis points between the 2017 and 2018 medians but a difference of just over 56 basis points between the 2018 and 2019 medians, which is also consistent with the Budget Division forecast for three rate hikes in 2018 and two in 2019. However, the December SEP shows 2.8 percent as the "longer run" (i.e., beyond 2020) median level for the federal funds rate, which is considerably lower than the Budget Division's longer-run outlook for a 3.2 percent rate.

Based on its December SEP the FOMC appears to have overshot its goal for the long-run unemployment rate of 4.6 percent, with that measure averaging 4.4 percent over all of 2017 and ending the year at 4.1 percent. The FOMC's median expected unemployment rates for 2018 and 2019 are 3.9 percent for both years, slightly below the Budget Division's projection of 4.1 percent. However, lurking in the SEP is a potential recession, as the median federal funds rate is seen to move to 3.1 percent in 2019, while the median unemployment rate edges up to 4.0 percent. Dudley, the New York Fed's president, warned of such a danger in a January 2016 speech, as he pointed out the difficulty in pushing the unemployment rate up "just a little bit" to contain inflation pressures. "Looking at the post-war period, whenever the unemployment rate has increased by more than 0.3 to 0.4 percentage points, the economy has always ended up in a full-blown recession with the unemployment rate rising by at least 1.9 percentage points." His concern was that the FOMC might

undershoot the unemployment rate that is consistent with price stability.¹⁴ Once the inflation genie is out of the bottle, it has historically been very difficult to put it back in without a recession ensuing.

More recently, President Dudley's concern has seemed a distant one, given that the goal of a 2 percent year-over-year change in the personal consumption expenditure (PCE) price index has continued to elude the FOMC. After posting just a 0.2 percent year-over-year increase in September 2015 this inflation gauge reached 2.2 percent in February, only to reverse course and then hold at 1.4 percent during June, July and August. The most recent reading for November puts it at 1.8 percent. This complicates the FOMC's desired normalization since, other things being equal, a lower federal funds rate (equated with an "easy" monetary policy) should also result in higher inflation. Since the SEP indicates the FOMC anticipates reaching the 2 percent goal in 2019, the implied three rate increases in 2018 and two in 2019 may be a gradual enough removal of stimulus to achieve that goal. But note that while the median FOMC projection envisions the longer-run federal funds rate at 2.8 percent, the target was 5.25 percent in September 2007, before the FOMC began cutting it in response to the oncoming recession. The lowered projection implies that the members of the FOMC collectively believe that the low-inflation environment is here to stay.

A lower longer-run projection for the federal funds rate implies that the federal funds rate likely will be uncomfortably close to the "zero lower bound" (ZLB) when the next recession occurs, leaving the FOMC very restricted scope for conventional monetary policy (i.e., lowering the federal funds rate target). But the low expected federal funds rate derives in part from very low estimates of the "natural rate of interest" or r^* . This is the interest rate that would be expected to prevail when inflation is stable and real GDP is growing at its trend rate. But since this essentially defines long-term equilibrium for the economy, it implies that r^* is not observable. Various techniques have been proposed and used to tease r^* from the data, but despite the different approaches, they tend to agree that the natural rate was around 3.5 percent in the early 1980s, but has since fallen to a current value of around 0.5 percent.¹⁵

According to San Francisco Federal Reserve Bank President John Williams, the natural rate of interest has fallen because of several factors that are unlikely to change for a long time. Besides an aging population and longer lifespans, Williams argues that the economy's sustainable growth rate has "slowed dramatically from prior decades," due to "a sharp decline in labor force growth and slower productivity growth." The "baby boom" generation is "retiring in droves," Williams says, while the fertility rate has been declining, thus the slowing growth in the labor force. Williams also notes that technological innovation, investment in education, and investment in research and development all influence productivity growth. While annual productivity growth averaged between 2 percent and 3 percent in the 1990s and early 2000s, it has been just below 1 percent a year on average since the Great Recession.¹⁶ Based on these considerations Williams argues that the

¹⁴ William C. Dudley, "The U.S. Economic Outlook and Implications for Monetary Policy," Remarks at the Economic Leadership Forum, Somerset, NJ, January 15, 2016, p. 3. At <https://www.newyorkfed.org/newsevents/speeches/2016/dud160115>, accessed January 2, 2018.

¹⁵ Thomas A. Lubik and Christian Matthes, "Calculating the Natural Rate of Interest: A Comparison of Two Alternative Approaches," *Economic Brief*, October 2015, EB15-10, Federal Reserve Bank of Richmond; John C. Williams, "Interest Rates and the 'New Normal,'" *FRBSF Economic Letter*, 2017-29, October 10, 2017, p. 2.

¹⁶ Ibid.

longer-run federal funds rate will tend to be only about 2.5 percent going forward, considerably lower than what prevailed prior to the financial crisis.

While the current expansion has not been vigorous, as already noted it has become one of the longest. As Dudley noted in his speech, “Economic expansions don’t simply die of old age.” They tend to die either because of an adverse economic shock that the FOMC cannot easily offset, or “because monetary policy is kept too loose for too long,” as Dudley says, calling forth a too-abrupt tightening of policy.¹⁷ Caution about the continuation of the expansion has also come from the yield curve, that is, the spread between longer-term and shorter-term securities. Neel Kashkari, president of the Federal Reserve Bank of Minneapolis, cited a yield curve that “has flattened significantly, potentially signaling an increasing risk of a recession,” in dissenting from the December FOMC decision to hike the federal funds rate target. He favored halting further increases in the target until the FOMC is “much more confident that inflation is returning to our target.”¹⁸ Kashkari cited the spread between 2-year and 10-year Treasury yields, noting that it had fallen from around 1.45 percent prior to the start of FOMC normalization toward at the end of 2015 to about 0.51 percent at the time of the December FOMC meeting.

While this is not an inversion (when short-term rates are higher than long-term rates), Kashkari argued that “the bond market is telling us that the odds of a recession are increasing.” Skeptical that inflation expectations are showing signs that inflation will reach the FOMC’s target, he said that “monetary policy is entering a delicate phase.”¹⁹ The Federal Reserve Bank of Cleveland, which maintains a “Yield Curve and Predicted GDP Growth” page, shows that the spread between the three-month Treasury bill yield and the 10-year Treasury bond yield fell from 213 basis points in November 2015 to 105 basis points in December, with the one-year ahead recession probability rising from 3.74 percent back in 2015 to 14.3 percent currently. Meanwhile the New York Fed’s “The Yield Curve as a Leading Indicator” page has the 12-month ahead recession probability rising from 2.30 percent in November 2015 to a current value of 11.46 percent that the economy will be in recession in December.²⁰

Obviously, neither of these probabilities are high, but the direction is worrisome. Other members of the FOMC appear to share Kashkari’s concerns. Minutes of the December FOMC meeting state that “Some expressed concern” over a “possible future inversion,” citing the relationship between inversions and subsequent recessions; alternatively, “a protracted ... inversion could adversely affect the financial condition of banks ... and pose risks to financial stability.” While there seemed to be general agreement that the “current degree of flatness ... was not unusual by historical standards,” it was also felt by “several participants” that it was important to monitor the slope of the yield curve. Besides the FOMC’s actions in raising the federal funds rate target, other reasons for the increased flattening of the yield curve advanced by meeting participants included reductions in investors’ estimates of the neutral real interest rate; lower longer-term inflation expectations; and

¹⁷ Dudley, *op. cit.*, p. 3.

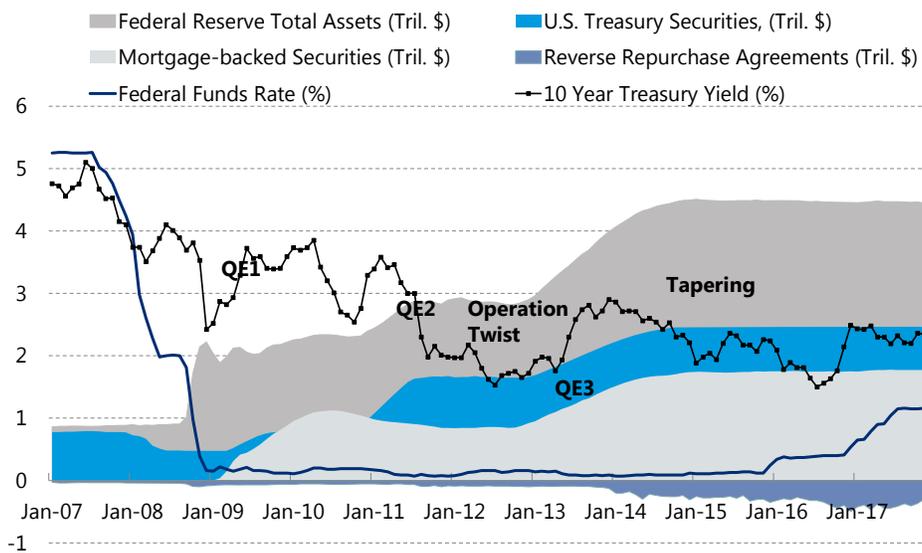
¹⁸ Neel Kashkari, “Why I Dissented a Third Time,” Statement, December 18, 2017, p 1. At <https://minneapolisfed.org/news-and-events/messages/why-i-dissented-a-third-time>, accessed December 18, 2017.

¹⁹ *Ibid.*, p. 2.

²⁰ See <https://www.clevelandfed.org/en/our-research/indicators-and-data/yield-curve-and-gdp-growth.aspx> and archive, accessed January 2, 2018; also https://www.newyorkfed.org/medialibrary/media/research/capital_markets/Prob_Rec.pdf, accessed January 7, 2018.

lower term premiums. The minutes also note that “A couple of other participants” thought the flattening was “an expected consequence” of the rising federal funds rate and “judged that a yield curve inversion under such circumstances would not necessarily foreshadow or cause an economic downturn.”²¹

Figure 22
Monetary Policy, Federal Reserve Balance and Interest Rates



Source: Moody's Analytics.

However, raising the level of the federal funds rate target is only one aspect of monetary policy normalization. As Figure 22 indicates, in an effort to provide maximum accommodation given that nominal interest rates can fall no lower than zero, the central bank resorted to multiple applications of less conventional policy tools from November 2008 to September 2012, commonly referred to as quantitative easing, or QE. While the last QE program ended in October 2014, the Federal Reserve was left with a massive balance sheet which it has generally maintained. In October 2017 the Federal Reserve began its balance-sheet normalization program which envisions that the balance sheet will decline gradually and in a manner that is minimally disruptive to financial markets and that is consistent with its intended degree of policy accommodation. The FOMC has publicly set out a schedule under which reinvestment of principal payments from its holdings of certain types of securities is subject to rising caps. The FOMC has not announced how large it expects its balance sheet to be when the normalization ends, nor when the normalization will end. As the Federal Reserve’s portfolio of these longer-term financial instruments contracts, this should tend to alleviate the flattening of the yield curve as longer rates should increase in response, other things being equal.

²¹ “Minutes of the Federal Open Market Committee, December 12-13, 2017, p. 7. At <https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20171213.pdf>. Accessed January 7, 2018.

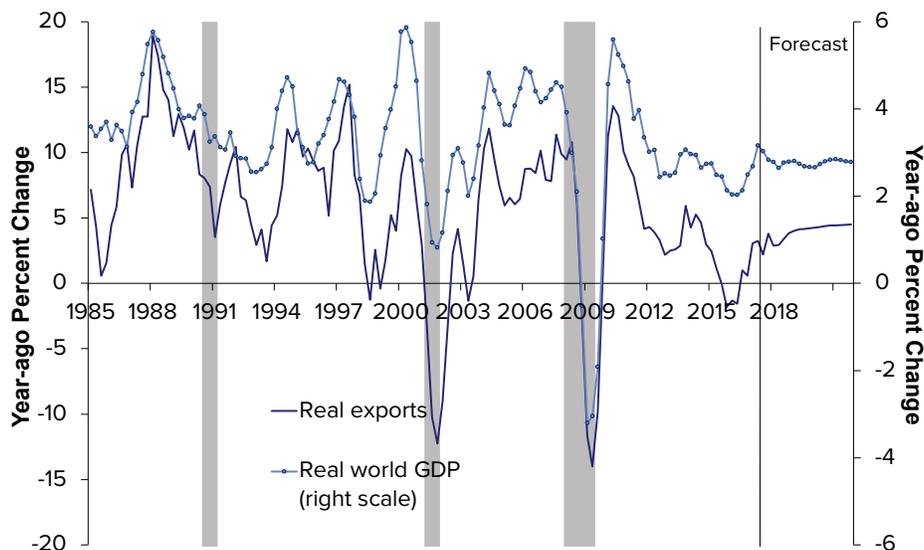
A major risk to both the Budget Division forecast and the FOMC’s expectations for monetary policy going forward is how the new federal tax law will influence the economy. Meeting minutes clearly display a lack of consensus among FOMC members as to how the new law will affect the path of inflation, inflation expectations, and interest rates. Despite the minutes showing that meeting participants saw the risks to the outlook as being “roughly balanced” (and of course agreeing that inflation must be closely monitored), “a few participants ... were not comfortable with the degree of additional policy tightening through the end of 2018” implied by the SEP, thinking that either inflation would not move closely enough to 2 percent or that the federal funds rate might already be near or at its neutral rate. On the other hand, “A few other participants mentioned that they saw as appropriate a pace of additional policy tightening through the end of 2018 that was somewhat *faster* [emphasis added]” than what the SEP indicated, arguing variously that financial conditions had not tightened much since beginning of normalization; that continued low interest rates risked financial instability; or that labor market conditions were tight already. While there are those who think FOMC should step back from its current projected path to observe the effects of the law on the economy, FOMC members acknowledge a possible need for a steeper path of increases in the federal funds rate should the resulting fiscal stimulus push output well beyond its maximum sustainable level.²²

²² Minutes, op. cit., p. 8.

The International Economy

Global economic conditions have become more favorable to U.S. economic growth in light of the recent pickup in the Eurozone and Japan, the stabilization of China’s economy following the stock crash in 2015 and capital outflows in 2016, and the steady recovery across emerging markets and developing economies thanks to benign global financial conditions and despite the monetary tightening in advanced countries. The strong recovery in the rest of the world has resulted in a depreciation of the U.S. dollar with positive implications for U.S. exports. Year-ago growth in real world GDP rose from a local trough of 2.0 percent in the second quarter of 2016 to 3.0 percent by the third quarter of 2017 (see Figure 23). Correspondingly, real U.S. export growth rose from a decline of 1.6 percent to growth of 2.2 percent over the same period. The dollar is likely to stabilize this year with the U.S. tax overhaul likely to bring back corporate cash from abroad and the Federal Reserve to continue its monetary normalization process. Under the assumption that the global economy will keep rising, however, the Budget Division expects real U.S. export growth to continue to accelerate going forward.

Figure 23
Real Export and World GDP Growth

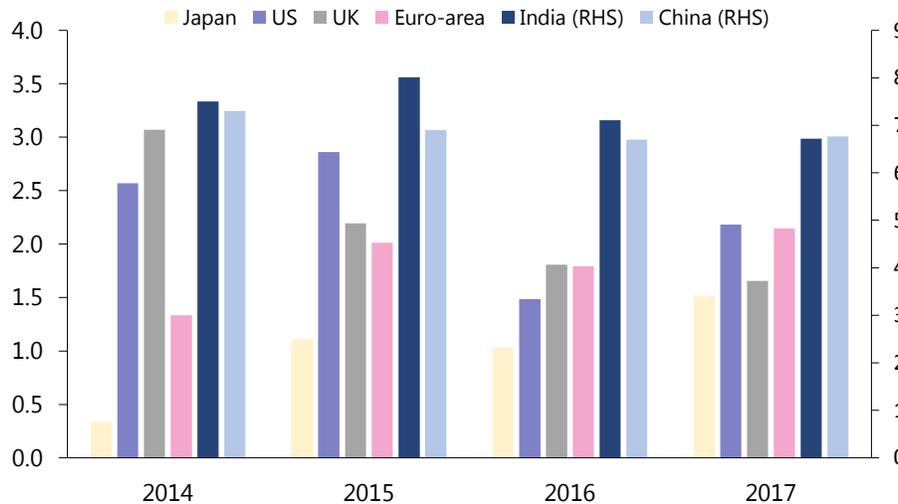


Note: Shaded areas represent U.S. recessions.
Source: Moody’s Analytics; IHS Economics; DOB staff estimates.

The U.S. trade balance depends primarily on the economic conditions of its largest trading partners: Canada, the Eurozone, Mexico, China, and Japan. Among those, China probably poses the largest risk to global growth and U.S. trade at this time. A massive buildup in debt has increased uncertainty about the underlying economic growth prospects of the second largest economy in the world, and its global repercussions. China and India, due to their sheer sizes and past brisk rates of growth, have been engines of global economic growth. Recent structural changes in the Chinese economy have resulted in slowing economic growth over the past few years, as can be seen in Figure 24, which illustrates co-movements in real GDP growth for Japan, U.S., U.K., Euro-area, India, and China.

China’s growth picked up modestly this year, but the unprecedented expansion of debt has cast doubt on whether China will be able to maintain its current rate of growth as policymakers put deleveraging high on the agenda.

Figure 24
Global Economic Growth More Synchronous in 2017
Percent Change



Note: Data for 2017 are based on two quarters of actuals and two quarters forecast.
 Source: IMF, *World Economic Outlook Database*, October 2017.

The Eurozone economy picked up significantly in 2017, thanks to the easy monetary policy of the European Central Bank (ECB). According to the October outlook by the International Monetary Fund (IMF), the Euro-area is expected to grow 2.1 percent in 2017 and prospects for continued growth in 2018 are good. The United Kingdom is projected to grow 1.7 percent in 2017, followed by 1.5 percent in 2018. With signs of strength in the Eurozone economy, additional stimulus seems unnecessary. In October, the ECB announced that it will cut its bond buying program to 30 billion euros per month from 60 billion starting January 2018, while keeping its interest rate target unchanged. The Bank of England also decided to hike its benchmark interest rate this November, the first time in more than a decade. However, the impact of Brexit on trade between United Kingdom and the remaining Europe Union member countries remains a major source of uncertainty. Japan, the fourth largest U.S. trading partner, has been struggling to avoid a recession for several years, but an easy monetary policy also appears to finally having a positive impact. The IMF expects Japan to grow 1.5 percent in 2017 and continued solid growth going forward.

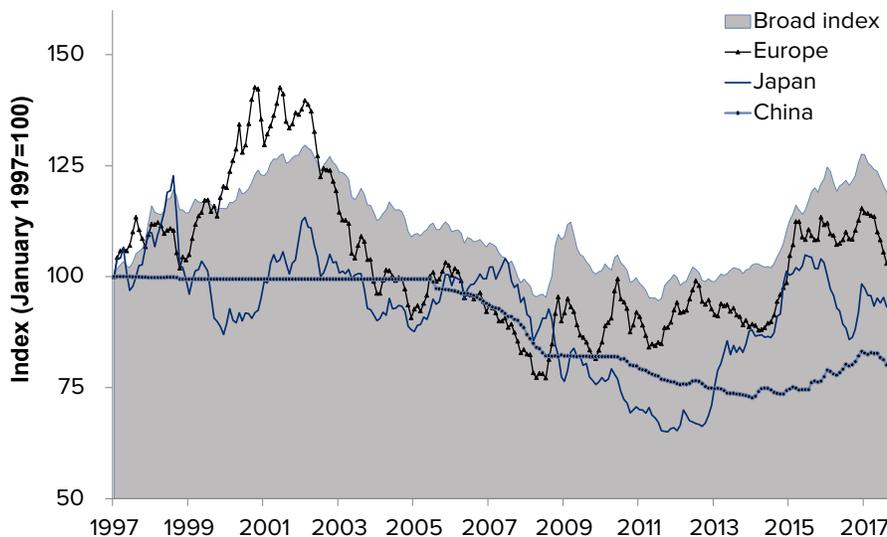
Economic conditions in Canada and Mexico, America’s neighbors and first and third largest trading partners, are favorable for continued growth in U.S. exports. Canada’s economy is expected to expand at a strong pace, with projected 2017 growth of 3.0 percent, following 1.5 percent growth in 2016 and 0.9 percent growth in 2015. The Mexican economy is expected to continuously benefit from a stronger U.S. economy, with GDP growth of 2.1 percent projected for 2017, following the growth of 2.3 percent in 2016. However, the ongoing North American Free Trade Agreement

(NAFTA) renegotiations have injected a large degree of uncertainty into the future shape of trade between Canada, Mexico, and U.S.

The dollar, which surged over the past several years, lost ground against most other currencies this year. (see Figure 25). The Broad Index, a trade-weighted index of the nation’s major trading partners, shows that the dollar has fallen 5.5 percent since its peak early this year. Compared to the Chinese yuan, the dollar depreciated 4.3 percent in 2017, following a 4.2 percent appreciation in 2015 and another 7.3 percent appreciation in 2016. Compared to the Euro, the dollar gained 29.1 percent from January 2014 to December 2016 but lost 9.9 percent in 2017. However, recent policy changes in the U.S. points to a stronger dollar going forward. The tax cuts are expected to boost growth and stimulate inflation, bolstering the case for further interest rate hikes and continuing balance sheet reduction by the U.S. Federal Reserve Board, both of which will tend to boost the dollar. Moreover, a provision of the tax bill gives companies a powerful incentive to bring back cash held overseas, which typically requires companies to sell foreign holdings and buy assets denominated in dollars, and thus will drive the dollar higher. Given the projected further upswing of the global economy, the rising dollar presents only a mild risk to the Budget Division forecast for U.S. exports.

Figure 25

Foreign Exchange Value of U.S. Dollar



Note: The Broad Index is a trade weighted index of major trading partners.
Source: Moody's Analytics.

Table 4 illustrates how demand for U.S. exported goods has shifted proportionately away from the developed world toward large emerging economies. Between 2007 and 2017, exports of goods to China grew 104.7 percent, compared to total U.S. exported goods growth of 35.5 percent. And China’s share of total U.S. exported goods increased by 2.7 percentage points over the same period. However, China’s share is still small compared to that of Canada or the European Union,

even after accounting for the significant declines in those shares of 3.5 percentage points and 3.0 percentage points, respectively.

Table 4
THE CHANGING FACE OF US EXPORTS

	2007-2017	2007 Share	2017 Share
	Percent Growth		
Brazil	55.6%	2.1%	2.4%
Canada	13.4%	21.8%	18.3%
China	104.7%	5.4%	8.1%
European Union	16.0%	21.4%	18.4%
Mexico	77.3%	12.0%	15.7%
Total	35.5%		

Note: Values are based on the first 10 months of data.

Source: U.S. Census Bureau, Foreign Trade Division.

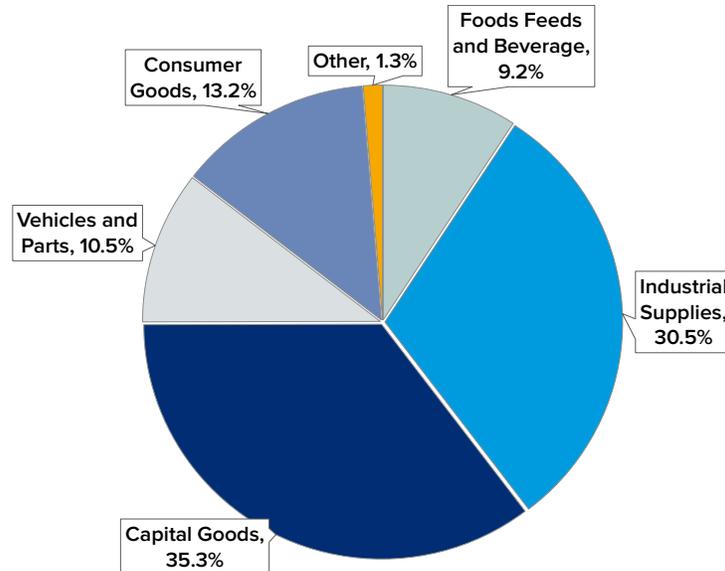
The economic turnaround globally and among America’s most important trading partners has had positive impacts on the demand for U.S. exports, though the export sector of the United States is one of the smallest as a share of gross domestic product (GDP) among the major world economies. U.S. exports of goods and services accounted for 11.9 percent of GDP in 2016, according to the latest data available from the World Bank. Among the major global economies, only Japan’s share, at 16.1 percent, was comparable. In contrast, South Korea’s export sector was 42.2 percent of its GDP while Germany’s was 46.1 percent. That share for the United Kingdom was at 27.9 percent, Canada and Mexico were 31.0 and 38.1 percent respectively, while China’s share was 19.6 percent. Nevertheless, the importance of the export sector to large segments of the U.S. economy, particularly the high-productivity manufacturing sector, cannot be overstated. Moreover, it is estimated that roughly half of the earnings of S&P 500 firms stem from their overseas operations. As a result, improving global demand can have a substantial impact on the welfare of the U.S. household sector both directly through increased employment and wages, and indirectly through the wealth effect.

As suggested above, some sectors of the U.S. economy are more affected by global demand than others. Manufactured goods represented 71 percent of total U.S. exported goods in the first 10 months of 2017, making the manufacturing sector very sensitive to changes in the world economy and foreign demand for U.S. products. Given the pickup in global demand and the weak dollar, exports of goods rose 5.9 percent over the first 10 months of 2017, compared with the same months in 2016. Figure 26 decomposes U.S. goods exports by end-use category and thus highlights those areas of the domestic manufacturing sector that are affected by changes in global demand and the exchange rate. For example, based on the first 10 months of data, Industrial Supplies accounted for 30.5 percent of exported goods in 2017.

However, the United States produces approximately 20 percent of the world's manufacturing output, a number which has remained largely unchanged for the last 40 years. Ongoing job losses during this period are mainly explained by strong productivity gains. All across the manufacturing

sector there are causal links between capital deepening per worker, relatively high real rates of return, and strong productivity growth. Both total factor productivity growth and growth in the capital-to-labor ratio have accelerated since 1995 and increased even further during the latest recession and subsequent recovery.

Figure 26
2017 Share of Exported Goods by End-Use Category



Note: Values are based on the first 10 months of data.
Source: Moody's Analytics.

On the other hand, with a strengthening U.S. economy and a weak dollar, imports are expected to rise 6.2 percent in 2017 and 7.2 percent in 2018. Weakening import growth following the recession had a favorable impact on the current account trade deficit. While the trade deficit reached a low point of 2.6 percent of nominal GDP in 2013Q4, it increased to an average of 2.8 percent in 2016 and 2.9 percent in the first three quarters of 2017. Import growth has also benefitted from renewed increases in crude oil imports as relatively high-priced domestic production struggles to compete in the current low-price environment. Though imports are a subtraction from U.S. output growth, they are also a sign of strength in consumer and business sector demand.

With the passage of the TCJA and the anticipated run-up of federal government budget deficits and the national debt, the direction of foreign holdings of U.S. Treasury securities has become a focus of concern. Average monthly holdings were down 0.8 percent in 2017, based on the first 10 months of data, after rising 0.6 percent in 2016 (see Table 5), although by October 2017, holdings were at a record level. But the two biggest holders of U.S. Treasuries now are net sellers. Japan, the largest single holder based on data through October, cut its holdings by 5.1 percent in 2016 and another 2.4 percent by October 2017, while China, the second largest holder, saw a drop in its holdings of 5.0 percent by October 2017 following a decrease of 5.6 percent in 2016. Central banks tend to sell foreign currency when their own domestic currency is under too much selling pressure. Over the past two years China has experienced massive capital outflows as investors abandon the yuan

for U.S. dollars and euros to invest elsewhere, and the People’s Bank of China has responded by selling foreign currency and buying yuan in order to stabilize its value. The United Kingdom, the seventh largest holder of U.S. Treasury securities based on the most recent data, increased its holdings by 14.9 percent and 7.8 percent in 2015 and 2016, respectively, and by another 5.1 percent by October 2017. Treasury securities holdings by the eight major oil-exporting nations rose 10.2 percent in 2017 through October.

Table 5

MAJOR FOREIGN HOLDERS OF TREASURY SECURITIES*										
(\$ Billions)										
	Japan		Mainland China		United Kingdom		Oil Exporters**		Grand Total***	
	Level	Change	Level	Change	Level	Change	Level	Change	Level	Change
Jan-16	1,123.6	1.2	1,238.0	(8.1)	209.6	2.5	264.6	0.8	6,183.0	36.8
Feb-16	1,133.2	9.6	1,252.3	14.3	230.6	21.0	254.4	(10.3)	6,242.0	59.0
Mar-16	1,137.1	3.9	1,244.6	(7.7)	226.5	(4.1)	244.7	(9.6)	6,286.5	44.5
Apr-16	1,142.8	5.7	1,242.8	(1.8)	216.4	(10.1)	241.6	(3.1)	6,238.9	(47.6)
May-16	1,133.2	(9.6)	1,244.0	1.2	217.1	0.7	230.8	(10.9)	6,210.4	(28.5)
Jun-16	1,147.1	13.9	1,240.8	(3.2)	231.4	14.3	229.6	(1.2)	6,281.1	70.7
Jul-16	1,154.6	7.5	1,218.8	(22.0)	210.0	(21.4)	231.4	1.8	6,250.2	(30.9)
Aug-16	1,144.0	(10.6)	1,185.1	(33.7)	204.9	(5.1)	225.4	(6.0)	6,199.4	(50.8)
Sep-16	1,136.4	(7.6)	1,157.0	(28.1)	217.6	12.7	219.3	(6.1)	6,158.1	(41.3)
Oct-16	1,131.9	(4.5)	1,115.7	(41.3)	207.3	(10.3)	226.4	7.2	6,043.6	(114.5)
Nov-16	1,108.6	(23.3)	1,049.3	(66.4)	215.8	8.5	225.5	(1.0)	5,955.3	(88.3)
Dec-16	1,090.8	(17.8)	1,058.4	9.1	217.2	1.4	224.2	(1.3)	6,006.3	51.0
Jan-17	1,102.5	11.7	1,051.1	(7.3)	214.1	(3.1)	234.7	10.5	5,953.0	(53.3)
Feb-17	1,115.5	13.0	1,059.7	8.6	218.3	4.2	240.0	5.3	6,020.0	67.0
Mar-17	1,120.5	5.0	1,088.1	28.4	228.3	10.0	252.8	12.8	6,079.1	59.1
Apr-17	1,106.9	(13.6)	1,092.2	4.1	231.5	3.2	251.4	(1.4)	6,073.7	(5.4)
May-17	1,111.3	4.4	1,102.2	10.0	234.4	2.9	259.5	8.1	6,123.6	49.9
Jun-17	1,090.8	(20.5)	1,146.5	44.3	237.1	2.7	268.5	9.0	6,171.6	48.0
Jul-17	1,113.1	22.3	1,166.0	19.5	229.7	(7.4)	272.0	3.5	6,250.3	78.7
Aug-17	1,101.7	(11.4)	1,200.5	34.5	225.4	(4.3)	265.5	(6.5)	6,268.4	18.1
Sep-17	1,096.0	(5.7)	1,180.8	(19.7)	237.4	12.0	264.7	(0.8)	6,323.0	54.6
Oct-17	1,093.9	(2.1)	1,189.2	8.4	225.9	(11.5)	278.2	13.5	6,349.4	26.4

* Estimated foreign holdings of U.S. Treasury marketable and nonmarketable bills, bonds and notes are based on Treasury Foreign Portfolio Investment survey benchmarks and on monthly data reported under the Treasury International Capital (TIC) Reporting System.

** Due to data availability, oil exporters include Bahrain, Iraq, Kuwait, Oman, Saudi Arabia, United Arab Emirates, Algeria, and Nigeria.

*** Grand Total is the total of all 27 countries included in the Portfolio Investment Survey.

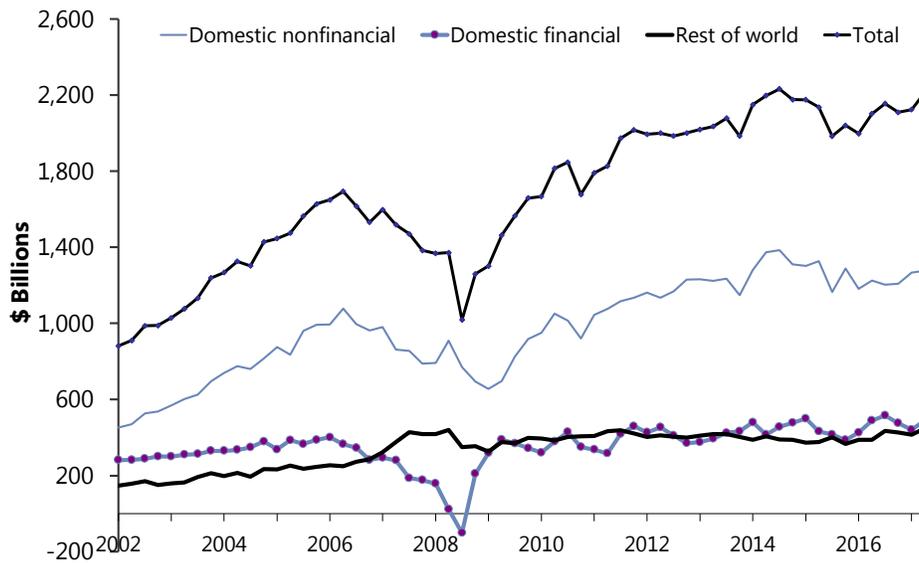
Source: U.S. Department of the Treasury/Federal Reserve Board.

Although foreign holdings of U.S. Treasuries were at a record high as of October, it is concerning that the two largest holders, Japan and China, are now net sellers. U.S. Treasury bonds are the bedrock of the international financial system due to their backing by the full faith and credit of the U.S. government and the accompanying perception of their safety. But should that status be threatened by brisk growth in the national debt, a selloff by foreign holders could ensue that would raise domestic interest rates, potentially sending the U.S. economy into a recession.

Outlook for U.S. Corporate Profits and the Stock Market

Last year saw some improvement in U.S. corporate profits, following two years of declines. However, that growth was very uneven, based on the three quarters of available data. The most impressive improvement was in “rest-of-world” profits, derived from activity outside of U.S. borders, where profits rose 12.8 percent, following growth of 2.5 percent in 2016. This improvement provides solid evidence that the U.S. corporate sector is seeing the benefit of stronger global growth. Indeed, the profits data indicate that outside of the financial sector, the domestic economy has been a drag on corporate fortunes, despite the optimism signaled by various survey results. Domestic financial profits saw an increase of 8.0 percent, following a very challenging 2016 that saw a decline of 0.4 percent. However, domestic nonfinancial profits posted a decline of 14.1 percent in 2017, representing a deterioration from a 2016 decline of 4.1 percent and a small decline of 1.6 percent in 2015. On balance, growth in U.S. corporate profits from current production, which includes the inventory valuation and capital consumption adjustments, is estimated to have risen to 4.7 percent in 2017, after posting a decline of 2.1 percent in 2016.

Figure 27
U.S. Corporate Profits



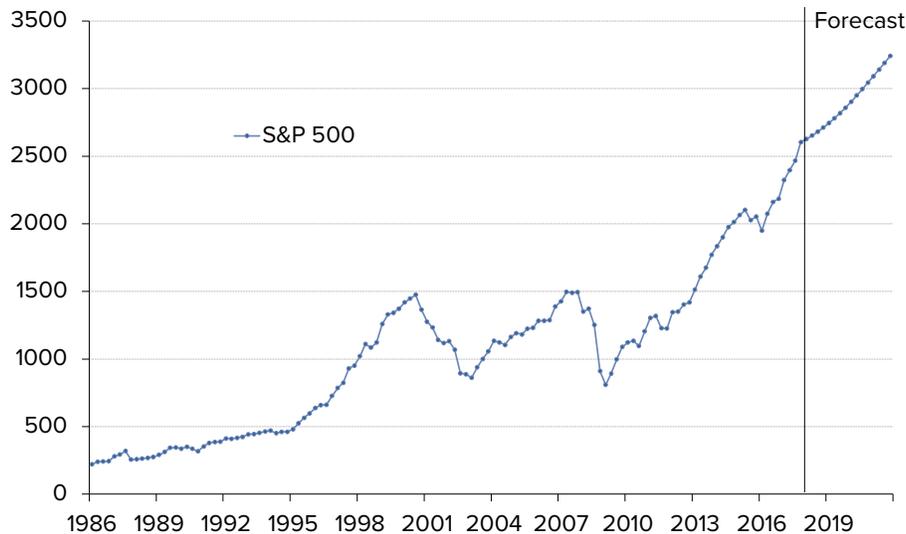
Source: Moody's Analytics.

As the global economy strengthens further and financial market conditions continue to improve, growth in U.S. corporate profits is expected to improve in 2018 to 6.2 percent, led again by the financial sector and rest-of-world profits. We note that this profits measure is a before-tax concept and therefore does not include the impact of the TCJA.

Although equity market turbulence has been a hallmark of this expansion, 2017 was a relatively quiet year, with stock prices displaying a steady upward climb (see Figure 28). This lack of volatility,

along with rising interest expenses, may be in part to blame for the financial sector's lackluster profits performance this year, despite the improvement over an extremely weak 2016.

Figure 28
Equity Market Growth

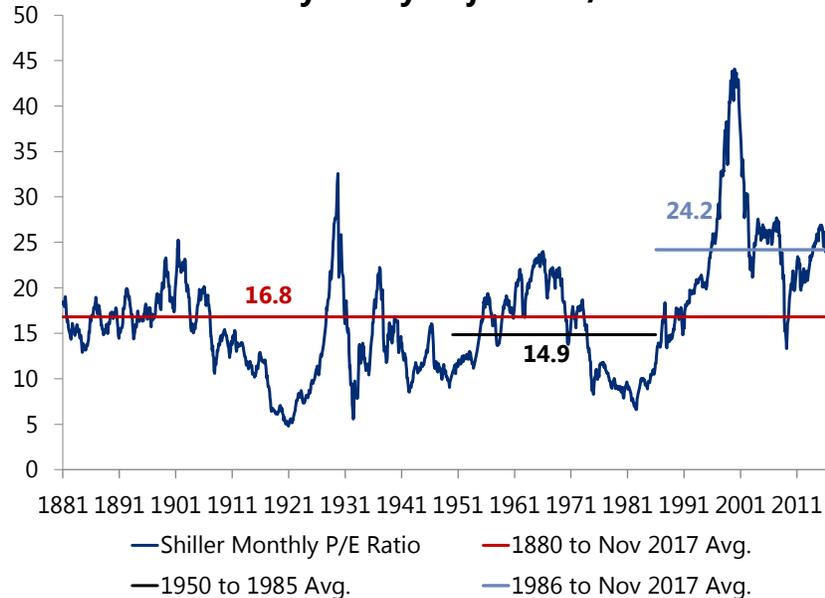


Source: Moody's Analytics; DOB staff estimates.

Over the long term, equity market price growth is expected to be consistent with growth in corporate earnings, discounted by the change in interest rates. Figure 29 presents the long-term history of the S&P 500 price-to-earnings ratio adjusted for inflation, where earnings are measured by the trailing 10-year moving average. The November 2017 level was above the 24.2 average from 1986 to that month, a period that contained the high-tech/Internet bubble of the late 1990s. This level compares to an average over the entire history of the series of 16.8, and an average over the early postwar period of 14.9. We note that ratios between equity prices and corporate earnings for the most recent 10 years may be somewhat exaggerated due to a period of extraordinarily low earnings at the depths of the financial crisis in 2008 and 2009, due to write-downs of "toxic assets." Nevertheless, these results suggest caution, particularly in an environment of rising interest rates and lackluster growth. The Budget Division projects equity market growth of 9.0 percent for 2018 on an annual average basis, following growth of 17.0 percent in 2017.

Figure 29

Shiller Cyclically Adjusted P/E Ratio



Source: Robert Shiller; DOB staff estimates.

Outlook for Government Spending

It would not be an understatement to say that the government sector has been virtually absent from the current expansion. After 17 consecutive quarters, a prolonged period of state and local government spending declines on a year-ago finally came to an end in the second quarter of 2014. A period of consistent growth ensued until 2017 when spending fell yet again for the first three quarters of the year (see Figure 30). The National Association of State Budget Officers (NASBO) shows that state spending in fiscal year 2015 was at a 10-year high and increased at the fastest clip since 1992, largely because of strong growth in federal funds to states from increased Medicaid enrollment during the first full year of the Affordable Care Act, and because of moderate growth in own funds.²³ Unlike Federal government spending, state and local government expenditures are constrained by revenue flows, federal funds to states, and statutory balanced-budget requirements. States have experienced two consecutive years marked by sluggish revenue growth, with general fund revenues growing 2.3 percent in 2017 and 1.8 percent in 2016. The majority of the states reported collections below the original budget estimates for personal income, sales, and corporate income taxes for their 2017 fiscal years. The Budget Division projects state and local government spending to grow 0.1 percent in 2018, following a slight decline of 0.02 percent in 2017. Clearly, these growth rates fall short of average growth in state and local government spending for the period from 1965 to 2016 of 2.2 percent.

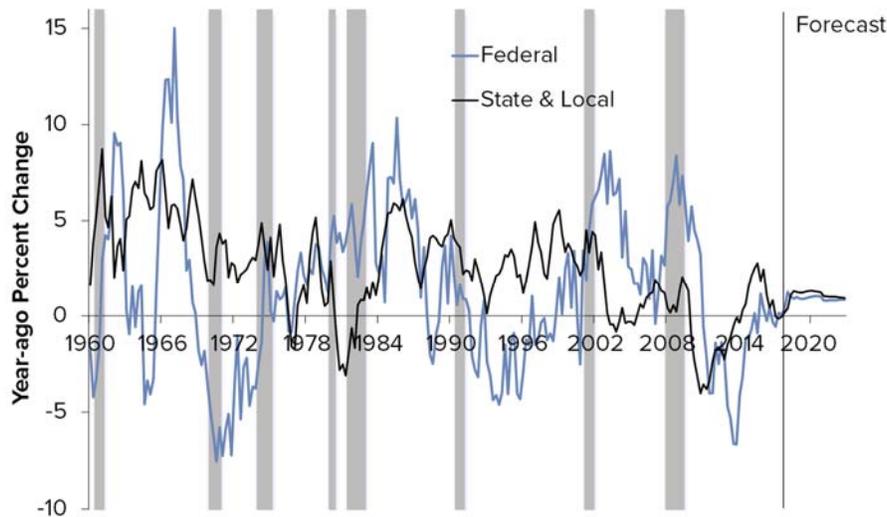
The Federal spending sequester and the pullback in the nation’s military efforts as the high budget deficit met with resistance from policymakers resulted in a significant decline in the NIPA component

²³ The National Association of State Budget Officers, *State Expenditure Report*, 2015-17.

of Federal spending. As a consequence of the slowdown in Federal spending, the Federal budget deficit fell from \$1,300 billion in Federal fiscal year 2011, the equivalent of 8.5 percent of nominal GDP, to \$680 billion or 4.1 percent of nominal GDP two years later, and is projected to decrease even further to \$487 billion or 2.6 percent of nominal GDP in Federal fiscal year 2018. However, the Congressional Budget Office (CBO) projects that even before accounting for the impact of TCJA, budget deficits would eventually follow an upward path in relation to the nation’s economic output, and federal debt would rise over the next decade. The projected rise in deficits would be the result of speedy growth in spending for federal retirement and health care programs for older people and to rising interest payments on the government’s debt, along with only moderate growth in revenue collections. Based on the Budget Division baseline forecast, the federal contribution to real U.S. GDP is projected to grow 1.1 percent in CY 2018, following a slight decline of 0.01 percent in 2017. These growth rates follow 0.8 percent growth in 2016 and five consecutive years of decline prior to that.

Figure 30

Real Government Spending Over the Business Cycle



Note: Shaded areas represent U.S. recessions.
Source: Moody’s Analytics; DOB staff forecast.

Comparison with Other Forecasters

Table 6 compares the Budget Division’s (DOB) forecast for a selection of U.S. indicators with those of other forecasting groups. The 2018 forecasts for real U.S. GDP growth fall into a tight range from 2.5 percent (DOB) to a high of 2.8 percent (High Frequency Economics, HFE). The DOB and HFE 2018 inflation forecasts of 2.2 percent are at the top of the range, while Macroeconomic Advisers is at the bottom with 1.7 percent, highlighting the diversity of views for this key indicator. DOB’s unemployment rate forecast for 2017, at 4.1 percent, is slightly above the other forecasters, and

likely reflects the existence of alternative views on the nature of the remaining slack in the U.S. labor market.

Table 6

U.S. ECONOMIC FORECAST COMPARISON

	2017	2018	2019
Real Gross Domestic Product (GDP) (2009 chained percent change)			
DOB	2.3	2.5	2.4
Blue Chip Consensus	N/A	2.7	2.4
Moody's Analytics	2.3	2.9	2.2
Macroeconomic Advisers	2.2	2.7	2.5
Consumer Price Index (CPI) (percent change)			
DOB	2.1	2.2	2.2
Blue Chip Consensus	N/A	2.1	2.2
Moody's Analytics	2.1	2.4	2.7
Macroeconomic Advisers	2.1	1.7	1.9
Unemployment Rate (percent)			
DOB	4.4	4.1	4.1
Blue Chip Consensus	N/A	3.9	3.8
Moody's Analytics	4.4	3.8	3.7
Macroeconomic Advisers	4.4	3.9	3.6

Source: New York State Division of the Budget, December 2017; Blue Chip Economic Indicators, January 2018; Moody's Analytics, January 2018; and Macroeconomic Advisers, Economic Outlook, January 2018.

For a brief description of the methodology used by the Budget Division to construct its macroeconomic model for the national economy (DOB/US), see Box 2. For a more detailed description, see *New York State Economic, Revenue, and Spending Methodologies*, November 2016.²⁴

²⁴ See <<http://www.budget.ny.gov/pubs/supporting/MethodologyBook.pdf>>.

Risks to the U.S. Forecast

The Budget Division Executive Budget forecast calls for a moderate uptick in national economic growth due to a strengthening global economy and the cumulative impact of a healthy labor market and a healing housing market on household income and wealth. The passage of the Tax Cuts and Jobs Act presents a risk to the forecast, largely but not solely to the upside. But with so large a proportion of the benefits directed to upper income households, those with the lowest marginal propensities to consume, the impact on growth for 2018 is likely to be small. Moreover, there is little evidence that corporations that were not cash-strapped before the reduction in the corporate tax rate will direct a significant portion of their after-tax gains toward capital spending. Thus, none of the elements of the tax reduction plan are certain to result in productivity-enhancing investment. Under these circumstances, a more substantial impact from the plan would likely be constrained by higher interest rates and a stronger dollar than reflected in this forecast.

But there are still several additional risks to the forecast. The euro-area economy is improving but the ECB's single mandate that only permits a focus on price stability, some of the monetary stimulus is already being walked back, possibly limiting future growth possibilities. Moreover, China's focus on reducing debt could constrain near-term growth. If growth in either area is weaker than expected, the implications for emerging markets and the global economy more generally will be negative, and will likely result in slower export and corporate profits growth than reflected in this forecast. The impact will reverberate through U.S. labor and financial markets, resulting in slower growth than anticipated. On the other hand, if either area is stronger than expected, the implications for the forecast will be positive.

Oil prices are expected to stabilize and even fall as U.S. energy production ramps up to take advantage of the recent price increases. While higher than projected energy prices could induce further increases in production, the higher consumer cost of gasoline and heating oil could offset the tax cut benefits. In contrast, more tepid global growth than anticipated, coupled with strategic behavior on the part of sovereign energy producers, could send oil prices even lower than expected, which could have a deleterious effect on both business hiring and investment, as well as on equity markets.

Finally, the Federal Reserve's strategy for unwinding the results of its unconventional policy tools appears to be working smoothly. The central bank has confirmed that the future path of that strategy remains data dependent, and highly uncertain at this stage, and the TCJA impact only further enhances that uncertainty. If the path toward normalization is rockier than anticipated, and long-term interest rates start to rise more quickly than expected, the impact on the entire global economy – both real and financial – could be quite negative. Alternatively, a smooth exit could play a critical role in keeping the current expansion on the road to becoming the longest since the middle of the 19th century.

Box 1
THE DIVISION OF THE BUDGET U.S. MACROECONOMIC MODEL

Macroeconomic modeling has undergone a number of important changes over the last four decades, primarily as a result of developments in economic and econometric theory. These developments include the incorporation of both rational expectations and micro-foundations based on the long-run optimizing behavior of firms and households. In addition, analysts now employ more flexible specifications of behavioral relations within a vector autoregressive (VAR) model framework. Recent developments also include a more rigorous analysis of the time series properties of commonly used macroeconomic data series, as well as the implications of these properties for model specification and statistical inference. There has also been a significant improvement in the understanding of the long-run equilibrium relationships among macroeconomic data series and the predictive power of these relationships in constraining economic dynamics.

The Budget Division's U.S. macroeconomic model (DOB/U.S.) incorporates the theoretical advances described above in an econometric model used for forecasting and policy simulation. The model contains 132 core equations, of which 37 are behavioral. In addition, there are hundreds of auxiliary forecasting equations that incorporate the results from the core model as inputs. The current estimation period for the model is 1965:1 through 2017:3. Our analysis borrows heavily from the Federal Reserve Board model which was redesigned during the 1990s using the most up-to-date advances in modeling techniques. We are grateful to Federal Reserve Board economists for providing guidance and important insights as we developed the DOB/U.S. macroeconomic model.

In economic parlance, DOB/U.S. could be termed a neoclassical model. Agents optimize their behavior subject to economically meaningful constraints. Households exhibit optimizing behavior when making consumption and labor supply decisions, subject to a wealth constraint. Expected wealth is, in part, determined by expected future output and interest rates. Likewise, firms maximize profits when making labor demand and investment decisions. The value of investment is affected by the cost of capital, as well as expectations about the future path of output and inflation. The economy's long-run growth path converges to an estimate of potential GDP growth. Monetary policy is administered through adjustments to the federal funds rate, as guided by Taylor's Rule. Current and anticipated changes in this rate influence agents' expectations and the rate of return on various financial assets.

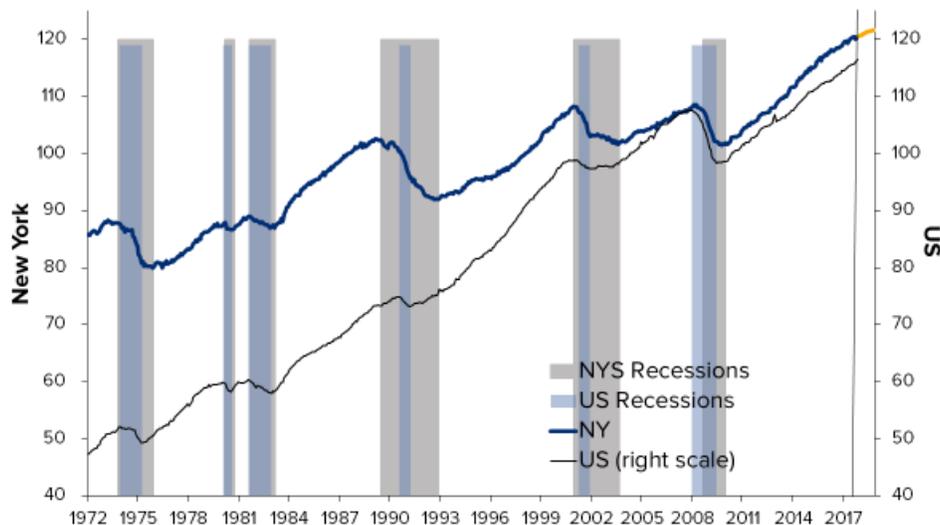
DOB/U.S. incorporates three key theoretical elements into this neoclassical framework: expectations formation, equilibrium relationships, and dynamic adjustments (movements toward equilibrium). The model addresses expectations formation by first assuming that expectations are rational and then specifying a common information set that is available to economic agents who incorporate all relevant information when forming and making their expectations. Long-run equilibrium is defined as the solution to a dynamic optimization problem carried out by households and firms. The model structure incorporates an error-correction framework that ensures movement back to long-run equilibrium.

The model structure reflects the microeconomic foundations that govern optimizing behavior, but is sufficiently flexible to capture the short-run fluctuations in employment and output caused by economic imbalances (such as those caused by sticky prices and wages). DOB/U.S. incorporates dynamic adjustment mechanisms that reflect the fact that while agents are forward looking, they do not adjust to changes in economic conditions instantaneously. The presence of frictions (costs of adjusting productive inputs, sticky wages, persistent spending habits) governs the adjustment of nonfinancial variables. These frictions, in turn, create imbalances that constitute important signals in the setting of wages and prices. In contrast, the financial sector is assumed to be unaffected by frictions due to the negligible cost of transactions and the presence of well-developed primary and secondary markets for financial assets.

The New York State Economy

Despite the pick-up in both national and global growth, New York State’s private sector labor market continued to decelerate in 2017. By the second quarter of 2017, the most recent period for which detailed data are available, private job growth had slowed to 1.5 percent. Preliminary information indicates that the growth rate for the third quarter of 2017 may have been even lower at 1.3 percent. Nevertheless, private job growth remains well-above historical average rates of growth, and continues to be led by health care, education, construction, leisure and hospitality, and professional and business services. Tourism continues to be one of the State’s major growth industries, but the global slowdown and the strong dollar likely altered the mix between domestic and international visitors, who tend to spend more per visit. The pick-up in global growth, is expected to help turn that tide. Exacerbated by the global malaise, the State’s weakening real estate market led to slower growth in construction and real estate services jobs, but is expected to stabilize in 2018. State private sector job growth of 1.3 percent is projected for 2018, following estimated growth of 1.4 percent in 2017.

Figure 31
New York State Index of Coincident Economic Indicators



Note: NYS recession dates are DOB staff estimates; NYS forecast (in red) is derived from the New York State Leading Index.
Source: Moody’s Analytics; DOB staff estimates.

After five consecutive years of decline and one year of virtually flat growth, the State’s public sector finally joined the economic recovery in 2016, growing 0.5 percent in 2016, but falling back to 0.4 percent growth in the first half of 2017. Overall State employment growth of 1.2 percent is estimated for 2017, followed by an expected growth of 1.1 percent for 2018. In contrast with decelerating job growth, wage growth is estimated to accelerate from 2.2 percent for the 2016 calendar year to 6.1 percent for 2017. This large swing is due to two episodes of strategic behavior on the part of employers and their workers in anticipation of changes in the federal tax law. The first episode took

place on the heels of the 2016 election involving a shift in employee wages from the last quarter of 2016 into the first quarter of 2017 so that employees could take advantage of potentially lower Federal personal income tax rates effective in 2017, should the Congress pass such a law. That tax law change was ultimately postponed until The Tax Cut and Jobs Act was passed in December 2017, effective January 1, 2018. The enactment of the TCJA induced a second episode of income shifting for New York from the first quarter of 2018 to the fourth quarter of 2017. Though the new tax law lowered the top federal marginal tax rate from 39.6 percent to 37 percent, it also eliminated the deduction of state and local tax payments above the first \$10,000. With the gains from the lower marginal tax rates failing to offset the loss from the elimination of the state and local tax deduction for many employees, there was another shifting of wages into the fourth quarter of last year.²⁵ Net of that shifting, State wage growth of 2.1 percent is expected for calendar year 2018.

With the current national economic expansion on a path toward becoming the longest since 1850, New York is too on track to experience a business cycle of record length. However, due to the more limited availability of state-level data, we cannot document the State's business cycle history going back that far. The Budget Division uses the New York State Index of Coincident Economic Indicators to determine the State's business cycle turning points (see Box 2). The index's level and growth are plotted in Figure 31 along with the turning points for both the New York and U.S. business cycles. The New York State Leading Index combines five high frequency data series to signal that either a pickup or a slowdown in economic activity can be expected six to 12 months down the road. The coincident index exhibits average monthly growth of 0.1 percent for the last twelve months through November 2017, the final month for which complete data are available. The leading index implies average monthly growth of 0.1 percent for the twelve months through November 2018, a signal that we can expect slow but steady growth over the near-term.

New York State is home to the world's financial capital, and while that status confers many benefits, historically it has also imparted a high degree of employment and wage volatility. However, since the recent financial crisis the changing regulatory environment has altered the pattern of risk-taking behavior by Wall Street firms. Although the net impact of these changes on finance sector employment and wages has been negative, a fringe benefit has emerged in the form of lower wage volatility. A standard deviation is a simple statistic that when doubled defines a range of values within which a measure has a 67 percent chance of falling. The wider is the range, the more volatile the series. During the six bonus seasons that preceded the worst of the financial crisis, finance and insurance sector bonus growth exhibited a standard deviation of 20.4 percent; in the seven seasons that followed, the standard deviation dropped to 12.6 percent. Thus, the State economy appears to be undergoing a period of adjustment, during which above-average private sector job growth has coupled with a less volatile and more diversified wage base.

²⁵ Yet another tax rule may have also been responsible for some of the income believed to have been shifted into the fourth quarter of last year. In 2009, the IRS ruled that deferred management and incentive fees retained offshore by hedge fund principals would become subject to tax, at the taxpayer's highest marginal tax rate, by the end of the 2017 tax year, even if the funds are not repatriated. The details are laid out in Internal Revenue Code Section 457A, IRS Notice 2009-8, and Revenue Ruling 2014-18.

Box 2

NEW YORK STATE INDICES OF COINCIDENT AND LEADING ECONOMIC INDICATORS

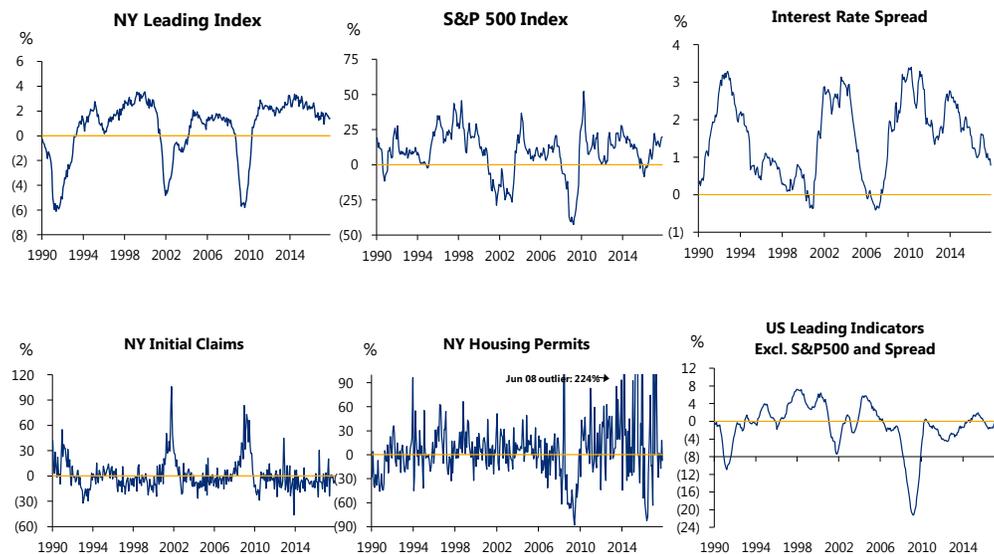
In the absence of an official mechanism for dating business cycles at the sub-national level, DOB staff constructed a New York State Index of Coincident Economic Indicators measuring overall economic conditions for New York.¹ The methodology used to construct the index is based on the Stock and Watson methodology and rests on the notion that co-movements in many macroeconomic time series can be captured by a single unobserved variable representing the overall state of the economy.² Four State data series – private sector employment, hours worked in the manufacturing sector, the unemployment rate, and sales tax receipts (as a proxy for retail sales) – are combined into a single index using the Kalman filter, a common approach to the estimation of unobserved variables. Based on the DOB Coincident Index, six business cycles have been identified for New York since the early 1970s, as reported in the table below. A recession is judged to have begun if the DOB Coincident Index sustains three to five consecutive declines of significant depth. A similar approach is used to date business cycle troughs. The last column of the table below reports the number of private sector jobs lost due to the recession, although labor market cycles do not always coincide precisely with the technical business cycle dates.

NEW YORK STATE BUSINESS CYCLES

Peak Date	Trough Date	Recession Length (in months)	Private Sector Job Losses
October 1973	November 1975	25	384,800
February 1980	September 1980	7	54,800
August 1981	February 1983	18	76,600
June 1989	November 1992	41	551,700
December 2000	August 2003	32	329,300
August 2008	December 2009	16	352,700

Source: DOB staff estimates.

Variables Used in New York Index of Leading Indicators



Note: All percent changes are from prior year; the June 2008 outlier in housing permits is removed.
Source: Moody's Analytics; DOB staff estimates.

(continued on next page)

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In order to gauge the future direction of the State economy, the Budget Division produces the New York State Index of Leading Economic Indicators, which yields a forecast for the Coincident Index up to 12 months ahead. The forecasting model includes the following five leading economic variables in a vector autoregressive framework: the U.S. Index of Leading Economic Indicators (excluding stock prices and the interest rate spread), New York housing permits, New York initial unemployment insurance claims, stock prices, and the spread between the 10-year and one-year U.S. Treasury rates.

The long lag with which the New York economy entered the last recession contrasts sharply with the experience of the prior five downturns. As illustrated in Figure 31 on page 70, the State entered three of the five prior recessions earlier than the nation as a whole, and entered the remaining two only one month later. The State’s estimated business cycle trough date is December 2009, which implies that New York’s recession was two months shorter than that of the nation as a whole.

¹ R. Megna and Q. Xu (2003). “Forecasting the New York State Economy: The Coincident and Leading Indicators Approach,” *International Journal of Forecasting*, Vol 19, pages 701-713.

² J.H. Stock and M.W. Watson (1991), “A Probability Model of the Coincident Economic Indicators,” in K. Lahiri and G. H. Moore (eds.), *Leading Economic Indicators: New Approaches and Forecasting Records*, New York: Cambridge University Press, pages 63-85.

Outlook for Employment

Table 7

YEAR-AGO PERCENT CHANGE IN EMPLOYMENT FOR 2017Q2: NYS v. US

	NYS	US
Total Private	1.5	1.7
Utilities	1.1	(0.2)
Construction	1.0	2.7
Manufacturing and Mining	(1.1)	0.4
Wholesale Trade	(0.5)	0.9
Retail Trade	(0.7)	0.1
Transportation and Warehousing	0.7	1.8
Information	1.6	(1.6)
Finance and Insurance	(0.2)	1.8
Real Estate and Rental and Leasing	1.3	2.7
Professional, Scientific, and Technical Services	1.7	3.3
Management, Administrative, and Support Services	1.8	2.9
Educational Services	0.8	1.8
Healthcare & Social Assistance Services	3.5	2.3
Leisure, Hospitality and Other Services	1.7	1.8
Government	0.3	0.6
Total	1.3	1.6

Note: Management, and administration and support services includes NAICS sectors 55 and 56; sum of sectors may not match the total due to the exclusion of unclassified.

Source: NYS Department of Labor; DOB staff estimates.

Since the end of the recession, the State’s labor market has enjoyed historically strong private sector job growth. Table 7 presents a current profile of the job market by comparing year-ago

growth rates for the second quarter of 2017, the most recent for which detailed Quarterly Census of Employment and Wages (QCEW) data are available, with those of the U.S. for the same period. Private employment grew 0.2 percentage points faster for the U.S. than for New York, while the differential for government job growth was even greater. Table 7 reveals additional differences between New York and the nation. For example, New York led the nation in three sectors in the second quarter: utilities, information, and healthcare and social assistance services. The differential was the largest (3.2 percentage points) for the information sector, which includes large media companies such as Google and Facebook. Moreover, both New York and the nation as a whole have seen a large slowdown in job growth within the leisure and hospitality sector from over 3 percent earlier in the expansion to just below 2 percent by the middle of 2017.

Going forward the Budget Division projects total State employment growth of 1.1 percent for 2018, following growth of 1.2 percent for 2017. Private sector job growth of 1.3 percent is projected for 2018, following estimated growth of 1.4 percent for 2017. The State’s maturing pace of labor market growth is comparable to, albeit a bit below, overall national job growth for 2018 of 1.4 percent and private growth of 1.5 percent.

Table 8

YEAR-AGO PERCENT CHANGE IN EMPLOYMENT FOR 2017Q2: NYS v. US

	NYS	US
Total Private	1.5	1.7
Utilities	1.1	(0.2)
Construction	1.0	2.7
Manufacturing and Mining	(1.1)	0.4
Wholesale Trade	(0.5)	0.9
Retail Trade	(0.7)	0.1
Transportation and Warehousing	0.7	1.8
Information	1.6	(1.6)
Finance and Insurance	(0.2)	1.8
Real Estate and Rental and Leasing	1.3	2.7
Professional, Scientific, and Technical Services	1.7	3.3
Management, Administrative, and Support Services	1.8	2.9
Educational Services	0.8	1.8
Healthcare & Social Assistance Services	3.5	2.3
Leisure, Hospitality and Other Services	1.7	1.8
Government	0.3	0.6
Total	1.3	1.6

Note: Management, and administration and support services includes NAICS sectors 55 and 56; sum of sectors may not match the total due to the exclusion of unclassified.

Source: NYS Department of Labor; Moody's Analytics; DOB staff estimates.

Table 8 shows projected changes in employment for 2018 by sector. The education and health care industries are expected to continue their strong growth during the current year. A growing global and national economy will continue to support the demand for services produced by New York’s large business service sector, thus professional and business services will continue to be a growth engine. Tourism will continue to be a source of strength, with the leisure and hospitality

sector continuing to be a leading sector, though growth has come down over the last few years. Improving global growth represents a tailwind for this sector, though a stronger dollar would represent a headwind.

The Continuing Transformation of the Securities Industry

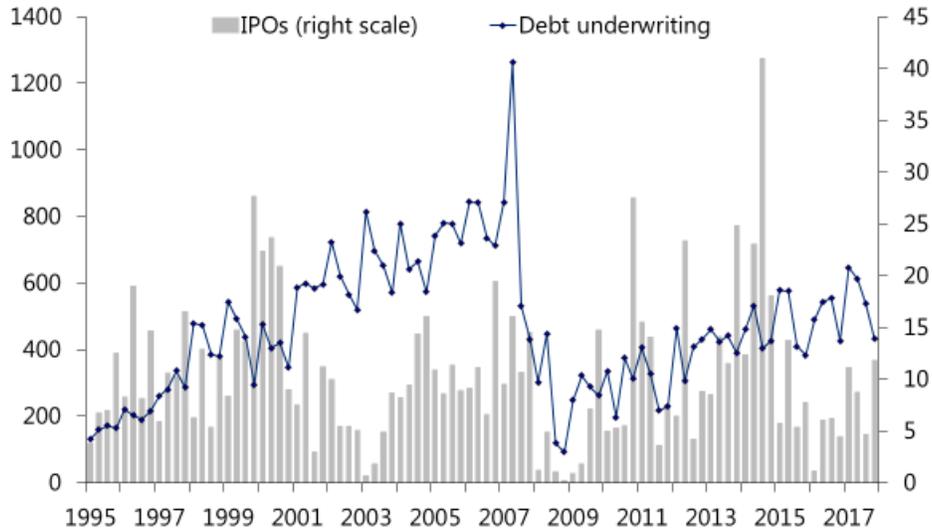
initial public offerings (IPOs) and corporate debt underwriting are two important drivers of securities industry revenues and profits. While debt underwriting is closely linked to interest rates and the overall level of economic activity, IPOs tend to rise and fall with the secondary equity market. The spikes that appear in Figure 32 correspond to the historically large offerings that gained much attention in recent years, such as the \$15.8 billion General Motors IPO in November 2010, the notorious Facebook offering in May 2012, the public sale of Twitter in November 2013, and the record-setting \$21.8 billion Alibaba IPO in September 2014.

Compared to 2016, 2017 was a strong year for IPO market. There were 160 IPO deals, 50 percent more IPOs than in 2016, with proceeds nearly doubling to \$36 billion. Driving activity were biotech companies, technology firms, and the return of Chinese issuers. However, given the underlying strength in the broader stock market, the activity level was relatively subdued. Delays in issuances could be the result of uncertainty over the timing of the tax overhaul and the disappointing debuts of technology "unicorns," Snap and Blue Apron. Debt underwriting grew 10.7 percent in 2017.

In addition, 2017 was a disappointing year for merger and acquisition (M&A) activity, with 2017 posting a 3 percent decline in deal value. Although equity markets reached record highs, the uncertainty surrounding the new presidential administration might have caused the postponement of some megadeals. With the long-awaited enactment of the TCJA, 2018 is expected to be a stronger year for the M&A market. The Act's corporate provisions could potentially inject companies with additional capital that would be available for deals, if not returned to shareholders. The TCJA also gives investors more clarity in an uncertain regulatory environment. The potential repatriation of overseas cash back to the US could also improve the capital availability for companies, which in turn can fuel M&A activities.

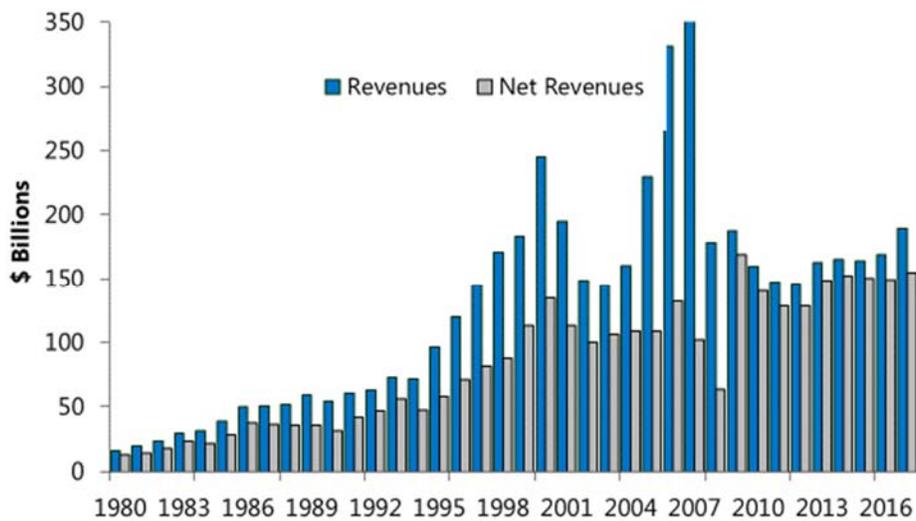
Despite the decline in M&A value, overall securities industry revenue and profits were stronger in 2017 due to a much more active IPO market than in the prior year and continued strong equity markets. Figure 33 shows New York Stock Exchange member-firm revenues before and after subtracting interest costs. Total revenues are estimated to have risen 11.8 percent in 2017, following 3.3 percent growth in 2016. Despite last year's strong growth, total revenues for 2017 are estimated to remain 46.3 percent below 2007 levels and roughly equal to 2009 levels. Figure 33 also shows how the margin between revenue and net revenue has widened as short-term interest rates have risen, raising financial firms' interest costs. With short-term rates rising faster than long-term rates, interest expenses have tended to rise faster than margin interest gains.

Figure 32
Major Drivers of Financial Market Activity
\$ Billions



Source: Securities Industry and Financial Markets Association (SIFMA).

Figure 33
NYSE Member Firm Revenues



Note: Estimate for 2017 is based on three quarters of actual data and one quarter estimated; net revenues exclude interest expenses.
Source: SIFMA.

Table 9

NYSE MEMBER FIRM FINANCIAL RESULTS											
(\$ Billions)											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*
Revenues	352.0	178.1	187.5	159.8	147.3	145.7	162.8	165.0	164.0	169.1	189.1
Commissions	28.8	30.2	26.3	25.0	25.7	19.4	23.1	23.0	22.7	21.3	20.1
Trading Gain (Loss)	(10.3)	(71.8)	27.4	16.7	1.5	14.0	11.1	11.5	8.4	11.9	14.0
Underwriting Revenue	23.2	16.5	19.8	20.3	18.3	20.8	24.9	25.5	22.6	19.0	22.0
Fees, Asset Management	21.6	20.9	17.5	20.6	25.7	24.7	33.2	38.2	40.9	42.8	50.3
All Other	288.8	182.3	96.5	77.1	76.1	66.7	70.5	66.8	69.4	74.1	82.7
Expenses	363.4	220.7	128.1	134.7	139.5	123.6	145.8	148.7	148.8	150.8	164.6
Total Compensation	69.6	59.8	62.4	66.9	68.0	60.2	70.4	72.7	73.9	72.9	74.9
Interest Expense	249.8	114.5	18.7	19.6	18.7	17.3	14.4	13.1	13.4	20.1	34.2
All Other Expenses	44.0	46.3	46.9	48.2	52.8	46.1	61.0	63.0	61.5	57.8	55.5
Pre Tax Net Income	(11.3)	(42.6)	59.4	25.1	7.7	22.1	17.0	16.3	15.2	18.3	24.4

* Estimate for 2017 is based on three quarters of actual data and one quarter estimated.

Source: SIFMA.

Table 9 lists the primary sources of revenue and expenses for NYSE member-firms over the last ten years. Clearly, the three greatest areas of improvement in industry balance sheets since 2008 are the decline in interest expenses, due to historically low interest rates; increasing gains from equity underwriting; and the growth in fee and asset management revenues. Although interest expenses are down substantially from their pre-recession high, they are up in 2017 from the prior year.

Table 9 also highlights some of the sources of the recent weakening in securities industry revenues. Industry trading gains fell dramatically in 2010 and 2011, and have remained relatively low for the past six years for a number of reasons, including: volatile equity markets due to repeated cycles of panic in response to sovereign debt concerns both here and in the euro-zone; concerns about the Chinese economy; the strengthening dollar; the price of oil; the Brexit vote; the U.S. presidential election; and policy uncertainty under a new presidential administration. With long-term interest rates remaining stubbornly low, gains from fixed-income trading and from lending have also been weak. Finally, the evolving regulatory environment since Dodd-Frank was signed into law in July 2010 has succeeded in constraining bank risk-taking behavior.

Some of the key goals of the Dodd-Frank reform were strengthening bank capital requirements; limiting counterparty risk; and, ultimately, systemic risk. One of the major provisions of Dodd-Frank required the formulation of regulations to enforce the so-called “Volcker Rule,” which put limits on proprietary trading on the banks’ own account. Finalized regulations were released and adopted by regulatory agencies in December 2013. However, in December 2014 the Federal Reserve decided to give banks until July 21, 2016, to conform investments made prior to December 31, 2013, with the regulations, though banks still had to cease proprietary trading activities by July 2015. They also had to divest themselves of any interest in private equity, venture capital funds, and hedge funds created after December 2013 by that deadline. The results presented in Table 9 highlight the impact that reform has had on the way Wall Street is conducting business.

In addition to Dodd-Frank, implementation of Basel III, the third incarnation of the Basel Accords establishing global regulatory standards for managing bank risk, was to start in 2013, but the implementation date has since been extended to 2019. Basel III specifically aims at improving the ability of banks to withstand periods of systemic economic and financial stress through more stringent capital and liquidity requirements. But these strengthened requirements will tend to put further pressure on revenue-generating activity and bank profitability by reducing leverage ratios, thus intensifying the pressure that already exists in the current environment of low long-term interest rates.

The new regulatory environment appears to have altered bank business practices in two fundamental ways. First, the composition of executive compensation has evolved away from cash in favor of deferred compensation and stock grants, thus more closely tying pay to the long-term performance of the firm. As a result, the revenue growth estimated for a given year may not translate into an equivalent rise in taxable bonus pay for the ensuing bonus season. The deferral of compensation will tend to smooth out bonus payments, as the cash portion of current-year compensation packages combines with the deferred portions of prior years.

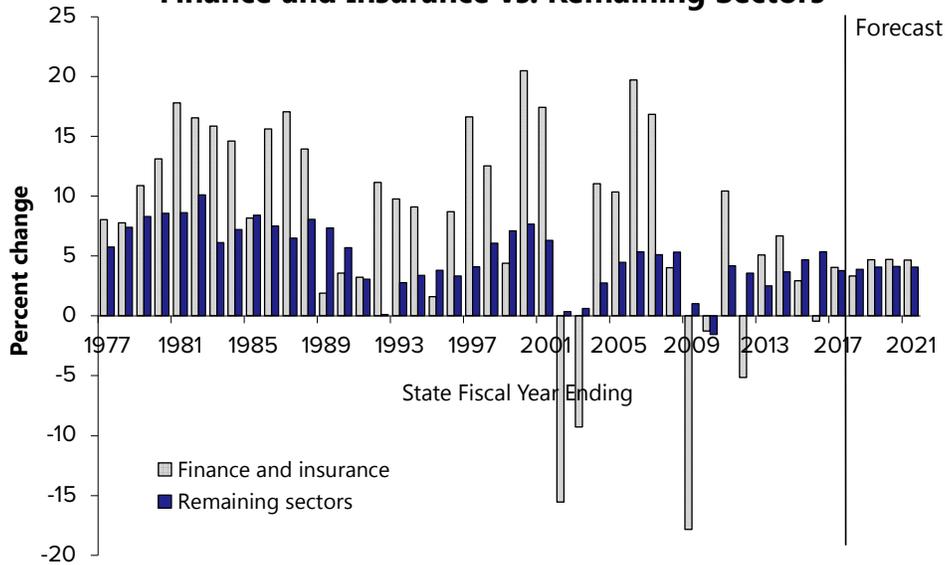
Secondly, in order to reinforce such long-term incentives, compensation packages now include claw-back provisions that allow firms to take back a portion of bonus pay if actions taken by an employee are ultimately judged to have been too risky. Firms therefore are expected to continue to alter their business practices in favor of less risky behavior both by reducing leverage and by engaging in fewer risky trades. The upward trend of revenue generated by less risky fees and asset management, illustrated in Table 9 supports this claim.

Outlook for State Income

The Budget Division projects total personal income growth of 3.1 percent for 2018, much weaker than the 4.7 percent growth estimated for 2017. These growth rates are driven mainly by wages, the largest component of personal income. New York State wages are estimated to have risen 6.1 percent in 2017, with growth of 2.1 percent projected for this year. The weak growth rate for 2018 is in large part an artifact of the shifting of income into 2017 from both the fourth quarter of 2016 and the first quarter of 2018. As explained above, this shifting represented strategic behavior on the part of taxpayers to reduce their tax bills. The government sector is expected to continue to add jobs, though at a lower pace. Private sector wages are projected to grow 2.0 percent for 2018, while government sector wage growth is projected at 2.8 percent. Note that government wages are assumed to be unaffected by strategic income shifting.

Because the state-level wage data published by the U.S. Bureau of Economic Analysis have proven unsatisfactory for the purpose of forecasting State tax liability, the Budget Division constructs its own wage and personal income series based on Quarterly Census of Employment and Wage (QCEW) data. Moreover, because of the importance of trends in variable income – composed of stock-related incentive income and other one-time bonus payments – to the understanding of trends in State wages overall, the Budget Division has developed a methodology for decomposing wages into a bonus and a non-bonus series. For a detailed discussion, see Box 3. The Budget Division's outlook for State income is based on these constructed series.

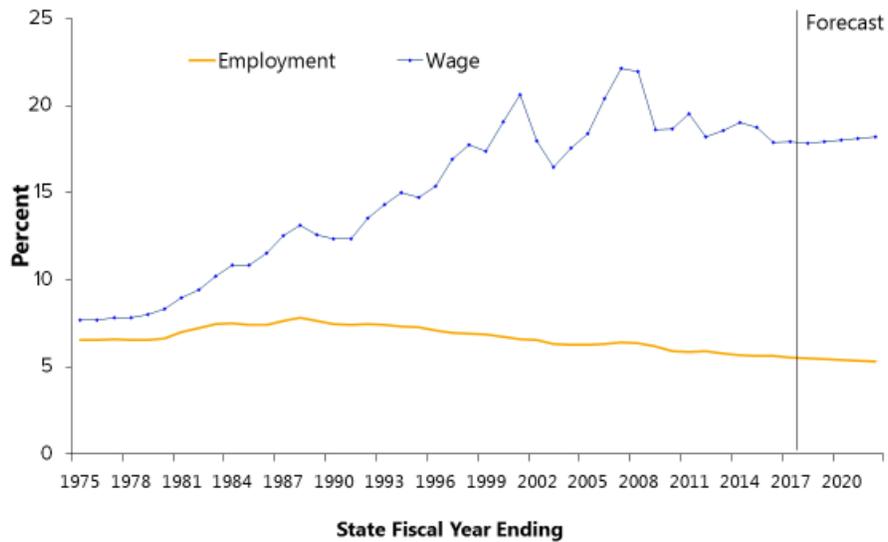
Figure 34
New York State Wage Growth
Finance and Insurance vs. Remaining Sectors



Source: NYS Department of Labor; DOB staff estimates.

New York State employment and income are profoundly affected by the fortunes of the financial markets. As illustrated in Figure 34, finance and insurance sector wages have historically tended to grow much faster than wages outside of that sector. However, not only has this trend become much more muted since the end of the financial crisis, as the chart makes clear, it actually reversed during the 2014-15 and 2015-16 State fiscal years. From FY 1977 through FY 2008, the last complete fiscal year before the fall of Lehman Brothers, average annual growth in finance and insurance sector wages was 4.4 percentage points above that of the remaining industrial sectors. However, over the eight years since the worst of the crisis, (excluding FY 2009 when finance and insurance sector wages fell 17.8 percent) finance and insurance sector wage growth was an average of 0.5 percentage points below that of the remaining sectors. For the out-years, finance and insurance wage growth is expected to exceed growth for the remaining sectors by an average of 0.4 percentage points, putting financial sector wage growth much more in line with nonfinancial sector wage growth than has historically been the case. Moreover, the finance industry’s share of total wages is not projected to reach its 2006-07 peak at any point over the forecast horizon.

Figure 35
Finance and Insurance Sector Employment and Wages as Share of State Total



Source: NYS Department of Labor; DOB staff estimates.

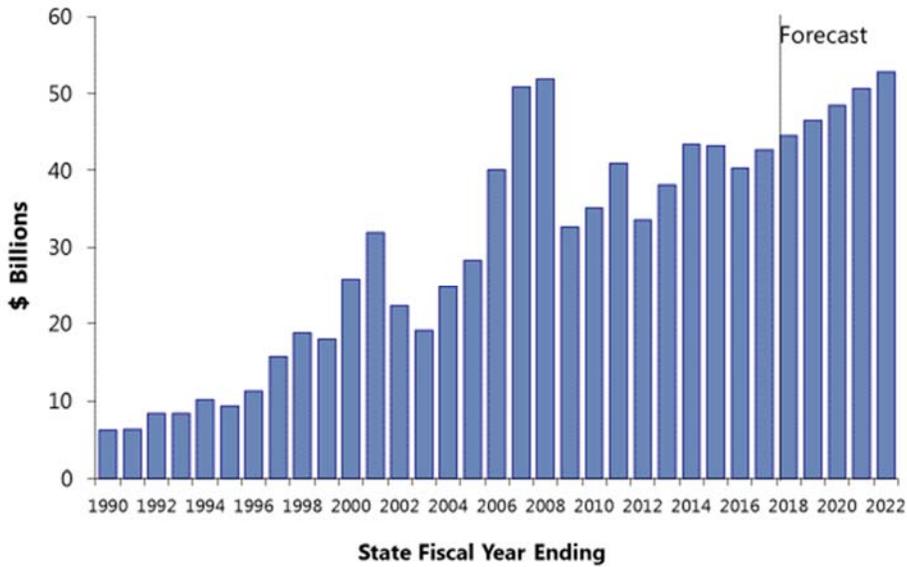
Figure 35 shows how the substantially higher wage growth in the finance and insurance sector caused it to increase its share of total State wages over time on a State fiscal year basis to a peak of 22.1 percent in 2006-07, but the share has since fallen and is unlikely to revisit that peak in the near future. The industry’s employment share is substantially lower than its wage share at only 5.5 percent of total State employment in 2016-17 and is expected to continue its downward trend. Nevertheless, finance sector workers continue to be, on average, very highly compensated. Even after falling to \$174,000 in 2008-09 in the wake of the financial crisis, finance and insurance sector average wages were still 247 percent higher than the average wage for the rest of the State economy. By 2016-17, the industry’s average wages rose to approximately \$224,000, which were 273 percent above that of the remaining sectors. Financial market wages have an important effect on employment and income in New York City and its surrounding suburbs, both directly – through compensation paid to finance sector workers and purchases made by finance sector firms, and indirectly – as finance sector workers spend their incomes on housing, entertainment, and other goods and services.

Variable Income Growth

Variable income is defined as that portion of wages derived primarily from bonus payments, stock incentive income, and other one-time payments. Firms tend to grant employee bonus packages during either the fourth quarter of a given year or the first quarter of the following year, as a form of performance incentive for the prior calendar year. Although the cash component of bonus income is unambiguously counted as wages (from which taxes are withheld) in the quarter in which it was granted by the firm, stock incentive income typically is not. Stock grants do not appear in the wage data until they are vested. Nevertheless, variable income payments are sufficiently concentrated in

the fourth and first calendar-year quarters to make the State fiscal year a logical period of analysis for discussing the determinants of variable income growth.²⁶

Figure 36
New York State Finance and Insurance Sector Bonuses



Source: NYS Department of Labor; DOB staff estimates.

²⁶ See Box 3 on page 62 for a more detailed discussion of bonus estimation.

Box 3

THE CONSTRUCTION OF NEW YORK STATE WAGES AND THE ESTIMATION OF VARIABLE INCOME

Trends in State wages are critical to an accurate analysis and forecast of personal income tax liability and collections. To improve the link between the economic and tax variables on a quarterly basis, the Division of the Budget (DOB) constructs its own wage series from the available primary data sources. This series differs from the data published by the U.S. Bureau of Economic Analysis (BEA).

The DOB uses only New York data to construct its State wage series. The primary source is data collected under the Quarterly Census of Employment and Wages (QCEW) program. In contrast, the BEA uses national information to adjust the quarterly values for seasonal variation, as well as to ensure that state level wages add up to national estimates. The consequence is often a significant difference between the two series in both the quarterly pattern and the annualized growth rates. For example, according to staff estimates based on the QCEW data, wage growth rates for the first and second quarters of 2000, on a year-ago percent-change basis, were 18.3 percent and 8.5 percent, respectively. The comparable growth rates originally published by the BEA were 2.4 percent and 5.4 percent. These estimates have since been revised up to 7.3 percent and 9.2 percent, respectively. However, the lack of timeliness in the revision process limits the usefulness of BEA data for state forecasting purposes.

A comparison with yet another source of wage data also demonstrates the greater accuracy of the QCEW data. Since the amount of wages withheld for personal income tax purposes varies systematically with wages itself, withholding data provide a useful guide for estimating State wage growth. For example, wages withheld during the first quarter of 2000 were 18.6 percent above withholding for the same quarter of the previous year. This estimate is much more consistent with the growth rate derived from the QCEW data than with the BEA's estimate of 2.4 percent.

Once an entire year of QCEW data becomes available, the BEA revises its state level wage data to be more consistent with that data source. For this reason, DOB's method performs well in anticipating the BEA's revised estimates of annual growth in New York wages. To make the actual magnitudes of the Division's wage series more strictly comparable to the BEA wage series, non-covered and unreported legal wages would have to be added to wages taken directly from the QCEW data. But the addition of these components typically changes the annual growth rate for State wages by no more than two tenths of one percentage point.

An increasing portion of New York State wages has been paid on a variable basis, in the form of either bonus payments or proceeds derived from the exercise of stock options. Because no government agency collects data on variable income as distinct from ordinary wages, it must be estimated. DOB derives its bonus estimate from firm level data collected under the QCEW program. This method allows a large degree of flexibility as to when individual firms actually make variable income payments. However, as with any estimation method, some simplifying restrictions are necessary. DOB's method incorporates the assumption that each establishment makes variable income payments during at most two quarters of the year. However, the determination as to which quarters contain these payments is made at the firm level.

Firms report their wages to the QCEW program on a quarterly basis. A firm's average wage per employee is calculated for each quarter. The average over the two quarters with the lowest average wages is assumed to reflect the firm's base pay, that is, wages excluding variable pay. If the average wage for either of the remaining quarters is significantly above the base wage, then that quarter is assumed to contain variable income.¹ The average variable payment is then defined as total average wage minus the base average wage, after allowing for an inflation adjustment to base wages. Total variable pay is then calculated by multiplying the average bonus payment by the total number of firm employees. It is assumed that only private sector employees earn variable pay.

¹ The threshold adopted for this purpose was 25 percent. However, the variable income estimates are fairly robust to even a five-percentage-point swing in this criterion.

The Budget Division projects total State variable income to rise 3.9 percent for 2017-18, with finance and insurance sector bonuses projected to grow 4.4 percent. Figure 36 portrays how dramatically variable income paid to employees in the finance and insurance industry has grown since 1990. An incentive-based payment structure allows employers to share with employees the risks of doing business and is particularly attractive to the securities industry, given the degree of volatility in industry profits.

The cash portion of finance and insurance sector bonuses is estimated to grow 4.4 percent for the current 2017-18 bonus season, resulting in a payout of \$44.5 billion. This would follow a 5.9 percent growth estimated for 2016-17. Equity market growth is projected to be strong in 2018, although not as strong as in 2017. Although this continues to be a historically low interest rate environment, banks' interest expenses are rising as the Federal Reserve continues to pursue a policy of interest rate normalization, and these expenses are eating into finance industry profits and are likely to continue to do so over the near-term as short-term rates rise faster than long-term rates. Indeed, although total NYSE member-firm revenues are up 11.6 percent for the first three quarters of 2017, net revenues, which subtract out interest expenses, are up only 3.6 percent, while profits are down 1.8 percent. This unusual pattern only adds to the uncertainty surrounding Wall Street bonuses, and likely portends yet another lackluster bonus season. Correspondingly, the Budget Division projects finance and insurance sector bonus growth of 4.4 percent for 2018-19, representing a payout of \$46.4 billion, or \$1.9 billion above 2017-18.

The Budget Division's model for finance and insurance sector bonuses is based on an underlying volume of revenue-generating activity that includes corporate equity and debt underwriting. Continued strong equity market is expected to lead to another strong year for IPOs. The pickup in global growth is expected to strengthen the demand for debt underwriting. All of these factors are expected to contribute to a bonus growth of about the same for 2018-19 as for 2017-18.

The uncertainty surrounding the macroeconomic outlook for the national and global economies becomes amplified in the financial markets. Additional layers of uncertainty are added by the shifts in both monetary policy and fiscal policy. The extraordinary actions taken by the central bank over the last eight years were intended to pull forward economic activity to get the economy moving and it is unknown how the unwinding of those efforts will affect current levels of activity. The evolution of Dodd-Frank under the new administration also creates new risks in financial markets. Thus, a substantial degree of uncertainty surrounds the Budget Division outlook.

Nonbonus Wages

Unlike the variable component of income, nonbonus wages are driven by changes in employment and nonbonus average wages and are therefore relatively more stable. After adjusting for inflation, the nonbonus average wage for each of the State's industrial sectors is believed to have a stable long-run relationship with the real U.S. average wage, which in turn is determined by labor productivity. However, State real average wages can deviate from their long-run trend due to short-term fluctuations related to business cycles, shocks to the regional economy, or shocks to a specific industrial sector that is relatively more important to the State economy, such as finance and insurance. Nonbonus average wages are projected to rise 3.0 percent for the 2018 calendar year, surpassing an estimated 2.8 percent increase in 2017. Note that strategic income shifting is not

expected to significantly affect nonbonus wages. With an annual average unemployment rate of 4.4 percent projected for 2018, total nonbonus wages are projected to grow 4.1 percent for 2018, following an increase of 4.0 percent for 2017.

Average Wages and Inflation

With the estimated shifting of some bonus income from the 2016 tax year into 2017, and another shift from 2018 tax year to 2017, average wages are estimated to increase 4.7 percent for 2017, followed by projected growth of 1.0 percent for 2018. The Budget Division projects 2.2 percent growth in the composite CPI for New York in 2018, following 2.1 percent growth for 2017. Projected 2018 inflation for New York is consistent with that for the nation.

Nonwage Income

Growth in the nonwage components of State personal income is projected to accelerate from 3.1 percent in 2017 to 4.2 percent in 2018. This increase is in large part due to an acceleration in property income growth from 3.5 percent in 2017 to 4.7 percent in 2018. Property income, one of the largest components of nonwage income at the State level, comprises interest, dividend, and rental income. Dividend income, the largest subcomponent based on State income tax return data, is expected to accelerate for both the State and the nation, consistent with the strong growth in equity prices and U.S. corporate profits. Interest income, the second largest subcomponent, is also expected to accelerate in 2018 due to rising interest rates engendered by the shift in monetary policy and global growth.

Proprietors' income is expected to accelerate to 4.4 percent growth this year in New York, following growth of 3.8 percent in 2017, consistent with a strengthening national economic backdrop. The employee contribution to Social Security is expected to rise 4.4 percent in 2018, following 4.3 percent growth for 2017. Transfer income is expected to grow 4.4 percent in 2018, following growth of 3.0 percent in 2017.

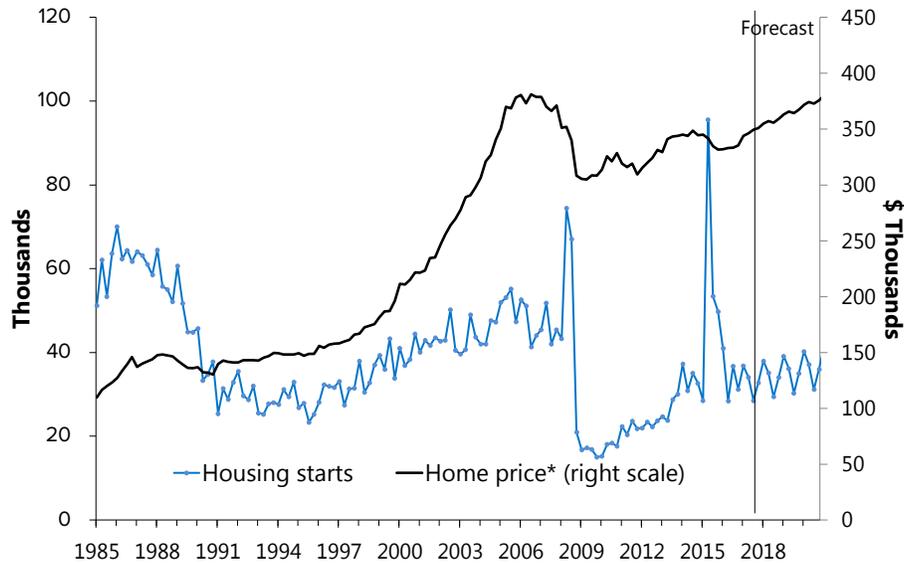
The Housing Market Outlook

New York State's housing construction sector market continued to be plagued by volatility caused by the uncertainty surrounding the future of the 421-a property tax exemption program for new developments well into 2017.²⁷ That uncertainty caused a surge of building permit applications and starts in the spring of 2015, which was followed by a "payback" period that encompassed much of 2016. These developments are evident in Figure 37, which displays recent housing market trends, as well as the Budget Division forecast for both housing starts and average existing home prices for New York. Indeed, State housing starts fell 40 percent in 2016, the first annual decline since 2009. A smaller surge in permits occurred in early 2017, and is still working its way through the market, but with a lag. Permits were up 52.5 percent based on data for the first 11 months of 2017, while

²⁷ This is not the first time that a legal or regulatory change has had an outsized effect on construction spending. A change in New York City building codes took effect on July 1, 2008 requiring developers to add features such as sprinklers, smoke detectors, fire-resistant stairways, and on-site safety managers or coordinators for buildings larger than 10 stories. The change produced a rush to obtain building permits and start work in June of that year, and resulted in growth of 11.2 percent multi-family starts in 2008.

housing starts fell 6.7 percent. Housing starts are expected to finish the fourth quarter of 2017 with a modest increase of 5.7 percent on a year-ago basis, resulting in an annual decline of 3.7 percent. Starts are expected rise 3.3 percent in 2018, followed by continued moderate growth of 2.9 percent in 2019 as monetary tightening continues to put upward pressure on long-term interest rates.

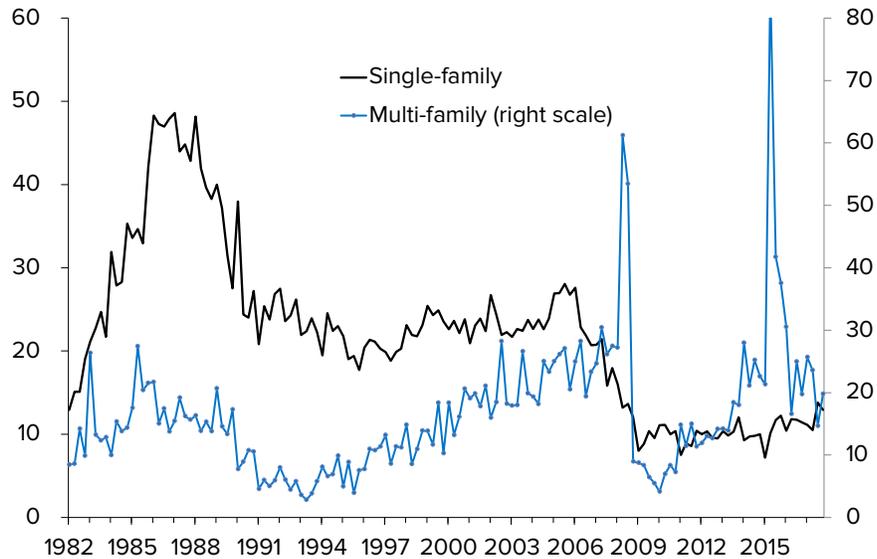
Figure 37
NYS Housing Market Outlook



*Average existing single family home price.
Source: Moody's Analytics.

The weak performance of housing starts in 2016 came from a strong decline in multifamily units, which saw a decrease of 50.6 percent starts (see Figure 38), confirming the role which the New York City real estate market played in that increase. In 2017, multi-family units continued to fall, posting a decline of 8.8 percent on an annual basis, based on the first 11 months of data. Single-family homes saw a slight boost in 2017, with starts increasing 6.6 percent.

Figure 38
Recent Trends in NYS Housing Starts
 Thousands of units



Note: Values for 2016Q4 are based the average of the first two months.
 Source: Moody's Analytics.

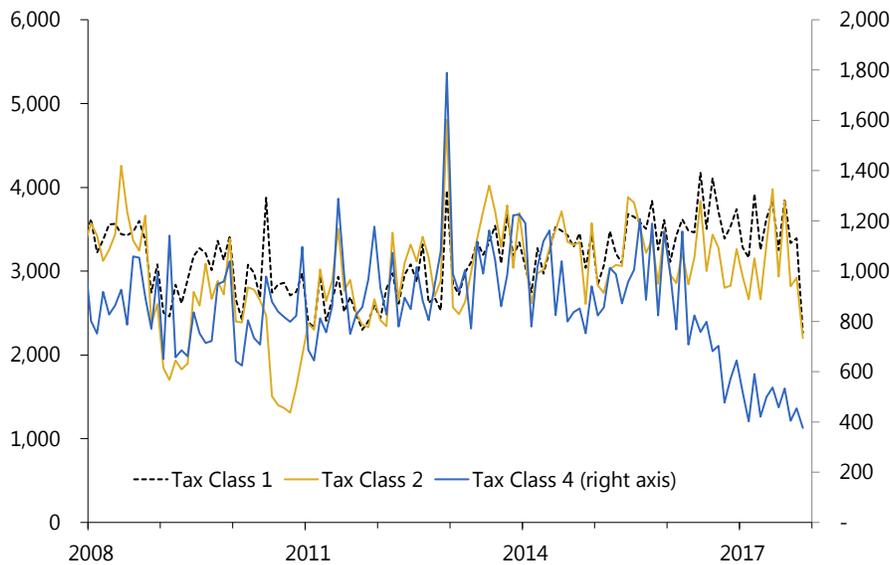
Prospects for the State’s residential housing market also depend on the outlook for prices. Growth in New York State’s average single-family home price is expected to moderate to 2.6 percent in 2018, from an increase of 3.9 percent in 2017, and a decrease of 1.4 percent in 2016. The TCJA is expected to be a significant source of downside risk to the State’s housing market going forward, particularly for home prices. On the construction side, businesses will likely see a positive impact as homebuilders, which tend to be organized as S corporations and limited liability companies, will benefit from the 20 percent deduction on pass-through income. But the on the demand side, prospective new homebuyers will be grappling with the reduced tax benefits of owning a home, including the loss of state and local tax deductibility above the first \$10,000 and a more limited deduction for mortgage interest costs. Consequently, the market could settle at prices that are below what they otherwise would have been in the absence of the new federal tax law.

New York City's housing market plays an outsized role in the State's market as a whole. Figure 39 shows the monthly unit sales since January 2008. Properties in New York City are classified into four tax classes. Class 1 comprises single family homes, multi-family homes with up to three units, and most condos less than four stories; class 2 is made up of the remaining residential properties, notably apartment buildings, condos, and co-ops; class 3 contains most utility properties, a markedly small segment; and class 4 encompasses all commercial and industrial properties.²⁸ Since the beginning of the most recent economic expansion, residential properties in this sub-market have been relatively cyclically stable. The number of closed sales increased 3.3 percent in 2017, based on the first 11 months of data compared to the same period in 2016. This follows 6.2 percent growth in 2016. Tax class 2 closed sales increased 6.5 percent through the first 11 months, following a 3.4

²⁸ <http://www1.nyc.gov/site/finance/taxes/definitions-of-property-assessment-terms.page>

percent decline in 2016. However, there were significant declines in both sectors in November: a 35.9 percent compared to the same month in 2016 for class 1, and 22.1 percent for class 2. In contrast, average and median sales prices grew moderately on both an annual and monthly basis. Tax class 4 also saw declines starting in March 2016. These trends can be distinctly seen in all series in Figure 39.

Figure 39
NYC Real Estate Trends

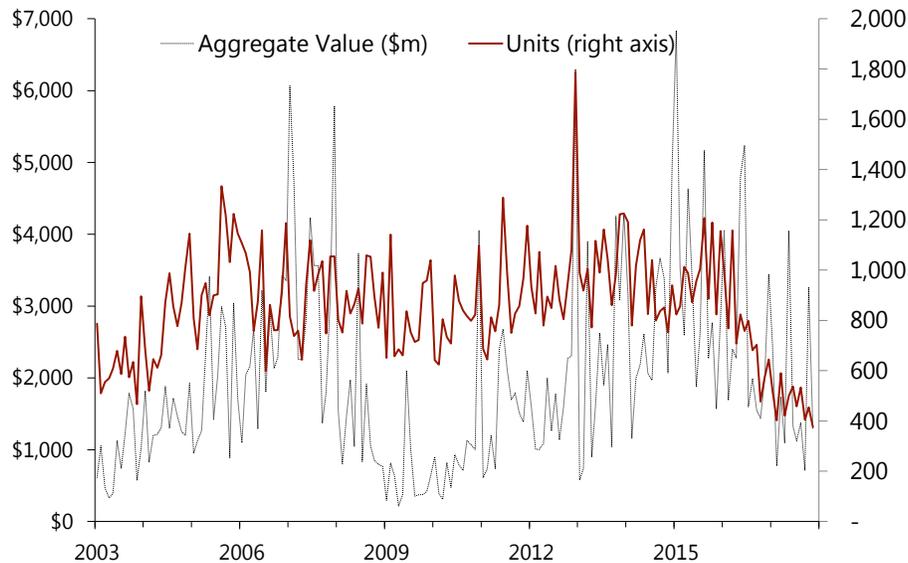


Source: NYC Department of Finance data.

Breaking down the market by borough, Bronx experienced the biggest decline through November 2017, with a 24.3 percent decline in units sold, followed by Manhattan with a 15.4 percent decline and Brooklyn with a 6.7 percent decline. Queens and Staten Island were a little more isolated, posting declines of 0.3 percent and 1.1 percent, respectively. Luxury properties have not been exempt from the downturn either. Properties of any class with a sale price above \$10 million experienced a decline of 34.9 percent in 2017 through November, and a decline of 9.4 percent in 2016.

Focusing on New York City's commercial sector, Figure 40 shows the number of units sold and the aggregate sales price of conveyances through November 2017. Through November, total units sold declined 20.5 percent in 2016 and another 38.4 percent in 2017, the first consecutive declines since 2010. Average sales prices also declined in 2017 and 2016, 33.9 percent and 22.1 percent respectively, following six consecutive annual increases dating back to 2010. Decreases in both series indicate a softening in the New York City market, with all signs pointing to buyers and sellers taking a wait-and-see approach to the terms of the new federal tax bill.

Figure 40
NYC Commercial Sales



Source: NYC Department of Finance data.

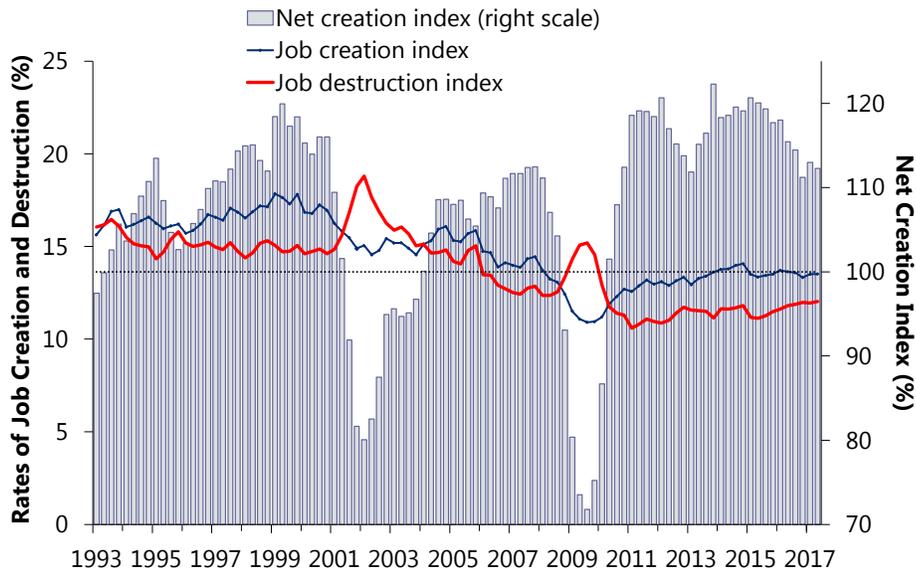
Manhattan’s condo and co-op market is a unique niche with a global reach. However, the market displayed mixed signals in 2017, with sales growing in each of the first three quarters of the year (1.0 percent, 9.0 percent, and 6.9 percent) only to notch a decline in the fourth quarter of 25.4 percent compared to the third quarter and 12.3 percent compared to 2016Q4.²⁹ As a result, the number of sales hit their lowest level since 2012Q1. Although 2016 sales also saw mixed results, most signs point to the passage of Federal tax reform in late December as the primary driver of market uncertainty throughout the quarter. The median sales price for the fourth quarter was \$1,060,000, up 1.0 percent from 2016Q4, but was \$129,000 below the record of \$1,189,000 reached two quarters prior. In contrast, the average sales price, which is more heavily dominated by new development than is the median price, was down 10.6 percent from 2016Q4 to \$1,897,500, the second consecutive quarterly decrease. The luxury segment, representing the top 10 percent of sales, posted a median price decline of 13.2 percent to \$5,727,600 in the fourth quarter of 2017; luxury sales at or above \$10 million fell 51.3 percent on a year-ago basis.

²⁹ See <http://www.millersamuel.com/files/2018/01/Manhattan-4Q_2017.pdf>, viewed January 3, 2018.

New York State Labor Market Dynamics

Between 1993 and 2017, New York State’s private sector labor market weathered two devastating recessions, the first (2001-03) was amplified by the September 11 terrorist attack, while the second (2008-09) originated in one of the State’s critical leading sector, the financial sector. An analysis of labor market dynamics helps to illuminate the underlying economic conditions that can signal how well the State economy will be able to recover from the next downturn (see Figure 41). However, Figure 41 also indicates that the 2001-03 recession left a lasting impact on the State’s private sector job market, leaving the gross rates of both job creation and job destruction on a downward path, signaling a secular loss of dynamism that characterizes labor dynamics at the national level as well. Although some of New York’s loss has been regained during the current expansion, the State has still not returned to the more robust conditions of the 1990s.

Figure 41
NYS Private Sector Employment Dynamics



Source: NYS Department of Labor; DOB staff estimates.

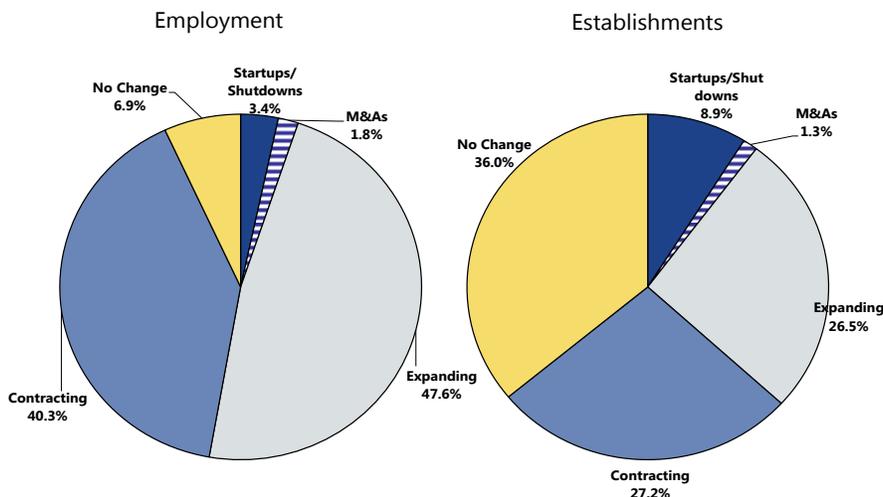
During the Great Recession, the gross rate of job destruction jumped while the rate of job creation, which had already been on a downward path, began to fall more steeply. The third quarter of 2009 marked the peak in the rate of job destruction and the trough in the rate of job creation, resulting in the lowest values for the net jobs creation index since 1993. Beginning with the second quarter of 2010, the rate of job creation began to exceed the rate of job destruction, and has done so for 29 consecutive quarters. Nevertheless, the net job creation index appears to have posted a peak in early 2015 and has been slowing down since then. The underlying net job creation rate of 1.5 percent in the second quarter of 2017 is consistent with the Budget Division’s 1.4 percent estimate for private sector job growth for all of 2017. As we enter 2018, the Budget Division is projecting a slower growth of 1.3 percent for 2018.

The State's Employment and Establishment Base

Figure 42 shows the composition of the State's employment and establishment base for the second quarter of 2017 by type of establishment. Startups and shutdowns accounted for 8.9 percent of the establishment base in 2017Q2. Because these firms tend to be quite small, averaging only about five employees per firm, they accounted for only 3.4 percent of the State's private sector employment base. Firms that were either acquired or absorbed by other firms accounted for 1.3 percent of the establishment base. The average size of these firms was about 17 employees, and these firms accounted for 1.8 percent of employment.

Existing firms are classified according to whether their employment levels (a) expanded, (b) contracted, or (c) experienced no change relative to the same quarter of the prior year. Existing firms represent an overwhelming share of both establishments and employment: 89.8 percent of the State's establishment base and 94.8 percent of the job base. As indicated in the right-hand panel of Figure 42, the three types of existing firms accounted for somewhat similar shares of establishments: 26.5 percent were expanding, 27.2 percent were contracting and 36.0 percent had not change. The employment shares, however, were quite different with 47.6 percent of employment in expanding firms, 40.3 percent in contracting firms and 6.9 percent in firms with no change. That the job share of expanding firms is a significantly higher than that of contracting firms is consistent with the healthy rate of net job creation for the quarter. The average size of existing firms also varies by firm type, with those firms experiencing no change in employment averaging less than three employees, expanding firms averaging 23 employees, and contracting firms averaging 19.

Figure 42
Composition of State's Employment and Establishment Base 2017Q2



Source: NYS Department of Labor; DOB staff estimates.

Box 4

ANALYZING PRIVATE SECTOR EMPLOYMENT DYNAMICS AT THE ESTABLISHMENT LEVEL

The expansion or contraction of an industry over time is usually measured by the net change or net growth in jobs. However, a look beneath the net numbers into the mechanics of job creation and destruction at the establishment level facilitates a deeper understanding of the underlying dynamics.¹ During times when State employment is growing slowly, or even falling, an examination of the underlying dynamics reveals an extremely active labor market – even in the worst of times, new firms are created and existing firms add jobs. For example, though private sector employment fell 3.3 percent in 2009, about 23 percent of the State’s business establishments created jobs. The data for this study derive from the Quarterly Census of Employment and Wages (QCEW) program.² These data include all establishments subject to Federal unemployment insurance laws and cover approximately 98 percent of all employment. For the second quarter of 2017, the most recent period for which data are available, the QCEW data covered 627,874 private sector establishments in New York State and 7,906,463 private sector employees.

Establishment-level data facilitate the investigation of questions that cannot be addressed at the aggregate level. Such questions include whether the primary source of job creation is new firm startups or existing firms that have chosen to expand, or whether net employment growth is the result of an increase in the rate of job creation or a decrease in the rate of job destruction. Two industries may exhibit the same net change in employment but one may have a high job turnover rate, resulting from high gross rates of gains and losses, while the other may have a low turnover rate. Previous studies have found that an increase in the turnover rate tends to be associated with an increase in net growth.³ Hence, the underlying dynamics may give clues as to the near-term direction of the business cycle, and an industry that suddenly starts to experience an increase in firm startups or gross job creation may turn out to be a leading industry in the economy’s next growth phase. Moreover, one can also determine whether new jobs are being created in relatively high-wage or low-wage industries.

Because QCEW data are not seasonally adjusted, comparisons over time should be restricted to the same quarter of various years. We therefore analyze job growth relative to the same quarter of the previous year. Comparability across time also requires normalizing by a common base. Because the jobs that were eliminated between the two quarters are no longer in the 2017 job count, we follow BLS and define the base as the average of the two quarters.

The gross number of jobs created between the second quarter of 2016 and the second quarter of 2017 is constructed by adding together the number of jobs created by firm startups (firms which existed during the second quarter of 2017 but did not exist four quarters prior), expanding firms that existed in both quarters, and firms created through mergers and acquisitions. Between the second quarter of 2016 and the second quarter of 2017, a total of 1,060,648 jobs were created from these three sources. Performing this calculation for the second quarter of 2017 produces the following:

$$\text{Gross rate of job gain} = \frac{\text{Startup gain} + \text{Existing firm gain} + \text{M\&A gain}}{\text{Base}} = \frac{1,060,648}{7,848,557} = 13.5\%$$

(continued on next page)

¹ For a similar analysis for the U.S., see U.S. Bureau of Labor Statistics (BLS), “Business Employment Dynamics: First Quarter 2014,” <<http://www.bls.gov/news.release/pdf/cewbd.pdf>>.

² For a detailed description of DOB’s use of QCEW data, see Box 3 on page 82.

³ See R. Jason Faberman, “Job Flows and Labor Dynamics in the U.S. Rust Belt.” Monthly Labor Review, September 2002, Vol. 125, No. 9, pages 3-10.

(continued from previous page)

This result indicates that the State’s gross rate of job creation for the second quarter of 2017 is 13.5 percent. An analysis of job creation at the establishment level also confirms the conventional wisdom that small firms are the State economy’s primary growth engine. For example, of the more than one million gross number of jobs created during the second quarter of 2017, 50.7 percent were created by firms with less than 50 employees. Another 24.1 percent were created by medium sized firms of between 50 and 250 workers, and the remaining 25.2 percent by large firms with workforces exceeding 250.

We similarly construct a gross rate of job destruction by adding together employment at firms that existed in the second quarter of 2016 but not in the second quarter of 2017, jobs lost from contracting firms that existed in both quarters, and jobs lost due to a merger or acquisition. We then divide by the State’s job base (as defined above), which for the second quarter of 2017 yields:

$$\text{Gross rate of job loss} = \frac{\text{Startup loss} + \text{Existing firm loss} + \text{M\&A loss}}{\text{Base}} = \frac{944,834}{7,848,557} = 12.0\%$$

This result states that the gross rate at which jobs were lost between the two quarters is 12.0 percent. Thus, for the second quarter of 2017, the gross rate of job creation exceeded the gross rate of job destruction. A net index of job creation is constructed by dividing the gross rate of job gains by the gross rate of job losses. For the second quarter of 2017, this calculation yields:

$$\text{Net index of job creation} = \frac{\text{Gross rate of job gain}}{\text{Gross rate of job loss}} = \frac{13.5\%}{12.0\%} = 112.3\%$$

A net index value of exactly 100 percent implies that the gross number of jobs created is entirely offset by the number of jobs destroyed; a value above 100 percent, as we see above, indicates that employment is growing; a value below 100 percent indicates a net job loss, implying the presence of a “job gap.”

As illustrated in the table below, two industries can have similar values for the net index but have very different underlying dynamics. For example, for the second quarter of 2017, the Information sector and the Professional and business services sector had similar net indices of job creation of 108.1 percent and 111.4 percent, respectively. However, the Information sector has a much higher turnover rate than the Professional and business services sector. Understanding these differences has implications for fine-tuning the Budget Division employment forecast.

Employment Dynamics Comparison: 2017Q2

Sector (NAICS code)	Gross rate of job creation	Gross rate of job destruction	Net index of job creation
Information (51)	21.2%	19.6%	108.1%
Professional and business services (54,55,56)	17.1%	15.4%	111.4%

Manufacturing

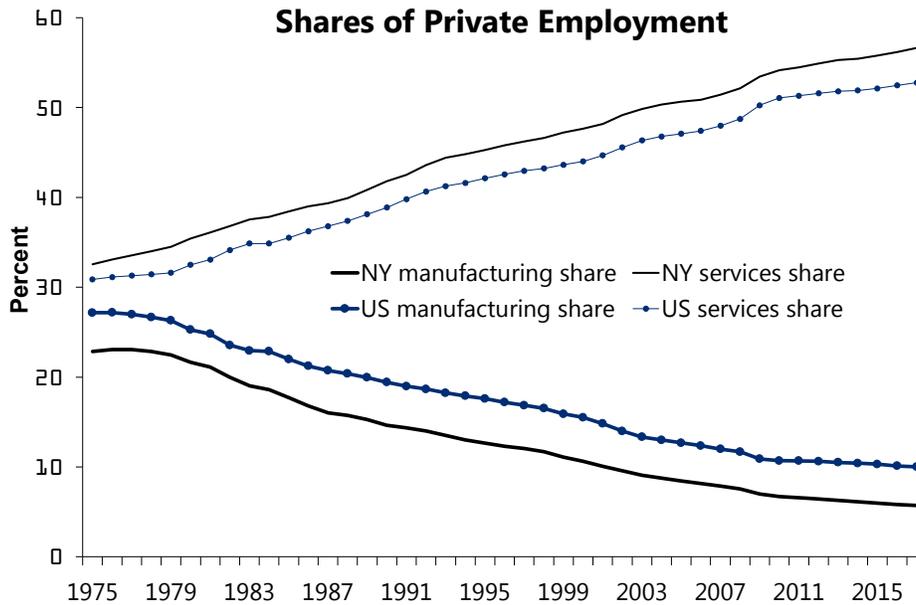
The State has been losing manufacturing jobs for nearly 30 years and now employs fewer workers in manufacturing than in health care and social assistance services; leisure, hospitality and other services; retail trade; professional, scientific, and technical services; management, administrative,

and support Services; and finance and insurance.³⁰ Nevertheless, the manufacturing sector is important in Upstate, where it still accounts for a significant share of private employment.

New York’s comparative advantage has shifted away from manufacturing jobs toward jobs in services (see Figure 43). Competitive pressures arising from increased globalization have resulted in the decline of State manufacturing employment since the mid-1970s, with the rate of job loss accelerating during recessions. Although the declines had slowed for a few years and manufacturing actually experienced a small net employment gains during 2015, the declines resumed in 2016 and continued into 2017. The Budget Division’s forecast calls for continued small decreases in the manufacturing and mining sector in 2018.³¹

Figure 44 suggests that the decline in demand for the State’s exports that resulted from the recent global and national slowdown likely resulted in less demand for New York State manufacturing workers. Figure 45 indicates that the demand for State exports is also sensitive to the value of the U.S. dollar. Despite a recent comeback of the nation’s auto industry, the State’s manufacturing sector continues to struggle.

Figure 43
Manufacturing and Service Sector
Shares of Private Employment

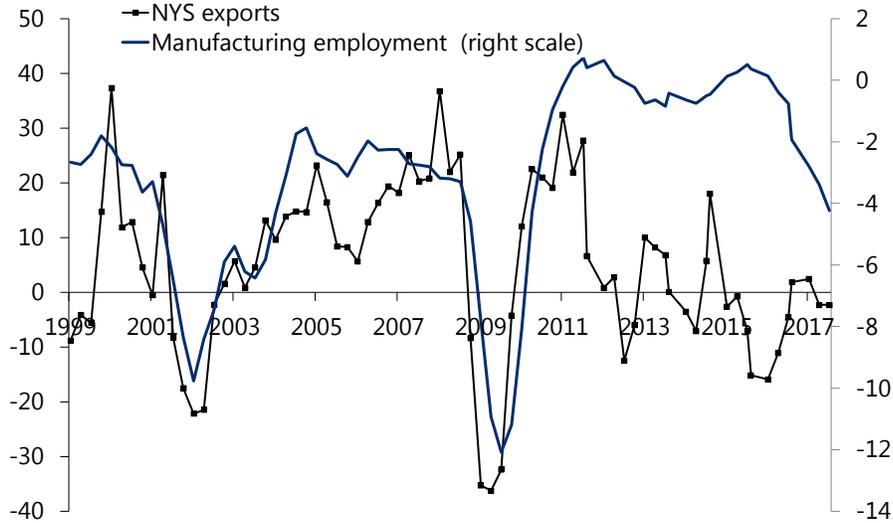


Source: Moody’s Analytics; NYS Department of Labor.

³⁰ The Budget Division combines manufacturing and mining for forecasting purposes. As of the second quarter of 2017, mining accounted for less than 1 percent of total employment in this category and will be ignored for the remainder of the discussion.

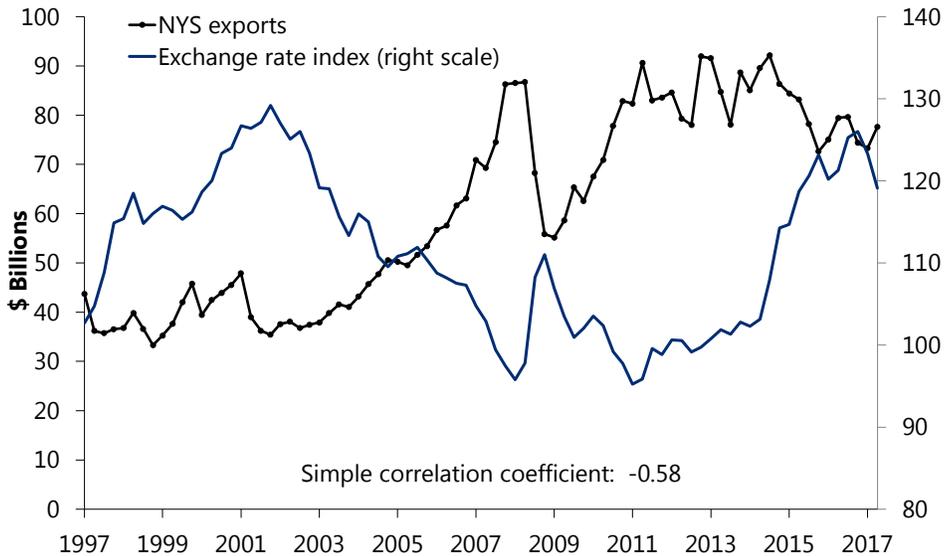
³¹ The Budget Division combines manufacturing and mining for forecasting purposes. As of the second quarter of 2017, mining accounted for less than 1 percent of total employment in this category and will be ignored for the remainder of the discussion.

Figure 44
NY State Exports and Manufacturing Employment
 Year-ago percent change



Note: The two series have a simple correlation coefficient of 0.41.
 Source: Moody's Analytics.

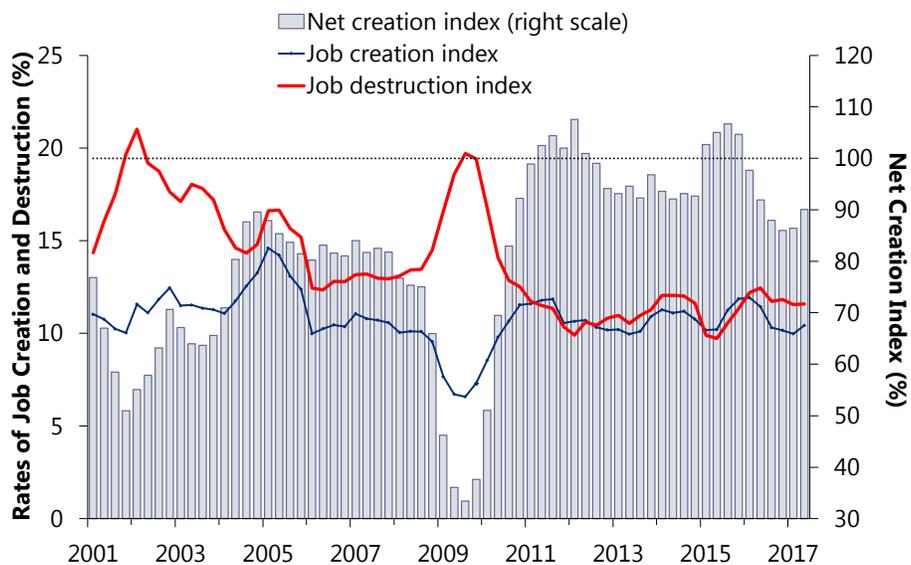
Figure 45
U.S. Dollar Exchange Rate and NYS Commodity Exports



Source: Moody's Analytics

In the wake of the 2001-03 State recession, job creation began to rise and job destruction continued to fall, leading to a net index of job creation of almost 90 percent by the end of 2004 (see Figure 46). The net index dropped back down to about 82 percent by the second quarter of 2007, consistent with the slowdown in manufacturing nationwide, in advance of the “official” start of the national recession in December 2007. Those losses accelerated starting in 2008 due to an increasing rate of job destruction and a falling job creation rate. Losses continued in 2009, as net creation index reached just 33 percent by the third quarter of 2009, resulting in a decline of 10.9 percent for the year, the largest in the history of the series. After a brief rebound, sector employment fell in three of the next four years, posting a 0.6 percent decline in 2013, a 0.8 percent decline in 2014, low growth of 0.5 percent in 2015, and a decline of 1.1 percent in 2016. A 0.8 percent drop in manufacturing jobs is currently estimated for 2017, a loss of about 3700 jobs. With the pickup in the national and global economies projected for this year, a smaller decline of 0.1 percent is projected for 2018, a loss of about 270 jobs. Sector employment remains about 60 percent below its 1984 level of about 1.2 million workers.

Figure 46
Mining and Manufacturing



Source: NYS Department of Labor; DOB staff estimates.

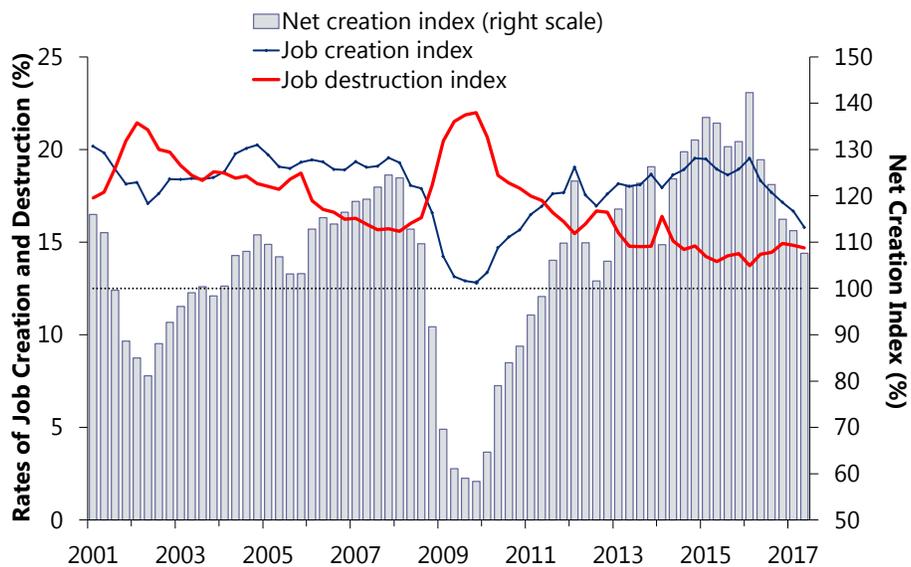
Construction and Real Estate

Despite the fact that New York’s residential housing market experienced less of a bubble than the rest of the nation, residential housing took a hit during the Great Recession. Commercial real estate also took a beating in the last recession, making the construction sector the second hardest-hit during the downturn after manufacturing. Unlike manufacturing, however, construction has staged a solid comeback, with more than 4 percent consecutive annual increases from 2013 to 2016. The growth in the sector has been slowing down since 2017. The Budget Division is expecting an increase of 1.6 percent in 2017 and projects an increase of 1.4 percent in 2018. Meanwhile,

employment in the real estate, and rental and leasing sector is projected to increase 0.9 percent in 2018 after an increase of 1.1 percent in 2017.

The underlying labor market dynamics illustrate the sector’s recent improvements. With the rate of job destruction continuing to fall and the rate of job creation remaining strong, the net employment creation index moved to its highest level of the past 32 years during the first quarter in 2016, but has started to tail off since then (see Figure 47).

Figure 47
Construction & Real Estate

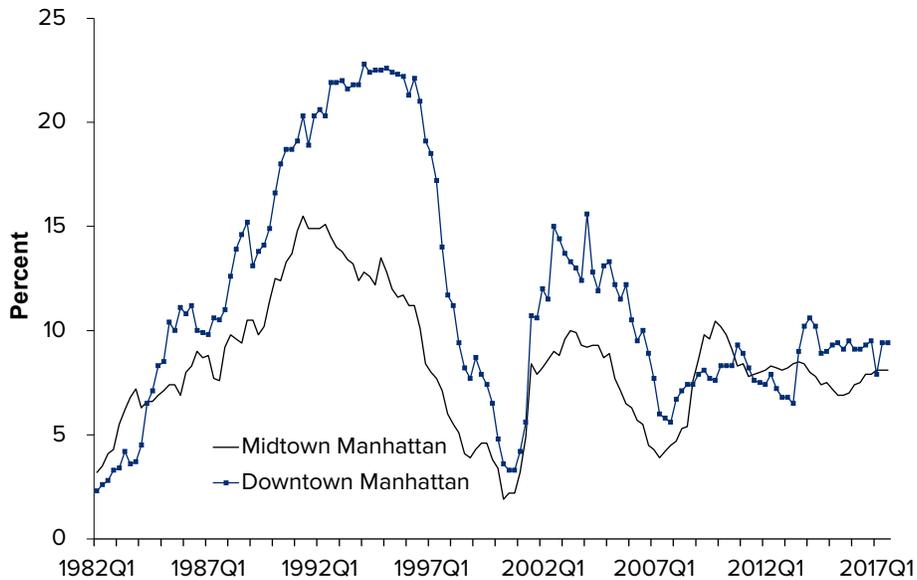


Source: NYS Department of Labor; DOB staff estimates.

The credit crisis started just as new office space was coming online, resulting in increased office vacancy rates. For example, office vacancy rates for both downtown and midtown Manhattan turned upward starting in the first quarter of 2008, though they were still well below national office vacancy rates (see Figure 48). After increasing at the end of 2009 and 2010, Manhattan office vacancy rates started to come down in 2011. After a short increase in 2013, Manhattan office vacancy rates started to come down again.

The construction employment growth in the past few years has been supported by activities already in the pipeline, such as the ongoing reconstruction of the World Trade Center, a multi-year subway project, and the rebuilding after Superstorm Sandy. Projects financed by the waning American Recovery and Reconstruction Act may also helped reduce net job losses. The slowdown in the construction sector coincided with the completion of some these projects. Figure 48 indicates that office vacancy rates may be leveling off.

Figure 48
Office Vacancy Rates



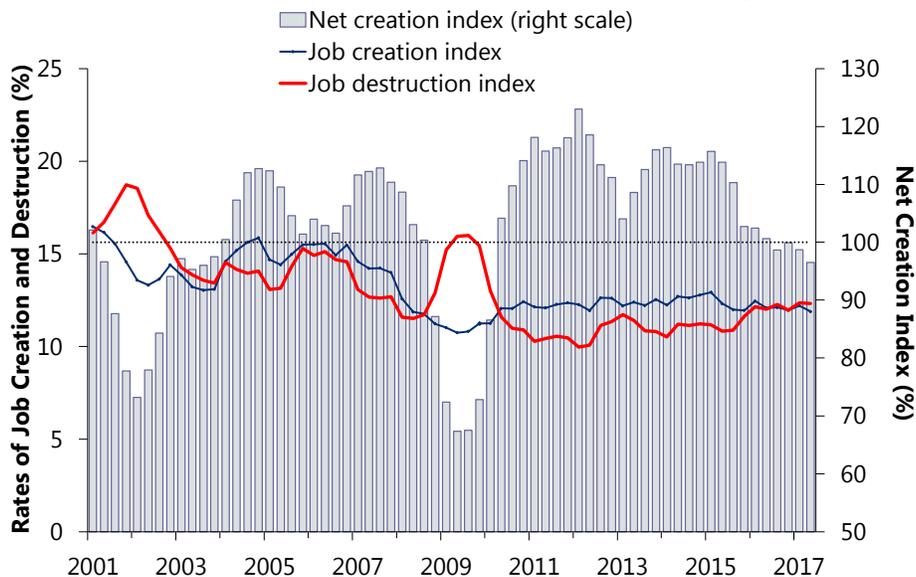
Source: Moody's Analytics; CBRE.

Regional data indicate that housing sector growth has positively impacted construction employment in most of the State's regions, with these regions reporting higher employment in the first of half of 2017 compared to the same period in 2016. The greatest construction employment increases occurred in Mohawk Valley (5.0 percent), Long Island (2.9 percent), Hudson Valley (2.1 percent), and New York City (1.9 percent).

Trade, Transportation, and Warehousing

The Budget Division projects this sector will gain about 6600 jobs in 2018, for an increase of 0.4 percent, after 0.2 percent decrease in 2017. The retail trade, wholesale trade, and transportation and warehousing segments are among the more cyclically sensitive industrial sectors, and were hit hard by the recent recession. As Figure 49 shows, this sector experienced large "job gaps" in both State recessions of 2001-03 and 2008-09. In the more recent recession the sector lost jobs for six consecutive quarters, from the fourth quarter of 2008 through the first quarter of 2010. Although the gross job destruction rate took a huge dive during the first quarter of 2010, the net index turned positive in the following quarter. Growth did pick up over the course of 2010, and continued in the following years, with the net creation index reaching a historic high during the first quarter of 2012. Steady growth of more than 1 percent in employment was observed for five consecutive years from 2011 through 2015. Growth in this sector started to decelerate in 2016 and even went into the negative zone in 2017. For 2018, however, the Budget Division projects flat growth for wholesale trade, 0.4 percent growth for retail trade, and 0.9 percent growth for transportation and warehousing.

Figure 49
Trade, Transportation, and Warehousing



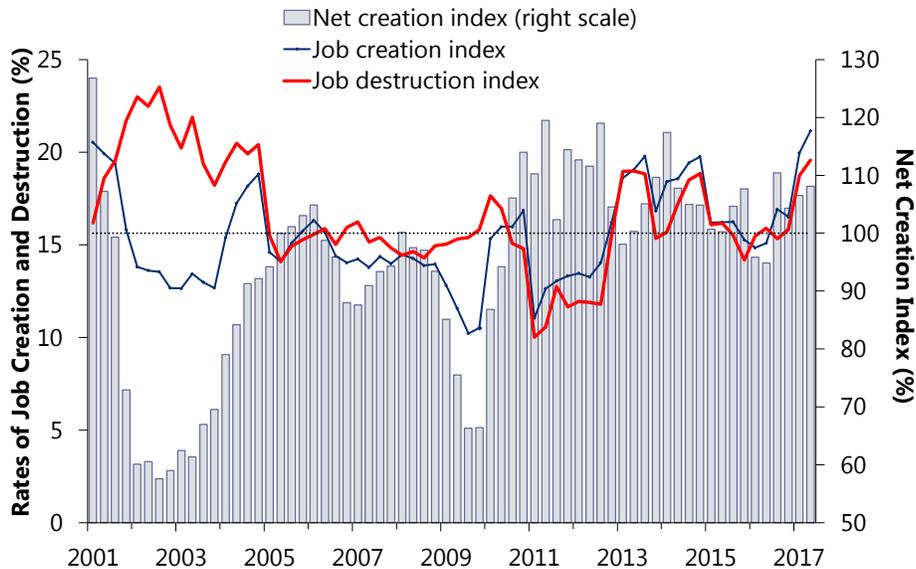
Source: NYS Department of Labor; DOB staff estimates.

Information (Media and Communications)

The information sector, which includes publishing, motion pictures, broadcasting, and telecommunications, is the most regionally concentrated industrial sector with almost 60 percent of State employment located in New York City. The information sector is estimated to have gained about 2,100 jobs in 2017, after experiencing a moderate increase in 2016 and an impressive increase in 2015. The gains in employment appear to be related to the penetration of the New York City market by the social media industry and are not expected to be repeated at that scale going forward. Job gains of 330, or 0.1 percent, are expected in 2018.

The information sector was among the hardest hit in the State during the 2001-03 recession and was extremely negatively affected by the collapse of the internet/high-tech bubble. Employment in the sector, which reached its most recent peak in 2001, has to-date failed to recover to that level, and had been trending downward even before the 2008-2009 State recession hit. In addition, this sector was once one of the most dynamic sectors in the State, exhibiting gross rates of job creation and destruction generally well above statewide averages, but this dynamism has waned with the contraction of the industry (see Figure 50).

**Figure 50
Information**



Source: NYS Department of Labor; DOB staff estimates.

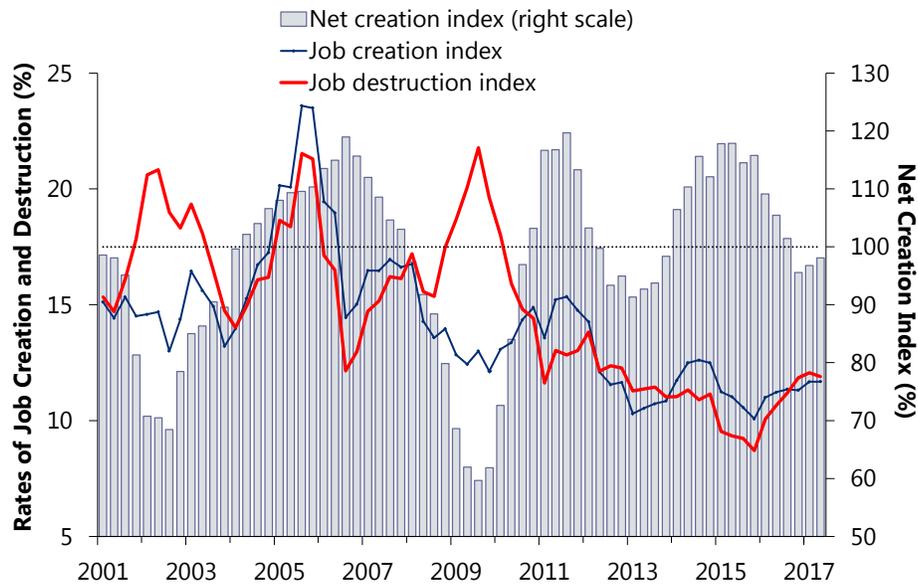
Finance and Insurance

The finance and insurance sector, one of the State’s leading sectors, has been showing slow growth in recent years, with occasional slips back to the negative territory. As has been the case in the past, it could take many years before Wall Street fully recovers from one of the most cataclysmic periods in its history. For example, after the stock market crash of 1987 and the national recession of 1990-91, it took ten years for the securities industry to recover its previous employment peak; this time it could take longer. The Budget Division does not project that the finance and insurance sector will reach its pre-recession 2007Q3 peak of 547,000 jobs before the end of the forecast horizon in 2022.

During the middle of the past decade, the finance and insurance sector had been a bright spot for the State’s economy (see Figure 51). The jobs lost during the 2001-03 recession lowered industry compensation costs and helped Wall Street firms to increase profits significantly by 2003. After three years of job losses, strong revenue and profit performances resulted in the sector’s net job creation index rising above 100 in 2004; it remained there through 2007. During these years, employees received record salaries and bonuses, supporting strong growth in State personal income tax revenues. In addition, both job creation and job destruction rates climbed to about 20 percent in 2005, proving this sector to be one of the State’s most dynamic. Between the middle of 2005 and the end of 2007 the rates of job creation and destruction moved in parallel, with the latter remaining above the former, implying net job growth.

Figure 51

Finance and Insurance



Source: NYS Department of Labor; DOB staff estimates.

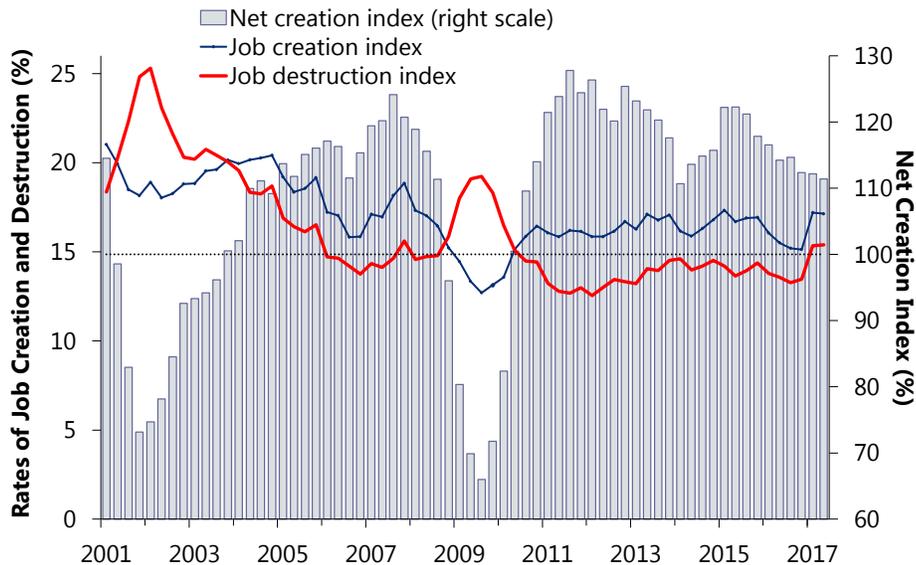
With the start of the credit crisis that began during the summer of 2007, the finance and insurance sector’s rate of job creation began to fall, with the net creation index falling below 100 by the first quarter of 2008. The sector’s rate of job destruction took a sharp upward turn in the fourth quarter of that year, coinciding with the shock to the global financial sector generated by the fall of Lehman Brothers. The sector lost 9,500 jobs in 2008, and a record 38,300 jobs were lost in 2009. During this period, the sector was facing the most severe downturn since the Great Depression. However, the job destruction index started to decline at the end of 2009 and continued to do so until the second quarter of 2011. On the other hand, the job creation index started to increase during 2010, with the net index turning positive at the end of that year. Job losses faded to 9,200 during 2010. While the new recruitment efforts of 2011 kept the net index positive, it turned negative in 2012 and 2013. The net index came back to positive territory in 2014. The momentum continued in 2015, but slowed down in 2016 and turned negative in 2017 again. The Budget Division is estimating a job loss of about 360, or a 0.1 percent decrease for 2017, while job gains of 1,900, or 0.4 percent are projected for 2018. The Budget Division is expecting the finance and insurance sector will grow at a slower pace in the out-years.

Professional and Business Services

This sector includes two groups of industries: the professional, scientific, and technical services sector (PST), which encompasses legal, accounting, architectural, engineering, advertising, and technical services; and the management, administrative, and other business support services group. The Budget Division estimates that the PST subsector saw an estimated gain of 1.6 percent, or 10,510 jobs, in 2017, to be followed by a gain of 1.3 percent, or 8,800 jobs, in 2018. The management, administrative, and support services sector is expected to follow a similar trend with a 2018 gain of

9,350 jobs, or 1.5 percent, after a 2017 gain of 11,030 jobs, or 1.8 percent. This sector includes temporary help services, which tends to be a leading indicator.

Figure 52
Professional and Business Services



Source: NYS Department of Labor; DOB staff estimates.

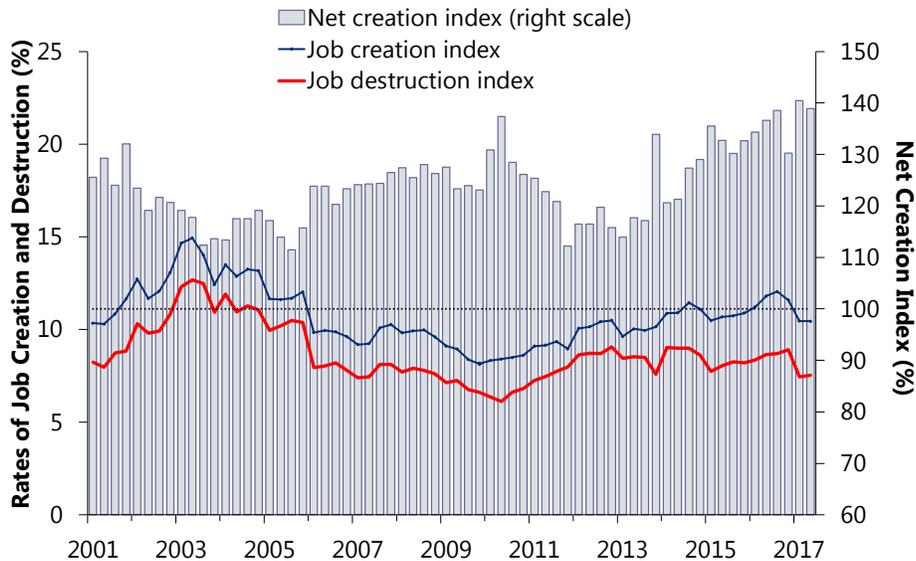
Temporary help services are one of the first employment classes to grow following a downturn, consistent with the substantial improvement in this sector coming out of recessions. Many firms hire temporary workers in the early months following a recession, being uncertain as to whether an increase in the demand for their products will be sustained. This contributes to the high job turnover rate in this sector, as well as to its cyclical sensitivity.

Meanwhile, in the PST subsector, the most recent recession led to a dramatic increase in the job destruction index, and decrease in job creation index, which in turn pushed down the net creation index down to a level even below that engendered by the 2001-03 State recession (see Figure 52). Since the second quarter of 2010, the trends in those two indexes have reversed, leading to the highest rate of net job creation since the 2007 peak by the second quarter of 2011. The State’s PST sector serves both a national and an international customer base; thus, growth in U.S. corporate profits and an improving global economy imply continued growth in this sector going forward in 2018.

Education and Health Care

The private education and healthcare and social assistance sectors have exhibited consistent strength and remain the brightest spots in the employment forecast (see Figure 53). Together, these two sectors are expected to add about 44,640 new jobs in 2018 for growth of 2.4 percent.

Figure 53
Education, Health Care, and Social Assistance



Source: NYS Department of Labor; DOB staff estimates.

The health care industry is the larger of the two, employing an estimated total of almost 1.5 million workers in 2018. The private education sector is estimated to employ only about 354,100, as it excludes more than 600,000 workers employed at public educational institutions. Typically, neither of these sectors exhibits a significant degree of cyclical sensitivity. The demand for jobs within the health care and social assistance sector is expected to strengthen further with the aging of the State’s population going forward. Private education employment is projected to rise 2.0 percent for 2018, following estimated growth of 1.2 percent for 2017. Healthcare and social assistance employment is also projected to rise 2.5 percent in 2018, following estimated growth of 3.3 percent for 2017.

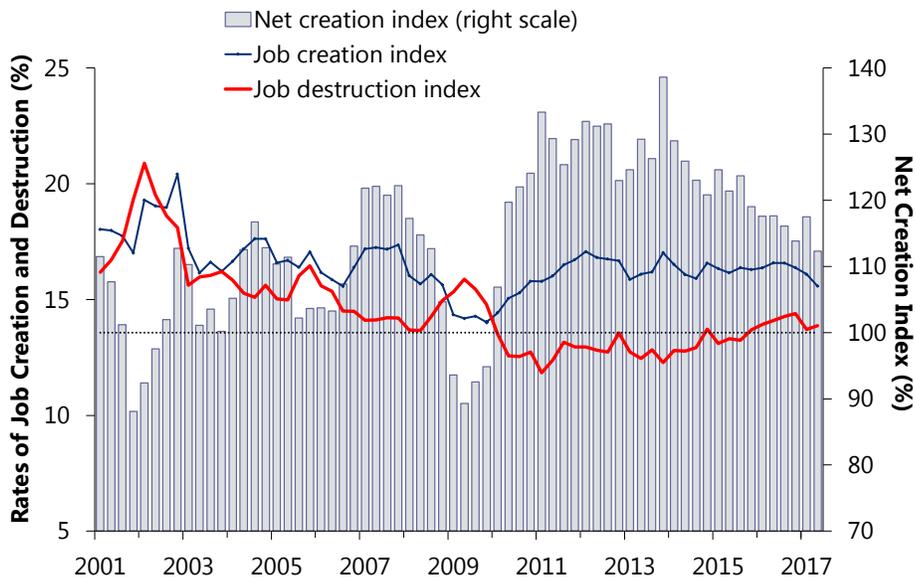
Leisure, Hospitality, and Other Services

The Budget Division expects leisure, hospitality, and other services employment to increase by 1.5 percent in 2018, following an increase of 1.8 percent in 2017. The national and global recessions had a severe impact on this sector, particularly in the arts, entertainment, and other tourism-related industries, not unlike the impact of the September 11 attacks (see Figure 54). In that case, the gross rate of job destruction increased considerably during the fourth quarter of 2001 and the first quarter of 2002, although the sector began to bounce back soon thereafter.

During the more recent State recession, the net index started falling in the first quarter of 2008 and was below 100 by the first quarter of 2009. The sector’s rate of job destruction peaked early, in the second quarter of 2009, and the sector has been improving since, experiencing net growth by the first quarter of 2010. Since then this sector has experienced strong growth, mainly due to the improvement of the job destruction index, which led to the highest net creation index in the fourth

quarter of 2013 since 2001. The sector had been growing at the pace of 3 percent or above prior to 2016. The growth in this sector started to decelerate starting in 2016, but is stilling growing steadily and remains a leading sector. The sector is estimated to have added almost 22,830 jobs in 2017, and is expected to add another 19,880 jobs in 2018, with the gradual strengthening of the national and global economies favoring tourism.

Figure 54
Leisure, Hospitality, and Other Services



Source: NYS Department of Labor; DOB staff estimates.

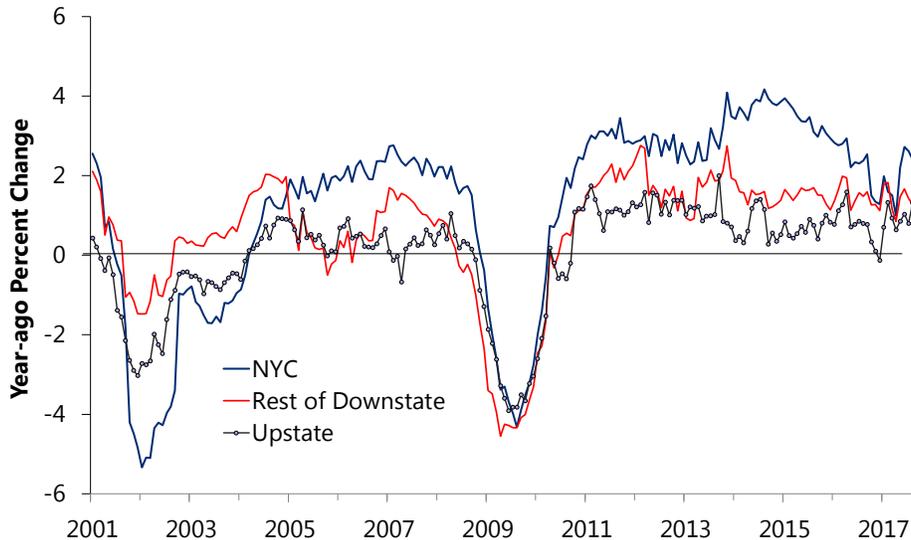
Recent Regional Job Growth Trends

Figure 55 indicates that prior to the financial crisis, employment growth was quite variable across the State’s regions. Between October 2003 and October 2008, the State’s private sector added 337,200 jobs, a 4.8 percent increase. Fully 75.8 percent of these jobs were added in New York City. The City economy, and it’s tourism, financial, and business services sectors in particular, serves not just a national but a global market. Employment growth in the downstate region excluding New York City was weaker, and the growth in the upstate region was weaker still.

By the middle of 2008, the national recession and the housing market contraction began to hit New York. As shown in Figure 55, the downstate region outside of New York City was the first to be affected. But the New York City labor market took a big hit when the credit crisis intensified with the fall of Lehman Brothers in September 2008. Most of the job losses in the financial and business services sectors were in the City. In addition, the synchronized global economic recession put significant downward pressure on the City’s tourism-related establishments, including airlines, hotels, and restaurants, resulting in severe job losses. Meanwhile, the upstate economy’s continued relative dependence on manufacturing – particularly the auto, machinery and equipment industries

– meant that the weakening demand for cars and light trucks, and investment goods more generally, resulted in extensive layoffs, especially in the western part of the State.

Figure 55
NYS Private Sector Employment by Region



Source: NYS Department of Labor.

Figure 55 shows, job losses turned to growth in 2010, starting in New York City and spreading to the remainder of the State later in the year, consistent with the beginning of the recovery in January 2010. Figure 55 also indicates the regional economy was impacted by the various setbacks that plagued the early phase of the U.S. recovery, including sovereign debt crisis in 2010, the U.S. debt crisis in 2011, and the intensification of the global slowdown in 2012. Both New York City and the rest of Downstate experienced job losses in November 2012 in the wake of Superstorm Sandy, though much of those losses were temporary. The job market in these areas started to pick up again in 2013, with job growth in New York City peaking in 2014. Since 2014, with the slowing of global economy and stronger dollar, New York City job gains also slowed, particularly in leisure hospitalities and other services, and the retail sales sector. Weak global economic growth led to weak demand for the state’s other goods and services as well, depressing rates of job growth upstate and in the rest of the downstate region. With the recent pickup of the global and national economy, job gains are expected to stabilize across the State.

Figure 56 compares the relative performance of New York’s 10 regions between the first half of 2016 and the first half of 2017, the most recent period for which the most accurate data – Quarterly Census of Employment and Wages (QCEW) data – are available. These data indicate that job growth over the period, was broad-based. Private-sector employment for the State as a whole grew 1.5 percent, with the downstate regions showing faster growth of 2.0 percent. Meantime, the upstate region grew 0.3 percent. A more detailed analysis of regional employment trends can be found in the tables below.

Figure 56
Regional Employment Growth: 2017H1-2016H1

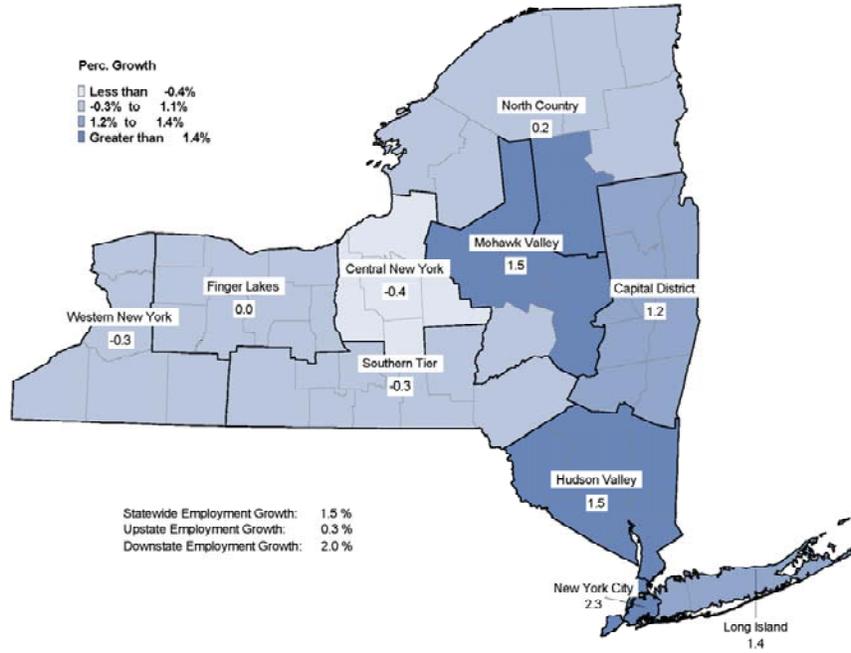


Table 10

NEW YORK STATE PRIVATE EMPLOYMENT BY INDUSTRY										
INDUSTRY	Employment in Thousands					Percent Change				
	2013	2014	2015	2016	2017*	2013	2014	2015	2016	2017*
Mining and Manufacturing	458.7	454.8	457.0	452.1	445.9	(0.6)	(0.8)	0.5	(1.1)	(1.3)
Construction and Real Estate	507.6	526.2	551.9	573.1	565.5	3.4	3.7	4.9	3.8	1.5
Trade, Trans., and Warehousing	1,480.8	1,504.2	1,521.8	1,522.5	1,505.2	1.1	1.6	1.2	0.0	(0.3)
Information	259.6	263.5	264.8	265.3	264.1	0.5	1.5	0.5	0.2	1.4
Finance and Insurance	492.8	498.9	506.6	508.0	505.7	(0.7)	1.2	1.5	0.3	(0.3)
Business and Professional Svs.	1,200.1	1,223.9	1,260.2	1,285.1	1,291.0	2.9	2.0	3.0	2.0	1.8
Education and Health Care	1,656.1	1,692.6	1,737.9	1,791.0	1,837.7	1.7	2.2	2.7	3.1	3.0
Leisure, Hospitality, and Other Svs.	1,177.4	1,215.8	1,252.1	1,281.3	1,282.0	3.8	3.3	3.0	2.3	2.1
Other **	84.8	101.5	94.4	102.5	108.9	3.7	19.7	(7.0)	8.6	15.6
Statewide	7,318.0	7,481.4	7,646.7	7,780.9	7,806.0	1.9	2.2	2.2	1.8	1.5

* Levels for 2017 are based on the first two quarters of the year; 2017 growth rates are relative to the same period in 2016.

** Includes agriculture, utilities, and unclassified firms.

Table 11

NEW YORK STATE PRIVATE EMPLOYMENT BY REGION										
REGION	Employment in Thousands					Percent Change				
	2013	2014	2015	2016	2017*	2013	2014	2015	2016	2017*
New York City	3,307.7	3,433.6	3,544.3	3,626.4	3,676.5	2.8	3.8	3.2	2.3	2.3
Long Island	1,047.9	1,062.2	1,077.1	1,093.7	1,091.4	2.0	1.4	1.4	1.5	1.4
Hudson Valley	724.4	736.4	750.7	760.3	760.9	1.1	1.7	1.9	1.3	1.5
Capital District	390.9	395.7	403.4	408.9	407.5	1.0	1.2	1.9	1.4	1.2
Mohawk Valley	125.9	125.7	126.1	128.2	127.7	(0.3)	(0.2)	0.3	1.7	1.5
North Country	104.5	104.7	105.0	105.8	103.5	0.3	0.2	0.3	0.7	0.2
Central New York	276.4	278.0	278.8	280.4	276.3	0.2	0.6	0.3	0.6	(0.4)
Southern Tier	230.6	228.7	228.9	228.4	225.3	0.2	(0.8)	0.1	(0.2)	(0.3)
Western New York	511.3	515.6	520.6	523.8	516.5	0.6	0.8	1.0	0.6	(0.3)
Finger Lakes	454.1	457.3	462.2	467.2	462.5	0.2	0.7	1.1	1.1	0.0
Unclassified	144.3	143.5	149.7	158.0	157.8	6.0	(0.5)	4.3	5.5	3.2

* Levels for 2017 are based on the first two quarters of the year; 2017 growth rates are relative to the same period in 2016.

Table 12

REGIONAL EMPLOYMENT SHARES BY INDUSTRY									
REGION	Mining/ Manuf.	Constr. & Real Estate	Trade, Trans. & Wareh.	Finance and Info.	Bus. & Prof. Svs.	Health Care	Leisure, Hosp. & Other Svs.	Other	
New York City	2.0	7.5	16.3	5.0	8.9	18.9	23.6	16.8	1.1
Long Island	6.4	8.6	23.5	1.6	4.7	15.1	22.6	16.2	1.2
Mid Hudson	5.7	8.7	22.5	1.9	3.6	13.5	25.0	17.1	1.8
Capital Region	8.5	6.8	20.9	2.3	5.3	14.6	23.3	17.1	1.3
Mohawk Valley	13.1	4.3	24.4	1.8	5.2	7.5	27.4	15.2	1.2
North Country	9.8	6.4	25.4	1.6	2.2	6.8	25.2	19.3	3.4
Central New York	10.8	6.4	23.3	1.7	4.1	12.5	22.0	16.7	2.4
Southern Tier	15.4	4.9	19.9	1.6	3.4	9.8	27.2	16.2	1.6
Western New York	12.7	5.9	21.3	1.4	5.6	13.8	20.3	17.8	1.1
Finger Lakes	13.8	6.2	19.0	1.8	3.2	14.5	24.4	15.0	2.1
Statewide	5.7	7.4	19.4	3.4	6.5	16.5	23.2	16.5	1.4

Note: Shares are based on the period from 2016Q3 through 2017Q2.

Table 13

REGIONAL EMPLOYMENT TRENDS: 2013-2017

Region	Employment ('000's)					Percent Change				
	2013	2014	2015	2016	2017*	2013	2014	2015	2016	2017*
Manufacturing and Mining										
New York City	75.9	75.7	77.2	75.4	72.8	(0.1)	(0.3)	2.0	(2.4)	(4.2)
Long Island	73.4	71.3	70.9	70.9	70.8	(0.1)	(2.8)	(0.5)	(0.1)	0.4
Hudson Valley	47.4	45.6	45.5	44.6	43.6	(1.0)	(3.9)	(0.2)	(2.0)	(2.4)
Capital District	32.6	32.8	34.1	34.8	34.9	3.4	0.7	3.9	2.0	1.2
Mohaw k Valley	16.3	16.6	16.7	16.8	16.9	(1.1)	1.4	0.9	0.7	0.9
North Country	10.9	10.9	10.8	10.4	10.2	0.8	(0.6)	(0.5)	(3.5)	(2.0)
Central New York	30.4	30.4	30.6	30.3	30.0	(1.8)	0.3	0.4	(0.8)	(0.6)
Southern Tier	36.8	36.1	35.9	35.3	34.8	(2.3)	(1.9)	(0.6)	(1.5)	(1.3)
Western New York	67.1	68.1	67.5	66.7	65.7	(1.0)	1.5	(0.8)	(1.2)	(1.6)
Finger Lakes	66.5	66.1	66.6	65.6	63.8	(2.2)	(0.6)	0.7	(1.5)	(3.1)
Unclassified	1.4	1.2	1.2	1.3	2.5	26.4	(14.7)	2.3	4.0	103.9
Staw id	458.7	454.8	457.0	452.1	445.9	(0.6)	(0.8)	0.5	(1.1)	(1.3)
Construction and Real Estate										
New York City	236.8	246.5	260.8	271.5	272.4	3.6	4.1	5.8	4.1	1.9
Long Island	81.6	85.4	88.7	93.5	93.2	7.2	4.7	3.8	5.4	2.9
Hudson Valley	56.3	59.9	64.2	66.3	65.7	4.5	6.4	7.1	3.2	2.1
Capital District	25.3	26.4	27.7	27.7	26.9	1.7	4.6	4.7	(0.1)	1.5
Mohaw k Valley	5.6	5.4	5.3	5.4	5.2	1.6	(4.0)	(1.3)	1.7	5.0
North Country	6.7	6.5	6.6	6.9	6.2	(2.0)	(3.6)	2.2	4.0	(2.2)
Central New York	17.2	16.9	17.1	18.0	16.7	0.0	(1.9)	1.2	5.2	(2.1)
Southern Tier	11.2	11.1	10.9	11.3	10.6	(2.0)	(1.1)	(2.1)	3.4	(0.6)
Western New York	28.1	29.2	30.3	31.4	29.2	(0.1)	4.1	3.5	3.8	(3.1)
Finger Lakes	26.6	27.1	27.5	28.8	27.6	1.2	1.7	1.4	4.7	0.8
Unclassified	12.1	11.8	12.9	12.5	11.9	(0.3)	(3.1)	9.6	(2.7)	(0.6)
Staw id	507.6	526.2	551.9	573.1	565.5	3.4	3.7	4.9	3.8	1.5
Trade, Transportation, and Warehousing										
New York City	572.3	587.0	596.5	597.4	593.9	2.4	2.6	1.6	0.2	0.1
Long Island	252.6	256.9	258.8	258.6	256.7	1.4	1.7	0.8	(0.1)	0.4
Hudson Valley	169.1	171.9	173.9	172.8	170.8	0.6	1.7	1.1	(0.6)	(0.5)
Capital District	84.0	85.2	85.7	86.4	84.4	0.1	1.4	0.6	0.7	(0.9)
Mohaw k Valley	31.2	31.0	30.7	31.2	31.1	(0.5)	(0.6)	(0.8)	1.7	1.5
North Country	27.1	27.3	27.1	27.0	26.3	0.0	0.7	(0.6)	(0.4)	(1.0)
Central New York	65.9	66.1	66.7	66.0	63.8	(0.1)	0.3	0.9	(1.0)	(2.6)
Southern Tier	46.6	45.9	46.0	45.9	44.7	(0.9)	(1.4)	0.1	(0.3)	(1.8)
Western New York	110.6	112.5	113.6	112.9	109.8	(0.7)	1.7	1.0	(0.6)	(2.4)
Finger Lakes	87.7	87.7	88.2	88.7	87.7	(1.7)	0.0	0.5	0.6	(0.3)
Unclassified	33.8	32.8	34.6	35.6	35.9	5.3	(3.0)	5.6	2.9	2.6
Staw id	1,480.8	1,504.2	1,521.8	1,522.5	1,505.2	1.1	1.6	1.2	0.0	(0.3)
Information										
New York City	163.6	170.9	174.6	177.7	182.0	1.3	4.5	2.2	1.8	5.2
Long Island	22.8	21.1	19.5	18.4	17.9	(1.2)	(7.5)	(7.5)	(5.9)	(3.2)
Hudson Valley	16.9	15.7	15.5	15.1	14.7	(4.9)	(7.0)	(1.7)	(2.7)	(2.0)
Capital District	9.4	9.4	9.4	9.5	9.4	(2.0)	0.4	0.2	0.3	(0.7)
Mohaw k Valley	2.3	2.3	2.3	2.4	2.3	(8.0)	3.4	(1.2)	2.4	2.4
North Country	1.8	1.8	1.7	1.7	1.7	(0.4)	(0.0)	(2.6)	0.2	(2.3)
Central New York	4.8	4.7	4.5	4.7	4.8	(1.8)	(1.9)	(3.0)	4.0	2.5
Southern Tier	4.1	4.4	3.9	3.6	3.6	5.4	7.5	(11.5)	(8.3)	(0.6)
Western New York	8.2	8.3	7.9	7.6	7.5	(2.5)	0.7	(4.5)	(4.1)	(0.3)
Finger Lakes	8.6	8.9	9.0	8.7	8.1	(1.5)	2.7	1.2	(3.3)	(6.0)
Unclassified	17.0	15.9	16.3	16.0	12.1	6.2	(6.9)	2.7	(1.5)	(24.7)
Staw id	259.6	263.5	264.8	265.3	264.1	0.5	1.5	0.5	0.2	1.4

(Cont'd on next page)

REGIONAL EMPLOYMENT TRENDS: 2013-2017 (cont'd)

Region	Employment (000's)					Percent Change				
	2013	2014	2015	2016	2017*	2013	2014	2015	2016	2017*
Finance and Insurance										
New York City	310.2	318.0	324.5	327.6	324.5	(1.0)	2.5	2.1	0.9	(0.8)
Long Island	52.8	53.0	53.0	51.4	51.3	0.5	0.4	(0.0)	(2.8)	(0.2)
Hudson Valley	29.2	28.9	28.3	27.9	27.9	(0.5)	(1.3)	(2.0)	(1.4)	(0.2)
Capital District	21.5	21.5	21.7	21.9	21.4	0.0	(0.3)	1.1	1.0	(2.4)
Mohawk Valley	7.0	7.0	6.9	6.8	6.6	0.5	(0.9)	(1.4)	(1.3)	(3.4)
North Country	2.3	2.2	2.3	2.3	2.3	(8.0)	(2.9)	3.9	(0.2)	0.2
Central New York	12.8	12.5	12.3	11.8	11.4	(4.1)	(2.6)	(1.5)	(4.3)	(3.8)
Southern Tier	8.2	8.0	7.9	7.8	7.6	(2.5)	(2.9)	(1.8)	(1.0)	(2.7)
Western New York	26.3	26.5	27.6	28.3	30.1	(0.5)	0.6	4.4	2.4	7.4
Finger Lakes	15.2	15.0	15.1	15.0	14.7	0.4	(1.5)	1.0	(0.8)	(1.8)
Unclassified	7.2	6.5	7.0	7.2	8.0	11.0	(9.0)	7.7	2.9	12.4
Statewide	492.8	498.9	506.6	508.0	505.7	(0.7)	1.2	1.5	0.3	(0.3)
Professional and Business Services										
New York City	615.3	638.0	667.0	683.9	695.7	3.6	3.7	4.6	2.5	2.8
Long Island	160.5	161.5	163.3	166.1	163.0	2.5	0.6	1.1	1.7	0.1
Hudson Valley	98.7	99.4	100.4	102.0	103.0	1.7	0.8	1.0	1.6	2.8
Capital District	56.9	57.3	58.6	59.1	59.9	0.1	0.5	2.4	0.9	2.7
Mohawk Valley	9.9	9.6	9.7	9.7	9.4	(2.9)	(2.9)	0.6	0.0	(1.5)
North Country	7.2	7.4	7.0	7.2	7.2	2.6	2.0	(4.6)	2.3	0.9
Central New York	35.1	35.5	34.8	34.8	34.9	0.4	1.0	(2.0)	0.2	1.0
Southern Tier	23.4	23.6	23.2	22.4	21.9	4.4	1.0	(1.9)	(3.3)	(0.5)
Western New York	76.0	73.9	74.2	73.2	70.4	1.5	(2.8)	0.4	(1.3)	(2.5)
Finger Lakes	66.3	66.4	67.9	68.2	67.3	1.3	0.1	2.3	0.3	(1.2)
Unclassified	50.6	51.4	54.1	58.4	58.3	8.4	1.5	5.4	7.8	3.1
Statewide	1,200.1	1,223.9	1,260.2	1,285.1	1,291.0	2.9	2.0	3.0	2.0	1.8
Education, Health Care, and Social Assistance										
New York City	768.3	797.5	821.7	849.4	879.2	3.0	3.8	3.0	3.4	3.8
Long Island	228.6	231.1	238.5	246.0	249.9	0.8	1.1	3.2	3.1	2.4
Hudson Valley	174.9	177.1	183.5	188.9	193.9	0.7	1.3	3.6	2.9	3.1
Capital District	90.9	91.5	92.8	94.7	96.6	0.7	0.6	1.4	2.1	1.9
Mohawk Valley	33.5	33.4	34.0	34.9	35.6	0.1	(0.3)	1.6	2.8	2.6
North Country	25.3	25.3	25.8	26.4	26.8	0.4	0.1	2.0	2.4	2.0
Central New York	58.9	59.4	60.0	61.5	61.7	1.0	0.9	1.0	2.6	0.5
Southern Tier	61.2	59.7	61.3	61.7	62.4	0.2	(2.5)	2.7	0.7	1.1
Western New York	101.5	101.6	102.5	105.0	106.5	0.3	0.1	0.9	2.4	1.8
Finger Lakes	106.0	108.0	109.3	112.6	115.2	0.7	1.9	1.2	3.0	2.8
Unclassified	6.9	7.9	8.4	9.7	9.9	(0.5)	14.7	5.6	16.5	6.5
Statewide	1,656.1	1,692.6	1,737.9	1,791.0	1,837.7	1.7	2.2	2.7	3.1	3.0
Leisure, Hospitality, and Other Services										
New York City	537.9	565.6	590.9	608.3	616.5	5.0	5.1	4.5	3.0	2.5
Long Island	165.0	169.2	172.6	176.2	174.8	3.9	2.5	2.0	2.1	2.2
Hudson Valley	120.6	125.2	127.6	130.0	128.2	2.4	3.8	1.9	1.9	1.3
Capital District	65.7	66.6	68.3	69.5	68.8	2.5	1.3	2.6	1.8	2.2
Mohawk Valley	18.9	19.1	19.1	19.5	19.2	1.7	0.8	0.3	1.8	2.0
North Country	20.0	20.1	20.2	20.4	19.5	0.2	0.4	0.5	0.9	0.1
Central New York	45.3	46.0	46.6	46.6	46.2	2.0	1.5	1.3	0.0	0.7
Southern Tier	35.7	36.3	36.4	36.8	36.1	2.1	1.7	0.2	1.3	0.7
Western New York	88.7	90.2	91.6	93.0	91.6	3.6	1.7	1.5	1.5	0.6
Finger Lakes	68.3	68.7	69.2	70.0	69.3	2.2	0.6	0.7	1.0	0.6
Unclassified	11.1	8.8	9.6	11.0	11.8	2.9	(20.8)	9.1	13.8	17.7
Statewide	1,177.4	1,215.8	1,252.1	1,281.3	1,282.0	3.8	3.3	3.0	2.3	2.1

* Levels for 2017 are based on the first two quarters of the year; 2017 growth rates are relative to the same period in 2016.
Source: NYS Department of Labor.

New York State Adjusted Gross Income

Receipts from the personal income tax account for almost 60 percent of the State's total tax revenue stream. New York State adjusted gross income (NYSAGI) forms the basis for taxable income, from which taxpayers' personal income tax liability is computed, in conformity with New York State tax laws.³² Detailed knowledge of the composition of this personal income tax base and its determinants is critical to accurately projecting New York's largest revenue source.

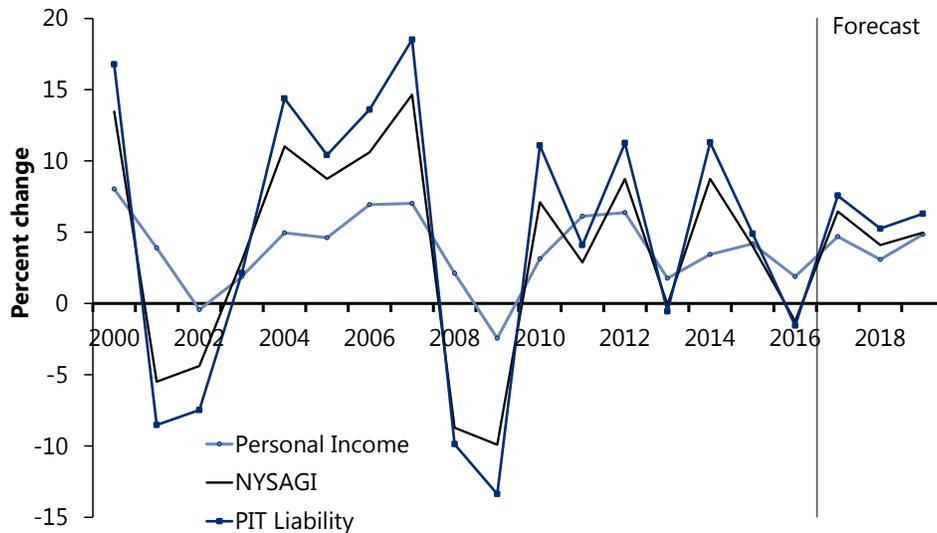
At the aggregate level the components of NYSAGI, such as dividend income and capital gains income, vary with the State and national economies. The Budget Division's forecast of the components of personal income depends on these linkages. For several large components of income, changes in the tax law itself can generate considerable volatility. The Budget Division forecast incorporates these linkages as well.

Following the Great Recession, NYSAGI growth has been volatile and on average lower than the pre-recession average annual growth (see Figure 57). During this period of sustained but slow economic recovery much of the volatility in NYSAGI has been the result of income shifting in response to anticipated tax law changes at the federal level. For example, expecting a lower tax rate to expire at the end of 2012, taxpayers realized capital gains early and firms distributed dividends and bonuses early, creating a shift in income from 2013 into 2012 that led to 8.7 percent NYSAGI growth in 2012 followed by a small decline of 0.1 percent in 2013 (see Table 14). Estimated NYSAGI growth for 2014 of 8.7 percent was also affected by the shift since that growth rate is based on a lower level in 2013.

Likewise, the election of Donald J. Trump, who ran in part on a pledge to cut corporate and personal tax rates, appears to have resulted in a more substantial shift, with NYSAGI falling 1.2 percent in 2016 (the most recent tax year for which preliminary data are available), only to bounce back to estimated growth of 6.4 percent in 2017. This shift would also affect the anticipated growth in 2018, not only because of the larger base in the prior year, but also because the new federal tax law, the Tax Cuts and Jobs Act of 2017 (TCJA), was ultimately passed and signed into law just before Christmas 2017, putting a new tax regime in place for the 2018 tax year. But with the new law severely limiting itemized deductions, in particular the federal deductibility of State and local taxes, including property taxes, this created a fresh incentive to shift income in the opposite direction, from 2018 into 2017, so as to take advantage of the last tax year under the prior federal law.

³² Box 5 on page 124 discusses in detail the relationship between three important indicators of the size of the State's personal income tax base, personal income tax liability, NYSAGI, and state personal income.

Figure 57
The Indicators of New York State’s Tax Base



Note: Personal income tax (PIT) liability is computed based on 2002 NY State tax law; 2016 liability and NYSAGI data are preliminary.
Source: NYS Department of Taxation and Finance; Moody's Analytics; DOB staff estimates.

The Major Components of NYSAGI

Budget Division forecasts for the components of NYSAGI are based on detailed historical tax return data from samples of State taxpayers through the 2014 tax year, made available by the New York State Department of Taxation and Finance. Beginning with the 2015 tax year and going forward, preliminary processing data are based on the entire population of tax returns and are used to construct estimates for all of the income components.

Although the measure of taxable wages derived from State tax returns does not precisely match the dollar amount derived from Quarterly Census of Employment and Wages (QCEW) data, they tend to follow a similar trend. To be consistent with the Budget Division’s New York macroeconomic forecast, projected growth rates for taxable wages from 2016 onward are based on the forecast growth of total State wages derived from the macroeconomic forecast, which is based on QCEW data. For a discussion of the Budget Division forecast for State wages, see Outlook for State Income beginning on page 78.

Table 14

CHANGES IN NYSAGI AND ITS MAJOR COMPONENTS

	2012	2013	2014	2015	2016*	2017	2018	2019
	----- Actual -----				----- Estimated -----			
NYSAGI								
Level (\$ Billions)	714.7	714.0	776.5	807.8	797.7	849.2	884.0	927.9
Change (\$ Billions)	57.4	(0.7)	62.4	31.3	(10.0)	51.4	34.8	43.9
% Change	8.7	(0.1)	8.7	4.0	(1.2)	6.4	4.1	5.0
Wages								
Level (\$ Billions)	515.6	525.9	558.9	584.3	596.0	627.4	649.8	677.2
Change (\$ Billions)	16.2	10.3	32.9	25.5	11.7	31.4	22.4	27.4
% Change	3.2	2.0	6.3	4.6	2.0	5.3	3.6	4.2
Capital Gains								
Level (\$ Billions)	80.9	71.7	93.5	95.9	75.1	86.2	93.0	100.2
Change (\$ Billions)	28.1	(9.2)	21.8	2.4	(20.8)	11.1	6.8	7.2
% Change	53.2	(11.4)	30.5	2.6	(21.7)	14.7	7.9	7.8
Partnership/S Corporation								
Level (\$ Billions)	79.4	82.8	86.3	92.5	92.6	100.1	104.6	112.6
Change (\$ Billions)	7.9	3.4	3.5	6.2	0.1	7.5	4.5	8.1
% Change	11.0	4.3	4.2	7.2	0.1	8.1	4.5	7.7

Source: NYS Department of Taxation and Finance; DOB staff estimates.

* 2016 estimates are based on processing data except for wages.

Positive Capital Gains Realizations

Positive capital gains realizations play a large role in determining NYSAGI, both because they provide a relatively large share of income and because of their volatile nature. The Budget Division's forecasting model attempts to capture the inherent volatility in capital gains income by incorporating those factors that are most likely to influence realization behavior, such as anticipated and actual tax law changes, financial market activity, and real estate market activity.³³ The Division estimates this component plunged 21.7 percent in 2016 after growth of just 2.4 percent in 2015, based on preliminary data for the former year. Note that while economic growth was weak in 2016 it was not a recession year. A rebound to 14.7 percent growth in 2017 is foreseen with more moderate growth of 7.9 percent and 7.8 percent for 2018 and 2019, respectively (see Table 14). As already mentioned in the general discussion of NYSAGI, taxpayers appear to have delayed realizing capital gains from 2016 into 2017, in anticipation of a capital gains tax rate reduction that ultimately never came to pass. With the December 2017 enactment of the TCJA, the deductibility of state and local taxes beyond the first \$10,000 was disallowed, effectively increasing the tax rate for taxpayers who itemize their deductions. As the TCJA left the maximum tax rate on capital gains unchanged, the limitation of the state and local tax deduction may have induced high income taxpayers to spin up some realizations which would be taxed at the lower 2017 effective tax rate.

Realization behavior can be greatly affected by federal and State taxes on capital gains income because they constitute a cost associated with the buying and selling of capital assets. Taxpayers may decide to realize capital gains earlier than planned if they expect taxes on capital gains to increase. As an example, the federal capital gains tax rate increased to 20 percent from 15 percent at the end of 2012. In addition, pursuant to a provision of the Affordable Care Act of 2010, a Medicare tax surcharge on investment income took effect in 2013, further raising the federal tax on capital gains realizations by 3.8 percent. While congressional negotiations were still under way as 2012 ended, it was widely expected that tax rates would go up at least for higher-income taxpayers, who also account for most capital gains. Taxpayers responded strategically by shifting long-term gains realizations from 2013 to 2012 to avoid the higher tax burden, resulting in 53.2 percent realizations growth in 2012 but then a drop of 11.4 percent in 2013. Because of this shift, the capital gains realizations base was low in 2013, artificially inflating the 2014 growth rate to an estimated 30.5 percent, beyond what underlying economic drivers would have implied.

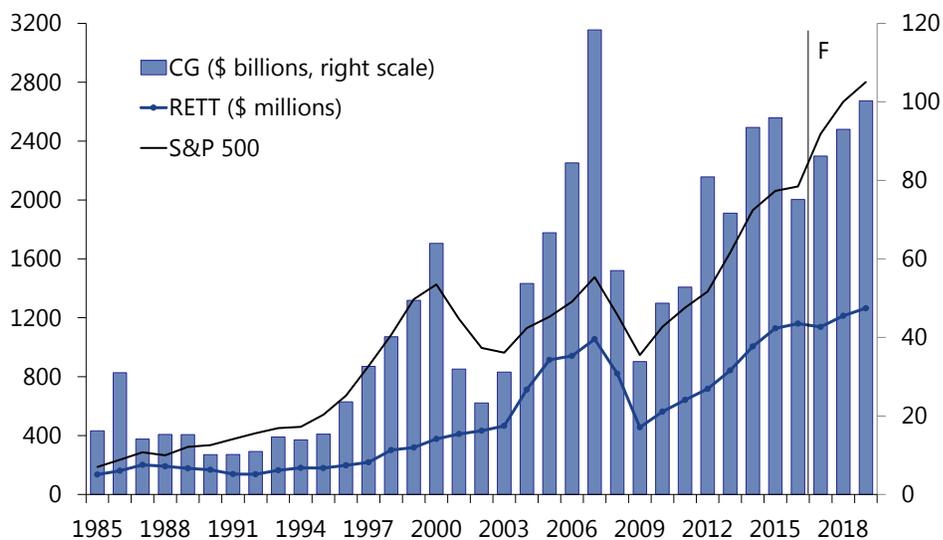
Figure 58 shows how fluctuations in equity markets (measured by the S&P 500 index) and real estate markets (measured by State real estate transfer tax collections) help explain the magnitude of fluctuations in capital gains realizations. Both markets grew strongly between 2003 and 2007, and both markets experienced sharp declines in 2008 and 2009. While the declines in the S&P 500 in 2008 and 2009 were similar in magnitude to those experienced in the 2001-02 recession, the declines in capital gains realizations in 2001 and 2002 pale in comparison to those experienced in the recession years of 2008 and 2009. The concurrent collapse of the real estate market clearly contributed to the unprecedented collapse in capital gains realizations. New York taxpayers lost a

³³ For a discussion of the Budget Division's traditional approach to modeling capital gains realizations, see L. Holland, H. Kayser, R. Megna and Q. Xu "The Volatility of Capital Gains Realizations in New York State: A Monte Carlo Study," *Proceedings, 94th Annual Conference on Taxation*, National Tax Association, Washington, DC, 2002, pages 172-183.

combined \$84.4 billion in capital gains realizations income between 2007 and 2009; by 2016 only \$41.3 billion (or less than half) of these losses had been regained, based on preliminary data.

Equity market growth, as measured by the S&P 500 index, slowed considerably in 2015 and 2016, mustering growth of only 6.8 percent in the former year and an estimated 1.5 percent in the latter, as opposed to 17.5 percent growth in 2014 and 19.1 percent growth in 2013. In a year when stock prices repeatedly established new record highs and just as regularly broke through them, the S&P 500 appears to have gained 17 percent for 2017. Going forward, the Budget Division anticipates growth will taper to 9.0 percent in 2018 before slowing further to a 5.0 percent gain in 2019. With stock price indices at record levels, there is obviously risk that a correction could happen with little provocation. On the other hand, with other economies of the world beginning to move in a more synchronized expansion, and with conjectured increased corporate profitability due to the corporate tax cut contained in the TCJA, there is upside risk as well.

Figure 58
Capital Gains Realizations, Real Estate Transfer Taxes
and S&P 500 Index



Note: 2016 CG realizations are an estimate, 2017 RETT and S&P500 are actuals.
 Source: Moody's Analytics; NYS Dept. of Taxation and Finance; DOB staff estimates.

As suggested above, the health of the real estate market also plays a critical role in determining capital gains realizations. Gains from both residential and commercial real estate transactions are taxable, though gains earned from the sale of a primary home are exempt up to a certain limit, for example, up to \$500,000 for married couples filing jointly.³⁴ California data show that in 2012, 9.2 percent of positive capital gains realizations in that state were generated by real estate transactions. The share has fluctuated from a low of 6.2 percent in 2010 to a high of 32.4 percent

³⁴ Taxpayers can claim this exclusion if they have lived in their home for a total of two years within the 5-year period ending on the date they sold or exchanged their home and if they have not sold or exchanged another home within the 2-year period ending on the date they sold or exchanged their home.

in 1990. A study based on national data indicated that 22 percent of net capital gains realizations in the U.S. were generated by real estate transactions in 1993.³⁵

State real estate transfer tax (RETT) data provide a timely indicator of the strength of real estate sales and therefore of the possible impact of the real estate market on taxable gains. In just two years, real estate transfer tax collections fell by 56.7 percent from their 2007 peak, but tax collections have since regained all their losses and by 2016 exceeded the 2007 peak by an estimated 10.1 percent (see Figure 58). RETT collections did slip in 2017, but just by a bit more than 2 percent. The Budget Division expects the real estate market to continue improving, though the pace may be more uncertain as rising house prices confront expected higher long-term interest rates that will make financing more expensive. The estimated average existing single-family home price for 2016 in New York was still 11.5 percent below where it was before the recession, back in 2007. Thus, the residential housing market's contributions to capital gains realizations in the most recent year were most likely not substantial.

Fluctuating levels of both activity and profitability of private equity and hedge funds also contribute to capital gains realizations. Private equity firms own stakes in companies that are not listed on a public stock exchange and generally receive a return on their investment in one of three ways: through a sale or merger of the company; a recapitalization; or by selling shares back to the public through an initial public offering (IPO). The returns on private equity investments are often not realized for several years, but the rate of return is generally high relative to returns on publicly held stocks, in order to compensate for the higher degree of risk and the value added through the extraction of operating efficiencies. Though related to the performance of equity markets and real estate markets, capital gains from private equity funds exhibit their own dynamics.

Private-equity stakeholders had a solid year in 2015 as financial sponsor-backed deals reached their highest level since 2007, counting both overseas and U.S. deals. Further, the \$2.283 billion in U.S. mergers and acquisitions was the highest level on record. The value of deals worldwide increased 22 percent that year. However, 2016 was a different story, with deal values falling 16.7 percent; they declined an additional 3.1 percent in 2017.³⁶ Meanwhile, *Bloomberg Businessweek* reported that private-equity firms were sitting on a record \$963.3 billion in “dry powder,” that is available funds that have not yet been committed to M&As. The article argued that investors were “pouring money into private equity in search of yield,” but fund managers were finding it difficult to make attractive deals. With a bull market continuing and stock prices setting and breaking records, asset values are seen as “pricey,” with some market observers thinking that junk and emerging-market debt are getting overvalued.³⁷

³⁵ L. E. Burman and P. R. Ricoy, “Capital Gains and the People Who Realize Them,” *National Tax Journal* 50(3), September 1997, pages 427-451.

³⁶ “Value of mergers and acquisitions (M&A) worldwide from 2012 to 2017 (in billion U.S. dollars),” Statista. Available at <https://www.statista.com/statistics/267369/volume-of-mergers-and-acquisitions-worldwide/>. Accessed January 15, 2018. See also “The New York State Economy” section on “The Continuing Transformation of the Securities Industry” in this *Economic and Revenue Outlook*.

³⁷ Melissa Mittleman, “Why Private Equity Has \$963 Billion in Dry Powder,” *Bloomberg Businessweek*, September 1, 2017. Available at <https://www.bloomberg.com/news/articles/2017-09-01/why-private-equity-has-963-billion-in-dry-powder-quicktake-q-a>. Accessed January 15, 2018. See also *Preqin Quarterly Update: Private Equity & Venture Capital, Q3 2017*, Preqin Ltd, p. 15, the apparent source for the value cited in the prior article. Available at <http://docs.preqin.com/quarterly/pe/Preqin-Quarterly-Private-Equity-Update-Q3-2017.pdf>. Accessed January 15, 2018

However, things seemed to have improved recently for the once extremely lucrative hedge fund industry, which began to struggle. Part of the problem is continued large costs of compliance with new global regulations that began appearing eight years ago. Recent survey results indicate that hedge funds spent \$3 billion from 2008 to 2013 meeting the costs of new regulations, roughly a 10 percent increase in annual operating costs.³⁸ While in 2016 the news was bad as industry returns trailed the S&P500, leading not only individual investors but also institutional investors such as public retirement plans in Kentucky, New York, New Jersey and Rhode Island to announce plans to disinvest, as did the University of Maryland and the University of California. But as of November 2017 the average hedge fund posted a gain of 7.6 percent (versus 4.4 percent in November 2016), with stock-oriented funds showing a 12 percent gain. Investors put in \$2.9 billion in new money through the first three quarters of 2017, but that's after having pulled out \$70 billion in 2016. Last year (2017) appeared to be shaping up as the best for the industry since 2013.³⁹

One novel potential risk to the capital gains forecast is the rise of cryptocurrencies. The Internal Revenue Service (IRS) issued guidance on this in 2014, stating that virtual currencies will be treated as a capital asset, provided they can be converted into cash. Thus, capital gains rules apply to any gains and losses. There are some differences, depending on whether the holder of the cryptocurrency is using it as an investment or as a replacement for cash in making purchases. But the IRS is not requiring third-party reporting of transactions, so Form 1099-Bs are not being issued at the end of tax years. Another problem for investors in cryptocurrencies is that "taxable events" can occur even if they do not cash out. With almost a complete lack of data on cryptocurrencies, it is difficult to say anything about the risks they pose to the capital gains forecast.⁴⁰

There are both downside and upside risks to the forecast for capital gains realizations. Continuing strength in the private equity sector rather than a leveling off in payouts poses the largest upside risk to the out-year capital gains forecast. Downside risk comes from a possible market correction, perhaps in response to more-rapid federal funds rate hikes by the Fed during 2018. There is also downside risk from geopolitical instability and domestic political instability as well. Should the economies of large nations or political organizations such as China or the European Union stall there could be negative consequences in the U.S. as well.

Rent, Royalty, Partnership, and S Corporation Gains

Partnership and S corporation income, once the third-largest component of NYSAGI after capital gains income (though often close to it in magnitude), has recently overtaken capital gains income for the title of second largest income component after wages, but with considerably less volatility than capital gains. In fact, with partnership income having overtaken capital gains in 2016 based on

³⁸ KPMG, *The cost of compliance: 2013 KPMG/AIMA/MFA Global Hedge Fund Survey*, October 11, 2013. Available at < <https://home.kpmg.com/xx/en/home/insights/2013/10/the-cost-of-compliance.html> >, accessed January 11, 2017.

³⁹ Reuters staff, "Some hedge funds deliver double-digit gains for 2017," Reuters #Money, January 4, 2018. Available at <https://www.reuters.com/article/us-hedgefunds-returns/some-hedge-funds-deliver-double-digit-gains-for-2017-idUSKBN1ET29Y>. Accessed January 15, 2018.

⁴⁰ Kelly Phillips Erb, "What You Need to Know About Taxes & Cryptocurrencies," *Forbes*, January 9, 2018. Available at <https://www.forbes.com/sites/kellyphillipserb/2018/01/09/what-you-need-to-know-about-taxes-cryptocurrency/#7ad63173605f>. Accessed January 15, 2018.

preliminary data, the Budget Division forecasts that it will continue to exceed capital gains in the near forecast horizon.

While growing 10.5 percent annually over its history, partnership and S corporation income growth has slowed more recently, for example averaging 7.2 percent growth between 2002 and 2012. Consistent with slow economic growth partnership and S corporation income grew only a little more than 4 percent in 2013 and 2014. While growth rebounded to its long-run average of 7.2 percent in 2015, the preliminary data for 2016 indicates almost no growth that year, just 0.1 percent. The Budget Division predicts a rebound to improved growth of 8.1 percent in 2017, slowing to a 4.5 percent rise in 2018 with acceleration to growth of 7.7 percent in 2019.

As has historically been the case, changes in federal tax law changes are expected to play a significant role in the gyrating forecast for this component of income. When the Tax Reform Act of 1986 altered the differential between the corporate and individual income tax rates in favor of the latter, partnership and S corporation income grew an impressive 43 percent when the law became fully effective in 1988. The TCJA lowered the corporate tax rate from 35 percent to 21 percent. In addition, qualifying taxpayers will be able to deduct a maximum of 20 percent of “qualified business income” (QBI) that they earn from businesses set up as sole proprietorships or as “pass-through” entities such as S-corporations or partnerships. The result is a tax rate differential that favors businesses organized as C corporations, holding all of the other advantages and disadvantages accorded each business type the same. The New York State Department of Taxation and Finance estimates that approximately 46 percent of State pass-through income will qualify for the 20 percent federal deduction. The Budget Division estimates that the tax rate advantage conferred by the TCJA on C corporations results in a decline in the growth of partnership and S corporation income from 7.9 percent to 4.5 percent, representing a loss of \$4.6 billion.

The largest contributor to this component is partnership income, much of which originates within the finance and real estate industries. A second large contributor is income from S corporation ownership. Selection of S corporation status allows firms to pass earnings through to a limited number of shareholders and to avoid corporate taxation while still enjoying the limited liability that corporate status affords.

New York State taxable partnership and S corporation income has experienced strong growth over the years. Between 1979 and 2013, this income component grew on average 10.3 percent annually, faster than the average annual rate of 6.3 percent for New York proprietors’ income, as defined under NIPA and which includes partnership, S corporation, and sole proprietorship income. At the Federal level, partnerships and S corporations are the first- and second-fastest growing business entity forms, according to Internal Revenue Service Statistics of Income (SOI) data. Between 1998 and 2013, the latest year for which SOI data are available, the number of S corporations grew 64.5 percent while the number of partnerships grew 86.5 percent. For comparison, non-farm sole proprietorships increased 38.3 percent and C corporations declined 27.6 percent over this period.

Growth in income from partnership and S corporations is related to both the economy and financial markets. However, average annual growth of 4.6 percent during the recent recovery has been lower than pre-recession relationships would suggest, based both on the strength of the economy and equity markets. Partnership and S corporation income gains and losses tend to rise and fall

together, suggesting that the growth rates are linked at least in part to births and deaths of partnerships and S corporations. The severity of the Great Recession forced a large number of entities to exit the market, and it appears that tight credit markets have made it difficult for new entities to enter as economic conditions improved.

The Budget Division's partnership and S corporation income forecast contains both upside and downside risks. Like capital gains income, partnership and S corporation income is also sensitive to the performance of the private equity sector and hedge funds, whose incomes can be very volatile. In addition, the real estate market is not captured independently in the forecast model. Since there is a high concentration of real estate partnerships in New York State, a better-than-predicted real estate market (due to an improved employment situation and a decline in foreclosures) could lead to higher-than-expected partnership and S corporation gains.

Dividend Income

Taxable dividend income in New York is a very volatile component, as witnessed by the fact that growth rates in State taxpayers' dividend income have ranged from a decline of 28.7 percent in 2009 to an increase of 26.6 percent in 2004. The volatility has continued during the last few years, partly due to income shifting. Taxable dividend income grew 19.7 percent in 2014 after falling 4.8 percent in 2013. These growth rates were affected by early dividend payouts made in 2012 to avoid the higher tax rate in 2013, which in turn lowered the 2013 level of dividends and consequently resulted in a higher growth rate for 2014. Subsequently State dividend income fell again by 4.8 percent in 2015. Preliminary data shows dividend income edging up just 0.4 percent in 2016. However, the Budget Division expects stronger growth of 5.8 percent in 2017. The Division anticipates strengthening growth of 6.6 percent and 7.1 percent in 2018 and 2019, respectively.

Taxable dividend income is expected to rise and fall with U.S. dividend income, a component of the NIPA definition of U.S. personal income; long-term interest rates, as represented by the 10-year Treasury yield; and the performance of equity markets. State taxable dividends have proven to grow more slowly yet be more variable than U.S. dividend income, increasing at an average annual rate of 6.2 percent between 1976 and 2016 with a standard deviation of 12.7 percentage points, while U.S. dividend income grew an average 9.1 percent annually, with a lower standard deviation of 10.5 percentage points over the same period.

Average annual growth in taxable dividend income has been strong since the end of the recession, growing on average 12.2 percent annually from 2010 to 2014, presumably as a result of sizeable dividend payouts from publicly traded private equity firms and other businesses whose valuation improved greatly with the surge in the equity markets through 2014. While equity markets treaded water in 2015 and 2016, the market was roaring in 2017, routinely setting and then breaking new records. This should lead to stronger growth rates going forward.

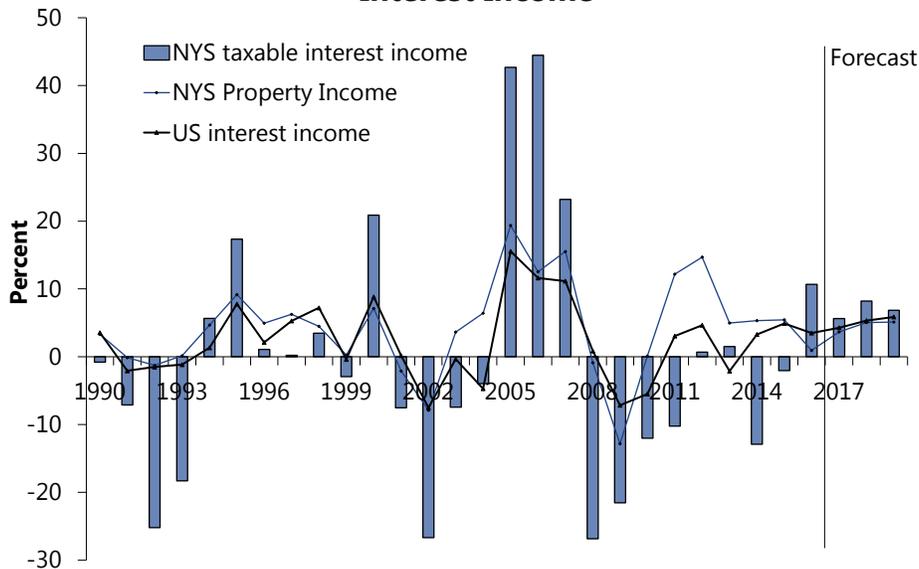
Risks to the dividend income forecast are closely linked to the risks embedded in the U.S. equity markets, corporate profitability and the performance of publicly traded private equity firms.

Interest Income

With a 2.1 percent decline in 2015, taxable interest income extended its streak of either declines or very low growth to an eighth year, on the heels of 12.9 percent drop in the prior year. However, in response to continued improvements in the U.S. and State economies and the Fed’s interest rate hikes in December 2015 and December 2016, interest income increased by 10.7 percent in 2016, based on preliminary data, the highest growth rate since 2007. The Budget Division expects slower growth of 5.6 percent in 2017 followed by increases of 8.2 percent and 6.8 percent in 2018 and 2019, respectively. Without belaboring the point, note again the likely influence of income shifting in the varying growth rates in 2016-18.

Figure 59

Interest Income



Note: 2016 NYS taxable interest income is preliminary.

Source: Moody’s Analytics; NYS Department of Taxation and Finance; DOB staff estimates.

An increase in interest rates will increase interest income for a given amount of assets. In addition, New York property income, a component of the NIPA definition of state personal income that includes interest income, has been found to be a good indicator of the trend in taxable interest income for the State, although it is much less volatile (see Figure 59). For the period from 1977 to 2016, the average growth rate for New York property income was 6.5 percent, with a standard deviation of 7.2 percentage points, and the average growth rate for U.S. interest income, a component of the NIPA definition of U.S. personal income, was 5.7 percent, with a standard deviation of 7.6 percentage points. In contrast, State taxable interest income averaged 3.5 percent annual growth over the same period, with a standard deviation of 17.3 percentage points. The additional volatility in this component of NYSAGI could be related to the behavioral response of State taxpayers to past changes in tax law.

In response to the conditions wrought by the Great Recession, the Federal Reserve ushered in a series of interest rate cuts that began in September 2007 and continued throughout 2008. As the federal funds rate fell to close to zero and stayed there from December 2008 to late 2015, taxable interest income experienced large declines or very slow growth through 2015. After cautiously raising the federal funds rate target range once in both December 2015 and December 2017, the Federal Reserve raised the target three times in 2017. With more increases likely going forward as the Fed seeks to normalize its monetary policy, stronger growth in interest income can be expected in the future.

The risks to the interest income forecast are clearly linked to the pace of interest rate hikes by the Federal Reserve. If the economy should experience a downturn, or if inflation does not pick up, the Fed may slow the pace of interest rate hikes, which would lower our forecast for interest income. On the other hand, if inflation shows signs of overshooting the Fed's 2 percent target it may need to hike more and faster, thus helping interest income growth to outpace DOB's forecast.

Small Business and Farm Income

The category of small business and farm income combines income reported as a result of operating a business, practicing a profession as a sole proprietor, or operating a farm. Such income is expected to vary with the overall strength of the national and State economies with some added volatility due to income shifting. Business and farm income grew 4.9 percent in 2014, after 1.1 percent growth in 2013, with 2013 income most likely lower because of some movement of income from 2013 into 2012 to avoid higher tax rates. The lower base in 2013 caused amplified growth in the following year. Business income growth appears to have returned to its more-usual recent pace in 2015, rising just 1.3 percent. It appears to have been flat in 2016, though the Budget Division expects business and farm income to pick up speed with 5.4 percent growth in 2017 followed by 6.1 percent in both 2018 and 2019. Once again, it is likely there was some income-shifting over 2016-18, as the new administration raised expectations for rapid changes in federal tax law in late 2016 and early 2017, though the new law was not enacted until December 2017.

Small business and farm income growth and volatility has shrunk over the years. This component of taxable income grew at an annual average rate of 11.5 percent from 1980 to 1990 with a standard deviation of 10.8 percent but between 1991 and 2013 small business income grew only at an annual average rate of 4.1 percent, with a standard deviation of 4.7 percent. Proprietors' income, as defined under NIPA, experienced similar changes in growth, falling from 10.5 percent growth and a standard deviation of 8.4 percent to annual average growth of 4.2 percent and a standard deviation of 7.9 percent thereafter.

Average growth over 2009-2014 has been low, only 2.8 percent, at least partly due to tight credit markets. The contraction of credit as a result of the financial crisis was especially difficult for small businesses since credit availability is particularly critical to them. Since small businesses historically have higher failure rates, small-business lending is some of the highest-risk lending for banks and so one of the first to be cut back when economic conditions worsen. In an environment of tight credit, obtaining loans to maintain or grow activity became difficult for many small businesses. As credit becomes more available in a slow but ongoing economic recovery, business and farm income growth is seen as picking up speed.

Risks to the forecast of business income are closely linked to the risks to the overall economic forecast because sole proprietors' income is particularly responsive to the state of the business cycle.

Pension Income

Growth in pension income in the near term is expected to be nearly flat. After 2015 growth of 3.9 percent it is projected to rise by just 1.5 percent in 2016 before returning to 3.8 percent growth in 2017 with moderate slowing to increases of 3.6 percent and 3.4 percent in 2018 and 2019, respectively.

Pension income includes payments from retirement plans, life insurance annuity contracts, profit-sharing plans, military retirement pay, and employee savings plans. It is linked to prior year long-term interest rates, suggesting that firms base the level of pension and life-insurance benefits they offer to employees on their expectations of future profitability, which is in turn tied to the future strength of the economy. Pension income has grown steadily over the years, although the growth rate has declined considerably over time. The average annual growth rate between 1980 and 1990 was 12.6 percent, but it fell to 6.3 percent between 1991 and 2013. This coincides with a decline in the average 10-year Treasury yield from 10.4 percent in the former period to 4.9 percent in the latter. Both declines are likely the result of lower inflation rates in the later period, not to mention the very severe Great Recession of December 2007-June 2009.

Long-term Treasury yields have been at exceptionally low levels and fell continuously from a local high of 6.0 percent in 2000 to 1.8 percent in 2012 as a result of a combination of factors, including the exceptionally low federal funds rate; the Federal Reserve's now-ended long-term asset purchasing programs ("Quantitative Easing"); and the flight to safety engendered by the financial crisis and subsequent sovereign debt crises. Long-term Treasury yields increased slightly to 2.5 percent in 2014 from 2.4 percent the year before, but then fell back to 2.1 percent in 2015. Despite a further slide to 1.8 percent in 2016 they are expected to rise gradually over the course of the next few years, to 2.8 percent in 2018 after an increase to 2.3 percent in 2017. The 10-year rate is expected to move to 3.3 percent in 2019, as rate hikes by the Fed are expected to continue at a gradual pace over the next few years. This should bode well for the pension incomes that are expected to follow suit.

The risks to the forecast for pension income are related mainly to the risks to long-term interest rates. If the economy sputters rather than continues its current pace of expansion, the Fed may slow increases in the federal funds rate, thus affecting long-term interest rates and therefore pension income.

Changes in the State Distribution of Income and Revenue Risk

As shown in Figure 57, NYSAGI exhibits more volatility than one of the two other indicators of the State's tax base, State personal income, while tax liability is still more volatile. Box 5 compares these three important indicators of the State's personal income tax base and discusses their respective volatilities.

The most volatile components of taxable income, such as bonuses and capital gains realizations, are highly concentrated among the State's highest-income taxpayers. While the top one percent of taxpayers, as determined by their NYSAGI, accounted for 42.9 percent of adjusted gross income in the preliminary data of 2016, they also accounted for 76.2 percent of capital gains realizations (see Figure 60). Note that at their recent peak (in 2012) these filers represented 45.9 percent of NYSAGI and 82.2 percent of realized capital gains. This was approximately where this very small number of taxpayers was in 2007, just prior to the Great Recession, when they accounted for 46.2 percent of NYSAGI and 80.0 percent of capital gains realizations. Since the income of wealthy taxpayers is taxed at the highest rate, an accurate projection of these income components is critical to an accurate projection of personal income tax liability.

Box 5 INCOME TAX LIABILITY AND ALTERNATIVE MEASURES OF INCOME

A major focus of the Budget Division's forecasting effort is an accurate projection of personal income tax receipts. This requires estimates of income tax liability, which depends on taxpayer income. New York State tax law determines the components of income to be taxed and the corresponding tax rates.

Personal income tax liability is the amount which State taxpayers actually owe for a given tax year and thus measures the State's tax base.¹ Personal income tax liability is derived from taxpayers' New York State adjusted gross income (NYSAGI), in conformity with State tax law. A measure that is closely related to NYSAGI is State personal income, a U.S. Bureau of Economic Analysis national income and product accounts (NIPA) concept that measures income derived from value added to current production.² This widely available data source is often used as a proxy for NYSAGI. The relative volatility of personal income tax liability, NYSAGI, and State personal income, is presented in Figure 57 on page 110. For example, in 2014, personal income grew 4.0 percent, while NYSAGI grew a stronger estimated 8.6 percent and personal income tax liability at constant law grew an even stronger estimated 11.6 percent.

Economists use the concept of elasticity to measure the sensitivity of one economic indicator to another. Elasticity is defined as the percentage change in one economic indicator when another changes by one percent. Since tax revenues tend to vary with the business cycle, we are often interested in the elasticity of the tax base with respect to a broad measure of economic conditions, such as GDP. The more sensitive a particular tax base measure is to a change in GDP, the higher the elasticity.

Typically, the elasticity of NYSAGI tends to be higher than that of personal income because NYSAGI measures the taxable components of income, which include realized capital gains and losses. Gains and losses earned on changes in asset prices are not included in the NIPA concept of personal income since they do not represent changes to the value of current production.³ Unlike the primary drivers of personal income – employment and wages, which have relatively stable bases – income from capital gains realizations can rise and fall dramatically. In an asset market downturn such as in 2008, for example, taxpayers can refrain from selling, causing a 51.8 percent decline in capital gains realizations. In addition to behavioral responses to changes in market conditions, NYSAGI fluctuations can result from statutory changes and taxpayers' strategic responses to such changes. Taxpayers realized capital gains and received compensation early to avoid higher tax rates in 2013, shifting taxable income from 2013 to 2012.

Personal income tax liability is even more elastic than NYSAGI, primarily because of the progressivity of the State tax system. The volatile components of taxable income, such as bonuses and capital gains realizations, tend to be concentrated among the State's high-income taxpayers, who are also taxed at the highest marginal tax rate. As the more volatile income components respond strongly to changing economic conditions, the effective or average tax rate changes. Furthermore, as incomes rise, some taxpayers move into higher income tax brackets, increasing the effective tax rate and the amount of liability generated from a given amount of adjusted gross income. The opposite occurs as incomes fall. For example, the average effective tax rate fell from a high of 4.81 percent in 2000 to a low of 4.51 percent in 2002 without any significant changes in tax law. This impact is exacerbated in New York by provisions in State laws that recapture the benefits of portions of income being taxed at lower rates for high income taxpayers.

The fact that the most volatile components of income can and have accounted for a large portion of the change in NYSAGI poses significant risks to the Division of the Budget's personal income tax forecast.⁴ Therefore, the Budget Division has consistently maintains that cautious projections are warranted.

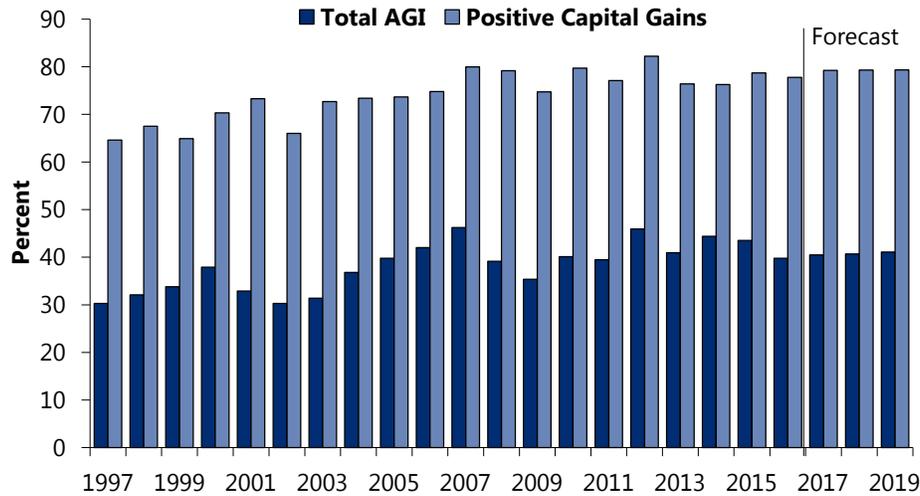
¹ For a detailed discussion of personal income tax liability, see Tax Receipt Section "Personal Income Tax."

² For a detailed explanation of how the Budget Division constructs State personal income, see **Box 3** on page 82.

³ However, any transaction cost generated by such a sale would add value to current production and would therefore be included in personal income.

⁴ The *New York State Economic, Revenue and Spending Methodologies*, November 2017, provides a detailed explanation of the Budget Division's use of fan charts to compute prediction intervals around forecasts (<http://www.budget.ny.gov/pubs/supporting/MethodologyBook.pdf>).

Figure 60
Income Shares of the Top One Percent Taxpayers
AGI and Capital Gains Realizations



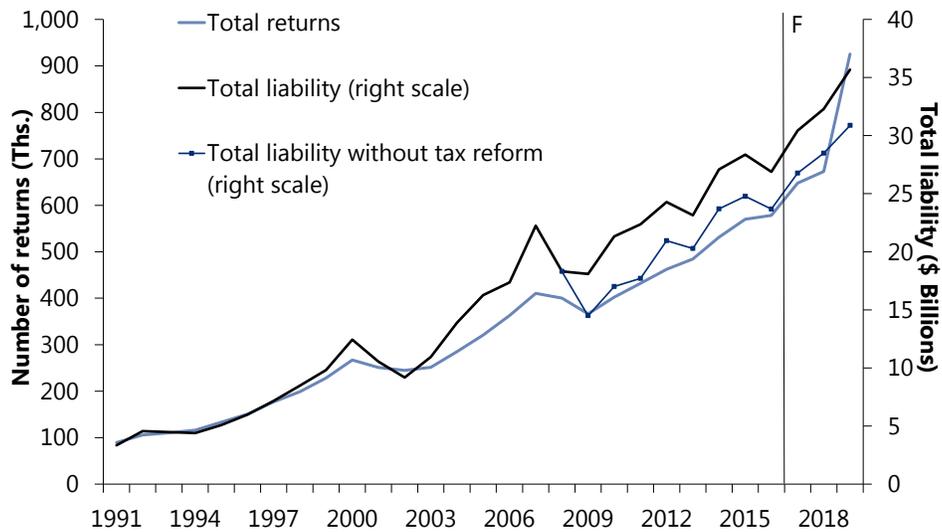
Note: For nonresident taxpayers, shares are based on total income.
 Source: NYS Department of Taxation and Finance; DOB staff estimates.

Between 1985 and 2007 (or prior to the Great Recession), the number of returns generated by high-income taxpayers – those reporting NYSAGI of \$200,000 or more – grew substantially, at an average annual rate of 12.8 percent. During the same period, the liability generated by these taxpayers grew more rapidly, at an annual average rate of 14.2 percent (see Figure 61). Liability was also affected by a temporary tax measure that added two more tax brackets for wealthier taxpayers, raising the State’s top income tax rate to 8.97 percent from 6.85 percent for tax years 2009 to 2011.⁴¹ As the economy recovered between 2009 and 2016, returns and tax liability for wealthier taxpayers also rebounded with an estimated increase of 57.9 percent in returns, though the increase in liability was a lower 48.6 percent over the period, thanks in part to a decline from 2015 to 2016 as the economy slowed and income shifting occurred.

The large decline in capital gains realizations and thus NYSAGI brought about by the recession temporarily unwound some of the concentration of income, but by 2012 the estimated liability share of high-income taxpayers exceeded the 2007 peak and by 2015 it exceeded that peak by 1.3 percentage points, in part helped by a new high top marginal tax rate of 8.82 percent that started with the implementation of the December 2011 tax reform in 2012 (see Figure 62). The 8.82 percent rate has since been extended to tax year 2019 even as a multiyear middle-class tax cut begins in 2018. Note that in the absence of the rate increase under the tax reform, high income taxpayers’ share of liability is not expected to exceed that peak within the forecast horizon, though the peak is expected to be exceeded again in 2017.

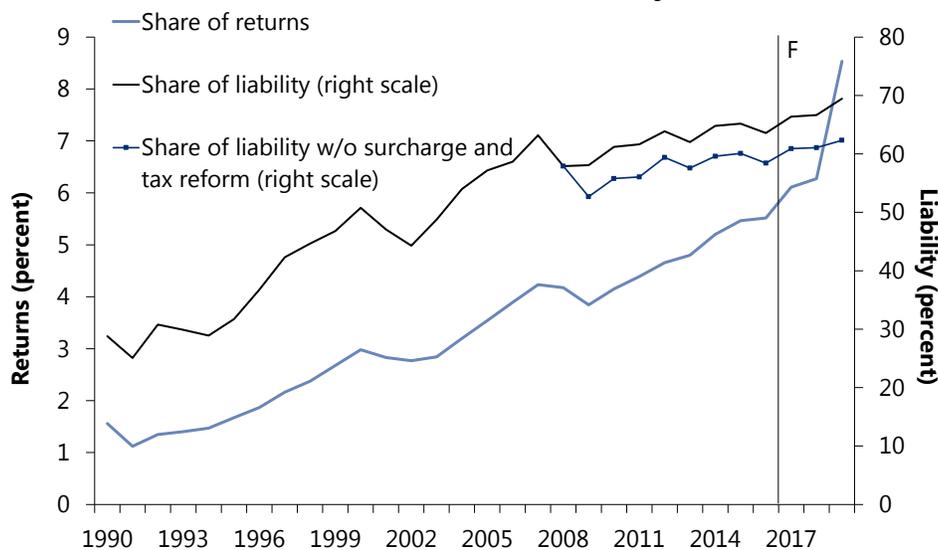
⁴¹ See the “Personal Income Tax” section for more detail on the temporary income brackets and tax rates and the tax reform of 2011.

Figure 61
New York State High-Income Tax Returns



Note: High-income taxpayers are those reporting NYSAGI of \$200,000 or more.
Source: NYS Department of Taxation and Finance; DOB staff estimates.

Figure 62
High-Income Taxpayers as Percentage of Total Returns and Liability



Note: High-income taxpayers are those reporting NYSAGI of \$200,000 or more.
Source: NYS Department of Taxation and Finance; DOB staff estimates.

Table 15

**THE CONCENTRATION OF STATE INCOME AND LIABILITY
2007, 2009, and 2016**

	Number of Returns	Gross Income	Wage Income	Nonwage Income	Liability
2007					
Total (\$ in millions)	8,860,413	\$778,402	\$485,565	\$292,837	\$35,217
Share: Top 1%	—	34.4	19.5	59.2	46.4
Share: Top 5%	—	49.7	35.4	73.3	65.1
Share: Top 10%	—	59.2	46.7	79.8	75.2
Share: Top 25%	—	76.7	68.5	90.4	90.2
2009					
Total (\$ in millions)	9,524,621	\$646,935	\$463,939	\$182,995	\$31,168
Share: Top 1%	—	25.8	15.9	50.7	42.6
Share: Top 5%	—	41.6	32.3	65.2	61.5
Share: Top 10%	—	52.6	44.7	72.6	72.6
Share: Top 25%	—	73.5	67.8	87.8	89.5
2016					
Total (\$ in millions)	10,485,144	\$867,984	\$596,005	\$271,979	\$42,304
Share: Top 1%	—	28.4	17.0	53.5	42.8
Share: Top 5%	—	45.0	33.9	69.2	61.6
Share: Top 10%	—	55.9	46.1	77.5	72.3
Share: Top 25%	—	75.9	68.6	92.0	88.5

Note: Returns are ranked on the basis of gross income and based on a weighted statistical sample of all tax returns in the State.

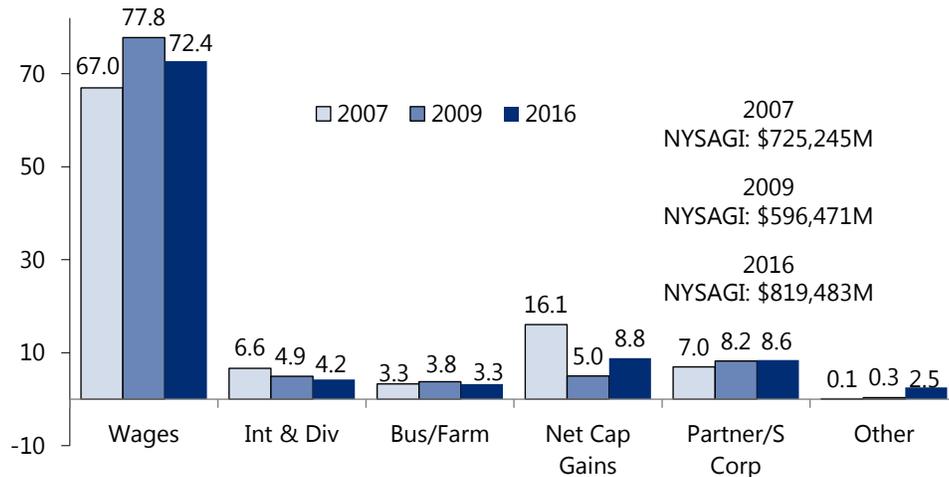
Source: NYS Department of Taxation and Finance; DOB staff estimates.

Table 15 shows the changes in the concentration of income and liability from the pre-recession peak in 2007 to the trough in 2009 and to 2016, the last year for which some taxpayer data are available. As a result of the recession, the share of nonwage income accruing to the top 10 percent of taxpayers fell by 7.2 percentage points between 2007 and 2009; but by 2015, the group had regained 4.9 percentage points of that loss. However, 2016 was the weakest year since 2013 for capital gains income, which tends to accrue primarily to high-income filers. New York taxpayers lost \$84.4 billion in capital gains income between 2007 and 2009, of which they regained less than half, \$41.3 billion, by 2016. For wage income, which is more evenly distributed across taxpayers, the share of the top 10 percent of taxpayers fell 2.0 percentage points between 2007 and 2009, but increased 3.3 percentage points between 2009 and 2016. One indication of the severity of the Great Recession can be seen in the fact that even as late as 2016 the shares of gross income, wage income, nonwage income and liability were still generally lower than their counterparts in 2007, even among the most affluent State tax filers.

Figure 63 and Figure 64 display the decomposition of NYSAGI into its main components for the 2007 peak year, the 2009 trough year and the projected components for 2016, for all taxpayers and for high-income taxpayers, defined here as those reporting NYSAGI of \$200,000 or more.

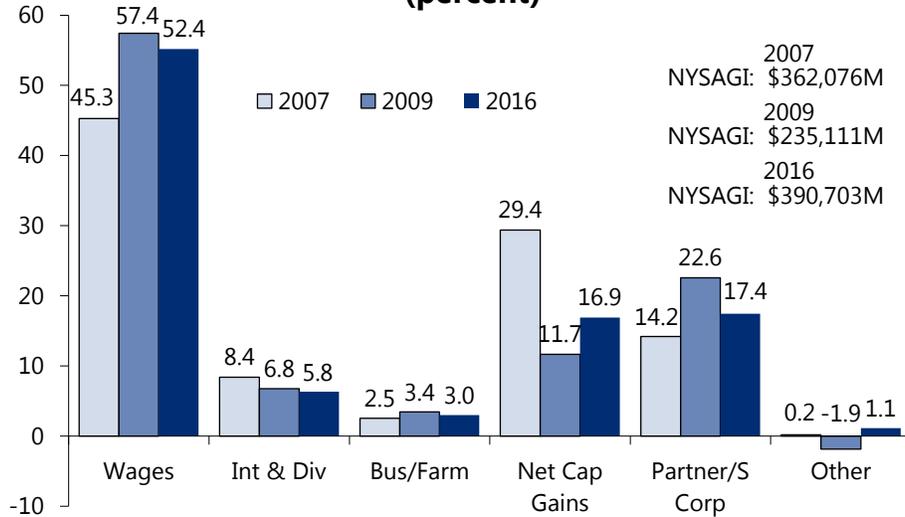
With the national economy having grown only 1.9 percent from 2015, not only its slowest year-on-year growth in three years but also the lowest annual growth since the Great Recession, there was a stagnation in the composition of NYSAGI for all taxpayers. The shares of NYSAGI coming from wages; interest and dividends; business and farm income; and partnership and S-corporation income remained the same as in 2015 for all NYS taxpayers. Capital gains for all filers actually made up a smaller part of NYSAGI in 2016 than in 2015, slipping to 8.8 percent from 11.7 percent in the previous year.

Figure 63
Composition of NYSAGI for All Taxpayers
(percent)



Note: Both capital gains and partnership/S corporation gains income are net of losses. 2016 numbers are projections based on processing information. Source: NYS Department of Taxation and Finance; DOB staff estimates.

Figure 64
Composition of NYSAGI for High-Income Taxpayers
(percent)



Note: Both capital gains and partnership/S corporation gains income are net of losses. High-income taxpayers are those reporting NYSAGI of \$200,000 or more. All 2016 numbers are projections.
 Source: NYS Department of Taxation and Finance; DOB staff estimates.

Similarly, shares of NYSAGI derived from wages, interest and dividends and business and farm income were essentially the same as in 2015 for the high-income filers. With a stock market that in 2016 was virtually stagnant relative to the previous year, the share of NYSAGI coming from net capital gains fell by more for the higher-income taxpayers, dropping to 16.9 percent from 21.0 percent in 2015. Unlike the situation for taxpayers as a whole, the NYSAGI share from partnership and S-corp income climbed to 17.4 percent from 16.9 percent in 2015.

Another factor that was no doubt in play was the effect of the presidential election in November 2016 and the expectation of very rapid action on lowering federal tax rates and otherwise revising federal tax law. This led to income shifting from 2016 into 2017 among those who were able to do so, in expectation that rates would be lower in the latter year.

Interestingly, even after so many years since the Great Recession, some of the large changes in income shares brought about by the Great Recession do not appear to have been unwound yet, testifying to the weak nature of the ongoing recovery. In particular, both high-income filers and taxpayers overall remain more dependent on wage income now than in 2007 while the share of NYSAGI made up of net capital gains income, which then was much larger than the share from partnership income, is now roughly equal to the latter.

Risks to the Forecast

The Budget Division's forecast for the personal income tax provides a balanced picture of upside and downside risks, particularly with respect to its most volatile components. As forecasts of the components of New York State's adjusted gross income are consistent with economic indicator variables from the Budget Divisions macroeconomic forecasting models, much of the risk to the personal income tax are the same as the risks to the New York and national economies. However, because of the prominence of bonus income and capital gains realizations in taxable income, the risks and uncertainties are heightened and, as a consequence of the progressive tax system, even more so for personal income tax revenues.

There is particular risk to the forecast for taxable income now that the Congress has changed the federal law governing corporate and personal income taxes. Going back to the early 1990s, it is easy to observe a significant shifting of various forms of income from one tax year to another as taxpayers and their employers anticipate possible tax law changes in order to position themselves to take advantage of a lower tax rate. The period since the most recent election was just such a period. Anticipating changes in taxpayer behavior adds an additional layer of risk and uncertainty to the New York State adjusted gross income forecast.

SELECTED ECONOMIC INDICATORS (Calendar Year)

	2016 (actual ¹)	2017 (estimate)	2018 (forecast)	2019 (forecast)	2020 (forecast)	2021 (forecast)	1977-2016 Average ²
U.S. Indicators³							
Gross Domestic Product (current dollars)	2.8	4.1	4.9	4.6	4.5	4.4	5.9
Gross Domestic Product	1.5	2.3	2.5	2.4	2.3	2.3	2.8
Consumption	2.7	2.7	2.4	2.3	2.3	2.2	3.0
Residential Fixed Investment	5.5	1.6	4.7	5.4	4.4	3.9	2.1
Nonresidential Fixed Investment	(0.6)	4.7	5.4	4.3	4.0	3.9	4.4
Change in Inventories (dollars)	33.4	19.8	39.2	45.7	47.9	48.1	33.7
Exports	(0.3)	3.1	3.3	4.1	4.3	4.5	5.4
Imports	1.3	3.6	4.7	4.5	4.6	4.4	5.7
Government Spending	0.8	(0.0)	1.0	1.1	1.2	1.1	1.7
Corporate Profits ⁴	(2.1)	4.7	6.2	5.1	5.1	5.0	6.9
Personal Income	2.4	3.0	3.9	4.2	4.5	4.4	6.1
Wages	2.9	3.1	3.7	3.8	4.1	4.1	5.7
Nonagricultural Employment	1.8	1.5	1.4	1.3	1.2	1.0	1.5
Unemployment Rate (percent)	4.9	4.4	4.1	4.1	4.0	3.9	6.4
S&P 500 Stock Price Index	1.5	17.0	9.0	5.0	6.2	6.5	8.7
Federal Funds Rate	0.4	1.0	1.8	2.3	2.8	3.0	5.2
10-year Treasury Yield	1.8	2.3	2.8	3.3	3.8	4.1	6.5
Consumer Price Index	1.3	2.1	2.2	2.2	2.3	2.3	3.7
New York State Indicators							
Personal Income ⁵	1.9	4.7	3.1	4.9	4.5	4.4	5.6
Wages and Salaries ⁵							
Total	2.2	6.1	2.1	5.0	4.2	4.1	5.3
Without Bonus ⁶	4.0	4.0	4.1	4.2	4.2	4.0	5.0
Bonus ⁶	(8.9)	20.3	(10.2)	10.7	4.6	4.6	8.8
Finance and Insurance Bonuses ⁶	(6.4)	23.6	(13.7)	13.2	4.3	4.3	13.3
Wage Per Employee	0.6	4.7	1.0	3.9	3.1	3.1	4.5
Property Income	0.9	3.5	4.7	5.1	5.1	5.0	6.5
Proprietors' Income	4.8	3.8	4.4	4.8	4.9	4.9	6.7
Transfer Income	2.3	3.0	4.4	4.8	4.9	4.9	6.0
Nonfarm Employment ⁵							
Total	1.6	1.2	1.1	1.1	1.1	0.9	0.8
Private	1.8	1.4	1.3	1.3	1.2	1.1	0.9
Unemployment Rate (percent)	4.8	4.6	4.4	4.4	4.3	4.3	6.5
Composite CPI of New York ⁶	1.2	2.1	2.2	2.2	2.3	2.3	3.7
New York State Adjusted Gross Income (NYSAGI)							
Capital Gains	(21.7)	14.7	7.9	7.8	7.8	7.7	14.9
Partnership/ S Corporation Gains	0.1	8.1	4.5	7.7	7.8	7.7	9.8
Business and Farm Income	0.0	5.4	6.1	6.1	6.0	5.9	6.0
Interest Income	10.7	5.6	8.2	6.9	6.6	5.7	3.5
Dividends	0.4	5.8	6.6	7.1	7.7	7.6	6.1
Total NYSAGI	(1.2)	5.9	4.1	5.0	5.1	5.0	4.0

¹ For NYSAGI variables, 2016 is preliminary.

² Partnership and S corporation gains data start in 1978, NYSAGI and Business and Farm data in 1980.

³ All indicators are percent changes except change in inventories, the unemployment rate, and interest rates; all GDP components refer to chained 2009 dollars, unless otherwise noted.

⁴ Includes inventory valuation and capital consumption adjustments.

⁵ Nonagricultural employment, wage, and personal income numbers are based on CEW data.

⁶ Series created by the Division of the Budget.

Source: Moody's Analytics; NYS Department of Labor; NYS Department of Taxation and Finance; DOB staff estimates.

SELECTED ECONOMIC INDICATORS (State Fiscal Year)

	2016-17 (actual)	2017-18 (estimate)	2018-19 (forecast)	2019-20 (forecast)	2020-21 (forecast)	2021-22 (forecast)	1977-78 - 2016-17 Average
U.S. Indicators¹							
Gross Domestic Product (current dollars)	3.1	4.3	4.9	4.6	4.5	4.4	5.9
Gross Domestic Product Consumption	1.6	2.4	2.4	2.4	2.3	2.2	2.7
Residential Fixed Investment	2.8	2.6	2.3	2.3	2.3	2.2	3.0
Nonresidential Fixed Investment	3.3	1.3	6.0	5.1	4.2	3.8	2.0
Change in Inventories (dollars)	0.6	5.3	5.0	4.2	3.9	3.9	4.4
Exports	23.5	28.2	41.4	46.6	48.3	47.7	33.5
Imports	0.8	3.0	3.6	4.2	4.4	4.5	5.4
Government Spending	1.9	3.5	4.9	4.5	4.6	4.4	5.6
Corporate Profits ²	0.3	0.2	1.1	1.1	1.2	1.0	1.7
Personal Income	0.3	5.7	5.6	5.1	5.0	5.0	6.9
Wages	2.5	3.1	4.1	4.3	4.5	4.4	6.1
Nonagricultural Employment	2.9	3.2	3.6	3.9	4.1	4.1	5.7
Unemployment Rate (percent)	1.7	1.4	1.3	1.2	1.1	1.0	1.5
S&P 500 Stock Price Index	4.8	4.2	4.1	4.1	3.9	3.9	6.4
Federal Funds Rate	7.6	15.4	6.9	5.3	6.3	6.5	8.7
10-year Treasury Yield	0.5	1.2	1.9	2.4	2.9	3.1	5.1
Consumer Price Index	2.0	2.3	2.9	3.4	3.9	4.2	6.4
	1.6	2.0	2.2	2.2	2.3	2.3	3.7
New York State Indicators							
Personal Income ³	2.7	3.6	4.3	4.5	4.5	4.4	5.7
Wages and Salaries ³							
Total	3.8	3.8	4.2	4.2	4.2	4.1	5.4
Without Bonus ⁴	4.4	3.8	4.2	4.2	4.1	4.0	5.1
Bonus ⁴	0.5	3.9	4.5	4.6	4.6	4.6	8.8
Finance and Insurance Bonuses ⁴	5.9	4.4	4.4	4.4	4.3	4.4	13.8
Wage Per Employee	2.4	2.6	3.1	3.1	3.1	3.1	4.5
Property Income	0.9	3.7	5.0	5.1	5.1	4.9	6.6
Proprietors' Income	4.7	3.5	4.7	4.9	4.9	4.9	6.9
Transfer Income	2.0	3.4	4.6	4.8	4.9	4.9	6.0
Nonfarm Employment ³							
Total	1.4	1.2	1.1	1.1	1.1	0.9	0.8
Private	1.6	1.3	1.3	1.2	1.2	1.1	0.9
Unemployment Rate (percent)	4.7	4.7	4.4	4.3	4.3	4.3	6.6
Composite CPI of New York ⁴	1.6	2.0	2.2	2.2	2.3	2.3	3.8

¹ All indicators are percent changes except change in inventories, the unemployment rate, and interest rates; all GDP components refer to chained 2009 dollars, unless otherwise noted.

² Includes inventory valuation and capital consumption adjustments.

³ Nonagricultural employment, wage, and personal income numbers are based on CEW data.

⁴ Series created by the Division of the Budget.

Source: Moody's Analytics; NYS Department of Labor; DOB staff estimates.

Comparison of New York State Tax Structure with Other States

Comparison of New York State Tax Structure with Other States



An important consideration in tax policy decisions in New York State, and by extension in setting Budget priorities, is the position of the State in terms of state and local tax rates and bases relative to other states.

An emphasis on tax reduction in New York over much of the past four decades has moderately reduced the disparity between New York State tax rates and burdens and those of the rest of the nation. However, local taxes in New York State remain very high relative to other states.

The data presented here suggest there is pressure on states to remain competitive with respect to tax policy. This is evidenced by the gradual clustering over time of states around the national average tax-to-income ratio. However, there is also a strong tendency for a state tax position to be highly persistent over time; this means movements towards the average have been slow. The persistence most likely reflects a combination of localized spending pressures and priorities and different state and regional attitudes towards tax policy.

Several important points on comparative tax structures can be seen by examining the accompanying tables.

Total State and Local Taxes

- Overall, state and local tax structures are broadly similar in both the taxes imposed and the rates applied. Average rates measured by the tax-to-income ratios are also roughly equivalent across states, especially when aggregating both state and local taxes together.
- The variability across states within each category of tax (e.g., income, sales, or property taxes examined in isolation) is greater than the dispersion for taxes when examined in the aggregate (all state and local taxes added together). For example, a fairly large number of states have excluded the personal income tax from their fiscal policy mix; a smaller subset has excluded corporate taxes, and a few impose no sales tax.
- In general, it appears that the spread of state and local tax burdens across states has been narrowing over time. This may reflect both competitive pressures to keep taxes in line with other states, and the more widespread use of income taxes nationwide.
- The national average state and local tax-to-income ratio has remained relatively stable over time and significantly below that of New York.
- The state and local tax-to-income ratio for New York exceeded the national average by \$4.53 per \$100 of personal income, or 43.6 percent in 1977, ranking New York second nationally. In 2015, the gap was down to \$4.14 (41.4 percent) above the national average, ranking New York second nationally.

State Taxes

- Prior to the 2016 Executive Budget Comparison, New York's tax-to-personal income ratio had been inherently overstated. The numerator included all personal income tax receipts, whether from residents or non-residents. The denominator, as calculated by the U.S. Bureau of Economic Analysis, excluded the personal income of non-N.Y. residents. Beginning with the FY 2016 Executive Budget Comparison, an adjustment was made to add the personal income of non-New York residents that pay New York personal income tax to the denominator.
- New York is a slightly above average tax state when looking only at state taxes.
- New York's tax burden, as measured by taxes per \$100 of personal income, was \$0.19 (3.1 percent) above the national average of \$6.22 in 2015.
- New York taxes per \$100 of personal income declined from \$7.12 in 1977 to \$6.41 in 2015.
- New York's state tax rank was eleventh highest in 1977, and dropped to sixteenth highest in 2014 and then twentieth highest in 2015.
- Legislation enacted in 2014 that reduced corporate and estate taxes should continue to serve to lower New York's ranking in future years.

Local Taxes

- At least a portion of New York's significant local tax burden is due to the large portion of sales tax retained by New York localities. This contrasts sharply with other states and reflects, at least in part, the need at the local level in New York for receipts to pay for the local share of Medicaid.
- New York City uniquely imposes taxes which comprise a large portion of New York's total local burden. In 2015, nearly \$1.88 of New York's local burden of \$7.74 per \$100 of state personal income was due to New York City (NYC) personal and corporate income taxes. This accounted for approximately 24.3 percent of the total local burden.

Property Taxes in New York State

- Higher than average property taxes as a share of income (53 percent above the 2015 national average) in New York are tied, for the most part, to the rapid escalation in local Medicaid costs and uncapped growth in school property taxes through 2011. The property tax cap went into effect for local fiscal years beginning in 2012 for local governments and school districts (excluding NYC).
- Significant disparities exist within New York with respect to the property tax burden.

Comparison of New York State Tax Structure with Other States



Property tax burdens as a percent of median home value are felt most heavily in Upstate counties due to relative weakness in home value appreciation and other demographic factors. In fact, four of the top ten highest property tax counties in the nation (and 9 of the top 20) in 2015 were in Upstate New York as measured by property taxes paid as a percent of a median-valued home in that county.¹ This is an improvement from 2011 (before the property tax cap went into effect) when, according to this measure, seven of the top ten (and 12 of the top 20) counties were in Upstate New York.

- Mass Transportation Authority (MTA) District counties excluding New York City (Westchester, Rockland, Putnam, Orange, Dutchess, Suffolk, and Nassau) demonstrated high property taxes as a percent of each county's respective median household income in 2015. Using this metric, three of the ten highest property tax counties in the nation in 2015 were clustered Downstate. At least in part, this is a housing supply issue that characterizes Downstate and that disproportionately affects the elderly and middle class.
- Noticeably, the five counties of New York City did not have relatively high residential property tax burdens in 2015 when compared to other New York counties. This is the result of the more diverse tax structure in the City and a large and valuable commercial property tax base.
- Chapter 97 of the Laws of 2011 generally imposed a growth cap of 2 percent on the annual property tax levy of local taxing jurisdictions. With data through 2015 available, the impact of the property tax cap can be seen as the rankings of many New York State counties based on taxes as a percentage of median home value improved compared to 2011. Also, New York's property taxes as a share of income dropped approximately 0.12 percentage points in 2015 compared to 2011.

Table Construction

This section compares the state and local tax structure in New York State with other states. Table 1 reports tax rates for the major tax sources utilized by state and local governments. The first and second data columns of the table show the top personal income tax rate by state, and the income level at which the top rate takes effect; the third column lists top corporate tax rates (most state corporate tax structures have relatively flat rate structures, so the rate reported often applies to all corporate income subject to tax); the fourth column reports state sales tax rates; and the final column reports the average combined state and local sales tax rates imposed by the various jurisdictions within such state. The rates are those in effect as of 2017. The income and corporate tax rates reported exclude local rates. This exclusion is important since New York is one of only a handful of states where significant local personal income and corporate taxes are imposed, as in PIT New York City.

Tables 2 and 3 report state taxes collected by source divided by state personal income for 1977 and for 2015, respectively, with 2015 being the latest year for which complete state and local tax

¹ Source: Moodyanalytics.com; DOB Staff Estimates

information is available. The New York rank in terms of state taxes fell from eleventh highest to twentieth highest over this period.

Tables 4 and 5 report local taxes as a share of state personal income by state in 1977 and in 2015. In 2015, New York had the highest local tax burden using this measure, the same ranking it held in 1977. New York slightly increased from \$3.86 above the mean local tax burden in 1977 to \$3.95 in 2015. The above-average local tax burden is caused by relatively high property taxes, the large sales tax burden imposed at the local level, and the high ratio in the other category that picks up the income and corporate taxes imposed by New York City.

Tables 6a, 6b and 7 report state and locally imposed taxes as a percentage of state personal income. The data used in the calculations are for fiscal years ending in 1977 and 2015. The tax-to-income ratios included on table 7 are: state and local income taxes, state and local corporate taxes, state and local sales taxes, local property taxes, all other state and local taxes, and finally combined state and local taxes.

Table 8a reports changes in only the state tax to income ratio over the 1977-2015 period. During this time, New York's state tax burden fell relative to the mean, and has been below the mean for all but six of the last twenty-seven recorded years, though these six years have all occurred since 2009. These results reflect the State's temporary high-income Personal Income Tax (PIT) bracket first imposed in 2009. Table 8b reports changes in the state and local tax-to-income ratio over the 1977-2015 period. In 1977, New York state and local taxes as a percent of personal income were 4.53 percentage points above the national average. In 2015, New York was 4.14 percentage points above the national average. The average state and local tax-to-income ratio has remained relatively constant nationwide over the thirty-nine year period, while the New York ratio has declined overall. In every year since 1977, New York has been at least 2.04 percentage points above the mean.

The bottom of tables 1-7 report the mean for each tax category, as well as the standard deviation and the Coefficient of Variation (CV). Additionally, the difference between the national average and New York values is reported. While the standard deviation provides a sense of how the data are dispersed around the average value for all states, the CV allows comparisons of spread for data with different averages and is defined simply as the standard deviation divided by the average and is reported as a percentage. It essentially provides a normalized, unit-free measure of dispersion.

Table 9 reports U.S. Census Bureau data on county-level property tax collections on owner-occupied housing for the 39 New York State counties, out of a total of 814 U.S. counties that had populations of at least 65,000 as of July 1, 2015. The data has been compiled and calculated by DOB based on the methodology used by the Tax Foundation in prior years' reports. Table 9 is sorted by county, in descending order of median property taxes paid on homes in that county as a percentage of the same county's median home value. Median values report the data point for which half of the data set values are higher and half lower. They differ from mean values (the sum of all observations divided by the number of observations) in that outlying values, such as particularly expensive homes, do not skew the computation. The rankings reported indicate the

relative ordering of the counties with respect to the 806 U.S. counties covered, and are not relative solely to the counties of New York State.

The Tax-to-Income Percentage

The tax-to-personal-income percentage offers one simple and commonly used way of comparing states with respect to relative tax burdens. It must be noted that the real effort of tax burden analysis should be to determine who actually faces the economic consequences of a tax, not who is legally required to pay the tax. All simple measures of tax burden across states are inadequate from this perspective. In general, any single indicator of burden will necessarily be limited in value. The following three additional issues should be taken into consideration when relying on this measure:

Tax Exportation

In using taxes per dollar of personal income as a measure of tax burden it must be noted that for many states a significant portion of the tax base is “exported” or paid by out-of-state taxpayers.

For example, in New York, a large number of workers from New Jersey and Connecticut pay tax on New York source income and on taxable sales while in New York. This means that, unless a portion of Connecticut’s and New Jersey’s personal income is also shifted to New York State; the actual burden on New Jersey residents will appear to be a burden on New York residents. Beginning with the FY 2016 Executive Budget Comparison, a residence adjustment has been made to the personal income calculation for each state. The denominator now includes New York source income earned by non-New York residents. The same adjustment has been made for all 50 states.

One example of tax exportation can be seen in states with a large tourism economy. These states will realize increases in their sales tax collections and other excise taxes that may overstate the tax burden actually paid by their citizens.

Another example is that methods used to apportion corporate taxable income are neither consistent across states, nor are they necessarily representative of actual activity. For example, some states use a three-factor allocation formula that takes into account the percentage of a taxpayer’s property, payroll and receipts amounts in the state compared to those amounts everywhere. Other states use different formulas. These differences in allocation formulas could result in either tax importation or exportation, again distorting this measure as a method of comparison of true tax burden imposed on each state’s residents.

Overall, it would seem likely that New York State is a net exporter of tax burdens relative to other states. This serves to bias the tax-to-income percentage for New York upward – making burdens in New York appear too high using this measure. The inclusion of the residence adjustment has helped rectify one of the tax exportation issues facing New York.



Comparison of New York State Tax Structure with Other States

Income Adjustments

Given two states with identical marginal tax rate structures, differences in the incomes of individuals could yield different tax-to-income percentage results. For example, if New York State and Alabama had identical progressive income brackets built into their respective tax codes, the higher average personal incomes of New York State residents would tend to lead to higher taxes per dollar of personal income due to the nature of the income tax.

Particularly important is the distinction between the National Income and Product Account (NIPA) measure of personal income as defined by the Bureau of Economic Analysis (BEA), and taxable personal income as defined by each state's respective tax code. For example, the NIPA personal income measure does not include capital gains (by the definition of personal income). However, capital gains are a component of New York Adjusted Gross Income (NYAGI) that contributes significantly to personal income tax receipts in New York State. States with high income individuals, like New York, would be more likely to have the tax-to-income percentage distorted upward. In the gains example, the percentage of personal income used in Table 2 will be influenced because the numerator will include taxes on capital gains income that is not included in the denominator, effectively overstating the tax burden relative to other states since New York has a disproportionate share of taxpayers with large capital gains incomes.

Federal Offsets

The Federal tax structure allows for the deductibility of certain state and local taxes. As a result, residents of states with relatively higher state income, property and corporate tax burdens, such as New York State, receive a larger deduction, thereby offsetting a portion of the individual's total tax burden. Again, this is not reflected in the tax-to-income percentage reported here. So again, it would appear this biases the measure in a way that makes New York look like a relatively higher tax state than is actually the case.

With all three issues, the tax-to-income percentage calculation likely biases the tax burden in New York upward.

Comparison of New York State Tax Structure with Other States



Table 1 Comparison of 2017 State Top Rates

State	Top PIT Rate	Highest Tax Bracket (Married Filing Joint)	Top Corp. Rate	State Sales Rate	Combined State and Local Sales Tax Rate ¹
Alabama	5	\$6,000	6.5	4	9.01
Alaska	-	NA	9.4	-	1.76
Arizona	4.54	\$305,336	4.9	5.6	8.25
Arkansas	6.9	\$35,100	6.5	6.5	9.3
California	13.3	\$1,074,996	8.84	7.25	8.48
Colorado	4.63	Flat Rate	4.63	2.9	7.5
Connecticut	6.99	\$1,000,000	9	6.35	6.35
Delaware	6.6	\$60,000	8.7	-	-
Florida	-	NA	5.5	6	6.8
Georgia	6	\$10,000	6	4	7
Hawaii	8.25	\$96,000	6.4	4	4.35
Idaho	7.4	\$21,810	7.4	6	6.03
Illinois	4.95	Flat Rate	7.75	6.25	8.64
Indiana	3.23	Flat Rate	6.25	7	7
Iowa	8.98	\$70,785	12	6	6.8
Kansas	5.2	\$60,000	7	6.5	8.62
Kentucky	6	\$75,000	6	6	6
Louisiana	6	\$100,000	8	5	9.98
Maine	7.15	\$74,999	8.93	5.5	5.5
Maryland	5.75	\$300,000	8.25	6	6
Massachusetts	5.1	Flat Rate	8	6.25	6.25
Michigan	4.25	Flat Rate	6	6	6
Minnesota	9.85	\$261,510	9.8	6.875	7.3
Mississippi	5	\$10,000	5	7	7.07
Missouri	6	\$9,072	6.25	4.225	7.89
Montana	6.9	\$17,600	6.75	-	-
Nebraska	6.84	\$59,660	7.81	5.5	6.89
Nevada	-	NA	-	6.85	7.98
New Hampshire	-	-	8.2	-	-
New Jersey	8.97	\$500,000	9	6.875	6.85
New Mexico	4.9	\$24,000	6.2	5.125	7.55
New York	8.82	\$2,155,350	6.5	4	8.49
North Carolina	5.499	Flat Rate	3	4.75	6.9
North Dakota	2.9	\$416,700	4.31	5	6.78
Ohio	4.997	\$210,600	-	5.75	7.14
Oklahoma	5	\$12,200	6	4.5	8.86
Oregon	9.9	\$250,000	7.6	-	-
Pennsylvania	3.07	Flat Rate	9.99	6	6.34
Rhode Island	5.99	\$139,400	7	7	7
South Carolina	7	\$14,650	5	6	7.22
South Dakota	-	NA	-	4.5	6.39
Tennessee	-	-	6.5	7	9.46
Texas	-	NA	-	6.25	8.19
Utah	5	Flat Rate	5	5.95	6.76
Vermont	8.95	\$416,700	8.5	6	6.18
Virginia	5.75	\$17,000	6	5.3	5.63
Washington	-	NA	-	6.5	8.92
West Virginia	6.5	\$60,000	6.5	6	6.29
Wisconsin	7.65	\$329,810	7.9	5	5.42
Wyoming	-	NA	-	4	5.4
Mean Values	5.23		6.22	5.10	6.49
Standard Deviation	3.07		2.81	1.96	2.37
Coefficient of Variation	58.60		45.19	38.44	36.49

"-" indicates either no tax or a tax that is not strictly comparable is imposed.

¹Source: Tax Foundation. Reflects combined state and average local rate for each state.



Comparison of New York State Tax Structure with Other States

Table 2 - 1977 Components and Percentage of Total State Tax Burden per \$100 Personal Income

State	Total State Taxes		PIT			Sales and Use			Corporate			Other		
	Taxes	Rank	Rank	Percent of Total	Rank	Percent of Total	Rank	Percent of Total	Rank	Percent of Total	Rank	Percent of Total		
Alabama	6.37	26	1.19	33	18.7	4.12	10	64.7	0.34	38	5.4	0.71	27	11.2
Alaska	14.12	1	3.84	1	27.2	1.20	49	8.5	0.65	10	4.6	8.42	1	59.7
Arizona	7.02	12	1.15	34	16.4	4.30	7	61.2	0.31	40	4.5	1.25	10	17.9
Arkansas	6.34	27	1.29	28	20.4	3.87	15	61.1	0.53	21	8.4	0.64	32	10.1
California	6.50	24	1.87	18	28.8	3.10	33	47.7	0.85	5	13.0	0.68	31	10.5
Colorado	5.16	44	1.62	20	31.5	2.64	41	51.1	0.39	31	7.5	0.52	42	10.0
Connecticut	5.63	36	0.23	42	4.1	4.07	12	72.3	0.78	6	13.8	0.55	38	9.8
Delaware	8.04	5	3.45	2	43.0	1.42	48	17.6	0.60	14	7.4	2.57	3	31.9
Florida	5.10	45	0.00	45	0.0	3.76	19	73.8	0.30	41	5.9	1.04	15	20.3
Georgia	5.73	34	1.49	24	26.0	3.41	24	59.5	0.51	22	9.0	0.32	49	5.5
Hawaii	8.49	2	2.51	9	29.6	5.51	2	64.9	0.34	39	4.0	0.13	50	1.5
Idaho	6.32	28	1.93	15	30.6	3.03	35	47.8	0.53	20	8.4	0.83	22	13.2
Illinois	5.56	38	1.48	25	26.6	3.15	29	56.7	0.40	29	7.2	0.53	40	9.5
Indiana	5.66	35	1.25	31	22.2	3.75	20	66.2	0.23	44	4.0	0.43	47	7.6
Iowa	6.08	30	2.11	13	34.6	2.69	38	44.3	0.43	27	7.1	0.85	20	14.0
Kansas	5.83	33	1.26	29	21.6	3.13	31	53.7	0.74	9	12.7	0.70	29	12.0
Kentucky	7.14	10	1.55	22	21.7	3.83	16	53.7	0.60	13	8.4	1.16	13	16.2
Louisiana	6.90	15	0.54	40	7.8	3.42	23	49.5	0.38	32	5.5	2.56	4	37.1
Maine	6.73	21	1.08	37	16.0	4.25	8	63.2	0.51	23	7.5	0.89	18	13.3
Maryland	6.87	17	2.60	8	37.9	3.19	28	46.5	0.37	35	5.4	0.70	30	10.2
Massachusetts	6.57	22	2.67	7	40.6	2.63	42	40.1	0.89	2	13.5	0.38	48	5.8
Michigan	6.75	20	2.04	14	30.3	3.02	36	44.7	1.10	1	16.3	0.59	35	8.8
Minnesota	8.25	3	3.18	4	38.5	3.26	26	39.6	0.86	4	10.4	0.95	17	11.6
Mississippi	7.49	8	1.02	38	13.6	5.42	3	72.3	0.35	37	4.7	0.70	28	9.4
Missouri	4.54	47	1.11	36	24.4	2.64	40	58.2	0.30	42	6.6	0.49	44	10.8
Montana	6.00	31	2.15	12	35.8	1.59	47	26.6	0.48	26	8.0	1.78	7	29.6
Nebraska	5.45	40	1.52	23	27.8	3.05	34	56.0	0.37	34	6.8	0.51	43	9.3
Nevada	5.50	39	0.00	45	0.0	4.30	6	78.2	0.00	47	0.0	1.20	12	21.8
New Hampshire	3.53	50	0.12	43	3.5	2.01	46	56.9	0.57	16	16.3	0.82	24	23.3
New Jersey	5.32	42	1.22	32	22.9	2.70	37	50.8	0.57	17	10.7	0.83	23	15.6
New Mexico	7.72	7	0.34	41	4.5	4.86	5	62.9	0.38	33	4.9	2.14	5	27.7
New York	7.12	11	3.00	5	42.1	2.63	43	36.9	0.86	3	12.1	0.64	33	8.9
North Carolina	6.82	18	2.24	11	32.8	3.23	27	47.3	0.58	15	8.6	0.77	26	11.3
North Dakota	6.77	19	1.26	30	18.6	3.77	18	55.7	0.50	24	7.4	1.25	11	18.4
Ohio	4.44	49	0.76	39	17.2	2.65	39	59.7	0.39	30	8.8	0.63	34	14.2
Oklahoma	5.98	32	1.14	35	19.0	2.59	45	43.3	0.37	36	6.2	1.88	6	31.4
Oregon	5.19	43	3.00	6	57.7	0.85	50	16.4	0.49	25	9.4	0.86	19	16.5
Pennsylvania	6.26	29	1.32	27	21.1	3.14	30	50.2	0.75	8	11.9	1.05	14	16.8
Rhode Island	6.54	23	1.55	21	23.6	3.80	17	58.1	0.61	12	9.3	0.59	36	9.0
South Carolina	6.88	16	1.68	19	24.5	4.12	11	59.8	0.62	11	9.0	0.46	46	6.7
South Dakota	4.47	48	0.00	45	0.0	3.89	14	86.9	0.06	46	1.3	0.53	41	11.8
Tennessee	5.59	37	0.08	44	1.5	4.13	9	73.9	0.57	18	10.2	0.81	25	14.5
Texas	5.07	46	0.00	45	0.0	3.40	25	67.0	0.00	47	0.0	1.68	9	33.0
Utah	6.37	25	1.90	16	29.8	3.69	21	57.9	0.30	43	4.7	0.49	45	7.7
Vermont	7.46	9	2.28	10	30.6	3.66	22	49.1	0.55	19	7.4	0.96	16	12.9
Virginia	5.44	41	1.89	17	34.8	2.59	44	47.7	0.42	28	7.7	0.54	39	9.8
Washington	7.00	13	0.00	45	0.0	5.30	4	75.7	0.00	47	0.0	1.70	8	24.3
West Virginia	7.80	6	1.42	26	18.2	5.60	1	71.7	0.20	45	2.6	0.58	37	7.4
Wisconsin	8.13	4	3.40	3	41.9	3.13	32	38.5	0.75	7	9.2	0.85	21	10.4
Wyoming	6.91	14	0.00	45	0.0	3.93	13	56.8	0.00	47	0.0	2.99	2	43.2
Mean	6.46		1.49		22.4	3.39		54.1	0.47		7.5	1.10		16.1
Standard Deviation	1.52		1.00			1.02			0.24			1.21		
Coefficient of Variation	23.52		66.79			29.97			50.97			109.53		
NYS Diff. from Mean	0.66		1.51		19.7	(0.76)		(17.2)	0.38		4.6	(0.47)		(7.2)

Source: Moody's Economy.com, U.S. Census Bureau

Comparison of New York State Tax Structure with Other States



Table 3 - 2015 Components and Percentage of Total State Tax Burden per \$100 Personal Income

State	Total State Taxes		PIT			Sales and Use			Corporate			Other		
	Taxes	Rank	Rank	Percent of Total	Rank	Percent of Total	Rank	Percent of Total	Rank	Percent of Total	Rank	Percent of Total		
Alabama	5.32	37	1.82	34	34.2	2.69	29	50.6	0.29	32	5.5	0.52	31	9.7
Alaska	2.06	50	0.00	44	0.0	0.61	50	29.6	0.54	4	26.4	0.91	14	44.0
Arizona	5.24	38	1.40	40	26.7	3.07	22	58.6	0.26	35	4.9	0.51	32	9.8
Arkansas	7.89	6	2.29	26	29.0	3.79	9	48.0	0.41	14	5.2	1.41	7	17.8
California	7.08	12	3.65	3	51.6	2.45	36	34.6	0.42	12	6.0	0.56	29	7.9
Colorado	4.54	45	2.26	27	49.8	1.70	44	37.4	0.24	37	5.3	0.35	44	7.6
Connecticut	7.01	13	3.53	5	50.4	2.83	28	40.4	0.30	31	4.2	0.34	45	4.9
Delaware	7.45	9	2.42	19	32.4	1.06	48	14.2	0.85	2	11.4	3.13	4	42.0
Florida	4.06	48	0.00	44	0.0	3.31	16	81.5	0.24	36	6.0	0.51	33	12.5
Georgia	4.70	42	2.31	25	49.1	1.80	43	38.3	0.24	38	5.1	0.35	42	7.5
Hawaii	9.31	3	2.85	8	30.7	5.86	1	62.9	0.10	44	1.1	0.49	34	5.3
Idaho	6.29	23	2.34	24	37.2	3.07	21	48.8	0.34	21	5.5	0.54	30	8.5
Illinois	6.00	28	2.43	18	40.5	2.46	35	41.0	0.62	3	10.3	0.49	35	8.2
Indiana	6.41	18	1.93	31	30.1	3.90	7	60.9	0.33	24	5.2	0.25	48	3.9
Iowa	6.48	17	2.45	17	37.8	3.01	23	46.5	0.33	25	5.0	0.69	21	10.7
Kansas	5.83	29	1.67	38	28.7	2.94	25	50.5	0.34	23	5.8	0.88	16	15.0
Kentucky	6.74	14	2.36	21	35.1	3.17	19	47.0	0.44	10	6.5	0.77	17	11.4
Louisiana	4.84	41	1.49	39	30.7	2.65	30	54.6	0.13	43	2.6	0.59	26	12.1
Maine	7.25	10	2.74	10	37.7	3.57	11	49.2	0.30	30	4.2	0.65	22	8.9
Maryland	6.32	22	2.66	15	42.0	2.64	31	41.8	0.32	26	5.1	0.70	20	11.1
Massachusetts	6.23	25	3.34	6	53.6	1.91	42	30.6	0.51	8	8.2	0.47	37	7.5
Michigan	6.34	21	2.08	29	32.7	3.09	20	48.7	0.28	34	4.4	0.90	15	14.2
Minnesota	8.68	4	3.68	2	42.4	3.53	12	40.7	0.52	6	6.0	0.94	13	10.8
Mississippi	7.83	7	1.77	35	22.6	4.83	3	61.6	0.53	5	6.8	0.71	19	9.0
Missouri	4.55	43	2.23	28	49.0	1.94	41	42.5	0.16	42	3.6	0.22	49	4.9
Montana	6.51	16	2.70	12	41.5	1.38	47	21.2	0.38	17	5.9	2.04	5	31.4
Nebraska	5.36	36	2.36	22	44.0	2.44	37	45.5	0.36	19	6.8	0.20	50	3.7
Nevada	6.06	26	0.00	44	0.0	4.86	2	80.2	0.00	47	0.0	1.20	10	19.8
New Hampshire	3.72	49	0.14	42	3.9	1.45	46	39.0	0.86	1	23.2	1.26	8	34.0
New Jersey	6.41	19	2.69	13	42.0	2.63	32	41.0	0.52	7	8.2	0.57	28	8.8
New Mexico	7.61	8	1.75	36	23.0	3.80	8	49.8	0.32	28	4.2	1.75	6	23.0
New York	6.41	20	3.58	4	55.9	1.96	40	30.6	0.42	13	6.5	0.45	38	7.0
North Carolina	6.01	27	2.68	14	44.7	2.57	34	42.7	0.32	27	5.3	0.44	39	7.3
North Dakota	13.27	1	1.24	41	9.3	4.48	4	33.8	0.43	11	3.2	7.12	1	53.6
Ohio	5.54	33	1.74	37	31.4	3.37	14	60.8	0.00	46	0.0	0.43	40	7.8
Oklahoma	5.50	34	1.90	32	34.6	2.42	38	44.0	0.23	39	4.1	0.95	12	17.3
Oregon	5.81	30	4.01	1	69.1	0.82	49	14.2	0.34	22	5.9	0.63	24	10.8
Pennsylvania	5.75	31	1.83	33	31.8	2.93	27	50.9	0.40	15	7.0	0.60	25	10.4
Rhode Island	6.26	24	2.38	20	38.0	3.17	18	50.7	0.35	20	5.5	0.36	41	5.8
South Carolina	5.18	39	2.01	30	38.8	2.63	33	50.8	0.20	40	3.9	0.33	46	6.5
South Dakota	4.09	47	0.00	44	0.0	3.35	15	82.0	0.01	45	0.3	0.73	18	17.7
Tennessee	4.55	44	0.11	43	2.4	3.29	17	72.4	0.50	9	11.0	0.64	23	14.2
Texas	4.28	46	0.00	44	0.0	3.71	10	86.5	0.00	47	0.0	0.58	27	13.5
Utah	5.64	32	2.66	16	47.1	2.33	39	41.3	0.31	29	5.5	0.35	43	6.1
Vermont	10.07	2	2.35	23	23.3	3.39	13	33.7	0.37	18	3.7	3.95	3	39.3
Virginia	4.92	40	2.85	9	58.0	1.55	45	31.6	0.20	41	4.0	0.32	47	6.4
Washington	5.48	35	0.00	44	0.0	4.31	5	78.7	0.00	47	0.0	1.17	11	21.3
West Virginia	8.50	5	2.95	7	34.7	4.00	6	47.1	0.29	33	3.4	1.26	9	14.8
Wisconsin	6.52	15	2.71	11	41.5	2.93	26	44.9	0.40	16	6.1	0.49	36	7.5
Wyoming	7.09	11	0.00	44	0.0	3.00	24	42.2	0.00	47	0.0	4.10	2	57.8
Mean	6.22		2.01		31.8	2.89		47.5	0.33		5.7	1.00		15.0
Standard Deviation	1.76		1.10			1.04			0.19			1.20		
Coefficient of Variation	28.30		54.61			35.79			57.85			120.39		
NYS Diff. from Mean	0.19		1.57		24.1	(0.93)		(16.9)	0.09		0.8	(0.55)		(8.0)

Source: Moody's Economy.com, U.S. Census Bureau



Comparison of New York State Tax Structure with Other States

Table 4 - 1977 Components and Percentage of Total Local Taxes Per \$100 of Personal Income

State	Total		Property			Sales			Other		
	Total	Rank	Property	Rank	Percent of Total	Sales	Rank	Percent of Total	Other	Rank	Percent of Total
Alabama	2.14	47	0.87	50	40.6	0.89	4	41.6	0.38	8	17.9
Alaska	2.94	39	2.31	36	78.6	0.59	14	20.0	0.04	48	1.4
Arizona	4.62	15	3.78	19	81.8	0.74	10	16.0	0.11	31	2.3
Arkansas	2.00	48	1.82	44	90.9	0.12	29	6.1	0.06	41	3.0
California	5.83	4	4.97	8	85.2	0.64	13	11.0	0.22	16	3.8
Colorado	5.16	10	3.91	17	75.9	1.09	3	21.0	0.16	21	3.1
Connecticut	4.99	12	4.95	9	99.1	0.00	44	0.0	0.04	45	0.9
Delaware	1.89	49	1.61	46	85.0	0.00	42	0.2	0.28	12	14.7
Florida	3.19	35	2.69	31	84.4	0.39	20	12.1	0.11	28	3.5
Georgia	3.55	31	2.89	30	81.3	0.54	17	15.2	0.12	26	3.5
Hawaii	2.31	43	1.85	43	80.1	0.22	25	9.4	0.24	15	10.5
Idaho	3.07	37	2.99	28	97.3	0.02	37	0.8	0.06	40	2.0
Illinois	4.52	16	3.70	20	81.9	0.65	12	14.5	0.16	20	3.6
Indiana	3.38	33	3.26	24	96.6	0.01	41	0.1	0.11	30	3.3
Iowa	4.11	20	3.98	16	96.9	0.01	39	0.2	0.12	27	2.9
Kansas	4.33	19	4.08	14	94.1	0.16	27	3.8	0.09	33	2.1
Kentucky	2.37	42	1.59	47	66.9	0.11	31	4.6	0.68	5	28.5
Louisiana	3.12	36	1.52	49	48.5	1.47	1	47.1	0.14	24	4.4
Maine	3.57	29	3.54	22	99.3	0.00	45	0.0	0.03	50	0.7
Maryland	4.98	13	3.24	25	65.1	0.22	24	4.4	1.51	1	30.4
Massachusetts	6.40	3	6.36	1	99.4	0.00	45	0.0	0.04	49	0.6
Michigan	4.37	18	4.01	15	91.6	0.04	35	1.0	0.32	11	7.4
Minnesota	3.72	27	3.57	21	96.0	0.07	33	2.0	0.08	36	2.1
Mississippi	2.28	44	2.16	38	94.5	0.08	32	3.7	0.04	47	1.8
Missouri	3.79	25	2.64	33	69.8	0.77	7	20.2	0.38	9	9.9
Montana	5.18	8	4.98	7	96.1	0.00	45	0.0	0.20	17	3.9
Nebraska	5.41	6	5.04	6	93.3	0.24	22	4.4	0.13	25	2.3
Nevada	3.96	22	2.67	32	67.5	0.74	9	18.7	0.55	6	13.9
New Hampshire	5.75	5	5.64	3	98.1	0.00	45	0.0	0.11	29	1.9
New Jersey	6.48	2	5.85	2	90.1	0.55	16	8.5	0.09	35	1.3
New Mexico	1.87	50	1.53	48	81.7	0.21	26	11.0	0.14	23	7.4
New York	7.79	1	5.33	4	68.4	1.45	2	18.7	1.00	3	12.9
North Carolina	2.55	41	2.10	41	82.4	0.40	19	15.5	0.05	42	2.0
North Dakota	3.40	32	3.28	23	96.5	0.02	38	0.6	0.10	32	3.0
Ohio	3.99	21	3.04	27	76.3	0.14	28	3.5	0.81	4	20.3
Oklahoma	2.88	40	2.02	42	70.0	0.81	6	28.3	0.05	43	1.7
Oregon	4.95	14	4.56	12	92.3	0.11	30	2.2	0.27	13	5.5
Pennsylvania	3.90	24	2.58	35	66.2	0.03	36	0.9	1.28	2	32.9
Rhode Island	4.44	17	4.40	13	99.1	0.00	45	0.0	0.04	46	0.9
South Carolina	2.26	45	2.11	40	93.2	0.00	43	0.1	0.15	22	6.7
South Dakota	5.20	7	4.71	10	90.6	0.24	23	4.6	0.25	14	4.9
Tennessee	3.27	34	2.22	37	67.9	0.86	5	26.3	0.19	18	5.8
Texas	3.66	28	3.14	26	85.8	0.45	18	12.2	0.07	37	2.0
Utah	3.56	30	2.91	29	81.8	0.56	15	15.7	0.09	34	2.6
Vermont	5.17	9	5.10	5	98.7	0.00	45	0.0	0.07	39	1.3
Virginia	3.75	26	2.59	34	69.0	0.75	8	19.9	0.42	7	11.1
Washington	3.02	38	2.12	39	69.9	0.73	11	24.2	0.18	19	5.9
West Virginia	2.18	46	1.78	45	81.8	0.06	34	2.8	0.33	10	15.3
Wisconsin	3.94	23	3.89	18	98.7	0.01	40	0.1	0.05	44	1.2
Wyoming	5.07	11	4.66	11	92.0	0.33	21	6.6	0.07	38	1.4
Mean	3.93		3.33		83.8	0.35		9.6	0.24		6.6
Standard Deviation	1.31		1.31			0.38			0.31		
CV	33.43		39.41			109.40			126.26		
NYS Diff. from Mean	3.86		2.00		(15.3)	1.10		9.1	0.76		6.3

Source: Moody's Economy.com, U.S. Census Bureau

Note: "Other" includes NYC imposed taxes and other categories.

Comparison of New York State Tax Structure with Other States



Table 5 - 2015 Components and Percentage of Total Local Taxes Per \$100 of Personal Income

State	Total		Property			Sales			Other		
	Total	Rank	Property	Rank	Percent of Total	Sales	Rank	Percent of Total	Other	Rank	Percent of Total
Alabama	3.01	41	1.25	49	41.5	1.33	6	44.2	0.43	10	14.3
Alaska	4.10	16	3.22	13	78.4	0.78	20	19.1	0.10	31	2.5
Arizona	3.60	28	2.30	35	64.0	1.15	10	32.0	0.14	23	4.0
Arkansas	2.00	49	0.85	50	42.6	1.12	12	55.9	0.03	50	1.5
California	3.63	26	2.55	29	70.3	0.81	19	22.2	0.27	17	7.5
Colorado	4.34	13	2.67	27	61.6	1.48	3	34.2	0.18	20	4.3
Connecticut	4.48	11	4.41	5	98.4	0.00	50	0.0	0.07	44	1.6
Delaware	2.10	48	1.72	46	81.9	0.04	46	1.7	0.34	12	16.4
Florida	3.57	30	2.73	25	76.4	0.62	25	17.5	0.22	19	6.0
Georgia	3.86	21	2.53	30	65.7	1.22	8	31.6	0.10	30	2.7
Hawaii	3.19	34	2.20	38	68.9	0.65	24	20.5	0.34	13	10.6
Idaho	2.70	47	2.52	31	93.5	0.07	42	2.5	0.11	28	4.0
Illinois	5.04	4	4.09	7	81.1	0.82	18	16.3	0.13	26	2.6
Indiana	2.95	44	2.38	34	80.7	0.07	40	2.4	0.50	6	16.9
Iowa	4.00	18	3.45	12	86.4	0.41	30	10.2	0.14	25	3.4
Kansas	3.61	27	2.61	28	72.3	0.91	15	25.2	0.09	35	2.5
Kentucky	2.98	42	1.68	47	56.3	0.40	31	13.4	0.91	5	30.3
Louisiana	4.36	12	1.99	43	45.7	2.26	1	51.9	0.10	29	2.4
Maine	4.86	6	4.81	4	99.0	0.02	48	0.4	0.03	49	0.7
Maryland	4.81	7	2.74	24	56.9	0.27	32	5.7	1.80	2	37.4
Massachusetts	3.70	25	3.54	10	95.5	0.09	39	2.3	0.08	41	2.2
Michigan	3.01	40	2.76	23	91.7	0.07	43	2.2	0.18	21	6.1
Minnesota	2.91	45	2.69	26	92.4	0.12	37	4.2	0.10	32	3.4
Mississippi	3.05	38	2.85	22	93.7	0.11	38	3.7	0.08	40	2.7
Missouri	3.89	20	2.28	37	58.7	1.19	9	30.6	0.41	11	10.7
Montana	3.05	37	2.95	19	96.9	0.02	47	0.7	0.08	43	2.5
Nebraska	4.73	8	3.79	8	80.0	0.48	28	10.1	0.47	8	9.8
Nevada	3.47	32	2.04	42	58.6	1.13	11	32.4	0.31	16	8.9
New Hampshire	5.52	3	5.47	2	99.0	0.00	49	0.0	0.05	47	1.0
New Jersey	5.71	2	5.59	1	97.9	0.04	45	0.7	0.08	38	1.4
New Mexico	3.35	33	1.90	44	56.6	1.37	4	40.9	0.08	39	2.5
New York	7.74	1	4.37	6	56.5	1.49	2	19.2	1.88	1	24.3
North Carolina	3.11	36	2.29	36	73.8	0.73	22	23.5	0.08	37	2.7
North Dakota	2.80	46	2.13	40	76.1	0.58	26	20.6	0.09	34	3.3
Ohio	4.49	10	2.89	21	64.3	0.48	27	10.7	1.12	3	25.0
Oklahoma	2.95	43	1.55	48	52.5	1.34	5	45.5	0.06	46	2.0
Oregon	3.84	22	3.09	15	80.6	0.27	33	6.9	0.48	7	12.5
Pennsylvania	4.34	14	3.01	17	69.4	0.24	34	5.5	1.09	4	25.1
Rhode Island	4.95	5	4.83	3	97.7	0.05	44	1.0	0.06	45	1.3
South Carolina	3.83	23	2.96	18	77.1	0.43	29	11.3	0.44	9	11.6
South Dakota	3.95	19	2.89	20	73.2	0.96	14	24.4	0.09	33	2.4
Tennessee	3.17	35	2.04	41	64.2	0.99	13	31.3	0.14	24	4.5
Texas	4.52	9	3.70	9	81.9	0.74	21	16.4	0.08	42	1.7
Utah	3.49	31	2.46	33	70.5	0.91	16	26.0	0.12	27	3.5
Vermont	1.95	50	1.84	45	94.5	0.07	41	3.6	0.04	48	2.0
Virginia	4.03	17	3.04	16	75.5	0.66	23	16.5	0.32	15	8.0
Washington	3.59	29	2.15	39	59.8	1.22	7	34.1	0.22	18	6.2
West Virginia	3.04	39	2.49	32	81.9	0.22	35	7.1	0.33	14	11.0
Wisconsin	3.79	24	3.51	11	92.7	0.19	36	5.1	0.08	36	2.2
Wyoming	4.19	15	3.18	14	76.0	0.84	17	20.0	0.17	22	4.0
Mean	3.79		2.86		75.2	0.63		17.3	0.30		7.5
Standard Deviation	1.00		1.00			0.52			0.40		
CV	26.48		34.94			83.02			133.50		
NYS Diff. from Mean	3.95		1.51		(18.7)	0.86		1.9	1.58		16.8

Source: Moody's Economy.com, U.S. Census Bureau

Note: "Other" includes NYC imposed taxes and all other categories.



Comparison of New York State Tax Structure with Other States

Table 6a - State/Local Split of 1977 Tax-to-Income Ratio

State	State Taxes	Local Taxes	State/Local Total	Total Rank
Alabama	6.37	2.14	8.51	46
Alaska	14.12	2.94	17.05	1
Arizona	7.02	4.62	11.64	11
Arkansas	6.34	2.00	8.34	48
California	6.50	5.83	12.33	5
Colorado	5.16	5.16	10.32	18
Connecticut	5.63	4.99	10.62	17
Delaware	8.04	1.89	9.93	30
Florida	5.10	3.19	8.29	50
Georgia	5.73	3.55	9.29	38
Hawaii	8.49	2.31	10.80	16
Idaho	6.32	3.07	9.40	36
Illinois	5.56	4.52	10.08	25
Indiana	5.66	3.38	9.03	42
Iowa	6.08	4.11	10.19	20
Kansas	5.83	4.33	10.16	22
Kentucky	7.14	2.37	9.51	34
Louisiana	6.90	3.12	10.02	27
Maine	6.73	3.57	10.30	19
Maryland	6.87	4.98	11.84	9
Massachusetts	6.57	6.40	12.97	3
Michigan	6.75	4.37	11.12	13
Minnesota	8.25	3.72	11.97	8
Mississippi	7.49	2.28	9.77	31
Missouri	4.54	3.79	8.33	49
Montana	6.00	5.18	11.19	12
Nebraska	5.45	5.41	10.85	15
Nevada	5.50	3.96	9.45	35
New Hampshire	3.53	5.75	9.28	39
New Jersey	5.32	6.48	11.81	10
New Mexico	7.72	1.87	9.60	33
New York	7.12	7.79	14.91	2
North Carolina	6.82	2.55	9.36	37
North Dakota	6.77	3.40	10.17	21
Ohio	4.44	3.99	8.43	47
Oklahoma	5.98	2.88	8.86	44
Oregon	5.19	4.95	10.14	24
Pennsylvania	6.26	3.90	10.16	23
Rhode Island	6.54	4.44	10.98	14
South Carolina	6.88	2.26	9.14	41
South Dakota	4.47	5.20	9.68	32
Tennessee	5.59	3.27	8.87	43
Texas	5.07	3.66	8.74	45
Utah	6.37	3.56	9.93	29
Vermont	7.46	5.17	12.62	4
Virginia	5.44	3.75	9.19	40
Washington	7.00	3.02	10.03	26
West Virginia	7.80	2.18	9.98	28
Wisconsin	8.13	3.94	12.07	6
Wyoming	6.91	5.07	11.98	7
Mean Values	6.46	3.93	10.38	
Standard Deviation	1.52	1.31	1.66	
Coefficient of Variation	23.52	33.43	15.94	
NYS Diff. from Avg.	0.66	3.86	4.53	

Source: Moody's Economy.com, U.S. Census Bureau

Comparison of New York State Tax Structure with Other States



Table 6b - State/Local Split of 2015 Tax-to-Income Ratio

State	State Taxes	Local Taxes	State/Local Total	Total Rank
Alabama	5.32	3.01	8.33	46
Alaska	2.06	4.10	6.16	50
Arizona	5.24	3.60	8.84	41
Arkansas	7.89	2.00	9.89	23
California	7.08	3.63	10.70	16
Colorado	4.54	4.34	8.89	40
Connecticut	7.01	4.48	11.49	9
Delaware	7.45	2.10	9.55	27
Florida	4.06	3.57	7.63	49
Georgia	4.70	3.86	8.55	43
Hawaii	9.31	3.19	12.51	3
Idaho	6.29	2.70	8.98	38
Illinois	6.00	5.04	11.04	13
Indiana	6.41	2.95	9.36	30
Iowa	6.48	4.00	10.47	17
Kansas	5.83	3.61	9.45	29
Kentucky	6.74	2.98	9.72	24
Louisiana	4.84	4.36	9.21	33
Maine	7.25	4.86	12.12	5
Maryland	6.32	4.81	11.14	12
Massachusetts	6.23	3.70	9.94	22
Michigan	6.34	3.01	9.35	31
Minnesota	8.68	2.91	11.59	7
Mississippi	7.83	3.05	10.88	15
Missouri	4.55	3.89	8.44	45
Montana	6.51	3.05	9.56	26
Nebraska	5.36	4.73	10.10	19
Nevada	6.06	3.47	9.53	28
New Hampshire	3.72	5.52	9.24	32
New Jersey	6.41	5.71	12.12	4
New Mexico	7.61	3.35	10.97	14
New York	6.41	7.74	14.15	2
North Carolina	6.01	3.11	9.12	35
North Dakota	13.27	2.80	16.07	1
Ohio	5.54	4.49	10.03	21
Oklahoma	5.50	2.95	8.45	44
Oregon	5.81	3.84	9.64	25
Pennsylvania	5.75	4.34	10.09	20
Rhode Island	6.26	4.95	11.20	11
South Carolina	5.18	3.83	9.01	37
South Dakota	4.09	3.95	8.04	47
Tennessee	4.55	3.17	7.72	48
Texas	4.28	4.52	8.80	42
Utah	5.64	3.49	9.13	34
Vermont	10.07	1.95	12.01	6
Virginia	4.92	4.03	8.94	39
Washington	5.48	3.59	9.08	36
West Virginia	8.50	3.04	11.54	8
Wisconsin	6.52	3.79	10.31	18
Wyoming	7.09	4.19	11.28	10
Mean Values	6.22	3.79	10.01	
Standard Deviation	1.76	1.00	1.68	
Coefficient of Variation	28.30	26.48	16.74	
NYS Diff. from Avg.	0.19	3.95	4.14	

Source: Moody's Economy.com, U.S. Census Bureau



Comparison of New York State Tax Structure with Other States

Table 7 - 2015 Ratios of Tax Collections to Personal Income by Category

State	State PIT	Local PIT	State Corporate	Local Corporate	State Sales	Local Sales	Local Property	All Other	Total State/Local
Alabama	1.82	0.06	0.29	0.00	2.69	1.33	1.25	0.89	8.33
Alaska	0.00	0.00	0.54	0.00	0.61	0.78	3.22	1.01	6.16
Arizona	1.40	0.00	0.26	0.00	3.07	1.15	2.30	0.66	8.84
Arkansas	2.29	0.00	0.41	0.00	3.79	1.12	0.85	1.44	9.89
California	3.65	0.00	0.42	0.00	2.45	0.81	2.55	0.83	10.70
Colorado	2.26	0.00	0.24	0.00	1.70	1.48	2.67	0.53	8.89
Connecticut	3.53	0.00	0.30	0.00	2.83	0.00	4.41	0.41	11.49
Delaware	2.42	0.12	0.85	0.01	1.06	0.04	1.72	3.34	9.55
Florida	0.00	0.00	0.24	0.00	3.31	0.62	2.73	0.72	7.63
Georgia	2.31	0.00	0.24	0.00	1.80	1.22	2.53	0.46	8.55
Hawaii	2.85	0.00	0.10	0.00	5.86	0.65	2.20	0.83	12.51
Idaho	2.34	0.00	0.34	0.00	3.07	0.07	2.52	0.64	8.98
Illinois	2.43	0.00	0.62	0.00	2.46	0.82	4.09	0.62	11.04
Indiana	1.93	0.45	0.33	0.00	3.90	0.07	2.38	0.30	9.36
Iowa	2.45	0.07	0.33	0.00	3.01	0.41	3.45	0.76	10.47
Kansas	1.67	0.00	0.34	0.00	2.94	0.91	2.61	0.97	9.45
Kentucky	2.36	0.76	0.44	0.09	3.17	0.40	1.68	0.83	9.72
Louisiana	1.49	0.00	0.13	0.00	2.65	2.26	1.99	0.69	9.21
Maine	2.74	0.00	0.30	0.00	3.57	0.02	4.81	0.68	12.12
Maryland	2.66	1.55	0.32	0.00	2.64	0.27	2.74	0.95	11.14
Massachusetts	3.34	0.00	0.51	0.00	1.91	0.09	3.54	0.55	9.94
Michigan	2.08	0.11	0.28	0.00	3.09	0.07	2.76	0.97	9.35
Minnesota	3.68	0.00	0.52	0.00	3.53	0.12	2.69	1.04	11.59
Mississippi	1.77	0.00	0.53	0.00	4.83	0.11	2.85	0.79	10.88
Missouri	2.23	0.14	0.16	0.03	1.94	1.19	2.28	0.47	8.44
Montana	2.70	0.00	0.38	0.00	1.38	0.02	2.95	2.12	9.56
Nebraska	2.36	0.00	0.36	0.00	2.44	0.48	3.79	0.66	10.10
Nevada	0.00	0.00	0.00	0.00	4.86	1.13	2.04	1.51	9.53
New Hampshire	0.14	0.00	0.86	0.00	1.45	0.00	5.47	1.32	9.24
New Jersey	2.69	0.00	0.52	0.00	2.63	0.04	5.59	0.65	12.12
New Mexico	1.75	0.00	0.32	0.00	3.80	1.37	1.90	1.83	10.97
New York	3.58	0.94	0.42	0.58	1.96	1.49	4.37	0.81	14.15
North Carolina	2.68	0.00	0.32	0.00	2.57	0.73	2.29	0.52	9.12
North Dakota	1.24	0.00	0.43	0.00	4.48	0.58	2.13	7.21	16.07
Ohio	1.74	0.96	0.00	0.05	3.37	0.48	2.89	0.54	10.03
Oklahoma	1.90	0.00	0.23	0.00	2.42	1.34	1.55	1.01	8.45
Oregon	4.01	0.00	0.34	0.04	0.82	0.27	3.09	1.07	9.64
Pennsylvania	1.83	0.77	0.40	0.07	2.93	0.24	3.01	0.84	10.09
Rhode Island	2.38	0.00	0.35	0.00	3.17	0.05	4.83	0.42	11.20
South Carolina	2.01	0.00	0.20	0.00	2.63	0.43	2.96	0.78	9.01
South Dakota	0.00	0.00	0.01	0.00	3.35	0.96	2.89	0.82	8.04
Tennessee	0.11	0.00	0.50	0.00	3.29	0.99	2.04	0.79	7.72
Texas	0.00	0.00	0.00	0.00	3.71	0.74	3.70	0.66	8.80
Utah	2.66	0.00	0.31	0.00	2.33	0.91	2.46	0.47	9.13
Vermont	2.35	0.00	0.37	0.00	3.39	0.07	1.84	3.99	12.01
Virginia	2.85	0.00	0.20	0.00	1.55	0.66	3.04	0.64	8.94
Washington	0.00	0.00	0.00	0.00	4.31	1.22	2.15	1.39	9.08
West Virginia	2.95	0.00	0.29	0.00	4.00	0.22	2.49	1.59	11.54
Wisconsin	2.71	0.00	0.40	0.00	2.93	0.19	3.51	0.57	10.31
Wyoming	0.00	0.00	0.00	0.00	3.00	0.84	3.18	4.27	11.28
Mean Values	2.01	0.12	0.33	0.02	2.89	0.63	2.86	1.16	10.01
Standard Deviation	1.10	0.31	0.19	0.08	1.04	0.52	1.00	1.18	1.68
Coefficient of Variati	54.61	264.22	57.85	468.20	35.79	83.02	34.94	102.34	16.74
NYS Diff. from Avg.	1.57	0.82	0.09	0.56	(0.93)	0.86	1.51	(0.35)	4.14

Source: Moody's Economy.com, U.S. Census Bureau

Comparison of New York State Tax Structure with Other States



Table 8a - State Tax Burdens as a Pct. Of Personal Inc., 1977 - 2015

Year	Mean	NYS	Standard Deviation	Coefficient of Variation	NY difference from mean
1977	6.46	7.12	1.53	23.76	0.66
1978	6.34	6.64	1.25	19.65	0.30
1979	6.41	6.45	1.58	24.62	0.04
1980	6.40	6.33	2.49	38.95	(0.08)
1981	6.42	6.22	3.71	57.86	(0.20)
1982	6.57	6.36	3.35	50.93	(0.21)
1983	6.38	6.18	2.43	38.06	(0.20)
1984	6.59	6.50	2.23	33.84	(0.09)
1985	6.66	6.67	1.96	29.51	0.01
1986	6.60	6.87	1.91	28.96	0.27
77-86 avg.	6.48	6.53	2.24	34.61	0.05
1987	6.53	6.98	1.29	19.74	0.45
1988	6.61	6.75	1.35	20.45	0.14
1989	6.53	6.36	1.33	20.42	(0.17)
1990	6.51	6.42	1.36	20.92	(0.09)
1991	6.55	6.34	1.51	23.10	(0.21)
1992	6.49	6.35	1.24	19.15	(0.14)
1993	6.75	6.44	1.56	23.16	(0.32)
1994	6.65	6.55	1.22	18.30	(0.10)
1995	6.74	6.47	1.35	20.09	(0.27)
1996	6.59	6.10	1.28	19.43	(0.49)
87-96 avg.	6.60	6.48	1.35	20.48	(0.12)
1997	6.62	5.89	1.27	19.23	(0.73)
1998	6.58	5.76	1.25	19.00	(0.82)
1999	6.58	5.83	1.28	19.51	(0.75)
2000	6.59	5.84	1.17	17.68	(0.76)
2001	6.51	6.04	1.13	17.34	(0.47)
2002	6.16	5.86	1.06	17.14	(0.30)
2003	6.10	5.62	1.05	17.19	(0.48)
2004	6.23	5.78	1.08	17.37	(0.45)
2005	6.55	6.16	1.30	19.87	(0.39)
2006	6.73	6.39	1.39	20.61	(0.34)
97-06 avg.	6.47	5.92	1.20	18.50	(0.55)
2007	6.80	6.54	1.54	22.59	(0.26)
2008	6.94	6.63	3.10	44.71	(0.30)
2009	6.52	6.80	1.91	29.28	0.29
2010	6.15	6.47	1.65	26.87	0.32
2011	6.30	6.49	1.94	30.73	0.19
2012	6.38	6.43	2.21	34.67	0.05
2013	6.54	6.52	1.90	28.98	(0.03)
2014	6.29	6.57	1.75	27.78	0.29
2015	6.22	6.41	1.78	28.59	0.19

Source: Moody's Economy.com, U.S. Census Bureau

Comparison of New York State Tax Structure with Other States

Table 8b - State/Local Tax Burdens as a Pct. Of Personal Inc., 1977 - 2015

Year	Mean	NYS	Standard Deviation	Coefficient of Variation	NY Difference From Mean
1977	10.38	14.91	1.67	16.11	4.53
1978	10.10	14.11	1.42	14.07	4.01
1979	10.04	13.41	1.66	16.58	3.37
1980	9.89	13.05	2.55	25.78	3.17
1981	9.81	12.79	3.72	37.90	2.97
1982	10.03	12.95	3.41	33.96	2.92
1983	9.92	12.75	2.64	26.60	2.83
1984	10.08	13.04	2.46	24.43	2.96
1985	10.23	13.38	2.27	22.17	3.15
1986	10.23	13.64	2.27	22.15	3.41
77-86 avg.	10.07	13.40	2.41	23.97	3.33
1987	10.29	13.99	1.59	15.46	3.70
1988	10.34	13.55	1.53	14.82	3.21
1989	10.22	13.10	1.37	13.42	2.88
1990	10.27	13.18	1.40	13.64	2.90
1991	10.40	13.51	1.57	15.08	3.11
1992	10.26	13.50	1.31	12.72	3.24
1993	10.62	13.81	1.63	15.35	3.19
1994	10.53	13.88	1.16	11.00	3.35
1995	10.61	13.45	1.30	12.24	2.84
1996	10.36	12.95	1.12	10.84	2.59
87-96 avg.	10.39	13.49	1.40	13.46	3.10
1997	10.37	12.74	1.11	10.71	2.37
1998	10.28	12.51	1.11	10.83	2.23
1999	10.21	12.38	1.01	9.94	2.17
2000	10.11	12.15	0.99	9.83	2.04
2001	10.07	12.15	1.00	9.91	2.07
2002	9.83	12.05	0.92	9.40	2.22
2003	9.86	12.36	0.97	9.82	2.50
2004	9.99	12.78	1.05	10.50	2.79
2005	10.35	13.42	1.21	11.71	3.08
2006	10.53	13.71	1.27	12.05	3.18
97-06 avg.	10.16	12.63	1.07	10.47	2.47
2007	10.63	13.87	1.47	13.87	3.24
2008	10.77	14.05	3.10	28.75	3.27
2009	10.69	14.35	1.95	18.25	3.66
2010	10.26	13.92	1.65	16.10	3.66
2011	10.22	13.86	1.91	18.73	3.64
2012	10.17	13.64	2.19	21.57	3.47
2013	10.36	14.01	1.84	17.78	3.65
2014	10.07	14.18	1.70	16.90	4.11
2015	10.01	14.15	1.69	16.91	4.14

Source: Moody's Economy.com, U.S. Census Bureau

Comparison of New York State Tax Structure with Other States



Table 9 - 2015 Property Taxes on Owner-Occupied Housing, by County

County	Median Property Taxes		Median Home Value	Taxes as % of Home Value		Median Income		
	Paid on Homes	Rank		for Home Owners	Taxes as % of Income	Rank		
Monroe County	\$4,509	76	\$143,100	3.2%	2	\$75,520	6.0%	47
Wayne County	\$3,713	120	\$119,400	3.1%	3	\$60,210	6.2%	42
Cattaraugus County	\$2,560	272	\$83,200	3.1%	4	\$52,021	4.9%	89
Onondaga County	\$3,996	102	\$139,800	2.9%	10	\$75,632	5.3%	65
Schenectady County	\$4,746	71	\$168,100	2.8%	12	\$81,260	5.8%	52
Chautauqua County	\$2,428	297	\$87,000	2.8%	15	\$57,949	4.2%	163
Oswego County	\$2,818	221	\$101,100	2.8%	16	\$60,663	4.6%	109
Livingston County	\$3,525	138	\$126,800	2.8%	17	\$67,741	5.2%	71
Niagara County	\$3,338	155	\$122,900	2.7%	19	\$64,571	5.2%	73
Steuben County	\$2,678	244	\$100,700	2.7%	23	\$59,214	4.5%	123
Orange County	\$6,658	23	\$258,800	2.6%	30	\$91,031	7.3%	24
Sullivan County	\$4,278	87	\$167,200	2.6%	32	\$66,421	6.4%	40
Broome County	\$3,046	190	\$121,600	2.5%	36	\$61,720	4.9%	88
Erie County	\$3,662	125	\$146,400	2.5%	37	\$71,478	5.1%	75
Cayuga County	\$3,170	182	\$127,000	2.5%	38	\$64,596	4.9%	90
Tompkins County	\$4,925	62	\$201,400	2.4%	39	\$83,408	5.9%	51
Putnam County	\$8,839	12	\$362,300	2.4%	40	\$108,970	8.1%	10
Ontario County	\$3,742	117	\$154,300	2.4%	42	\$71,847	5.2%	68
Rensselaer County	\$4,459	77	\$184,200	2.4%	43	\$78,010	5.7%	56
Oneida County	\$2,954	201	\$125,000	2.4%	44	\$61,581	4.8%	96
St. Lawrence County	\$2,060	374	\$87,700	2.3%	47	\$52,978	3.9%	217
Ulster County	\$5,251	53	\$224,800	2.3%	48	\$74,659	7.0%	26
Rockland County	\$10,001	1	\$431,600	2.3%	49	\$110,486	9.1%	4
Suffolk County	\$8,852	11	\$386,400	2.3%	51	\$101,936	8.7%	5
Madison County	\$3,262	166	\$142,400	2.3%	52	\$70,039	4.7%	106
Chemung County	\$2,548	276	\$111,600	2.3%	53	\$65,757	3.9%	220
Nassau County	\$10,001	1	\$471,900	2.1%	71	\$117,739	8.5%	8
Dutchess County	\$5,908	36	\$279,300	2.1%	72	\$91,725	6.4%	39
Clinton County	\$2,602	265	\$130,500	2.0%	89	\$58,394	4.5%	134
Westchester County	\$10,001	1	\$516,500	1.9%	106	\$124,679	8.0%	11
Albany County	\$4,135	97	\$221,500	1.9%	117	\$82,909	5.0%	85
Warren County	\$3,180	181	\$197,300	1.6%	187	\$70,351	4.5%	124
Jefferson County	\$2,404	302	\$149,600	1.6%	188	\$64,343	3.7%	240
Saratoga County	\$3,854	110	\$250,400	1.5%	210	\$86,508	4.5%	135
Bronx County	\$3,533	137	\$378,000	0.9%	454	\$76,352	4.6%	113
Richmond County	\$4,156	92	\$477,100	0.9%	507	\$93,072	4.5%	132
Queens County	\$4,137	95	\$508,000	0.8%	560	\$80,996	5.1%	76
New York County	\$7,600	16	\$1,003,400	0.8%	609	\$140,606	5.4%	61
Kings County	\$4,063	99	\$667,000	0.6%	717	\$85,502	4.8%	102
United States	\$2,259	NA	\$205,000	1.1%	NA	\$71,027	3.2%	NA

Source: U.S. Census Bureau, DOB Staff Estimates

Tax Receipts

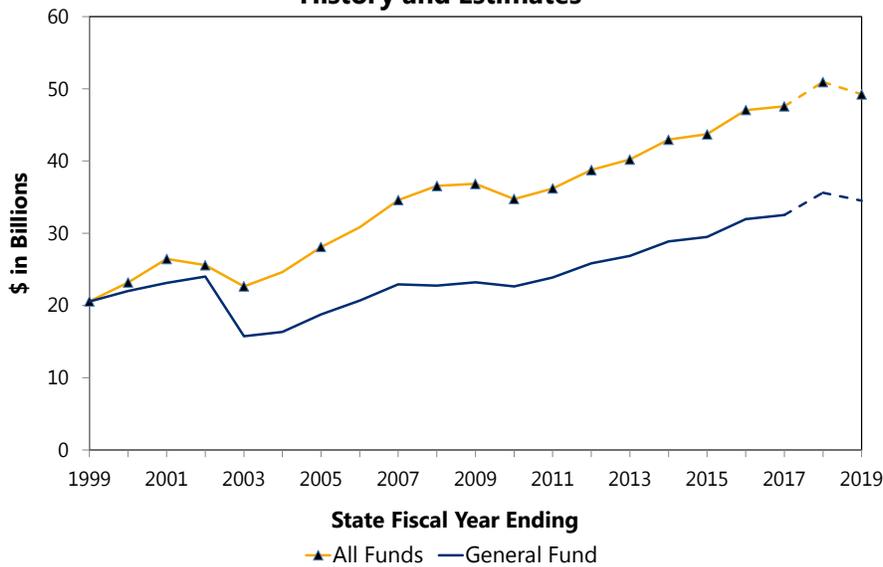
Personal Income Tax



PERSONAL INCOME TAX (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	32,535.4	35,616.3	3,080.9	9.5	34,522.5	(1,093.8)	(3.1)
Other Funds	15,030.5	15,318.8	288.2	1.9	14,720.6	(598.2)	(3.9)
All Funds	47,565.9	50,935.0	3,369.1	7.1	49,243.2	(1,691.8)	(3.3)

Note: Totals may differ due to rounding.

Personal Income Tax Receipts History and Estimates



PERSONAL INCOME TAX BY FUND (millions of dollars)						
	Gross General Fund	Refunds	General Fund Receipts	Special Revenue Funds ¹	Debt Service Funds ²	All Funds Receipts
FY 2009	30,367	7,171	23,196	4,434	9,210	36,840
FY 2010	29,296	6,642	22,654	3,409	8,688	34,751
FY 2011	31,687	7,792	23,894	3,263	9,053	36,210
FY 2012	33,106	7,263	25,843	3,233	9,692	38,768
FY 2013	34,100	7,216	26,884	3,286	10,057	40,227
FY 2014	37,478	8,614	28,864	3,357	10,740	42,961
FY 2015	38,024	8,539	29,485	3,297	10,927	43,710
FY 2016	41,502	9,545	31,957	3,335	11,764	47,055
FY 2017	41,487	8,952	32,535	3,139	11,891	47,566
Estimated						
FY 2018	45,741	10,125	35,616	2,585	12,734	50,935
FY 2019						
Current Law	45,527	11,094	34,433	2,495	12,309	49,237
Proposed Law	45,613	11,091	34,523	2,410	12,311	49,243

¹ School Tax Relief Fund.
² Revenue Bond Tax Fund.

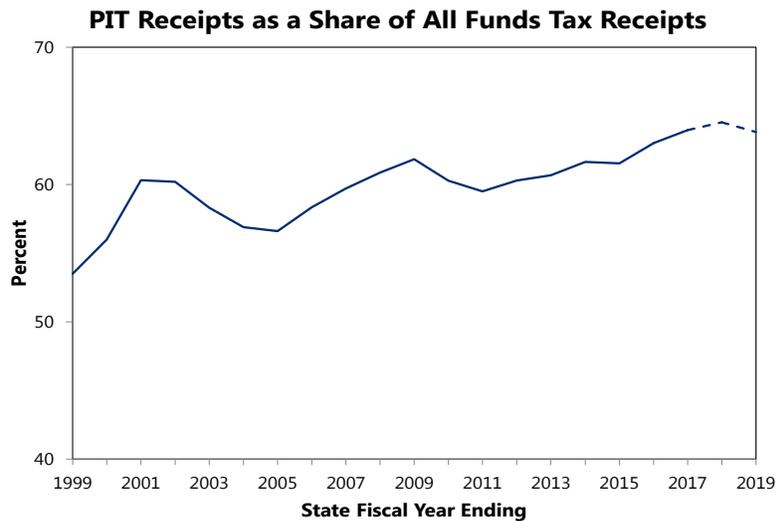
Proposed Legislation

Legislation proposed with this Budget would:

- Extend the Hire-A-Vet Tax Credit for two years;
- Close the carried interest loophole;
- Allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions;
- Allow the Department of Taxation and Finance access to dependent and child care data from other State agencies;
- Provide for employee wage reporting consistency between the Departments of Taxation and Finance and Labor;
- Extend the statute of limitations on amended tax returns;
- Clarify New York residency requirements for tax purposes;
- Allow warrantless tax debt to be assessed against unclaimed funds;
- Enhance the New York Youth Jobs Program;
- Defer certain business related tax-credit claims;
- Maintain basic and enhanced exemption benefits at existing levels;
- Make participation in Income Verification Program (IVP) mandatory;
- Make various technical amendments to Real Property Tax Law;
- Require filing of real property transfer reports;
- Amend the Real Property Tax Law partial payment law; and
- Maintain 2017 Empire State Child Tax Credit benefits.

Description

The personal income tax (PIT) is by far New York State's largest source of tax receipts. The PIT accounted for approximately 64 percent of All Funds tax receipts in FY 2017.



Tax Base

The State’s PIT structure adheres closely to the definitions of adjusted gross income and itemized deductions used for Federal PIT purposes, with certain modifications, such as: 1) the inclusion of investment income from debt instruments issued by other states and municipalities and the exclusion of income on certain Federal obligations; 2) the exclusion of pension income received by Federal, New York State and local government employees, private pension and annuity income up to \$20,000 (\$40,000 for married couples filing jointly), and any Social Security income and refunds otherwise included in Federal adjusted gross income; and 3) the subtraction of State and local income taxes from Federal itemized deductions.

New York allows either a standard deduction or itemized deductions, whichever is greater. Although New York generally conforms to Federal rules pertaining to itemized deductions, the State imposes some additional limitations. New York limits itemized deductions for taxpayers with New York State Adjusted Gross Incomes (NYSAGI) between \$525,000 and \$1 million to only 50 percent of federally allowed deductions, and for taxpayers with incomes above \$1 million to only 50 percent of charitable contributions. For tax years 2010 to 2019, itemized deductions are limited to only 25 percent of charitable contributions for taxpayers with NYSAGI above \$10 million.

Tax Rates and Structure

As partially shown in Table 1, in tax years 2003, 2004, and 2005, a temporary PIT surcharge added two new brackets applicable to taxpayers with taxable income over \$150,000 and taxable income over \$500,000, and increased the top rate to 7.7 percent. In 2006, the top rate returned to 6.85 percent, reflecting the sunset of the temporary surcharge, and the standard deduction for married taxpayers filing jointly increased from \$14,600 to \$15,000. For tax years 2009 through 2011, two new tax brackets and rates were added, applicable to taxpayers with taxable incomes over \$300,000 for married filing jointly (with lower levels for other filing categories) and taxable incomes over \$500,000 for all filers, and the top bracket tax rates were increased to 8.97 percent.

For tax years 2012 to 2014, four new tax brackets and rates replaced the former bracket and rate applicable to taxpayers with taxable income above \$40,000 for married filing jointly returns (with lower levels for other filing categories). The tax rate for taxpayers (married filing jointly returns) with taxable income in the \$40,000 to \$150,000 and \$150,000 to \$300,000 brackets was lowered to 6.45 percent and 6.65 percent respectively, while the rate on the \$300,000 to \$2 million tax bracket remained unchanged from 2008 law at 6.85 percent. The top rate for those earning \$2 million and above (married filing jointly returns) was increased (compared to 2008 law) to 8.82 percent. The tax brackets and standard deduction amounts were also indexed to the Consumer Price Index (CPIU) starting in tax year 2013. These brackets and rates, as well as indexing, were extended through tax year 2017 as part of the FY 2014 Enacted Budget.

Legislation included as part of the FY 2017 Enacted Budget established permanent tax rate reductions for taxpayers with taxable income between \$26,000 and \$300,000.¹ The tax years 2013 through 2017 tax brackets with marginal tax rates of 5.9 percent, 6.45 percent, and 6.65 percent are scheduled to be replaced by two tax brackets with marginal tax rates of 5.5 percent and 6 percent. Barring further legislation, these rate reductions will be phased in over the course of eight years, with full implementation occurring in tax year 2025.

The top tax bracket, with its associated marginal tax rate of 8.82 percent, was extended through tax year 2019 as part of the FY 2018 Enacted Budget.

TABLE 1
PERSONAL INCOME TOP TAX RATES, STANDARD DEDUCTIONS, AND DEPENDENT EXEMPTIONS

	2003-2005	2006-2008	2009-2011	2012	2013*	2014*	2015*	2016*	2017*
Top Rate (Percent)	7.70	6.85	8.97	8.82	8.82	8.82	8.82	8.82	8.82
Thresholds									
Married Filing Jointly	500,000	40,000	500,000	2,000,000	2,058,550*	2,092,800*	2,125,450*	2,140,900*	2,155,350*
Single	500,000	20,000	500,000	1,000,000	1,029,250*	1,046,350*	1,062,650*	1,070,350*	1,077,550*
Head of Household	500,000	30,000	500,000	1,500,000	1,543,900*	1,569,550*	1,594,050*	1,605,650*	1,616,450*
Standard Deduction									
Married Filing Jointly	14,600	15,000	15,000	15,000	15,400	15,650	15,850	15,950	16,050
Single	7,500	7,500	7,500	7,500	7,700	7,800	7,900	7,950	8,000
Head of Household	10,500	10,500	10,500	10,500	10,800	10,950	11,100	11,150	11,200
Dependent Exemption	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

* Tax Brackets and standard deductions are subject to indexing based on the CPIU

¹ The cited taxable income amounts apply to taxpayers filing joint returns and are shown absent the influence of Consumer Price Index adjustments. Tax reductions apply at lower taxable income levels for single and head of household returns.

TABLE 2
TAX SCHEDULES FOR 2017 LIABILITY YEAR*
(dollars)

Married - Filing Jointly			Single			Head of Household		
Taxable Income	\$/Tax Rate	Of Amt. Over	Taxable Income	Tax Rate Percent	Of Amt. Over	Taxable Income	Tax Rate Percent	Of Amt. Over
0 to 17,150	\$0		0 to 8,500	\$0		0 to 12,800	\$0	
	+4.00%	0		+4.00%	0		+4.00%	0
17,150 to 23,600	\$686		8,500 to 11,700	\$340		12,800 to 17,650	\$512	
	+4.50%	17,150		+4.50%	8,500		+4.50%	12,800
23,600 to 27,900	\$976		11,700 to 13,900	\$484		17,650 to 20,900	\$730	
	+5.25%	23,600		+5.25%	11,700		+5.25%	17,650
27,900 to 43,000	\$1,202		13,900 to 21,400	\$600		20,900 to 32,200	\$901	
	+5.90%	27,900		+5.90%	13,900		+5.90%	20,900
43,000 to 161,550	\$2,093		21,400 to 80,650	\$1,042		32,200 to 107,650	\$1,568	
	+6.45%	43,000		+6.45%	21,400		+6.45%	32,200
161,550 to 323,200	\$9,739		80,650 to 215,400	\$4,864		107,650 to 269,300	\$6,434	
	+6.65%	161,550		+6.65%	80,650		+6.65%	107,650
323,200 to 2,155,350	\$20,489		215,400 to 1,077,550	\$13,825		269,300 to 1,616,450	\$17,184	
	+6.85%	323,200		+6.85%	215,400		+6.85%	269,300
2,155,350 and over	\$145,991		1,077,550 and over	\$72,882		1,616,450 and over	\$109,464	
	+8.82%	2,155,350		+8.82%	1,077,550		+8.82%	1,616,450

* Benefits of graduated tax rates recaptured for taxpayers with adjusted gross incomes above \$107,650.

Tax Expenditures

Tax expenditures are defined as features of the Tax Law that by exclusion, exemption, deduction, allowance, credit, deferral, preferential tax rate, or other statutory provision reduce the amount of a taxpayer's liability to the State by providing either economic incentives or tax relief to particular entities to achieve a public purpose. The PIT structure includes various exclusions, exemptions, tax credits, and other statutory devices designed to adjust State tax liability. For a more detailed discussion of tax expenditures, see the Annual Report on New York State Tax Expenditures, prepared by the Department of Taxation and Finance and the Division of the Budget.

Credits

Current law authorizes a wide variety of credits against PIT liability. The major individual credits are:

Credit	Description
Earned Income Tax Credit (EITC)	Allowed at a rate of 7.5 percent of the Federal credit in 1994, 10 percent in 1995, and 20 percent in 1996 and thereafter. Starting in 1996, the EITC was offset by the amount of the household credit. The EITC was raised to 22.5 percent of the Federal credit in 2000, 25 percent in 2001, 27.5 percent in 2002, and 30 percent in 2003 and thereafter. The credit is fully refundable for New York residents whose credit amount exceeds tax liability. The Federal Economic Growth and Tax Relief Reconciliation Act of 2001 provided marriage penalty relief for married taxpayers filing jointly by increasing the phase-out range for the credit beginning in 2002.
Household Credit	Permitted for single taxpayers in amounts declining from \$75 to \$20, as their household income rises to \$28,000, and for married couples and heads of households, in amounts declining from \$90 to \$20, as their household income rises to \$32,000. This latter category is also eligible for additional amounts based on the number of eligible exemptions and income level.

Credit	Description
Child and Dependent Care Credit	<p>Allowed at a rate of 20 percent or more of the comparable Federal credit. In 1997, the credit became refundable and equal to 60 percent of the Federal credit for those with incomes under \$10,000, with a phase-down until it was 20 percent for incomes of \$14,000 and above. In 1998, the percentage of the Federal credit increased to 100 percent for those with incomes less than \$17,000, with this percentage gradually phasing down to 20 percent for those with incomes of \$30,000 or more. For 1999, the phase-down from 100 percent to 20 percent began at incomes of \$35,000 and ended at incomes of \$50,000. For 2000 and later years, the credit as a share of the Federal credit equaled 110 percent for incomes up to \$25,000, phased down from 110 percent to 100 percent for incomes between \$25,000 and \$40,000, equaled 100 percent for incomes between \$40,000 and \$50,000, phased down from 100 percent to 20 percent for incomes between \$50,000 and \$65,000, and equaled 20 percent for incomes over \$65,000.</p> <p>Federal legislation enacted in 2001 and effective in 2003 increased maximum allowable expenses from \$2,400 to \$3,000 for one dependent (\$4,800 to \$6,000 for two or more dependents); the maximum credit rate from 30 percent to 35 percent; and the income at which the credit begins to phase down from \$10,000 to \$15,000.</p> <p>Effective in 2018, the State credit is further increased by between 16.82 percent and 200 percent for incomes between \$50,000 and \$150,000. Also beginning in 2018, the State credit is expanded to include up to \$9,000 in maximum allowable expenses for up to five qualified dependents (versus \$6,000 in maximum allowable expenses for up to two dependents at the Federal level). The credit is fully refundable for New York residents whose credit amount exceeds tax liability.</p>
College Tuition Tax Credit	<p>Available as an alternative to the college tuition deduction, this refundable credit equals the applicable percentage of allowed tuition expenses multiplied by 4 percent. It was phased in over a four-year period with applicable percentages of allowed tuition expenses beginning at 25 percent in tax year 2001, 50 percent in 2002, 75 percent in tax year 2003, and 100 percent in 2004 and thereafter. For 2004 and thereafter the minimum credit is the lesser of tuition paid or \$200 and the maximum credit is \$400 (4 percent of expenses up to \$10,000).</p>
Empire State Child Credit	<p>Effective in 2006, this refundable credit for children ages 4-16 equals the greater of \$100 times the number of children qualifying for the Federal credit, or 33 percent of the Federal credit.</p>
Long-Term Care Insurance Credit	<p>A non-refundable credit equal to 10 percent of a taxpayer's long-term care insurance premium became effective in 2002. The credit amount was increased to 20 percent in 2004. Unused amounts may be carried forward to future tax years.</p>
Enhanced Real Property Tax Credit	<p>Available to residents of New York City, a refundable credit based on household gross income (HGI) and qualified property taxes paid (homeowners), or the property tax equivalent (renters). For taxpayers that rent, the property tax equivalent is equal to 15.75 percent of the rental amount paid, excluding charges for heat, gas, electricity, furnishings, and board. For taxpayers with HGI under \$100,000, the credit is equal to 4.5 percent of real property taxes, or the real property tax equivalent paid in excess of 4 percent of HGI. For taxpayers with HGI between \$100,000 and \$150,000, the credit is equal to 3 percent of real property taxes, or the real property tax equivalent paid in excess of 5 percent of HGI. For taxpayers with HGI between \$150,000 and \$200,000, the credit is equal to 1.5 percent of real property taxes or the real property tax equivalent paid in excess of 6 percent of HGI.</p>

Credit	Description
Property Tax Relief Credit	A four year refundable credit that takes effect in 2016 to offset real property taxes for properties located within school districts compliant with the 2 percent annual property tax cap. Eligible taxpayers must be full time residents who own and primarily reside on real property located within an eligible school district outside of NYC, and have an annual federal adjusted gross income (AGI) of less than \$275,000. In tax year 2016, the credit is valued at \$130 for all eligible properties located within the Metropolitan Commuter Transportation District (MCTD). For all other eligible properties, the credit is valued at \$185. In 2017, for taxpayers with properties receiving the basic STAR Exemption and federal AGI less than \$75,000, the credit is equal to 28 percent of the STAR property tax savings associated with the exemption. For other basic STAR recipients, the credit is equal to 20.5 percent of the associated STAR exemption savings for incomes between \$75,000 and \$150,000, 13 percent for incomes between \$150,000 and \$200,000, and 5.5 percent for incomes between \$200,000 and \$275,000. In 2018, these percentages increase to 60 percent, 42.5 percent, 25 percent, and 7.5 percent, respectively. These percentages further increase, in 2019, to 85 percent, 60 percent, 35 percent, and 10 percent, respectively. In addition, for taxpayers with properties receiving the enhanced STAR exemption and federal AGI less than \$275,000, the credit is valued at 12 percent of the STAR tax savings associated with the exemption in 2017, 26 percent in 2018, and 34 percent in 2019.
STAR Transformation Credit	Effective in 2016, a refundable tax credit that gradually transforms the STAR property tax exemption into a personal income tax liability offset. Existing STAR property tax exemption recipients may opt to receive the credit instead of the property tax exemption, but otherwise retain the exemption until acquiring a new primary residence. All new homeowners and homeowners that relocate receive, in the form of a PIT credit, the benefit that they otherwise would have received through the STAR exemption.
STAR Conversion Credit	Effective in 2017, a refundable tax credit that replaces the STAR program-funded reduced NYC PIT rate benefit that existed prior to 2017. The credit is equal to the benefit that would have been derived by the taxpayer from the pre-2017 rate deduction.

Additionally, credits are allowed for investment in production facilities, film production, Brownfields, for PIT paid to other states, and for job-producing investments. Other minor credits also apply.

Significant Legislation

Significant statutory changes made to the State PIT since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2012		
Residential Solar Equipment Credit	The Residential Solar Equipment Credit was extended to leases and purchase power agreements.	2012 and after
Legislation Enacted in 2013		
Empire State Film Production Credit	Extended the Empire State film production tax credit of \$420 million per year for an additional five years (2015 - 2019). For the period 2015 through 2019 certain upstate counties will receive an additional 10 percent credit for wages and salaries paid.	January 1, 2015
	Restrictions on the post production portion of the credit were reduced and additional reporting will be required to document the effectiveness of the credit in creating jobs.	March 28, 2013
New York State Business Incubator and Innovation Hot Spot Program	Created a new high tech incubator program in which start-up businesses will be free of property, sales and business income taxes for the first five years. Hot spots must demonstrate an affiliation with, and the support of, at least one college, university or independent research institution and offer programs consistent with regional economic development strategies.	March 28, 2013

Subject	Description	Effective Date
Limitation on Itemized Deductions	Extended, for three additional years, the limitation on itemized deductions for taxpayers with NYSAGI over \$10 million.	2013-2015
Royalty Income Loophole	Closed a loophole that allowed New York companies that earn royalty income to avoid paying taxes on that income. New York taxpayers must show on their tax return that the taxpayer's non-New York parent company included the royalty income in its tax liability. The demonstration absolves taxpayers of the obligation to pay tax on their royalty income.	January 1, 2013
Historic Preservation Tax Credit	Extended for five years the Historic Preservation Tax Credit \$5 million cap, which had previously been scheduled to revert to \$100,000 following the conclusion of tax year 2014, and permanently made the credit refundable for tax years beginning on or after January 1, 2015.	January 1, 2015
Charge NY Electric Vehicle Recharging Equipment Credit	Created a credit equal to 50 percent or \$5,000 per station, whichever is less, of the cost of electric vehicle recharging or alternative fuel vehicle refueling equipment. The credit sunsets December 31, 2017.	January 1, 2013
Suspension of Drivers' Licenses of Delinquent Persons	Provided for the suspension of New York State driver's licenses of taxpayers who owe taxes in excess of \$10,000.	March 28, 2013
Warrantless Wage Garnishment	Allowed the Department of Taxation and Finance to garnish wages of delinquent taxpayers without filing a warrant and replaced the warrant requirement with a faster public notification requirement.	March 28, 2013 - March 31, 2015
Credit for Rehabilitation of Historic Homes	Extended for five years the maximum credit amount of \$50,000 (scheduled to revert to \$25,000), and the refundability of the credit for filers with income less than \$60,000.	January 1, 2015
Small Business and Small Farm Income Subtraction	Provided a Full Alliance Group Inc. (FAGI) modification equal to a percentage of business or farm income for taxpayers with business or farm income not exceeding \$250,000. The modification reduces FAGI by 3 percent in tax year 2014, 3.75 percent in tax year 2015, and 5 percent for tax years 2016 and beyond.	January 1, 2014
Hire-a-Vet Tax Credit	Provided a refundable tax credit for tax years 2015 and 2016 equaling 10 percent of the wages paid to a qualified veteran (capped at \$5,000) and 15 percent of wages paid to a qualified veteran (capped at \$15,000).	January 1, 2015
Middle-Class Family Tax Credit	Provided a refundable \$350 credit in each of tax years 2014 through 2016 to taxpayers with dependents under the age of 17, zero or positive tax liability, and income between \$40,000 and \$300,000.	January 1, 2014
Youth Works Tax Credit	Provided a four year refundable tax credit capped at \$6 million per year for tax years 2014 through 2017 for hiring unemployed, low-income or at risk youth ages 16-24 in cities with populations greater than 55,000 or towns with populations greater than 480,000.	January 1, 2014
Minimum Wage Reimbursement Credit	Provided a refundable tax credit for tax years 2014 through 2018 equal to the product of the number of hours worked by qualifying minimum wage-earning employees and 1) \$0.75 in tax year 2014; 2) \$1.31 in tax year 2015; or 3) \$1.35 in tax years 2016 through 2018. Qualifying employees must be students aged 16 to 19, and the credit is reduced if the federal minimum wage is increased to a level in excess of 85 percent of the New York minimum wage.	January 1, 2014
PIT Reform Extension	Extended the December 2011 PIT reform program for three additional tax years, 2015 through 2017.	January 1, 2015

Subject	Description	Effective Date
START-UP NY	Established tax-free zones on or near qualifying university and college campuses. Qualifying businesses operating within such zones are exempt from taxation for a ten-year period under the personal income tax. During the first five years of the exemption period, qualifying new employees are fully exempt from New York State and New York City personal income tax on wages earned while working in a tax-free zone. During the last five years of the exemption period, qualifying employees are exempt from taxation on wages up to \$200,000 for single filers, \$250,000 for head-of-household filers, and \$300,000 for joint filers.	January 1, 2014
Excelsior Jobs Program	Changed the job requirement parameters for the Excelsior Jobs Program and allowed a portion of the unallocated tax credits from any taxable year to be used to award tax credits in another taxable year.	May 27, 2013
Trust Taxation Loophole Closer	Closed a loophole that allowed resident taxpayers to completely avoid New York income tax through the creation of an incomplete gift, non-grantor trust. Also taxes the accumulated distribution income of New York resident beneficiaries when the income is distributed by an exempt resident trust.	January 1, 2014
Legislation Enacted in 2014		
Middle-Class Family Tax Credit	Modified the delivery of the Middle-Class Family Tax Credit to eliminate the prepayment element for tax years 2015 and 2016.	January 1, 2015
Real Property Tax Freeze Credit	Established, through the use of a refundable credit, a two-year tax relief program to offset school and municipal property tax increases for New York State homeowners. The credit is limited to properties that have STAR property tax exemption eligibility and are located within a New York State Property Tax Cap-compliant school/municipal district.	January 1, 2014
Enhanced Real Property Tax Credit	Established a refundable credit for residents of New York City based on qualifying real property taxes paid or the real property tax equivalent. For taxpayers with household gross income (HGI) under \$100,000, the credit is equal to 4.5 percent of real property taxes, or the real property tax equivalent paid in excess of 4 percent of HGI. For taxpayers with HGI between \$100,000 and \$150,000, the credit is equal to 3 percent of real property taxes, or the real property tax equivalent paid in excess of 5 percent of HGI. For taxpayers with HGI between \$150,000 and \$200,000, the credit is equal to 1.5 percent of real property taxes, or the real property tax equivalent paid in excess of 6 percent of HGI.	January 1, 2014
Enhanced Earned Income Tax Credit	Extended the non-custodial parent earned income tax credit for two years, through and including tax year 2016.	January 1, 2015
Minimum PIT Repeal	Repealed the additional minimum personal income tax.	January 1, 2014
Length of Service Awards	Provided for an AGI subtraction modification equal to the amount of awards paid to volunteer firefighter or volunteer ambulance workers from a length of service defined contribution plan or defined benefit plan.	January 1, 2014
Property Tax Credit for Manufacturers	Made qualified New York manufacturers eligible for a new tax credit equal to 20 percent of the real property taxes paid.	January 1, 2014
Enhance the Youth Works Tax Credit	Enhanced the credit by providing additional credit for youth retained in either a full-time or part-time status for one additional year, lowered the part-time hourly threshold from 20 hours to 10 hours for full-time high school students and increased the allocation from \$6 million to \$10 million for programs two through five (2014-2018).	January 1, 2014
Expand the Upstate Counties Eligible for the Enhanced Film Production Tax Credit	Added the counties of Albany and Schenectady to the list of upstate counties eligible for the additional 10 percent credit on wages and salaries.	January 1, 2015

Subject	Description	Effective Date
Workers with Disabilities Tax Credit	Provided a non-refundable tax credit for tax years 2015 through 2019 equaling 15 percent of wages paid to a developmentally disabled individual employed full time (capped at \$5,000) and 10 percent of wages paid if the individual is employed part time (capped at \$2,500). This credit has an annual allocation of \$6 million.	January 1, 2015
Musical and Theatrical Production Credit	Provided a refundable tax credit for tax years 2015 through 2018 equaling 25 percent of qualified expenses for qualified musical and theatrical productions in certain upstate theaters. This credit has an annual allocation of \$4 million annually.	January 1, 2015
START-UP NY Amendments	Provided a refundable tax credit equal to the excise tax paid on telecommunications services paid by businesses in START-UP NY areas. Added four correctional facilities owned by the State of New York to be included as START-UP NY areas.	January 1, 2014 July 26, 2014
Empire State Commercial Production Tax Credit	Extended the annual allocation of \$7 million for two years through tax year 2016. Also, lowered the minimum required production costs for upstate productions from \$200,000 to \$100,000.	March 31, 2014
Legislation Enacted in 2015		
Limitation on Itemized Deductions	Extended the limitation on itemized deductions for taxpayers with NYSAGI over \$10 million for two additional years.	January 1, 2016
Property Tax Relief Credit	Established a refundable tax credit, administered as an advanced credit payment, to offset property tax increases for all eligible taxpayers who own and primarily reside in real property located within eligible school districts that are compliant with the 2 percent annual property tax cap. The credit sunsets December 31, 2019.	January 1, 2016
Warrantless Wage Garnishment	Extended, for two additional years, authority for the Department of Taxation and Finance to garnish wages of delinquent taxpayers without filing a warrant.	April 1, 2015
Enhanced Real Property Tax Circuit Breaker Extender	Extended the Enhanced Real Property Tax Circuit Breaker credit for four years. The credit sunsets December 31, 2019.	January 1, 2016
Expand the Excelsior Jobs Program	Expanded eligibility for the program to include entertainment companies that meet certain criteria, music production companies and video game software developers.	April 13, 2015
Employee Training and Incentive Program (ETIP) Tax Credit	Provided a refundable tax credit for tax years 2015 and after equaling 50 percent of employee training costs (\$10,000 cap per employee) or internship costs (\$3,000 cap per intern). The amount of tax credits allocated per year is capped at \$5 million and will be allotted from funds available under the Excelsior Jobs Program.	January 1, 2015
Urban Youth Jobs Program	Enhanced the credit (formerly the New York Youth Works Tax Credit) by increasing the allocation from \$10 million to \$20 million for programs three through five (2015-2017).	April 13, 2015
Alternative Fuel Vehicle Refueling Property Tax Credit	Allowed the credit for spending not covered by a grant. The amount of the credit is amended to equal the lesser of \$5,000 or the product of 50 percent and the cost of any property less any costs paid from the proceeds of a grant.	January 1, 2015
Brownfields Clean-Up Program	Reformed the program and extended the tax credits through March 31, 2026. Reforms included the prioritization of 1) site redevelopment in economically distressed areas, 2) low income housing, or 3) properties that are upside down or underutilized; also provided for the creation of an expedited remediation program (BCP-EZ), a more detailed description of eligible costs for redevelopment tax credits, and allowed the real property tax and environmental remediation insurance credits to sunset.	July 1, 2015

Subject	Description	Effective Date
START-UP NY Amendments	Added two airport facilities owned by the State of New York to be included as START-UP NY areas.	April 13, 2015
Legislation Enacted in 2016		
Hire a Veteran Credit	Extended the credit for two additional years to January 1, 2019.	January 1, 2017
Commercial Production Credit	Extended the credit for two additional years to January 1, 2019.	January 1, 2017
Credit for Companies That Provide Transportation to People with Disabilities	Extended the expiration date of this credit for six years until December 31, 2022.	December 31, 2016
Low-Income Housing Credit	Extended the statewide limitation for the aggregate dollar amount of credit the Commissioner of Division of Housing and Community Renewal (DHCR) may allocate to eligible low-income buildings. The credit allocation pool was increased \$8 million for each of the next five fiscal years.	April 1, 2017
Clean Heating Fuel Credit	Modified and extended the clean heating fuel credit. The minimum biodiesel fuel thresholds were increased. The credit was extended for three years to January 1, 2020.	January 1, 2017
Excelsior Jobs Program Tax Credit	Extended claims period through 2026, allowing Empire State Development the ability of offering a 10 year benefit period for companies entering the program in 2016 and 2017. Unused credits from previous years will be used to fund the extension. Reduced annual credit allocations a total of \$150 million over the period 2016 through 2024.	April 13, 2016
Urban Youth Jobs Tax Credit	Increased the allocation for the final two program years from \$20 million to \$50 million.	April 13, 2016
Economic Transformation and Facility Redevelopment Program	Modified to include any psychiatric facility previously owned by New York State and located within the MCTD (excluding NYC) to qualify as a closed facility under this program. Prospective participants must submit an application by September 1, 2016.	April 13, 2016
The Farm Workforce Retention Credit	Created a refundable credit that is available to farm employers equal to a fixed amount per eligible farm employee. The credit varies between \$250 per eligible farm employee in tax year 2017 up to \$600 for tax year 2021. This credit expires after tax year 2021.	January 1, 2017
STAR Transformation Credit	Replaced, for new and relocated homeowners, the STAR property tax exemption with a STAR tax credit.	April 13, 2016
Enhanced Earned Income Tax Credit	Permanently extended the Enhanced Earned Income Tax Credit for non-custodial parents.	January 1, 2017
Tax Shelter Reporting Requirements	Extended tax shelter reporting requirements through July 1, 2019.	April 13, 2016
NYC Resident STAR Credit	Converted the STAR Personal Income Tax credit for eligible NYC resident taxpayers from a credit against NYC tax liability to a credit against NYS tax liability.	January 1, 2016
Middle Income Tax Cut	Provided reduced middle-income personal income tax rates over the course of eight years. The rate cuts begin in tax year 2018 and, when fully phased in, the range of marginal tax rates on middle incomes will be reduced from between 5.9 percent and 6.65 percent to between 5.5 percent and 6 percent.	January 1, 2018
Legislation Enacted in 2017		
Non-resident Co-op Sale Loophole Closer	Closed a loophole that had previously allowed non-residents to evade taxation on gains from the sale of ownership interests in New York-based cooperative housing corporations.	January 1, 2017

Subject	Description	Effective Date
Non-resident Asset Sale Loophole Closer	Closed a loophole that had previously allowed non-residents to avoid taxation on gains from the sale of New York-source partnership assets.	April 10, 2017
Top Rate Extension	Extended the 8.82 percent top-tax bracket and rate through the end of tax year 2019.	January 1, 2018
Limitation on Itemized Deductions	Extended the limitation on itemized deductions for taxpayers with NYSAGI over \$10 million for two additional years. The limitation sunsets December 31, 2019.	January 1, 2018
Warrantless Wage Garnishment	Extended, for three additional years, authority for the Department of Taxation and Finance to garnish wages of delinquent taxpayers without filing a warrant. The authority to act without warrant sunsets March 31, 2020.	April 1, 2017
Warrantless Bank Account Data Matching	Expanded, for three years, the financial institution data match system to require financial institutions to include past due liabilities that have become fixed and final.	April 10, 2017
Child and Dependent Care Credit Enhancement	Increased the Child and Dependent Care Credit value to between 60 percent and 100 percent of the Federal credit for tax filers with NYSAGI between \$50,000 and \$150,000. Expanded qualifying expenses to include costs related to up to five eligible dependents.	January 1, 2018
STAR Conversion Credit	Converted the STAR-related New York City PIT rate reduction benefit into a New York State PIT credit for New York City taxpayers.	January 1, 2017
Credit for Farm Donations to Food Pantries	Created a refundable credit equal to 25 percent of the fair market value of qualified donations by qualified farmers to eligible food pantries, up to a \$5,000 maximum credit annually.	January 1, 2018
Union Dues Deduction	Allowed an itemized deduction for union dues paid during the tax year that aren't deductible for Federal tax purposes.	January 1, 2018
Establish Life Sciences Tax Incentives	Established tax incentives to support the State's new life sciences initiative. Existing life science companies are eligible to participate in the Excelsior Jobs Program and new life sciences companies can receive a 15 or 20 percent refundable tax credit on new research and development expenditures based on company size.	January 1, 2018
Extend the Empire State Film and Post Production Tax Credits	Extended the credit for three additional years through 2022.	April 10, 2017
Extend the Alternative Fuels Property and Electric Vehicle Recharging Property Credit	Extended the credit for five additional years through 2022.	April 10, 2017
Treat Disregarded Entities as a Single Taxpayer for Tax Credit Purposes	Protects existing tax credit structures following an August 2016 decision of the Tax Appeals Tribunal that could have resulted in most taxpayers losing their tax credits. An individual taxpayer and associated single-member LLCs (disregarded entities) will now be treated as one entity for tax credit purposes.	April 10, 2017
Excelsior Jobs Program	Doubled the excelsior research and development credit cap from three to six percent.	January 1, 2018
	Reduced the minimum required net new job requirements for most industries and added a definition for significant capital investment.	April 10, 2017
Employee Training Incentive Program	Expanded the current program to include incumbent worker training as an eligible expense, given that such trainings are part of a company's expansion and retention projects. The requirement to create additional jobs is removed.	April 10, 2017

New York Youth Jobs Program	Extended the credit for two additional years to January 1, 2020 with an annual allocation of \$40 million beginning with the 2018 allocation year.	April 10, 2017
Empire State Apprenticeship Tax Credit program	Created a carve out from the New York Youth Jobs Program for an apprenticeship credit. Provides a tax credit of \$10 million annually for tax years 2018 through 2022 to certified employers that employ a qualified apprentice for at least 6 months of the calendar year.	January 1, 2018
Investment Tax Credit	Modified the investment tax credit to exclude costs related to the production and delivery of steam or water and the delivery of natural gas as credit-eligible activities.	April 10, 2017

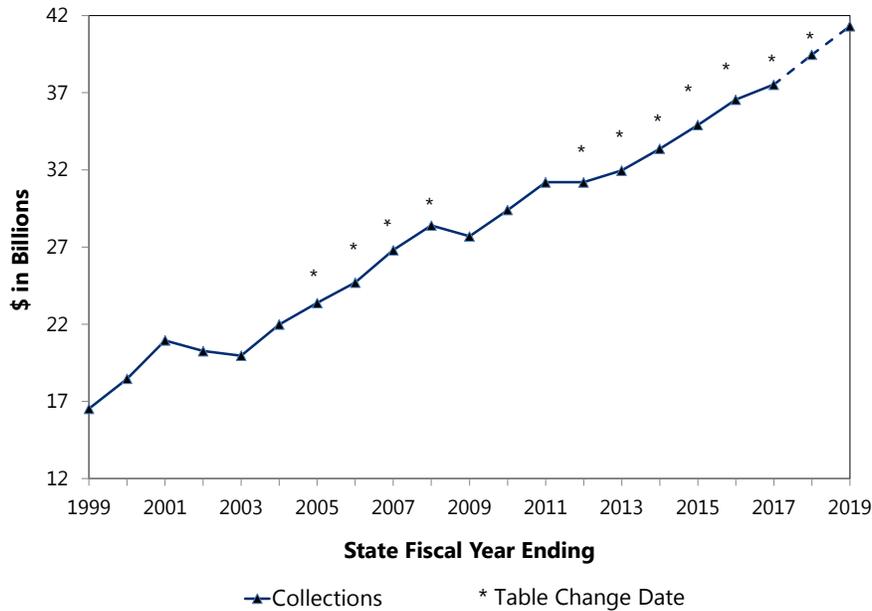
Withholding Changes

Various changes in tax rates, deductions and exemptions have been reflected in withholding tables as follows:

Effective Date	Feature	Changes
July 1, 1995	Deduction Allowance	Increased to \$5,650 for single individuals, \$6,150 for married couples.
	Rate Schedule	Lowered the maximum rate to 7.59 percent and reduced the number of tax brackets.
April 1, 1996	Deduction Allowance	Increased to \$6,300 for single individuals, \$6,800 for married couples.
	Rate Schedule	Lowered the maximum rate to 7 percent and broadened the wage brackets to which the rates apply.
January 1, 1997	Deduction Allowance	Increased to \$6,975 for single individuals, \$7,475 for married couples.
	Rate Schedule	Lowered the maximum rate to 6.85 percent and broadened the wage brackets to which the rates apply.
July 1, 2003	Rate Schedule	Raised maximum rate to 8.55 percent and added two new wage brackets.
January 1, 2004	Rate Schedule	Decreased maximum rate to 7.7 percent and lowered rate for second highest bracket from 7.5 percent to 7.375 percent.
January 1, 2005	Rate Schedule	Lowered rate for second highest bracket from 7.375 to 7.25 percent.
January 1, 2006	Rate Schedule	Eliminated top two rates to reflect expiration of the temporary tax surcharge.
May 1, 2009	Rate Schedule	Raised maximum rate to 8.97 percent and added two new wage brackets; added new higher rate to reflect phase out of itemized deductions.
January 1, 2012	Rate Schedule	Lowered rates for middle income taxpayers and created a new 8.82 percent tax rate and bracket for tax years through 2014.
January 1, 2013	Deduction Allowance	Annual deduction increases to reflect inflation (CPIU) indexing. Applied to tax years 2013 through 2017.
	Rate Schedule	Annual tax bracket adjustment to reflect indexing. Applied to tax years 2013 through 2017.
January 1, 2018	Rate Schedule	Lowered rates for middle income taxpayers by reducing the 6.45 percent and 6.65 percent marginal tax rates. ¹

¹ Part of a scheduled eight-year phase-in of middle income tax cuts through 2025.

Personal Income Tax Withholding



The above graph shows the history of withholding collections beginning in FY 1999. Asterisks denote the dates of withholding table changes.

Limited Liability Companies

A limited liability company (LLC) can be formed in New York by one or more persons by filing its articles of organization with the Secretary of State and paying an annual filing fee. The fee is reflected in the “returns” component of the PIT. The fees/minimum taxes applicable to all LLC and non-LLC partnerships, C corporations, and S corporations are based on New York source income. The annual filing fee has been imposed since 1994 and applies to any LLC that has any income, gain, loss or deduction attributable to New York sources in the taxable year. Filing fees for the tax year are due no later than January 30 of the following year. Table 3 shows historical and estimated (for FY 2018) LLC fees.

TABLE 3
LIMITED LIABILITY COMPANY AND PARTNERSHIP FEES
(thousands of dollars)

SFY	Amount
2008	50,973
2009	56,219
2010	67,469
2011	68,667
2012	71,589
2013	71,690
2014	84,129
2015	86,902
2016	91,694
2017	99,892
2018 Estimated	104,886

Administration

Timing of the Payment of Refunds

The payment of refunds during the final quarter of the State’s fiscal year (i.e., the January-March period) has been administratively managed in accordance with cash flow expectations and to minimize potential year-end imbalances in the State’s General Fund. The amount of refunds paid during this three-month period totaled \$1,500 million in both FY 2007 and FY 2008. The refund “cap” increased to \$1,750 million for FY 2009 to more closely match the estimate of refunds payable during this three-month period. The refund “cap” was reduced to \$1,250 million for FY 2010 for cash management purposes, but reverted to \$1,750 million for FYs 2011 through 2013. One-time increases in the three-month allocation to \$2,078 million took place in FY 2014, \$1,950 million in FY 2015, and \$2,550 million in FY 2016. Strong revenue growth during the final quarter of the fiscal year allowed for these increases. The FY 2017 “cap” on refunds declined to \$1,750 million, and another \$1,750 million is scheduled to be paid out in FY 2018.

School Tax Relief Fund

Legislation enacted in 1998 created the School Tax Relief (STAR) program and the STAR Fund. The program provides residential homeowners with State-funded tax exemptions, and tax relief under the New York City (NYC) income tax for NYC residents. In addition to school property tax exemptions, NYC residents who have relatively low homeownership rates are provided rate reductions against the New York City PIT. To reimburse school districts and New York City for the costs of the program, a portion of State PIT receipts are deposited to the STAR Fund. Pursuant to State Finance Law, payments are currently made to school districts in October through March and to New York City in September and June.

FY 2017 Enacted Budget legislation replaced, for new and relocated homeowners, the STAR property tax exemption with a STAR credit against the New York State PIT. This legislation also converted the New York City school tax credit, which previously had been funded through the STAR Fund and applied against New York City PIT, into a credit against New York State PIT.

Revenue Bond Tax Fund

Legislation enacted in 2001 authorized the issuance of State PIT Revenue Bonds and provided a source of payment for the debt service on those Bonds by earmarking a portion of PIT receipts to the newly created Revenue Bond Tax Fund (RBTF). Effective May 2002, such legislation directs the State Comptroller to deposit an amount equal to 25 percent of estimated monthly State PIT receipts (after payment of refunds and STAR deposits). Effective April 1, 2007, deposits to the RBTF are calculated before the deposit of income tax receipts to the STAR Fund. Although this decreases General Fund PIT receipts, RBTF deposits in excess of debt service requirements are transferred back to the General Fund.

Taxpayer Characteristics

Table 4 examines changes in NYSAGI and in liability over a span from 2005 to 2015, broken down by taxpayer characteristics as well. Shares of NYSAGI, the income base that determines personal income tax liability, and liability both differ noticeably among taxpayer groups. Not only did the nation suffer a severe recession in the time between these two years, but State tax laws were also changed repeatedly. Temporary brackets with higher rates, enacted in response to the State's fiscal crunch after the 2001 national recession, were still in place in 2005 while in 2015 a tax reform enacted in December 2011 was in place with new brackets and generally lower tax rates but contained a restriction on the itemized deductions of millionaires to a fraction of their charitable contributions. While the highest rate of the December 2011 reform applies only to millionaires, it was higher than the highest rate under the 2005 brackets and rates. Thus, while NYSAGI grew 42.8 percent from 2005-2015, liability from that income base increased at a faster 52.7 percent.

Both 2005 and 2015 were economic expansion years for the State. While in 2005 New York State was in its second full year of expansion following the State recession that came after the 2001 national recession, 2015 was the sixth year of the State's recovery from its August 2008-December 2009 recession (which was eight months shorter than the national recession). The years differ in their tax structures, as 2005 was the final year of the temporary brackets and rates put in place beginning with 2003, while a reformed tax structure was in force for a fourth year in 2015.

In the 10 years between 2005 and 2015 the shares of liability accounted for by residents and nonresidents were fairly stable – the resident share slipped to 83.0 percent from 83.4 percent in 2005 while the nonresident share moved up to 17.0 percent from 16.6 percent. This occurred despite the fact the number of nonresident returns grew nearly three times as fast as resident returns: nonresident returns increased 35.1 percent as opposed to a 12.9 percent rise in resident returns. The proportion of NYSAGI accounted for by residents fell by nearly a percentage point, to 85.9 percent from 86.7 percent in 2005, as growth in wages and in nonwage income by nonresidents outstripped growth by residents. Wages reported by nonresident filers increased

48.4 percent versus 38.8 percent for resident filers over 2005-2015 while nonresident nonwage income growth outstripped that of residents 68.2 percent to 52.9 percent. Nonwage income includes items of income such as dividends, interest received, and capital gains.

While a majority of the returns filed in 2015 came from single filers (51.8 percent), those persons electing married filing jointly status accounted for the largest share of liability (68.5 percent) and NYSAGI (62.9 percent). But this masks the much higher growth rates that single filers displayed from 2005 to 2015. Returns from single filers grew 25.0 percent during 2005-2015 while married filing jointly returns rose 6.2 percent and returns filed under head of household status increased a comparable 6.0 percent. While NYSAGI from married filing jointly returns and from head of household returns grew comparably, at rates of 39.6 percent and 39.1 percent, respectively, it expanded by 51.3 percent among single filers.

Single filers saw their income from wages increase 53.0 percent over the 10 years while married filing jointly filers and heads of households experienced wage growth of 34.9 percent and 36.3 percent, respectively. However, while head of household filers make up a small share of nonwage income (3.4 percent in 2005 and 3.9 percent in 2015, versus 71.3 percent and 71.1 percent in those two years respectively for married filing jointly filers), these filers had unusual growth in this form of income as it grew 77.4 percent from 2005 to 2015, against 54.1 percent growth for married filing jointly filers and an increase of 53.0 percent among the single filers. Those who filed as head of household accounted for just 3.6 percent of liability in 2015, not much different from their share in 2005 (3.1 percent), but again the growth was outsized: 80.5 percent, as against growth of 61.9 percent among the single filers and a gain of 48.1 percent in the married filing jointly category.

Taxpayers who itemized their deductions made up 25.7 percent of all filers in 2005, but this share fell 2.3 percentage points by 2015, to 21.8 percent. Note again that in 2009 a limitation on the ability of high-income filers to use all of their State itemized deductions first became effective. Unsurprisingly, while the number of itemizers fell, the number of persons using the standard deduction expanded 21.2 percent. With the continuing limitation on itemized deductions for millionaires many of the high-liability taxpayers likely found themselves better off taking the standard deduction rather than itemizing.

This also helps account for the fact that the share of liability accounted for by itemizers fell from 66.4 percent in 2005 to 53.6 percent by 2015 while the share coming from those using the standard deduction increased from 33.6 percent to 46.4 percent over the period. With more affluent filers being pushed into filing using the standard deduction, NYSAGI from standard deduction users jumped 78.3 percent over 2005-2015 while itemizers saw an increase of just 17.0 percent. Standard deduction takers accounted for a majority of NYSAGI in 2015 -- 52.3 percent -- as opposed to 41.9 percent in 2005. While the increase in wages for itemizers and standard-deduction users was similar to that of NYSAGI from 2005 to 2015, nonwage income grew 115.6 percent among the standard-deduction filers versus a 32.2 percent increase within the itemizers.

TABLE 4
PERCENT SHARES OF STATE AGI, WAGES, NONWAGE INCOME AND LIABILITY
BY VARIOUS TAXPAYER CHARACTERISTICS, 2005 AND 2015
 (Values for AGI, wages, nonwage income and liability in millions of dollars)

	2005					2015				
	Returns	NYSAGI	Wages	Nonwage Income	Liability	Returns	NYSAGI	Wages	Nonwage Income	Liability
Total	9,063,735	580,223	416,988	163,234	28,489	10,437,368	828,366	584,317	252,359	43,503
percent change						15.2	42.8	40.1	54.6	52.7
Residents	8,156,057	503,177	357,623	145,554	23,766	9,211,471	711,565	496,236	222,613	36,089
percent share	90.0	86.7	85.8	89.2	83.4	88.3	85.9	84.9	88.2	83.0
percent change						12.9	41.4	38.8	52.9	51.9
Nonresidents	907,678	77,046	59,366	17,680	4,723	1,225,897	116,801	88,081	29,746	7,415
percent share	10.0	13.3	14.2	10.8	16.6	11.7	14.1	15.1	11.8	17.0
percent change						35.1	51.6	48.4	68.2	57.0
Married Filing Jointly	3,265,368	373,017	256,589	116,428	20,118	3,468,484	520,780	346,071	179,373	29,790
percent share	36.0	64.3	61.5	71.3	70.6	33.2	62.9	59.2	71.1	68.5
percent change						6.2	39.6	34.9	54.1	48.1
Head of Household	1,473,844	48,631	43,014	5,617	878	1,562,166	67,653	58,638	9,965	1,585
percent share	16.3	8.4	10.3	3.4	3.1	15.0	8.2	10.0	3.9	3.6
percent change						6.0	39.1	36.3	77.4	80.5
Single Filers	4,324,523	158,575	117,385	41,190	7,492	5,406,718	239,932	179,608	63,021	12,128
percent share	47.7	27.3	28.2	25.2	26.3	51.8	29.0	30.7	25.0	27.9
percent change						25.0	51.3	53.0	53.0	61.9
Itemized Deduction	2,328,174	336,977	217,544	119,433	18,913	2,273,932	394,378	239,510	157,862	23,303
percent share	25.7	58.1	52.2	73.2	66.4	21.8	47.6	41.0	62.6	53.6
percent change						-2.3	17.0	10.1	32.2	23.2
Standard Deduction	6,733,032	243,116	199,353	43,763	9,567	8,159,138	433,585	344,527	94,371	20,174
percent share	74.3	41.9	47.8	26.8	33.6	78.2	52.3	59.0	37.4	46.4
percent change						21.2	78.3	72.8	115.6	110.9

Source: NYS Department of Taxation and Finance; DOB staff estimates

Recent Liability History

PIT liability is derived from the New York State Adjusted Gross Income or NYSAGI income base. Table 5 lists the major components, growth rates and shares of NYSAGI (see also Economic Backdrop – New York State Adjusted Gross Income section). NYSAGI growth has been somewhat volatile in the years following the Great Recession with strong 8.7 percent growth in 2012 and 2014, but declines of 0.1 percent and 1.2 percent in 2013 and 2016, respectively, both years of economic growth, albeit slower than surrounding years. Recent growth rates belie the impact of underlying economic drivers and are affected by a considerable amount of income shifting. For example, lower tax rates established under the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) were originally scheduled to sunset at the end of 2010. Though the sunset was shifted to the end of 2012, evidence suggests that taxpayers moved income from 2011 to 2010 in anticipation of a possible tax rate increase. With actual tax rates increasing at the close of 2012, taxpayers engaged in a more substantial income shift out of 2013 into 2012. Income shifting seems to have been again in evidence in 2016-2018.

TABLE 5
DISTRIBUTION OF THE MAJOR COMPONENTS OF NEW YORK ADJUSTED GROSS INCOME (NYSAGI)
(millions of dollars)

Component of Income	2011	2012	2013	2014	2015	2016*	2017	2018	2019
	----- Actual -----					----- Estimate -----			
NYSAGI									
Amount	657,298	714,698	714,046	776,477	807,775	797,741	849,181	883,952	927,883
Percent Change	2.9	8.7	(0.1)	8.7	4.0	(1.2)	6.4	4.1	5.0
Wages									
Amount	499,425	515,645	525,924	558,857	584,317	596,004	627,380	649,796	677,243
Percent Change	3.5	3.2	2.0	6.3	4.6	2.0	5.3	3.6	4.2
Share of NYSAGI	76.0	72.1	73.7	72.0	72.3	74.7	73.9	73.5	73.0
Net Capital Gains									
Amount	48,800	77,248	68,492	90,918	93,409	72,331	83,704	90,518	97,687
Percent Change	9.2	58.3	(11.3)	32.7	2.7	(22.6)	15.7	8.1	7.9
Share of NYSAGI	7.4	10.8	9.6	11.7	11.6	9.1	9.9	10.2	10.5
Interest and Dividends									
Amount	29,240	33,433	32,604	34,970	33,591	34,826	36,834	39,471	42,246
Percent Change	(3.2)	14.3	(2.5)	7.3	(3.9)	3.7	5.8	7.2	7.0
Share of NYSAGI	4.4	4.7	4.6	4.5	4.2	4.4	4.3	4.5	4.6
Taxable Pension									
Amount	37,052	39,040	40,394	42,461	44,131	44,771	46,484	48,161	49,820
Percent Change	4.1	5.4	3.5	5.1	3.9	1.5	3.8	3.6	3.4
Share of NYSAGI	5.6	5.5	5.7	5.5	5.5	5.6	5.5	5.4	5.4
Net Business and Partnership Income									
Amount	74,148	84,363	83,995	89,448	95,745	95,727	102,850	106,201	113,402
Percent Change	(0.3)	13.8	(0.4)	6.5	7.0	(0.0)	7.4	3.3	6.8
Share of NYSAGI	11.3	11.8	11.8	11.5	11.9	12.0	12.1	12.0	12.2
All Other Incomes and Adjustments¹									
Amount	(31,367)	(35,031)	(37,363)	(40,178)	(43,418)	(45,919)	(48,071)	(50,195)	(52,515)
Percent Change	10.5	11.7	6.7	7.5	8.1	5.8	4.7	4.4	4.6
Share of NYSAGI	(4.8)	(4.9)	(5.2)	(5.2)	(5.4)	(5.8)	(5.7)	(5.7)	(5.7)

* Estimates for 2016 are based on processing data.

¹ Includes alimony received, unemployment income, IRA income, and other incomes. This number is negative due to Federal and New York adjustments to income, which together reduce final NYSAGI.

Source: NYS Department of Taxation and Finance; DOB staff estimates.

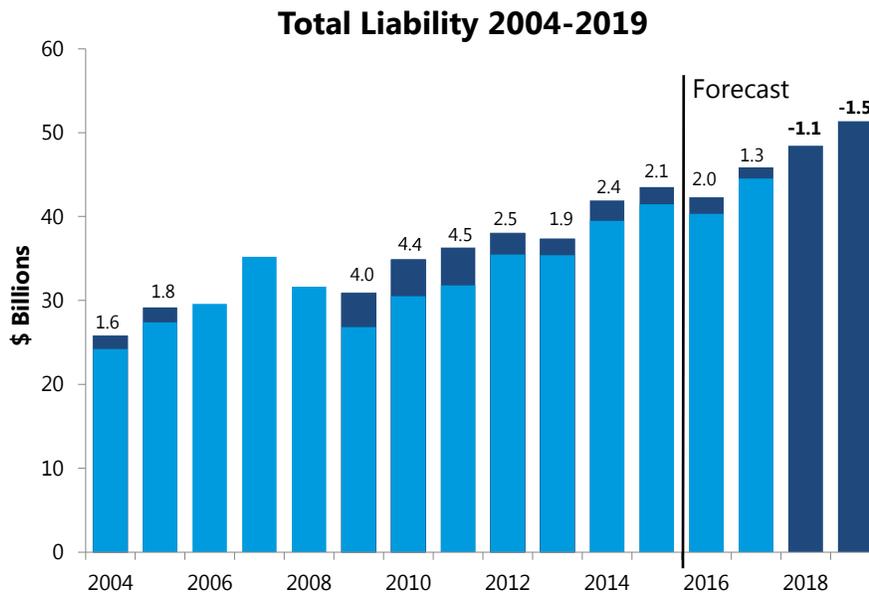
Looking at the components of NYSAGI we see that the largest contributor, wages, tends to be also one of the most stable components. At the recession's end in 2009, they made up 77.8 percent of NYSAGI. Since other components (such as capital gains realizations) tend to grow relatively faster during recoveries, the share of wage income fell to an estimated 72.0 percent by 2014, though it recovered somewhat in years following. But while wages are estimated to have increased just 2.0 percent in 2016, they increase to a 74.7 percent share of NYSAGI almost entirely due to the collapse of capital gains and stagnation of net business and partnership income.

As one of the larger and most volatile components of total taxable income, capital gains realizations contribute prominently to changes in NYSAGI. Much of the volatility in net capital gains realizations growth is the direct result of taxpayers behaving strategically to avoid the higher tax rates on long-term capital gains that were initially anticipated to start in 2011, but really began in 2013. This strategic taxpayer behavior dwarfed the impact of strong underlying growth in equity and real estate markets. After five years of solid equity and real estate market growth, however, the contribution to NYSAGI from net capital gains income more than doubled from 5 percent at the end of the recession in 2009 to 11.7 percent in 2014 and was essentially the same in 2015 despite much weaker growth.

The surprise election of Donald J. Trump in November 2016 appears to have led to another round of income shifting. With a strong promise of rapid action on cutting federal taxes from the new President and Congress, it seems that investors may have thought it wise to postpone gains into 2017, since there was some chatter about tax changes being made retroactive to that year. Net capital gains fell 22.6 percent, based on preliminary data, with the share falling to 9.1 percent, its lowest in four years. The Budget Division anticipates a strong rebound to 15.7 percent growth in 2017, with growth in the vicinity of 8 percent in 2018 and 2019 with the share of NYSAGI being near or somewhat above 10 percent.

Other income components have also been affected by income shifting, though to a lesser extent. Returning to the case of EGTRRA earlier in the decade, companies paid out dividends early so that investors could enjoy lower tax rates in 2012, and the strong 13.8 percent partnership, S corporation and business income growth in 2012, followed by a 0.4 percent decline in 2013, suggests that businesses were able to shift some of their income as well. History also appears to have repeated itself for this component, as a flat 2016 is wedged between 7.0 percent growth in 2015 and an estimated increase of 7.4 percent for 2017

Thanks to income shifting, the 2013 income base is lower than would otherwise be the case, making the 2014 NYSAGI growth rate of 8.7 percent stronger than underlying economic conditions would have suggested. Note the decline to 4.0 percent growth in 2015. Preliminary data indicate that NYSAGI growth fell 1.2 percent in 2016, though it is expected to recover to 6.4 percent growth in 2017 before slowing to growth of 4.1 percent in 2018 as wages, net capital gains and net business and partnership income all grow more slowly than in the prior year. NYSAGI growth is expected to improve to 5.0 percent in 2019.



Note: Values above bars indicate additional liability due to temporary brackets and rates for those tax years as represented by the dark blue shading; "current law" for 2006-2019 includes changes in State and Federal Tax Law that are effective with the 2006 tax year and beyond. 2018-19 values show the effect of the 2016 PIT reform in the first two years.

Source: New York State Department of Taxation and Finance; DOB staff estimates.

TABLE 6
LIABILITY AND EFFECTIVE TAX RATES*
 Current Law
 2004-2018
 (millions of dollars)

	NYSAGI		Liability		Effective Tax Rate (percent)
	Amount	Growth Rate	Amount	Growth Rate	
2004	525,989	11.0	25,762	14.7	4.90
2005	571,955	8.7	28,481	10.6	4.98
2006	632,601	10.6	29,838	4.8	4.72
2007	725,245	14.6	35,215	18.0	4.86
2008	662,053	(8.7)	31,621	(10.2)	4.78
2009	596,471	(9.9)	31,166	(1.4)	5.23
2010	638,855	7.1	34,834	11.8	5.45
2011	657,298	2.9	36,296	4.2	5.52
2012	714,698	8.7	38,017	4.7	5.32
2013	714,046	(0.1)	37,331	(1.8)	5.23
2014	776,477	8.7	41,910	12.3	5.40
2015	807,775	4.0	43,503	3.8	5.39
2016**	797,741	(1.2)	42,304	(2.8)	5.30
2017**	849,181	6.4	45,844	8.4	5.40
2018**	883,952	4.1	48,452	5.7	5.48

* Liability divided by AGI.
 ** Estimate/Forecast
 Source: NYS Department of Taxation and Finance; DOB staff estimates.

Risks to the Liability Forecast

The collapse of the housing bubble and financial markets in the crises that attended the Great Recession caused the share of liability originating with the top one percent of taxpayers to fall from 43.1 percent in 2007 to 33.2 percent in 2009 on a constant-law basis. Over time the State has become increasingly reliant on its high-income taxpayers as a source of income tax revenues. The reformed State tax law enacted in December 2011 and effective with the 2012 tax year increased this proportion to 43.2 in its first year, a recent high. While income shifting in conjunction with federal tax law changes in December 2012 helped bring the proportion for 2013 down to 39.9 percent, the proportion rebounded to 42 percent in 2014. The Budget Division expects it to remain there in 2015 before slipping to 41.5 percent in 2016 and 41.3 percent in 2017. Income shifting again seems to have been in play, as the proportion of liability accounted for by the top one percent anticipates that the proportion will recover to 40.4 percent in 2018.

The complex interaction between tax policy and taxpayer behavior is only one example of how changes in the economy, government policy, or the institutional practices of firms (i.e., the timing and types, not to mention the size, of bonus payments) that affect a small number of taxpayers in the high-income groups can have disproportionately large effects on State tax revenues. A particular concern to New York State, of course, is the severe limits that the new Tax Cuts and Jobs

Act (TCJA) imposes on itemized deductions, especially the deduction for State and local taxes, including the property tax, and concerns also arise as to how the law will operate in practice, given the very rushed and confused way in which it was negotiated and enacted.

TABLE 7
PERCENT DISTRIBUTION OF RETURNS, LIABILITY AND AGI BY INCOME GROUPS UNDER CURRENT LAW

Income Group	2015 (Actual)			2018 (Forecast)		
	Returns	Liability	AGI	Returns	Liability	AGI
0 - \$50,000	64.2	3	12.5	61.8	2.6	13.2
\$50,000 - \$100,000	19.2	13.4	17.6	19.9	12.9	16.7
\$100,000 - \$200,000	11.1	18.4	19.7	12.1	18.3	19.6
\$200,000 - \$1,000,000	4.9	25.2	22.8	5.7	26.2	23.8
\$1,000,000 and above	0.6	40	27.5	0.6	39.9	26.8

Source: NYS Department of Taxation and Finance; DOB staff estimates.

TABLE 8
CHANGES IN THE SHARE OF LIABILITY ORIGINATING WITH THE TOP ONE PERCENT OF NYS TAXPAYERS

Year	1995-2002, 2006-08 Tax Law			2003-05, 2009-11 Brackets and Rates; Reformed Law Begins in 2012		
	Liability, Top 1 Percent (millions)	Liability, All Taxpayers (millions)	Top 1 Percent Share of Total Liability	Liability, Top 1 Percent (millions)	Liability, All Taxpayers (millions)	Top 1 Percent Share of Total Liability
2004	8,487	24,218	35.0%	9,607	25,769	37.3%
2005	9,794	26,741	36.6%	11,093	28,481	38.9%
2006	11,539	29,587	39.0%	--	--	--
2007	15,195	35,215	43.1%	--	--	--
2008	11,890	31,621	37.6%	--	--	--
2009	9,138	27,522	33.2%	12,194	31,166	39.1%
2010	10,548	30,349	34.8%	14,282	34,834	41.0%
2011	10,733	31,596	34.0%	14,513	36,296	40.0%
2012	12,976	35,258	36.8%	16,408	38,017	43.2%
2013	11,925	35,214	33.9%	14,913	37,331	39.9%
2014	13,945	39,643	35.2%	17,590	41,910	42.0%
2015	14,297	41,795	34.2%	18,019	43,503	41.4%
2016*	13,244	40,513	32.7%	16,650	42,304	39.4%
2017*	14,674	43,984	33.4%	18,515	45,844	40.4%
2018*	15,741	46,664	33.7%	19,803	48,452	40.9%

* Estimated

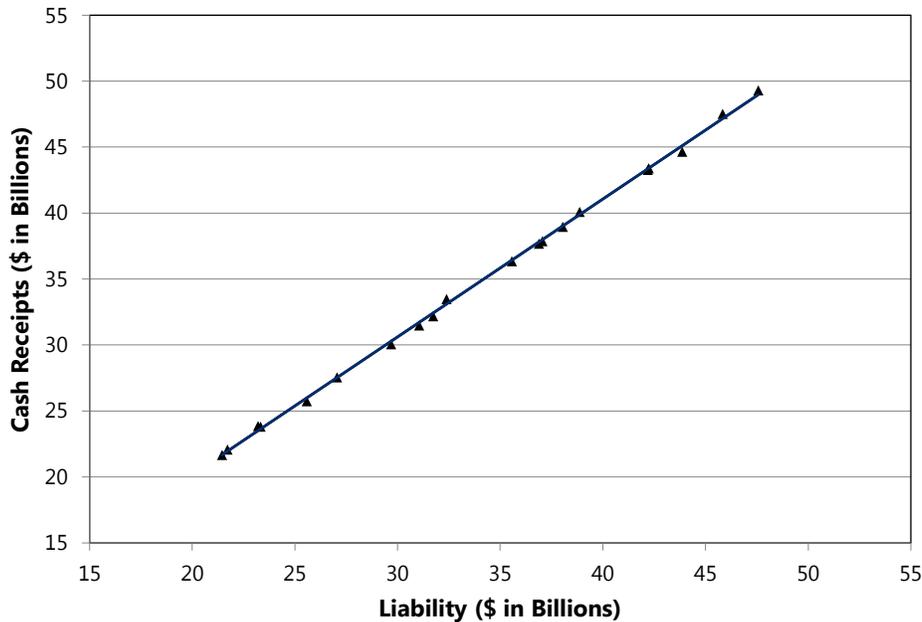
Notes: The 2003-2005 surcharges expired at the end of the 2005 tax year; the 2009-2011 brackets and rates expired at the end of the 2011 tax year.

Source: NYS Department of Taxation and Finance, DOB staff estimates.

Tax Liability and Cash Payments

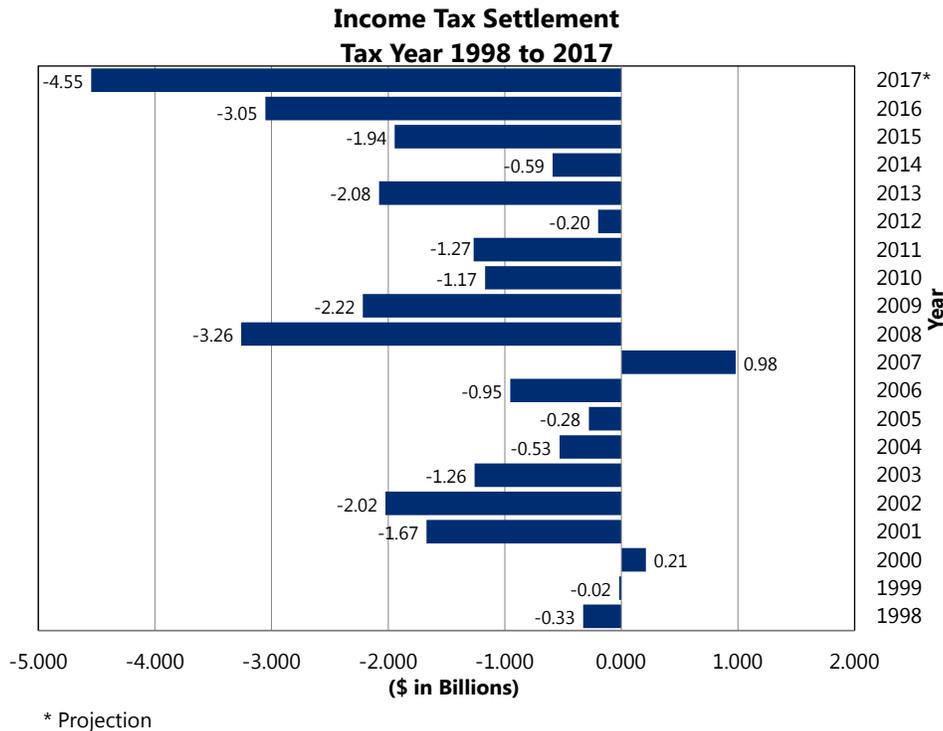
Although significant risks necessarily remain in any estimates of income tax liability, the estimation of the level of tax liability for a particular tax year leads, with a high degree of confidence, to the approximate level of cash receipts that can be expected for the particular tax year. The consistency in this relationship is shown in the graph below, which shows a trend line for the history of liability and cash receipts beginning in 1998, and data points to denote actual liability and cash results or estimates.

**PIT Liability vs. PIT Cash Receipts
1999-2018 Tax Year**



Despite the strong relationship between tax-year liability and cash receipts, estimation of cash payments is subject to an important complication that pervades forecasts for the Executive Budget and other State Financial Plan updates. This complication is determining the portions of tax-year liability that will occur in particular State fiscal years. Income tax prepayments – withholding tax and quarterly estimated tax payments – tend to be received not long after income is earned. For example, most withholding tax payments and quarterly estimated tax payments for the 2017 tax year will be received before the end of FY 2018. Settlement payments – those payments received when taxpayers file final returns for a tax year – tend to be received in the next State fiscal year after the end of a tax year. Thus, settlement payments for the 2017 tax year will be received largely in FY 2019.

As is evident in the following graph showing net settlement payments for the 1997 through 2016 tax years, the amount of liability received in the settlement can vary widely from year to year. In most years, the net settlement has been very negative, with State settlement outlays (such as refunds and offsets) far exceeding taxpayer settlement payments (such as those sent with returns and extension requests). There have been some important exceptions to this pattern – most notably during times of tax reform and rapid economic growth, and during periods with large increases in non-wage income.



The income tax settlement varies significantly on a year-to-year basis, but is typically negative, and has been consistently negative since tax year 2008. Due to the recessionary economic environment, the 2008 settlement was extremely negative (\$3.26 billion). The significantly less negative 2009 settlement (\$2.22 billion) was the result of an income tax surcharge that went into effect part-way through the tax year. Due to strong extension payments, the 2010 settlement ended at a smaller negative \$1.17 billion. Extension payments declined in 2011, leading to a slightly more negative net settlement of \$1.27 billion. In 2012, strong end-of-year capital gains realizations (due to impending Federal Tax Law changes) led to record-high April extension payments, improving the settlement to negative \$200 million. The net settlement for tax year 2013 shifted to a firmly negative \$2.08 billion, the result of a nearly 35 percent decline in extension payments following an inflated 2012 base. Driven by robust growth in nonwage income, extension payments and final returns related to tax year 2014 grew rapidly while refund payments increased conservatively, ultimately improving the net settlement to approximately negative \$590 million.

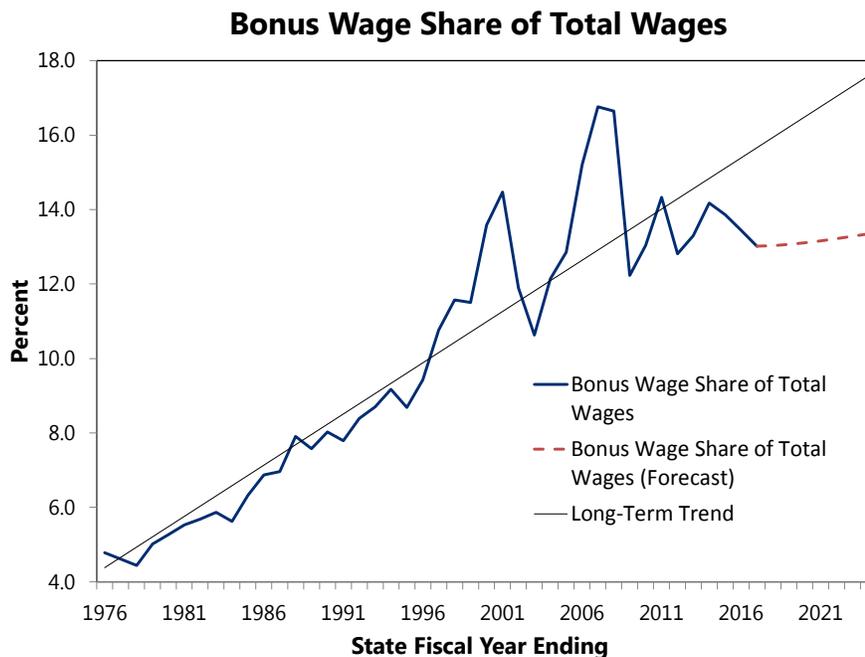
The alteration in Family Tax Relief credit payment timing, from an advanced credit to a “standard” credit, provided strong growth in current refunds related to tax year 2015. This was coupled with a correction of quarterly estimated payment overpayment, in the form of a year-over-year decline in extension payments, resulting in a net settlement of negative \$1.94 billion. In 2016, the settlement was more negative (\$2.84 billion), primarily due to a second consecutive extension payment decline. Unlike the tax year 2015 extension decline, the tax year 2016 extension decline was the result of a decline in overall nonwage income, including particularly weak capital gains income. The tax year 2017 settlement is expected to slightly improve to negative \$2.65 billion, attributable to a year-over-year increase in combined extensions and final payments that exceeds the increase in refunds. The anticipated growth in tax year 2017 refunds is partly attributable to

the STAR program-benefit conversion from reduced New York City income tax rates to a New York State income tax credit.

Withholding Risk

Bonus wages are typically concentrated among high income earners who are withheld at relatively high tax rates, resulting in more revenue per dollar of bonus wage income than revenue per dollar of non-bonus wage income. Bonus payments have historically been volatile, but the long-term trend shows an increasing bonus share of total wages due to bonus growth that, on average, has exceeded growth in non-bonus wages. This trend explains, in part, long-term constant-law quarterly withholding elasticities that range between 1.21 and 1.27.

In recent years, the bonus share rate of change has fallen below the long-term trend and is projected to remain below that trend over the forecast horizon. If a new long-term trend is emerging, one in which bonus payments grow at a rate that is similar to that of non-bonus growth, forward-looking elasticity expectations should be reduced. Too few historical data points exist to conclusively demonstrate that a structural shift has taken place, but the possibility of a new wage-withholding relationship remains a significant risk.



For a more detailed discussion of the methods and models used to develop estimates and projections for the PIT, please see the *Economic, Revenue, and Spending Methodologies* at www.budget.ny.gov.

Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$34,077 million, an increase of \$1,199 million (3.6 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$50.9 billion, an increase of \$3.4 billion (7.1 percent) from FY 2017. This primarily reflects moderate growth in withholding and exceptionally strong growth in current estimated payments for tax year 2017, partially offset by declines in extension (i.e., prior year estimated) payments for tax year 2016 and final returns, coupled with substantial growth in total refund payments.

Withholding in FY 2018 is projected to be \$1.9 billion (5.2 percent) higher compared to the prior year, reflecting modest growth in both bonus and non-bonus wage growth. Total estimated payments are expected to increase by \$2.8 billion (18.4 percent). Estimated payments for tax year 2017 are projected to increase by \$3.4 billion (30.8 percent), driven by a combination of 9.9 percent growth in nonwage income and taxpayer behavior, stemming from the Federal tax reform and expiration of a Federal ten-year window to repatriate foreign hedge fund earnings. The Tax Cuts and Jobs Act (TCJA) of 2017, among its many provisions, caps deductible state and local taxes paid at \$10,000 annually, beginning tax year 2018. The partial loss of deductibility of taxes paid, beginning January 1, 2018, has prompted taxpayers to accelerate payments into December 2017. These December payments will most directly translate into a reduction in April 2018 extension payments, since the TCJA provides tremendous disincentive for taxpayers to wait until filing extensions or final returns to reconcile liability underpayment with the State. Extension payments (i.e., prior year estimated) for tax year 2016 declined \$604 million (14.9 percent). Delinquent collections are projected to be \$8 million (0.5 percent) lower, and final return payments are projected to decrease by \$147 million (5.7 percent).

The increase in total refunds of \$1.2 billion (13.1 percent) reflects increases of \$1.1 billion (21.9 percent) in prior year refunds related to tax year 2016, \$26 million (5.5 percent) in refunds related to tax years previous to 2016 and \$11 million (1.6 percent) in advanced credit payments attributable to tax year 2017, partially offset by a \$3 million (0.4 percent) decrease in the State City offset. Current year refunds related to tax year 2017 (the January to March 2018 administrative refund cap) are projected to remain flat at \$1.75 billion. The strong growth in prior refunds related to tax year 2016 reflects an \$800 million decline in the administratively determined refund “cap” between FY 2016 and FY 2017.

Table 9 shows the components of the PIT from FY 2017 through FY 2019.

TABLE 9
FISCAL YEAR COLLECTION COMPONENTS
ALL FUNDS
(millions of dollars)

	FY 2017	FY 2018	FY 2019
	(Actual)	(Estimated)	(Projected)
Receipts			
Withholding	37,524	39,459	41,314
Estimated Payments	14,972	17,734	14,921
Current Year	10,912	14,278	12,729
Prior Year*	4,060	3,456	2,192
Final Returns	2,588	2,441	2,599
Current Year	261	271	286
Prior Year*	2,328	2,170	2,313
Delinquent Collections	1,434	1,426	1,500
Gross Receipts	56,518	61,060	60,334
Refunds			
Prior Year*	5,199	6,338	6,699
Previous Years	474	500	522
Current Year*	1,750	1,750	1,750
Advanced Credit Payment	678	689	1,247
State-City Offset*	851	848	873
Total Refunds	8,952	10,125	11,091
Net Receipts	47,566	50,935	49,243

* These components, collectively, are known as the "settlement" on the prior year's tax liability.

The primary risks to the FY 2018 receipts estimate result from uncertainty surrounding both bonus payments paid by financial services companies and the fourth quarterly estimated tax payment. With respect to financial sector bonuses, a large portion of these payments are typically paid in the last quarter of the state fiscal year. Consequently, complete information about such payments is not available when Budget estimates are constructed. Similarly, the fourth quarterly estimated tax payment is consistently the largest payment, and a significant portion of this revenue is not received until after the Division's forecast has been produced. Shifting of payments from January into December, in response to the Tax Cuts and Jobs Act of 2017, further enhances the risk for fourth quarterly estimated tax payments, as the magnitude of shifting remains uncertain.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$49.2 billion, a decrease of \$1.7 billion (3.3 percent) from FY 2018.

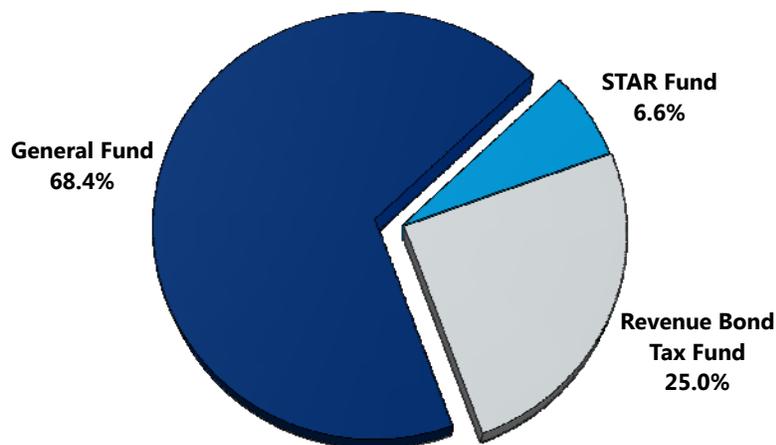
This decrease primarily reflects a decline of \$2.8 billion (15.9 percent) in total estimated payments and a \$966 million (9.5 percent) increase in total refunds, partially offset by a \$1.9 billion (4.7 percent) increase in withholding. The decrease in total estimated payments is inclusive of a \$1.5 billion (10.8 percent) decline in current estimated payments related to tax year 2018 and a \$1.3 billion (36.6 percent) decline in extension (i.e., prior year estimated) payments for tax year 2017. The decreases in both current estimated and extension payments are driven by one-time taxpayer behavioral changes in response to the Tax Cuts and Jobs Act of 2017. The acceleration of tax year 2017 estimated payments in December 2017 is expected to translate into a direct reduction of April 2018 extension payments. Current estimated payments for tax year 2018 are expected to decline as taxpayer behavior shifts back to a pattern consistent with historical norms, with extension payments representing a greater percentage of total tax year 2018 estimated payments than the extension share of total tax year 2017 estimated payments.

The increase in total refunds is driven by the combination of prior year refunds related to tax year 2017, which will include refunds derived from the first year of the NYC STAR PIT rate benefit conversion credit, and advanced credit payments related to tax year 2018, which will grow substantially in response to an estimated \$504 million year-over-year increase in Property Tax Relief Credit payments. The growth in withholding is driven by projected FY 2019 wage growth of 4.2 percent. The underlying growth in estimated payments related to tax year 2018 is in response to projected nonwage income growth of 5.5 percent.

Payments from final returns are expected to increase \$158 million (6.5 percent) and delinquent collections are projected to increase by \$74 million (5.2 percent) compared to the prior year. The aforementioned increase in total refunds of \$966 million reflects increases of \$361 million (5.7 percent) in prior year refunds for tax year 2017, \$25 million (2.9 percent) in State-City offsets, \$558 million (81 percent) in advanced credit payments for tax year 2018, and \$22 million (4.4 percent) in previous years' refunds related to tax returns prior to 2017.

All Funds FY 2019 receipts are inclusive of \$6 million in increased revenue from FY 2019 Executive Budget proposals. Delinquent collections include \$3 million attributable to the proposal to allow the payment of fixed and final unwarranted debt against unclaimed funds. Previous years refunds related to tax returns prior to 2017 are reduced by \$3 million due to the proposal to extend the statute of limitations on amended returns.

**Fund Shares of Net Receipts
2016-17**



General Fund

General Fund net PIT receipts are estimated to be \$35,616 million in FY 2018 and are projected to be \$34,523 million in FY 2019.

Other Funds

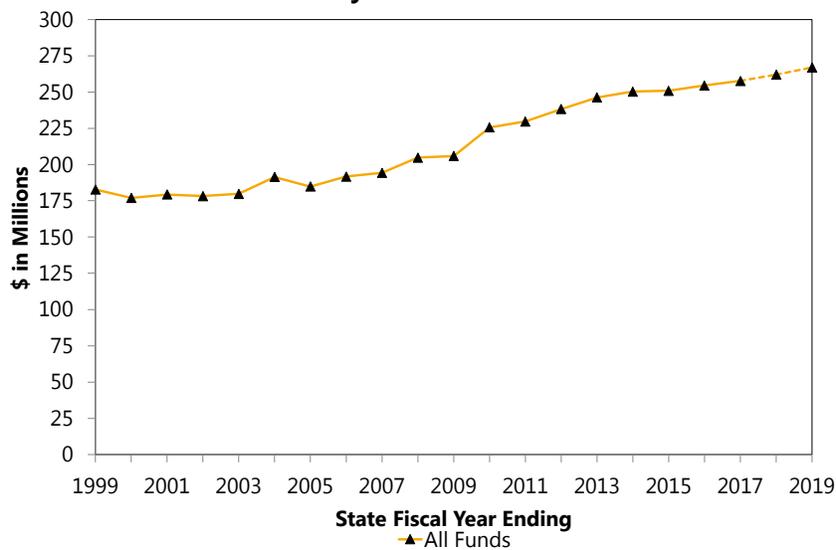
In FY 2018 and FY 2019, respectively, dedicated PIT receipts of \$2,585 million and \$2,410 million will be deposited into the School Tax Relief Fund (STAR). The decline in FY 2019 deposits is attributable to the ongoing conversion of STAR homeowner benefits into a PIT credit for new and relocating homeowners. The STAR Transformation credit was enacted as part of the FY 2017 Budget, and conversion will continue indefinitely. The FY 2019 School Tax Relief Fund projection is inclusive of an \$85 million reduction from FY 2019 Executive Budget proposals.

In FY 2018 and FY 2019, respectively, dedicated receipts of \$12,734 million and \$12,311 million will be deposited into the Revenue Bond Tax Fund (RBTF). This decrease reflects the decline in net income tax collections upon which the RBTF is based.

ALCOHOLIC BEVERAGE TAXES (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	257.7	262.0	4.3	1.7	267.0	5.0	1.9
Other Funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All Funds	257.7	262.0	4.3	1.7	267.0	5.0	1.9

Note: Totals may differ due to rounding.

Alcoholic Beverage Tax Receipts History and Estimates



ALCOHOLIC BEVERAGE TAXES BY FUND (thousands of dollars)				
	Gross General Fund		General Fund	All Funds Receipts
	Fund	Refunds	Fund	
FY 2009	205,913	5	205,908	205,908
FY 2010	225,647	87	225,560	225,560
FY 2011	229,698	0	229,698	229,698
FY 2012	238,379	116	238,263	238,263
FY 2013	246,240	23	246,217	246,217
FY 2014	250,312	6	250,306	250,306
FY 2015	250,871	12	250,859	250,859
FY 2016	254,551	3	254,548	254,548
FY 2017	257,702	24	257,678	257,678
Estimated				
FY 2018	262,100	100	262,000	262,000
FY 2019				
Current Law	267,100	100	267,000	267,000
Proposed Law	267,100	100	267,000	267,000

Proposed Legislation

Legislation proposed with this Budget would allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions.

Description

Tax Base and Rate

New York State imposes excise taxes at various rates on liquor, beer, wine and specialty beverages.

STATE TAX RATES (dollars per unit of measure)		
Liquor over 24 percent alcohol	1.70	per liter
All other liquor with more than 2 percent alcohol	0.67	per liter
Liquor with not more than 2 percent alcohol	0.01	per liter
Naturally sparkling wine	0.30	per gallon
Artificially carbonated sparkling wine	0.30	per gallon
Still wine	0.30	per gallon
Beer with 0.5 percent or more alcohol	0.14	per gallon
Cider with more than 3.2 percent alcohol	0.04	per gallon

Administration

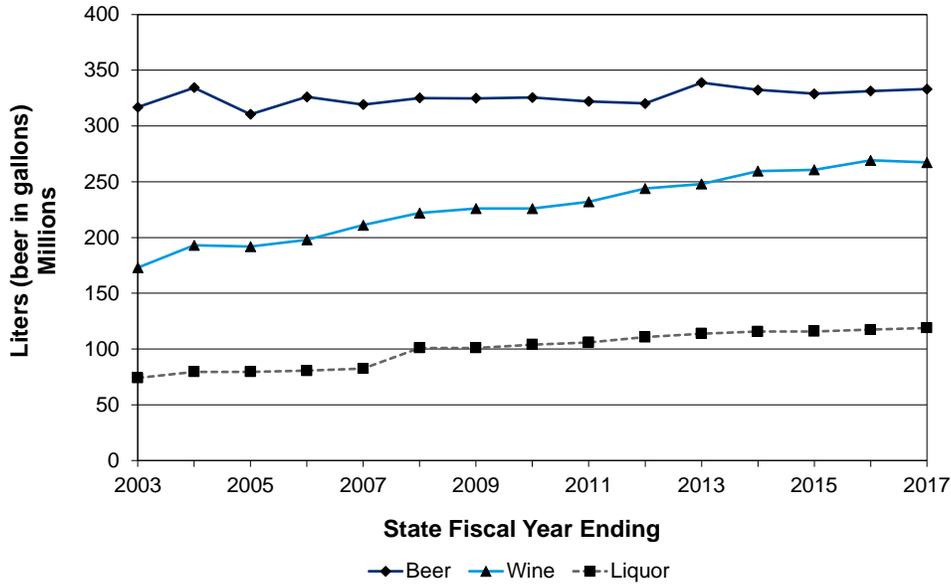
Generally, the tax is remitted by licensed distributors and noncommercial importers of such beverages in the month following the month of delivery. Small taxpayers file the tax annually.

Significant Legislation

Significant statutory changes to this tax since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2012		
Small Brewers' Tax Credit	Repealed the exemption for certain small brewers, and replaced the benefit with personal income and business tax credits.	March 28, 2012
Legislation Enacted in 2016		
Tasting Exemptions	Exempted any product used in on-site tastings from the alcoholic beverage tax.	March 31, 2016

Total Consumption of Alcoholic Beverages



Tax Liability

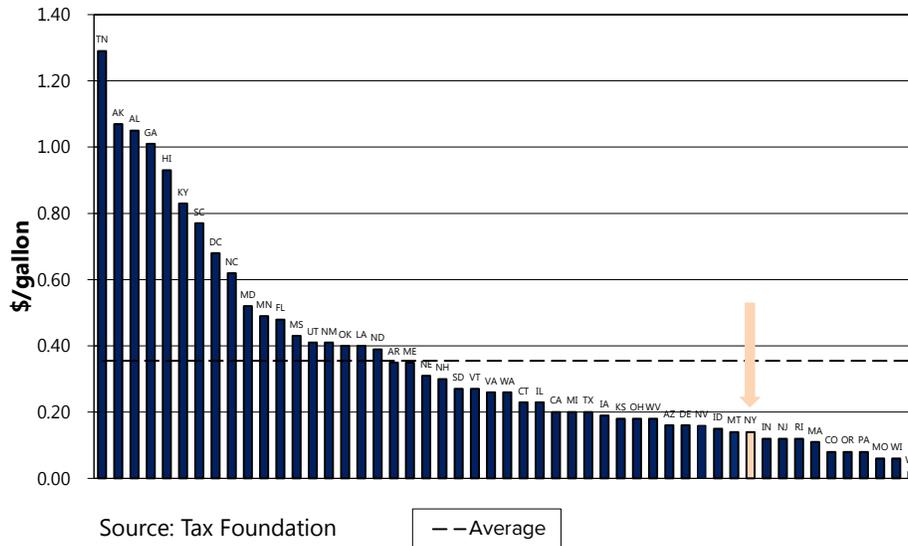
Generally, consumption of taxed wine and liquor has slightly increased annually since FY 2008, while taxable beer consumption has remained relatively flat, with a few exceptions, during the same period.

Other States

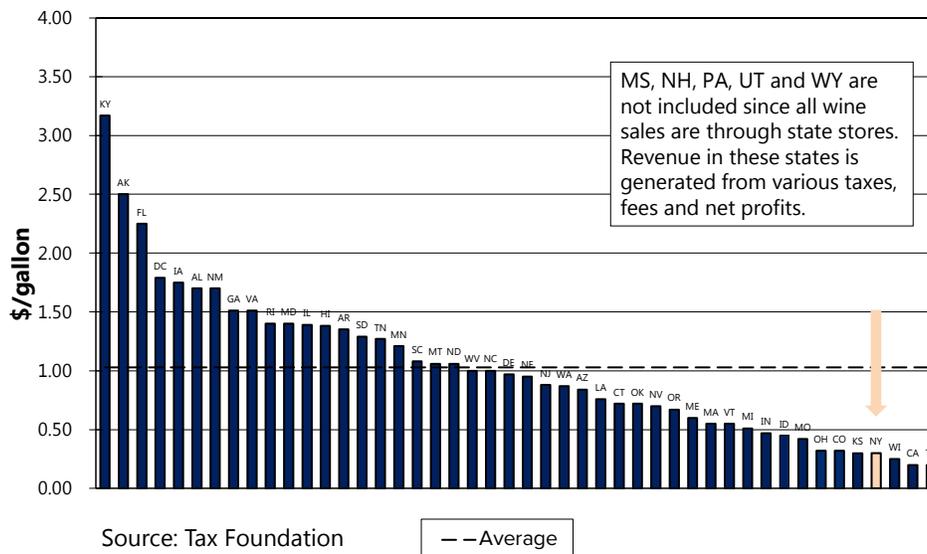
Compared with the alcohol tax rates in the other states in the nation, New York State currently has:

- The eleventh lowest beer tax;
- The fourth lowest wine tax (of those participating states); and
- The twenty-first highest liquor tax (of those participating states).

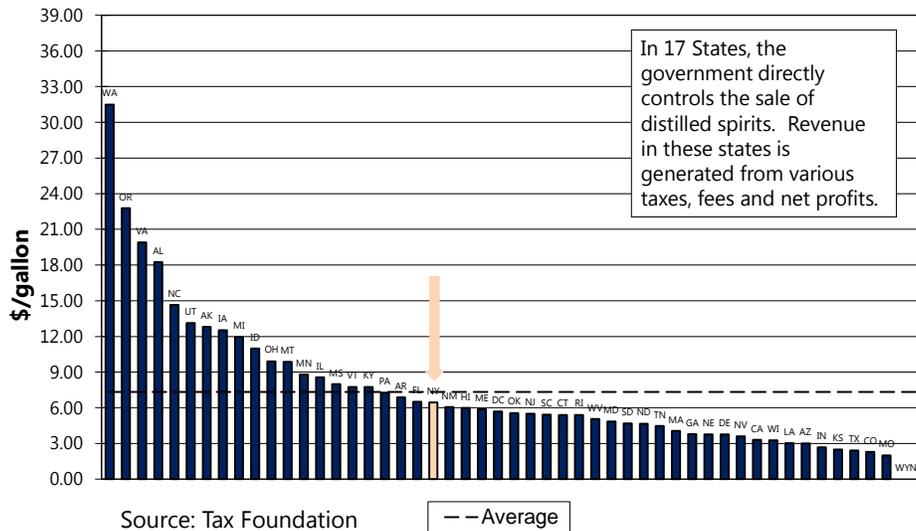
Beer Tax Rates by State (January 2017)



Wine Tax Rates by State (January 2017)



Liquor Tax Rates by State (January 2017)



Note: 17 States have direct control over the sale of distilled spirits. The implied excise tax rate is calculated using methodology designed by the Distilled Spirits Council of the United States (DISCUS).

The New York State tax on liquor is relatively high compared to other forms of alcohol, but still below the average of all states. The alcoholic beverage enforcement provisions summarized below have provided some protection to the State’s liquor industry and tax base, thereby improving State alcoholic beverage tax receipts.

Alcoholic Beverage Tax Enforcement Provisions

Violations	Volume	Penalties
Import liquor without registration		Class A misdemeanor
Produce, distill, manufacture, compound, mix or ferment liquors without registration or tax payments		Class A misdemeanor
Cause liquor covered by a warehouse receipt to be removed from a warehouse		Class A misdemeanor
Three or more above violations in a five-year period		Class E felony
Import liquor without registration	More than 360 liters within one year	Class E felony
Produce, distill, manufacture, compound, mix or ferment liquors without registration or tax payments	More than 360 liters within one year	Class E felony
Cause liquor covered by a warehouse receipt to be removed from a warehouse	More than 360 liters within one year	Class E felony

Violations	Volume	Penalties
Custody, possession or control of liquor without registration or tax payments		Class B misdemeanor
Custody, possession or control of liquor without registration or tax payments	Exceeds 360 liters	Class E felony
Import liquor without registration	More than 90 liters	Seize transportation vehicles and liquor.
Distribute or hold liquor for sale without paying alcoholic beverage taxes	More than 90 liters	Seize transportation vehicles and liquor.
Failure by a distributor to pay the tax		10 percent of the tax amount due, plus 1 percent each month after the expiration. The penalty shall not be less than \$100 but shall not exceed 30 percent in aggregate.
Failure by any other person to pay the tax		50 percent of the tax amount due, plus 1 percent each month after the expiration. The penalty shall not be less than \$100.

For a more detailed discussion of the methods and models used to develop estimates and projections for the alcohol beverage taxes, please see the *Economic, Revenue, and Spending Methodologies* at www.budget.ny.gov.

Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$196.6 million, an increase of \$1.6 million (0.8 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$262 million, an increase of \$4.3 million (1.7 percent) from FY 2017. Estimated growth is primarily based on the continuation of recent wine and liquor consumption trends.

Total estimated receipts are composed of \$193.8 million from liquor, \$47.3 million from beer, and \$20.9 million from wine and other taxed beverages.

COMPONENTS OF ALCOHOLIC BEVERAGE TAXES RECEIPTS (millions of dollars)							
	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Estimated FY 2018	Projected FY 2019
Beer	47.6	46.7	46.0	46.5	47.1	47.3	47.6
Liquor	179.5	183.8	185.4	188.0	190.3	193.8	198.0
Wine and Other	19.1	19.8	19.5	20.0	20.3	20.9	21.4
Total	246.2	250.3	250.9	254.5	257.7	262.0	267.0

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$267 million, an increase of \$5 million (1.9 percent) from FY 2018.

Liquor and wine consumption is expected to grow modestly, while beer consumption is expected to remain relatively flat.

Total projected alcoholic beverage tax receipts are composed of \$198 million from liquor, \$47.6 million from beer, and \$21.4 million from wine and other specialty beverages.

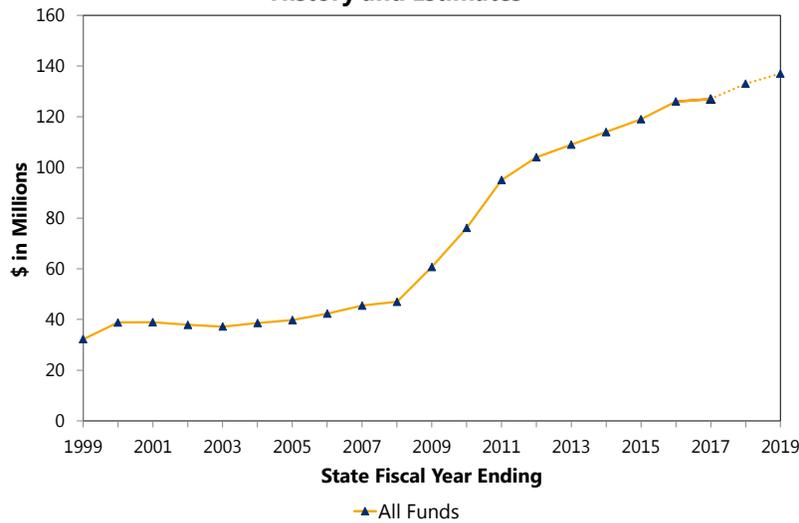
General Fund

Currently, all receipts from the alcoholic beverage tax are deposited in the General Fund.

AUTO RENTAL TAX (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Funds	127.0	133.0	6.0	4.7	137.0	4.0	3.0
All Funds	127.0	133.0	6.0	4.7	137.0	4.0	3.0

Note: Totals may differ due to rounding.

Auto Rental Tax Receipts History and Estimates



AUTO RENTAL TAX BY FUND (millions of dollars)			
	Capital Project Funds ¹	Special Revenue Funds ²	All Fund Receipts
FY 2009	61	0	61
FY 2010	52	24	76
FY 2011	60	35	95
FY 2012	65	39	104
FY 2013	68	41	109
FY 2014	71	43	114
FY 2015	74	45	119
FY 2016	79	47	126
FY 2017	78	49	127
Estimated			
FY 2018	85	48	133
FY 2019			
Current Law	87	50	137
Proposed Law	87	50	137

¹ Dedicated Highway and Bridge Trust Fund.
² MTA Aid Trust Account.

Proposed Legislation

Legislation proposed with this Budget would allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions.

Description

Tax Base and Rate

On June 1, 1990, the State imposed a 5 percent tax on charges for the rental or use in New York State of a passenger car with a gross vehicle weight of 9,000 pounds or less. On June 1, 2009, the rate was increased to 6 percent and a supplemental tax at the rate of 5 percent was imposed on the receipts from the rental of a passenger car within the Metropolitan Commuter Transportation District (MCTD). For more information, please see the Metropolitan Transportation Authority (MTA) Financial Assistance Fund Receipts Section.

The auto rental tax applies to a vehicle rented by a resident or a nonresident, regardless of where the vehicle is registered. The tax does not apply to a car lease covering a period of one year or more.

Administration

The auto rental tax is remitted quarterly by the vendor on the vendor's sales tax return to the Department of Taxation and Finance.

Tax Liability

Receipts from the auto rental tax are influenced by the overall health of the economy, particularly consumer and business spending on travel. Unusual events that affect travel have had a significant influence on receipts.

For a more detailed discussion of the methods and models used to develop estimates and projections for the auto rental tax, please see the *Economic, Revenue, and Spending Methodologies* at www.budget.ny.gov.

Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$107 million, an increase of \$2.7 million (2.5 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$133 million, an increase of \$6 million (4.7 percent) from FY 2017. This growth reflects a continuing increase in New York tourism spending.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$137 million, an increase of \$4 million (3 percent) from FY 2018. This increase reflects projected growth in New York tourism spending.

General Fund

No auto rental tax receipts are deposited into the General Fund.

Other Funds

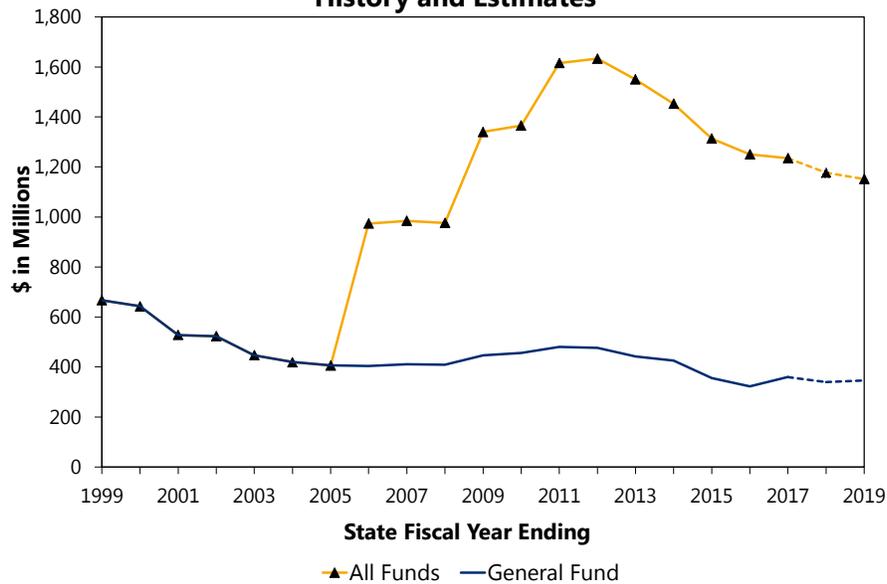
All receipts from the State auto rental tax are deposited to the Dedicated Highway and Bridge Trust Fund. Receipts are estimated to be \$85 million in FY 2018 and \$87 million in FY 2019.

All receipts from the supplemental tax on passenger cars in the MCTD are deposited to the MTA Aid Trust Account of the MTA Financial Assistance Fund. Receipts are estimated to be \$48 million in FY 2018 and \$50 million in FY 2019.

CIGARETTE AND TOBACCO TAXES (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	359.7	340.0	(19.7)	(5.5)	346.0	6.0	1.8
Other Funds	875.6	837.0	(38.6)	(4.4)	806.0	(31.0)	(3.7)
All Funds	1,235.2	1,177.0	(58.2)	(4.7)	1,152.0	(25.0)	(2.1)

Note: Totals may differ due to rounding.

Cigarette and Tobacco Taxes Receipts History and Estimates



CIGARETTE AND TOBACCO TAXES BY FUND (millions of dollars)					
	Gross General Fund		General Fund	Special Revenue Funds	All Funds Receipts
	Fund	Refunds	Fund	Funds	Receipts
FY 2009	447	1	446	894	1,340
FY 2010	457	1	456	910	1,366
FY 2011	481	1	480	1,136	1,616
FY 2012	472	1	471	1,162	1,633
FY 2013	447	4	443	1,108	1,551
FY 2014	428	2	426	1,027	1,453
FY 2015	389	34	355	958	1,313
FY 2016	373	51	322	928	1,250
FY 2017	364	4	360	876	1,235
Estimated					
FY 2018	351	11	340	837	1,177
FY 2019					
Current Law	339	8	331	806	1,137
Proposed Law	354	8	346	806	1,152

Proposed Legislation

Legislation proposed with this Budget would:

- Improve cigar tax enforcement;
- Impose a health tax on vapor products; and
- Allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions.

Description

Tax Base and Rate

The New York State cigarette excise tax is imposed by Article 20 of the Tax Law on the sale or use of cigarettes within the State. The current tax rate is \$4.35 per package of 20 cigarettes.

The Federal government imposes a cigarette excise tax at a rate of \$1.01 per pack on manufacturers and first importers of cigarettes. New York City also levies a separate cigarette excise tax of \$1.50 per pack.

STATE, FEDERAL AND NEW YORK CITY CIGARETTE EXCISE TAX RATES Per Pack of 20 Cigarettes (since 1950)					
State	Rate	Federal	Rate	New York City	Rate
	(cents)		(cents)		(cents)
July 1, 1939	2	Before November 1, 1951	7	Before May 1, 1959	1
January 1, 1948	3	November 1, 1951	8	May 1, 1959	2
April 1, 1959	5	January 1, 1983	16	June 1, 1963	4
April 1, 1965	10	January 1, 1991	20	January 1, 1976	8
June 1, 1968	12	January 1, 1993	24	July 2, 2002	150
February 1, 1972	15	January 1, 2000	34		
April 1, 1983	21	January 1, 2002	39		
May 1 1989	33	April 1, 2009	101		
June1 1990	39				
June 1, 1993	56				
March 1, 2000	111				
April 3, 2002	150				
June 3, 2008	275				
July 1, 2010	435				

The State also imposes a tax on other tobacco products, such as chewing tobacco, snuff, cigars, pipe tobacco and roll-your-own cigarette tobacco, at a rate of 75 percent of their wholesale price except for snuff products, which are taxed at a rate of \$2.00 per ounce. Cigars with a weight of less than 4 pounds per 1,000 are taxed at a rate equivalent to the state cigarette tax. The Federal government also imposes an excise tax on manufacturers and importers of tobacco products at various rates, depending on the type of product.

Retail establishments that sell cigarettes are required to register with the Department of Taxation and Finance. Vending machine owners are required to purchase stickers from the Department. The following table provides a comparison of state cigarette tax rates.

CIGARETTE TAX RATES			
Cents Per Pack Ranked by State Tax Rate			
As of November 7, 2017			
Rank (High to Low)	State Rate	Rank (High to Low)	State Rate
Connecticut	435.0	Ohio	160.0
New York	435.0	South Dakota	153.0
Rhode Island	425.0	Texas	141.0
Massachusetts	351.0	Iowa	136.0
Hawaii	320.0	Florida	133.9
Vermont	308.0	Oregon	133.0
Minnesota	304.0	Kansas	129.0
Washington	302.5	West Virginia	120.0
California	287.0	Arkansas	115.0
New Jersey	270.0	Louisiana	108.0
Pennsylvania	260.0	Oklahoma	103.0
Wisconsin	252.0	Indiana	99.5
DC	250.0	Colorado	84.0
Delaware	210.0	Mississippi	68.0
Alaska	200.0	Alabama	67.5
Arizona	200.0	Nebraska	64.0
Maine	200.0	Tennessee	62.0
Maryland	200.0	Kentucky	60.0
Michigan	200.0	Wyoming	60.0
Illinois	198.0	Idaho	57.0
Nevada	180.0	South Carolina	57.0
New Hampshire	178.0	North Carolina	45.0
Montana	170.0	North Dakota	44.0
Utah	170.0	Georgia	37.0
New Mexico	166.0	Virginia	30.0
U.S. Median	160.0	Missouri	17.0

Source: www.tobaccofreekids.org.

Administration

State-registered stamping agents, who are mostly wholesalers, purchase tax stamps from the State and affix the stamps to cigarette packages to be sold by New York State registered retailers. The excise tax is paid by the stamping agent and is passed on. Purchasers of non-State stamped cigarettes, such as cigarettes sold out-of-State or on Native American lands, must remit the cigarette excise tax directly to the Department of Taxation and Finance. An individual may bring two cartons into the State without being subject to the excise tax.

Tax Evasion

Cigarette tax evasion is a serious problem in New York and throughout the Northeast. The most significant area of concern is the importation of cigarettes from low-tax states. Widespread evasion not only reduces State and local revenues, but also reduces the income of legitimate wholesalers and retailers. The Department of Taxation and Finance has acted vigorously to curb cigarette bootlegging through investigatory and enforcement efforts. These efforts may lead to less severe declines in taxable cigarette consumption than otherwise would have occurred.

In 2013, legislation was enacted that increased the penalty for possession of unstamped or unlawfully stamped cigarettes from \$150 per carton to \$600 per carton to reflect increases in the excise tax on cigarettes and to strengthen the deterrent effect in the current environment.

In 2014, a multi-agency task force was formed to reduce illegal tobacco trafficking and sales. The multi-agency Cigarette Strike Force is composed of state, local and federal agencies dedicated to stopping the influx of counterfeit and untaxed tobacco products into New York. The Strike Force also focuses on tracing any illicit financial earnings from that criminal activity.

Significant Legislation

Significant statutory changes to cigarette and tobacco taxes since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2013		
Cigarette Tax	Increased the penalty for possession of unstamped or unlawfully stamped cigarettes from a maximum of \$150 per carton or fraction of a carton to a maximum of \$600 per carton or fraction of a carton.	June 1, 2013

Tax Liability

Taxable cigarette consumption is a function of retail cigarette prices and a long-term downward trend in consumption. The decline in consumption reflects the impact of increased public awareness of the adverse health effects of smoking, smoking restrictions imposed by governments, anti-smoking education programs, and changes in consumer preferences toward other types of tobacco.

For a more detailed discussion of the methods and models used to develop estimates and projections for the cigarette and tobacco taxes, please see the *Economic, Revenue, and Spending Methodologies* at www.budget.ny.gov.

Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$917.6 million, a decrease of \$53.3 million (5.5 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$1,177 million, a decrease of \$58.2 million (4.7 percent) from FY 2017.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$1,152 million, a decrease of \$25 million (2.1 percent) from FY 2018.

Health Care Reform Act (HCRA)

Currently, 76 percent of the proceeds from the State cigarette tax of \$4.35 per pack are deposited in the HCRA Resources Pool.

HCRA preliminary receipts through December are \$651.3 million, a decrease of \$35.2 million (5.1 percent) from the comparable period in the prior fiscal year. HCRA FY 2018 receipts are estimated to be \$837 million, a decrease of \$38.6 million (4.4 percent) from FY 2017, due to a continued trend decline in cigarette consumption (as discussed under the Tax Liability section).

HCRA FY 2019 receipts are projected to be \$806 million, a decrease of \$31 million (3.7 percent) from FY 2018, due to a continuation of the aforementioned trend decline.

As part of the agreement allowing New York City to increase its cigarette tax from eight cents to \$1.50 per pack in July 2002, the City provides the State with 46 percent of the receipts generated from its tax. These receipts are deposited into the HCRA Resources Pool. The New York State share of the City's cigarette tax is projected to be \$32 million in FY 2018 and \$30 million in FY 2019.

General Fund

General Fund preliminary receipts through December are \$266.3 million, a decrease of \$18.1 million (6.4 percent) from the comparable period in the prior fiscal year.

General Fund FY 2018 receipts are estimated to be \$340 million, a decrease of \$19.7 million (5.5 percent) from FY 2017. Receipts from the cigarette tax are estimated to be \$264.4 million, a decrease of \$12.1 million (4.4 percent) from FY 2017. This decrease reflects declines in taxable consumption observed during the current fiscal year, at least in part due to bootlegging. Receipts from the tobacco products tax are estimated to decrease to \$68.6 million, as the estimated amount of large cigar refunds to be issued as a result of the change in the way the wholesale cigar tax is administered by the Department of Taxation and Finance is moderately higher compared to FY 2017.

Cigarette and Tobacco Taxes



Receipts from retail cigarette registrations are estimated to be \$7 million in FY 2018.

General Fund FY 2019 receipts are projected to be \$346 million, an increase of \$6 million (1.8 percent) from FY 2018. Cigarette tax receipts are projected to be \$254.6 million, a decrease of \$9.8 million (3.7 percent) from FY 2018. The cigarette tax decrease reflects a trend decline in cigarette consumption that has been reduced in part due to enforcement efforts of the Cigarette Strike Force. Tobacco products tax receipts are projected to be \$84.4 million, an increase of \$15.8 million (23 percent) from FY 2018. This projected increase is mainly the result of proposals to improve cigar tax enforcement (\$12 million) and impose a health tax on vapor products (\$3 million).

Receipts from retail registrations are projected to be \$7 million in FY 2019.

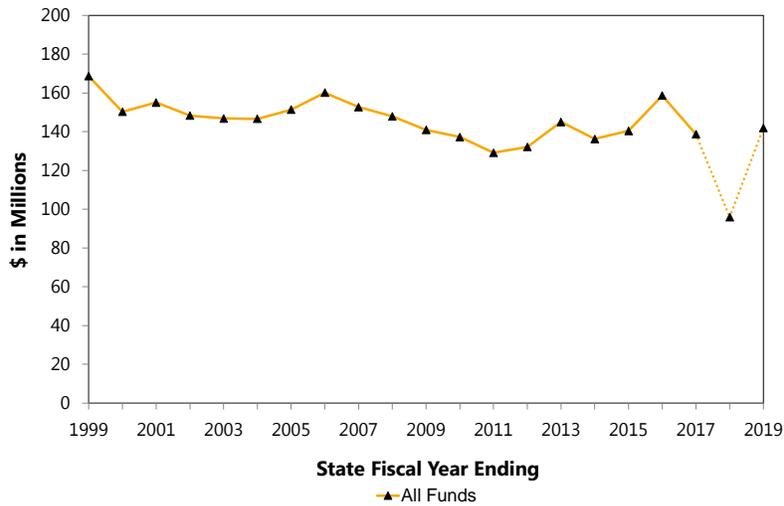
CIGARETTE AND TOBACCO TAXES RECEIPTS						
(millions of dollars)						
Fiscal Year	General Fund			Total	HCRA Cigarette Tax	General Fund Plus HCRA
	Cigarette Tax	Tobacco Tax	Other			
FY 2009	395	48	3	446	894	1,340
FY 2010	378	64	14	456	910	1,366
FY 2011	382	96	3	481	1,136	1,616
FY 2012	367	103	2	471	1,162	1,633
FY 2013	348	91	3	443	1,108	1,551
FY 2014	324	95	7	426	1,027	1,453
FY 2015	303	46	7	355	959	1,314
FY 2016	293	22	7	322	928	1,251
FY 2017	277	76	7	360	876	1,235
Estimated						
FY 2018	264	69	7	340	837	1,177
FY 2019	255	84	7	346	806	1,152

Note: Components may not add to total due to rounding.

HIGHWAY USE TAX (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Funds	138.7	96.0	(42.7)	(30.8)	142.0	46.0	47.9
All Funds	138.7	96.0	(42.7)	(30.8)	142.0	46.0	47.9

Note: Totals may differ due to rounding.

Highway Use Tax Receipts History and Estimates



HIGHWAY USE TAX COLLECTIONS BY FUND (millions of dollars)						
	Gross Capital Projects Funds ¹		Net Capital Projects Funds ¹		Special Revenue Funds ²	Net All Funds Receipts
		Refunds				
FY 2009	143	2	141		N/A	141
FY 2010	139	2	137		N/A	137
FY 2011	131	2	129		N/A	129
FY 2012	134	2	132		N/A	132
FY 2013	147	2	145		N/A	145
FY 2014	138	2	136		N/A	136
FY 2015	142	2	140		N/A	140
FY 2016	161	2	159		N/A	159
FY 2017	138	1	137		2	139
Estimated						
FY 2018	140	46	94		2	96
FY 2019						
Current Law	141	2	139		3	142
Proposed Law	141	2	139		3	142

¹ Dedicated Highway and Bridge Trust Fund.
² Highway Use Tax Administration Account.

Proposed Legislation

Legislation proposed with this Budget would allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions.

Description

Articles 21 and 21-A of the Tax Law impose a highway use tax on commercial vehicles using the public highways of the State. Highway use tax revenues are derived from three sources: the truck mileage tax, the fuel use tax and registration fees.

Truck Mileage Tax

The truck mileage tax (TMT) is levied on commercial vehicles having a loaded gross weight of more than 18,000 pounds, or an unloaded weight in excess of 8,000 pounds for trucks and 4,000 pounds for tractors. The tax is imposed at rates graduated according to gross vehicle weight. Under the gross weight method, the tax is calculated by multiplying the number of “laden” or “unladen” miles traveled on public highways of the State by the appropriate tax rate.

BASE TRUCK MILEAGE TAX RATES			
Gross Weight Method		Unloaded Weight Method	
Laden Miles		Unloaded Weight of Truck	
Gross Weight of Vehicle	Mills Per Mile	Unloaded Weight of Truck	Mills Per Mile
18,001 to 20,000	6.0	8,001 to 9,000	4.0
20,001 to 22,000	7.0	9,001 to 10,000	5.0
(increased gradually to)		(increased gradually to)	
74,001 to 76,000	35.0	22,501 to 25,000	22.0
76,001 and over	add 2 mills per ton and fraction thereof	25,001 and over	27.0
Unladen Miles		Unloaded Weight of Tractor	
Unloaded Weight of Truck	Mills Per Mile	Unloaded Weight of Tractor	Mills Per Mile
18,001 to 20,000	6.0	4,001 to 5,500	6.0
20,001 to 22,000	7.0	5,501 to 7,000	10.0
(increased gradually to)		(increased gradually to)	
28,001 to 30,000	10.0	10,001 to 12,000	25.0
30,001 and over	add 0.5 mill per ton and fraction thereof	12,001 and over	33.0
Unloaded Weight of Tractor			
7,001 to 8,500	6.0		
8,501 to 10,000	7.0		
(increased gradually to)			
16,001 to 18,000	10.0		
18,001 and over	add 0.5 mills per ton and fraction thereof		

Fuel Use Tax

The fuel use tax is a complement to the motor fuel tax and the sales tax, and is levied on commercial vehicles: (1) having two axles and a gross vehicle weight of more than 26,000 pounds; (2) having three or more axles, regardless of weight; or (3) used in combination when the gross vehicle weight exceeds 26,000 pounds. In contrast to the sales tax and motor fuel tax, which are imposed upon the amount of fuel purchased within the State, the fuel use tax is imposed on fuel purchased outside but used within New York. This tax is based on the number of miles traveled on the public highways of the State.

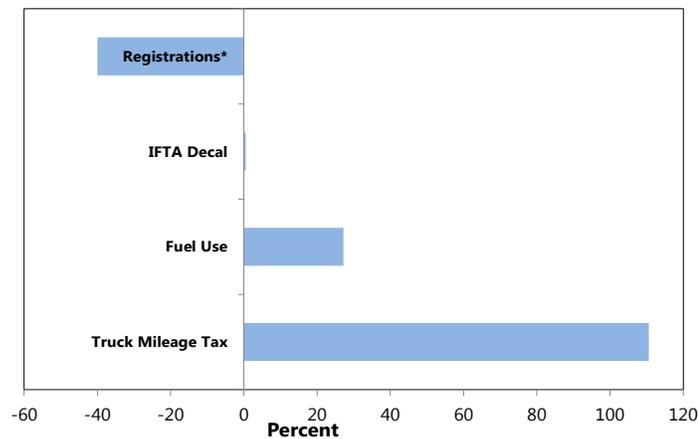
The aggregate fuel use tax rate is the sum of the appropriate motor fuel tax rate and the sales tax rate. The motor fuel tax component is eight cents per gallon. The sales tax component is derived by adding the amount from the State sales tax rate and the amount from the lowest county sales tax rate. The current fuel use tax rate is \$0.23. A credit or refund is allowed for motor fuel tax, petroleum business tax or sales tax paid on fuels purchased in New York, but not used within the State.

Registration System

The current registration system is based on the license plate number of each vehicle and a registration decal. The Commissioner can deny registration if the carrier has not paid monies due from any other tax and there is a civil penalty for any person who fails to obtain a certificate of registration when it is required. Special permits are issued for the transportation of motor vehicles, for automotive fuel carriers, and for trips into New York State not to exceed 72 hours.

The FY 2017 Enacted Budget eliminated the separate HUT registration (previously \$15) and decal (previously \$4) fees and replaced them with a HUT registration fee of \$1.50. The revenue from the HUT registration fee is now directed to a newly created HUT Administration Account instead of the Dedicated Highway and Bridge Trust Fund.

Components of Highway Use Tax Receipts
Estimated FY 2018



*FY 2018 includes a large refund payment resulting from litigation.

Administration

Most taxpayers remit the truck mileage tax on a monthly basis. The tax is remitted on or before the last day of each month for the preceding month. Fuel use taxpayers file quarterly with their home state under the rules of the International Fuel Tax Agreement (IFTA). The home state subsequently distributes the funds to the state where the liability occurred.

Significant Legislation

Significant statutory changes to the highway use tax since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2012		
Alternative Fuel	Extended the exemption on alternative fuels through August 31, 2014.	September 1, 2012
Legislation Enacted in 2014		
Alternative Fuel	Extended the exemption on alternative fuels through August 31, 2016.	September 1, 2014
Legislation Enacted in 2016		
Registration Fees	Replaced the HUT registration and decal fees with a combined HUT registration and decal fee of \$1.50.	April 13, 2016
Alternative Fuel	Extended the exemption on alternative fuels through August 31, 2021.	September 1, 2016

Tax Liability

Highway use tax receipts are a function of the demand for trucking, which fluctuates with national and State economic conditions.

For a more detailed discussion of the methods and models used to develop estimates and projections for the highway use tax, please see *Economic, Revenue, and Spending Methodologies* at www.budget.ny.gov.

Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$60.2 million, a decrease of \$47.8 million (44.3 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$96 million, a decrease of \$42.7 million (30.8 percent) from FY 2017. Net truck mileage tax receipts are estimated at \$110.8 million, fuel use tax receipts at \$27.2 million, IFTA decal fees at \$0.5 million, and registration fees at a net loss of \$42.5 million. The decrease is mainly due to a \$44.5 million increase in registration fee refund

payments resulting from the Independent Owner Operator Drivers Association v. New York Department of Taxation and Finance court decision.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$142 million, an increase of \$46 million (47.9 percent) from FY 2018, as long-term trend levels resume following the previous year's refund increases.

General Fund

No highway use tax receipts are deposited into the General Fund.

Other Funds

Prior to April 13, 2016, all highway use tax receipts were directed to the Dedicated Highway and Bridge Trust Fund (DHBTF). As of April 13, 2016, all HUT registration revenue is directed to the HUT Administration Account (HUTAA) while all other revenue is directed to the DHBTF. In FY 2018, the DHBTF will receive an estimated \$94 million and the HUTAA will receive an estimated \$2 million, as the refund resulting from the court decision was refunded from the DHBTF. In FY 2019, the DHBTF will receive a projected \$139 million and the HUTAA will receive a projected \$3 million.

MEDICAL MARIHUANA (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Funds	0.6	1.8	1.2	200.0	2.1	0.3	16.7
All Funds	0.6	1.8	1.2	200.0	2.1	0.3	16.7

Note: Totals may differ due to rounding.

MEDICAL MARIHUANA TAX BY FUND (thousands of dollars)		
	Special Revenue Funds	All Fund Receipts
FY 2015	N/A	N/A
FY 2016	11	11
FY 2017	584	584
Estimated		
FY 2018	1,800	1,800
FY 2019		
Current Law	2,100	2,100
Proposed Law	2,100	2,100

Proposed Legislation

Legislation proposed with this Budget would allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions.

Description

Tax Base and Rate

On July 5, 2014, the medical use of marihuana was authorized and the dispensing of medical marihuana began on January 7, 2016.

As of January 2, 2018, there were 1,384 registered practitioners authorizing the medical use of marihuana to 40,286 certified patients for the following conditions and ailments:

- Cancer;
- Positive status for human immunodeficiency virus or acquired immune deficiency syndrome;
- Amyotrophic lateral sclerosis;

- Parkinson's disease;
- Multiple sclerosis;
- Damage to the nervous tissue of the spinal cord with objective neurological indication of intractable spasticity;
- Epilepsy;
- Inflammatory bowel disease;
- Neuropathies;
- Huntington's disease;
- Chronic pain; and
- Post-traumatic stress disorder (effective November 11, 2017).

In addition, medical marihuana can be prescribed for a complication of treatment for:

- Cachexia or wasting syndrome;
- Severe or chronic pain;
- Severe nausea;
- Seizures; and
- Severe or persistent muscle spasms.

The Commissioner of the Department of Health has the authority to add conditions to either list. Effective November 30, 2016, nurse practitioners can now prescribe medical marihuana to offer greater access to the product. Several recently enacted regulations have expanded the Medical Marihuana Program, which includes the addition of new medical marihuana products (lotions, ointments and patches, chewable and effervescent tablets and lozenges). The product must be administered in a smokeless form.

A seven percent excise tax is imposed when a New York dispensary sells the product to a patient or designated caregiver, and is remitted by the dispensary. The tax amount cannot be added as a separate charge on a receipt given to the retail customer. Based on other states with reported medical marihuana taxable sales, as of December 1, 2017, New York was ranked last on a per capita basis.

Administration

Five registered organizations were selected in 2015, and an additional five registered organizations were authorized in August 2017 to manufacture and dispense medical marihuana in the State. Each manufacturer can have up to four dispensing sites. The manufacturers and dispensaries are geographically distributed throughout the State, as statutorily required.

Revenues from the State excise tax will be directed to the Medical Marihuana Trust Fund. The monies of the Fund are split in the following order:

- 22.5 percent transferred to the counties in which the medical marihuana was manufactured and allocated in proportion to the gross sales originating from medical marihuana manufactured in each such county;
- 22.5 percent transferred to the counties in which the medical marihuana was dispensed and allocated in proportion to the gross sales occurring in each such county;
- 5 percent transferred to the Office of Alcoholism and Substance Abuse Services. The monies will be used for additional drug abuse prevention, counseling and treatment services;
- 5 percent transferred to the Division of Criminal Justice Services. The monies will be used to provide discretionary grants to state and local law enforcement agencies. These grants could be used for personnel costs of state and local law enforcement agencies; and
- The law is silent on the distribution of the remaining amount.

Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$1.3 million, an increase of \$0.9 million (245.8 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$1.8 million, an increase of \$1.2 million (200 percent) from FY 2017. This increase is due to an increased number of practitioners and patients.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$2.1 million, an increase of \$0.3 million (16.7 percent) from FY 2018. This increase is due to a projected continued increase in practitioners and patients.

General Fund

No medical marihuana receipts are deposited into the General Fund.

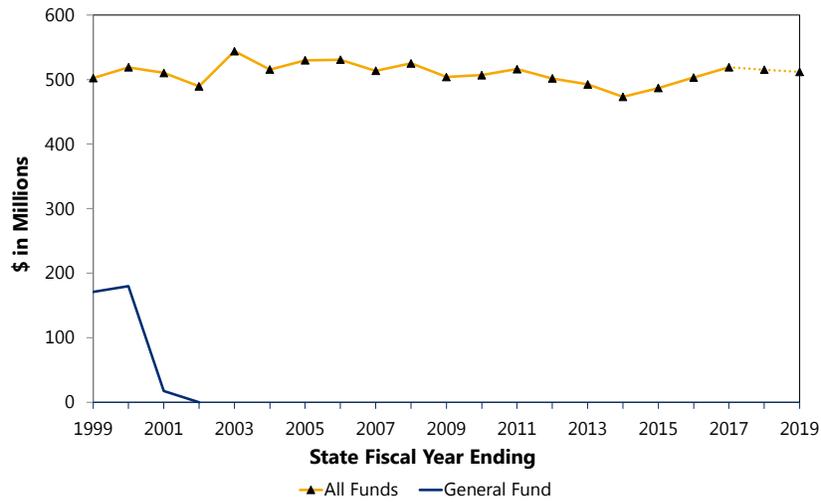
Other Funds

All receipts from the medical marihuana tax are deposited to the Medical Marihuana Trust Fund.

MOTOR FUEL TAX (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Funds	519.0	515.0	(4.0)	(0.8)	512.0	(3.0)	(0.6)
All Funds	519.0	515.0	(4.0)	(0.8)	512.0	(3.0)	(0.6)

Note: Totals may differ due to rounding.

Motor Fuel Tax Receipts History and Estimates



MOTOR FUEL TAX BY FUND (millions of dollars)					
	Gross All Funds Receipts	Special Revenue Funds ¹	Capital Projects Funds ²	All Funds Refunds	All Funds Receipts
FY 2009	528	106	398	24	504
FY 2010	523	106	401	16	507
FY 2011	540	108	408	24	516
FY 2012	527	105	396	25	502
FY 2013	513	103	389	21	492
FY 2014	495	99	375	22	473
FY 2015	518	101	386	31	487
FY 2016	522	105	398	19	503
FY 2017	532	109	410	13	519
Estimated					
FY 2018	538	108	407	23	515
FY 2019					
Current Law	535	107	405	23	512
Proposed Law	535	107	405	23	512

¹ Dedicated Mass Transportation Trust Fund.
² Dedicated Highway and Bridge Trust Fund.

Proposed Legislation

Legislation proposed with this Budget would allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions.

Description

Tax Base

Gasoline motor fuel and diesel motor fuel taxes are imposed by Article 12-A of the Tax Law upon the sale, generally for highway use, of motor fuel and diesel motor fuel, respectively. The motor fuel tax is levied primarily on fuel used in motor vehicles operating on the public highways of the State or on fuel used in recreational motorboats operating on the State's waterways. Exemptions, credits and refunds are allowed for certain other uses of gasoline and diesel motor fuel.

Tax Rate

The motor fuel tax on gasoline motor fuel and diesel fuel is eight cents. A motor fuel tax of two cents was imposed on gasoline motor fuel in 1929. The tax on gasoline was increased to 3 cents in 1932, to four cents in 1937, to six cents in 1956, to seven cents in 1959 and to eight cents in 1972. A motor fuel tax of two cents was imposed on diesel motor fuel in 1936. The tax on diesel fuel was increased to four cents in 1947, to six cents in 1956, to nine cents in 1959 and to ten cents in 1972. The tax on diesel fuel was reduced to eight cents in 1996. Compared to other states, New York is ranked tenth on overall State taxes per gallon imposed on fuel.

RANKING OF STATE TAXES PER GALLON (January 1, 2018) ¹		
State	State Motor Fuel Tax (cents per gallon)	Total State Tax ² (cents per gallon)
PENNSYLVANIA	0.0	57.6
CALIFORNIA*	41.7	51.5
WASHINGTON	49.4	49.4
CONNECTICUT**	25.0	39.3
NEW JERSEY**	10.5	37.1
W. VIRGINIA	20.5	35.7
N. CAROLINA	35.1	35.1
MARYLAND	25.1	33.8
RHODE ISLAND	33.0	33.0
NEW YORK *	8.0	32.9
IDAHO	32.0	32.0
MONTANA	31.5	31.5
WISCONSIN	30.9	30.9
INDIANA *	18.0	30.8
ILLINOIS *	19.0	30.7
IOWA	30.5	30.5
MAINE	30.0	30.0
OREGON	30.0	30.0
VERMONT	12.1	29.5
UTAH	29.4	29.4
MINNESOTA	28.5	28.5
OHIO	28.0	28.0
S. DAKOTA	28.0	28.0
NEBRASKA	27.0	27.0
MICHIGAN	25.9	26.3
GEORGIA	26.3	26.3
TENNESSEE	24.0	25.0
KENTUCKY	24.6	24.6
KANSAS	24.0	24.0
MASSACHUSETTS	24.0	24.0
WYOMING	23.0	24.0
NEVADA	24.0	24.0
DIST. OF COLUMBIA	23.5	23.5
DELAWARE	23.0	23.0
N. DAKOTA	23.0	23.0
NEW HAMPSHIRE	22.2	22.2
COLORADO	22.0	22.0
ARKANSAS	21.5	21.5
TEXAS	20.0	20.0
LOUISIANA	20.0	20.0
ARIZONA	18.0	18.0
MISSISSIPPI	18.0	18.0
S. CAROLINA	18.0	18.0
FLORIDA	4.0	17.7
MISSOURI	17.0	17.0
NEW MEXICO	17.0	17.0
VIRGINIA	16.2	16.2
HAWAII *	16.0	16.0
ALABAMA	16.0	16.0
OKLAHOMA	16.0	16.0
ALASKA	8.0	8.0

NOTES:
¹ Assumes a base price of \$2.00.
² Includes applicable State taxes (local taxes not included).
* State sales tax applies on sales of gasoline in these states - NYS's rate capped at 8 cents per gallon.
** Includes other tax based on price of fuel.
Source: OPA compilation from various sources including CCH Tax Guides and FTA.

Administration

Although the motor fuel tax is imposed on the consumer, the tax is remitted upon importation into New York. This tax-on-first-import system is designed to reduce gasoline tax evasion, which previously involved bootlegging from other states and successions of tax-free sales among “dummy” corporations masked by erroneous record keeping and reporting.

Prior to 1988, the diesel motor fuel tax was collected at the time of retail sale or use by a bulk user. Since 1988, taxes on diesel motor fuel have been collected upon the first non-exempt sale in the State. Interdistributor sales of highway diesel motor fuel sold below the rack are considered tax-exempt.

The tax is generally remitted monthly, although vendors whose average monthly tax is less than \$200 may remit quarterly. Chapter 55 of the Laws of 1992 required accelerated remittance of the tax by taxpayers with annual liability of more than \$5 million for motor fuel and petroleum business tax (PBT) combined. These taxpayers are required to remit taxes electronically or by certified check by the third business day following the first 22 days of each month. Taxpayers can choose to make either a minimum payment of three-fourths of the comparable month’s tax liability for the preceding year, or 90 percent of actual liability for the first 22 days. Taxes for the balance of the month are remitted by the twentieth of the following month.

Tax Expenditures

Exemptions from the motor fuel tax include:

- kerosene and crude oil;
- fuel not used in motor vehicles. “Motor vehicle” is defined as any vehicle propelled by power, except muscular power. However, vehicles such as boats (other than pleasure craft), road building machinery and tractors used exclusively for agricultural purposes are excluded from the definition of motor vehicles;
- fuel used in tanks of vehicles entering New York State;
- sales to state, local and Federal governments, the United Nations and qualifying Native American nations; and
- certain exempt organizations.

Other exemptions apply only to the diesel motor fuel tax, including certain sales for heating purposes and sales of kero-jet fuel for use in airplanes.

Full and partial refunds and credits for tax paid are available for fuel used by:

- omnibus carriers or taxicabs;

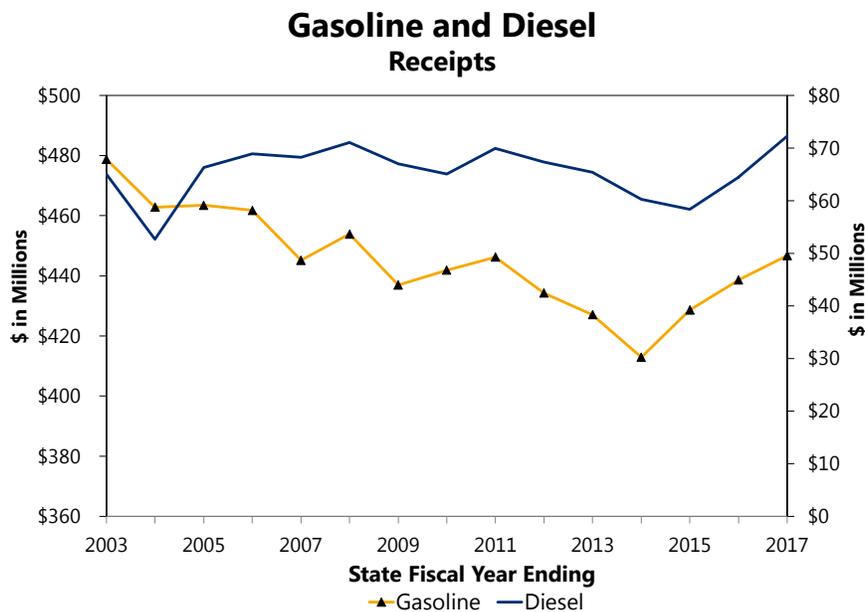
- nonpublic school vehicle operators, exclusively for education-related purposes; and
- volunteer ambulance services.

Significant Legislation

Significant statutory changes to the motor fuel tax since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2012		
Alternative Fuels	Extended the exemptions on alternative fuels through August 31, 2014.	September 1, 2012
Legislation Enacted in 2013		
Interdistributor Sales	Allowed for tax free interdistributor sales of highway diesel motor fuel sold below the rack (i.e., not delivered by truck).	August 1, 2013
Legislation Enacted in 2014		
Alternative Fuels	Extended the exemption on alternative fuels through August 31, 2016.	September 1, 2014
Legislation Enacted in 2016		
Alternative Fuels	Extended the exemption on alternative fuels through August 31, 2021.	September 1, 2016
Expand Motor Fuel Wholesaler Registration Requirements	Required certain wholesalers of motor fuel to file informational returns and register with the Department of Taxation and Finance. This information will be used to detect and prevent tax evasion.	December 1, 2016

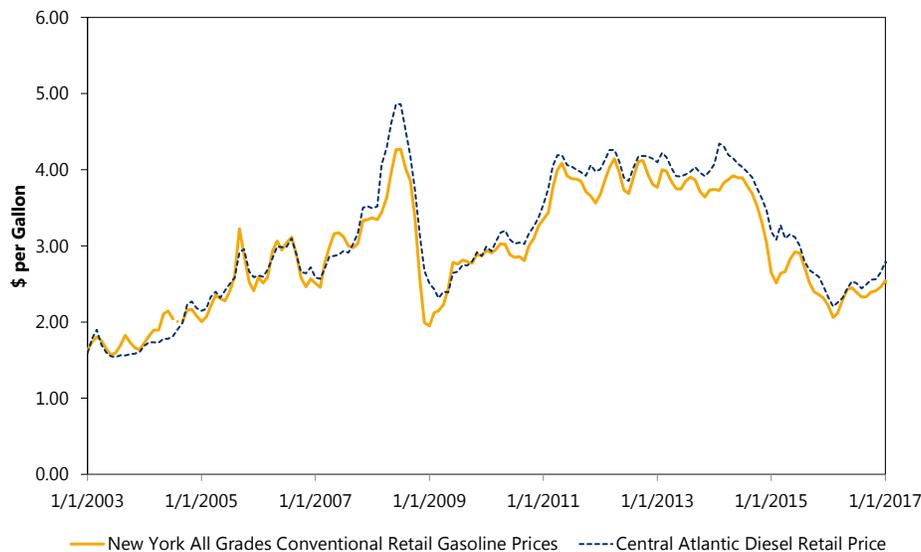
Tax Liability



Gasoline taxable receipts are heavily influenced by fuel prices. Reduced fuel demand at the beginning of the Great Recession caused fuel prices to drop, with NY gasoline prices falling from a peak of \$4.25 per gallon in July 2008 to \$1.89 in January 2009. Prices quickly began to rise, reaching over \$3 in November 2010 and fluctuating between \$3.50 and \$4.08 until late 2014. This was due to improved economic conditions and increased oil demand in the developing world. Since then, crude oil prices have experienced a significant decline, which in turn contributed to gasoline prices declining sharply, as well. In December 2014, gas prices dropped below \$3.00 and have remained below that level ever since. The decline in crude oil prices is largely the result of an increase in OPEC oil production contributing to an ever-growing global supply, as well as falling global oil consumption. Crude oil prices are expected to remain relatively low in the short-run. As of November 2017, the New York gasoline price average is \$2.61 per gallon.

A further discussion of energy prices can be found in the Economic Backdrop section of this volume.

Gasoline and Diesel Monthly Prices



Source: U.S. Department of Energy, Energy Information Administration (EIA)

Diesel receipts are correlated with economic activity. With the collapse of the financial markets and the deterioration of labor markets in the Great Recession, diesel receipts declined from \$71.1 million in FY 2008 to \$65 million in FY 2010. As the economy slowly began to recover, diesel receipts rebounded in FY 2011 to \$69.9 million. Over the next few years, diesel receipts declined mainly due to the amount of refunds that were processed due to multiple Wall Street firms selling off large quantities of tax-paid gallons of highway diesel fuel. These large refunds were paid out for highway diesel motor fuel gallons that were sold outside of New York State up to two years after the tax was originally collected. Effective August 1, 2013, interdistributor sales of highway diesel motor fuel are no longer taxable, meaning the tax is not imposed on highway diesel until it

is sold at the rack. The last few years have seen diesel receipts increase due to lower refund payments.

For a more detailed discussion of the methods and models used to develop estimates and projections for the motor fuel tax, please see the *Economic, Revenue, and Spending Methodologies* at www.budget.ny.gov.

Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$392.4 million, a decrease of \$3.7 million (0.9 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$515 million, a decrease of \$4 million (0.8 percent) from FY 2017. The decrease is mainly due to an increase in refunds partially offset by slight growth in both gasoline and diesel fuel consumption.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$512 million, a decrease of \$3 million (0.6 percent) from FY 2018. In FY 2019, it is projected that there will be an increase in gasoline receipts and a decrease in diesel receipts. The increase in gasoline receipts is mainly due to a decrease in refund payments combined with an increase in audit collections, partially offset by an anticipated increase in gasoline prices. The projected decrease in diesel receipts is due to an increase in refund payments and a decrease in audit collections.

General Fund

No motor fuel tax receipts are deposited into the General Fund.

Other Funds

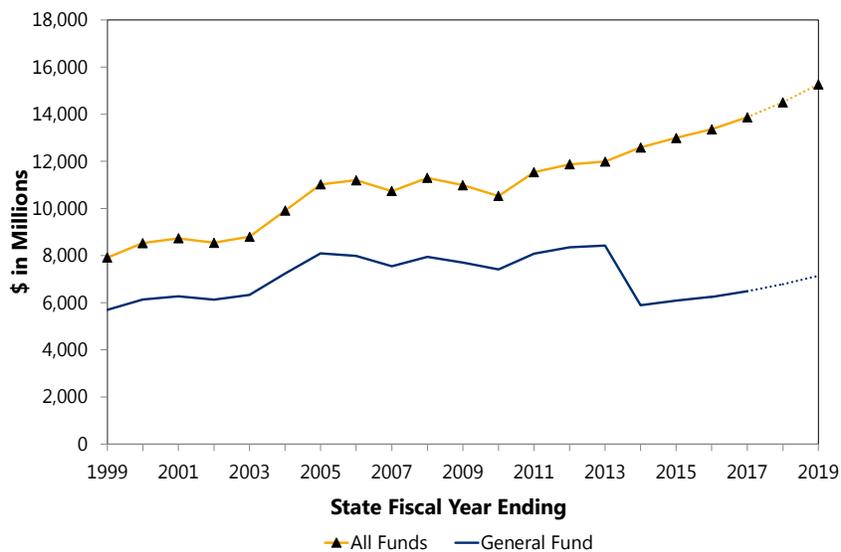
The current law distribution of motor fuel tax receipts is shown below.

Motor fuel tax receipts in FY 2018 are estimated to be \$406.9 million for the DHBTf and \$108.1 million for the DMTTF. Motor fuel tax receipts in FY 2019 are projected to be \$405 million for DHBTf and \$107 million for the DMTTF.

SALES AND USE TAX (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	6,483.4	6,783.5	300.1	4.6	7,139.5	356.0	5.2
Debt Service	6,483.3	6,783.5	300.2	4.6	7,139.5	356.0	5.2
MTOAF	903.0	942.0	39.0	4.3	987.0	45.0	4.8
All Funds	13,869.6	14,509.0	639.3	4.6	15,266.0	757.0	5.2

Note: Totals may differ due to rounding.

Sales and Use Tax Receipts History and Estimates



SALES AND USE TAX BY FUND (millions of dollars)						
	Gross General Fund		General Fund	Special Revenue Funds ¹	Debt Service Funds ²	All Fund Receipts
	Fund	Refunds	Fund	Funds ¹	Funds ²	Receipts
FY 2009	7,771	64	7,707	711	2,567	10,985
FY 2010	7,457	53	7,404	656	2,467	10,527
FY 2011	8,168	83	8,085	756	2,697	11,538
FY 2012	8,448	102	8,346	750	2,780	11,875
FY 2013	8,487	64	8,423	758	2,809	11,989
FY 2014	5,947	62	5,885	802	5,901	12,588
FY 2015	6,323	80	6,243	874	6,243	13,360
FY 2016	6,323	80	6,243	874	6,243	13,360
FY 2017	6,607	124	6,483	903	6,483	13,870
Estimated						
FY 2018	6,954	170	6,784	942	6,784	14,509
FY 2019						
Current Law	7,177	120	7,057	976	7,057	15,090
Proposed Law	7,260	120	7,140	987	7,140	15,266

¹Mass Transportation Operating Assistance Fund.
²Local Government Assistance Corporation Fund and Sales Tax Revenue Bond Fund.

Proposed Legislation

Legislation proposed with this Budget would:

- Discontinue the energy services sales tax exemption;
- Impose an Internet fairness conformity tax;
- Amend the local sales tax statute for technical changes;
- Convert the veterinary sales tax credit into an exemption;
- Increase the vending machine sales tax exemption;
- Provide responsible person sales tax relief for minority limited liability corporation owners;
- Simplify the sale for resale exemption for prepared food; and
- Allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions.

Description

Tax Base

In general, all retail sales of tangible personal property are taxed under Article 28 of the Tax Law unless specifically exempt, but services are taxable only if they are enumerated in the Tax Law.

Specifically, the sales tax is applied to receipts from the retail sale of:

- Tangible personal property (unless specifically exempt);
- Certain gas, electricity, refrigeration and steam and telephone service;
- Selected services;
- Food and beverages sold by restaurants, taverns and caterers;
- Hotel occupancy; and
- Certain admission charges and dues.

Examples of taxable services include installing or maintaining tangible personal property and protective and detective services.

States are currently constrained by United States Supreme Court decisions limiting which out-of-state vendors can be required to collect the sales tax on a state's behalf. In general, a vendor must have some physical presence or nexus in a state to be required to collect that particular state's sales tax. Thus, a compensating use tax complements the sales tax, and is imposed on the use of taxable property or services in-state, if the transaction has not already been subject to tax. This will include, for example, taxable items purchased via mail order or on the Internet if the vendor has no taxable nexus with New York. The use tax also applies to certain uses of self-produced property or services. With some exceptions, the base of the use tax mirrors the base of the sales tax. The use tax is remitted by the purchaser directly to the New York State Department of Taxation and Finance.

Effective with the 2003 personal income tax filing year, the New York State personal income tax return contains a line on which taxpayers may enter the amount of use tax owed for the preceding calendar year. New York State collected \$37.8 million from this program in FY 2016 and \$39.7 million in FY 2017.

Tax Rate

The sales and compensating use tax was enacted in 1965 at a rate of 2 percent. The tax rate was increased to 3 percent in 1969, to 4 percent in 1971 and temporarily to 4.25 percent in 2003. The rate reverted to 4 percent on June 1, 2005.

Effective June 1, 2006, the State sales tax rate on motor fuel and diesel motor fuel was capped at 8 cents per gallon.

An additional 5 percent sales tax is imposed on the receipts from the sale of telephone entertainment services that are exclusively delivered aurally.

Counties and cities are authorized to impose general sales tax rates up to 3 percent. Of the 57 counties that impose the general sales tax, only four counties (Saratoga, Warren, Washington and Westchester) impose at the statutory 3 percent maximum general sales tax rate. Of the 20 cities that impose the general sales tax, only three cities (New York City, Oswego and Yonkers) received legislative authority to impose additional rates of tax above the statutory 3 percent general sales tax rate. Over 95 percent of the State's population resides in an area where the tax rate equals or exceeds 8 percent.

An additional 0.375 percent sales and use tax is imposed in the Metropolitan Commuter Transportation District (MCTD). All proceeds from the additional MCTD tax are earmarked for the Mass Transportation Operating Assistance Fund (MTOAF).

SALES TAX VENDORS AND TAXABLE SALES			
Filing Status	Number of Active Vendors*	Percent of Total Vendors	Percent of State and Local Receipts
Monthly PromptTax	7,120	1.3	64.4
Monthly Other	45,672	8.3	24.3
Quarterly	254,810	46.2	10.9
Annual	243,796	44.2	0.4
Total	551,398	100.0	100.0

*Vendors identified as of November 21, 2017
Selling period March 1, 2015 through February 28, 2016
Source: New York State Department of Taxation and Finance

Quarterly and annual sales tax filers are allowed to retain a portion of the sales tax that they have collected, both as partial compensation for the administrative costs of collecting and remitting the tax and as an incentive for timely payment of the tax to the State. The vendor allowance applies to non-monthly filers and is 5 percent of tax liability, up to a maximum of \$200 per quarter for returns filed on time.

To reduce tax evasion, special provisions for remitting the sales tax on motor fuel and cigarettes have been enacted. Since 1985, the sales tax on gasoline has been remitted by the first importer of the fuel into New York. Effective September 1, 2017, for the three regions computing the prepaid sales tax, the rate in Regions 1 (MCTD, excluding Long Island) and 2 (Long Island) is 16 cents per gallon and in Region 3 (all other counties) it is 15 cents per gallon. These rates are reviewed in April and in October and can be adjusted if the new rate would increase the prepaid sales tax by two or more cents per gallon. The cigarette prepayment rate is 8 percent and is prepaid by cigarette agents at the same time as payment for cigarette excise tax stamps.

Tax Expenditures

A myriad of exemptions from the sales tax have been enacted over the life of the tax. Broad exemptions have been provided for sales for resale and for machinery and equipment used in production or in research and development. These particular exemptions prevent multiple taxation of the same property, a situation known as tax pyramiding.

Other exemptions, such as sales to exempt organizations, certain vending machine sales and certain other coin-operated sales, are also provided. Legal, medical and other professional services, sales of real property, and rental payments are also excluded from the base of the sales tax. For a more detailed discussion of tax expenditures, see the *Annual Report on New York State Tax Expenditures*, prepared by the Department of Taxation and Finance and the Division of the Budget.

Significant Legislation

Significant statutory changes to the sales and use tax since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2012		
Alternative Fuels	Extended alternative fuel exemptions through August 31, 2014.	September 1, 2012
Flag exemption	Tax exemption for blue star and gold star banners and prisoner of war flags.	December 1, 2012
Segregated Bank Accounts	Extension of the requirement to deposit sales tax into a separate bank account until December 31, 2013.	January 1, 2012
Legislation Enacted in 2013		
New York State Business Incubator and Innovation Hot Spot Program	Created a new high tech incubator program in which start-up businesses will be free of property, sales and business income taxes for the first five years. Hot spots must demonstrate an affiliation with, and the support of, at least one college, university or independent research institution and offer programs consistent with regional economic development strategies.	March 28, 2013
Segregated Bank Accounts	Extension of the requirement to deposit sales tax into a separate bank account until December 31, 2016.	January 1, 2014
IDA reform	Placed restrictions on Industrial Development Agencies' (IDAs) ability to provide assistance for retail projects and added new clawback requirements.	March 28, 2013
Drivers' License Suspension	Ability to suspend drivers' licenses of taxpayers with a past-due tax liability of \$10k or more.	April 1, 2013
START-UP NY	Established tax-free zones on or near qualifying university and college campuses. Qualifying businesses operating within such zones are exempt from taxation.	January 1, 2014
Protection Programs	Tax exemption for water and sewer service line protection programs sold to residential property owners.	October 21, 2013
Vehicles Sold To Military Members	Tax exemption for vehicles purchased out-of-State by an active military member.	December 18, 2013
Legislation Enacted in 2014		
Vending Machine	Increased the sales tax exemption from \$0.75 to \$1.50 on certain food and drink items sold through vending machines.	June 1, 2014
Fuel Prepaid	Established three regions for the prepaid sales tax on fuel to reduce evasion at retail.	June 1, 2014
Lower Manhattan	Retroactively extended the lease period for commercial office space for the Murray Street and lower Manhattan areas. The exemption for the Murray Street area is extended to December 1, 2016, and the lower Manhattan area is extended to December 1, 2018.	March 31, 2014
Alternative Fuels	Extended alternative fuel exemptions through August 31, 2016.	September 1, 2014
Legislation Enacted in 2015		
Alcoholic Beverage Tastings	Exempted beer, cider and liquor used at tastings (per Alcohol Beverage Control Law) from the use tax, as well as bottles, corks and labels used in packaging. Also clarified that items used in wine packaging at tastings are exempt, and wine tastings held on or off-premises may qualify.	June 1, 2015

Subject	Description	Effective Date
Prepaid Mobile Calling Services	Clarified that the imposition of tax is sourced to (1) the location of the retailer of such services; (2) unless an item is shipped directly to a consumer, in which case the tax is sourced to the shipping address; or (3) the billing address of the consumer if an item is neither shipped nor sold at a retail location.	April 1, 2015
Solar Power Purchase Agreements	Exempted certain solar-generated electricity produced by equipment located at the customer's residence and owned by a person other than the purchaser of the electricity from tax.	December 1, 2015
Cap Tax on Boats	Exempted the portion of the purchase or lease of a boat in excess of \$230,000; and provided a 90-day "safe harbor" from use tax for boats brought in from out-of-State by conforming the imposition of such tax to the Department of Motor Vehicles' registration requirements.	June 1, 2015
Lower Manhattan	Retroactively extended the lease period for commercial office space for the Murray street and lower Manhattan areas. The exemption for the Murray Street area is extended to December 1, 2018, and the lower Manhattan area is extended to December 1, 2020.	June 23, 2015
General Aviation Aircraft Exemption	Exempted general aviation aircraft and machinery or equipment installed on such aircraft from tax.	September 1, 2015
Dodd-Frank Conformity	Exempted certain related-party sales arising as a result of the Federal Dodd-Frank Wall Street Reform and Consumer Protection Act. The exemption expires on July 1, 2019.	September 1, 2015
Small Brewer Informational Returns	Exempted certain brewers that produce less than 60,000 barrels of beer annually from filing informational tax returns.	August 14, 2015
Small Winery Informational Returns	Exempted certain wineries that produce less than 150,000 gallons annually from filing informational tax returns.	November 20, 2015
Legislation Enacted in 2016		
Expand Motor Fuel Wholesaler Registration Requirements	Required certain wholesalers of motor fuel to file informational returns and register with the Department of Taxation and Finance. This information will be used to detect and prevent tax evasion.	December 1, 2016
Comply with Federal Tax Regulations on Aviation Fuel	Repealed the local sales tax on aviation fuel. Required that all petroleum business tax revenue imposed on aviation fuel is directed to a new dedicated airport fund.	December 1, 2017
Alternative Fuels	Extended alternative fuel exemptions through August 21, 2021.	September 1, 2016
Commercial Fuel Cell Systems	Exempted commercial fuel cell systems and the servicing of such systems from the sales tax.	June 1, 2016
Feminine Hygiene Products	Exempted certain feminine hygiene products from the sales tax.	September 1, 2016
Room Remarketers	Streamlined the collection of sales tax on remarketed hotel rooms.	June 1, 2016
Legislation Enacted in 2017		
Related Entities Loophole	Closed tax loopholes related to non-resident business purchases and leasing below cost to related entities.	April 10, 2017
Lower Manhattan	Extended the sales tax free lease period for commercial office space for the Murray street and lower Manhattan areas. The exemption for the Murray Street area is extended to December 1, 2021, and the lower Manhattan area is extended to December 1, 2023.	June 29, 2017
Cemetery Monuments	Exempted monuments or memorials that are constructed on a cemetery lot or plot from the sales and use tax.	September 1, 2017

Prepaid Sales Tax on Motor Fuel and Diesel Motor Fuel

Reduced the prepaid sales tax amount on motor fuel and diesel motor fuel in all three regions and allows for the Commissioner of DTF to adjust these amounts in the future, should significant changes in fuel prices occur.

September 1, 2017

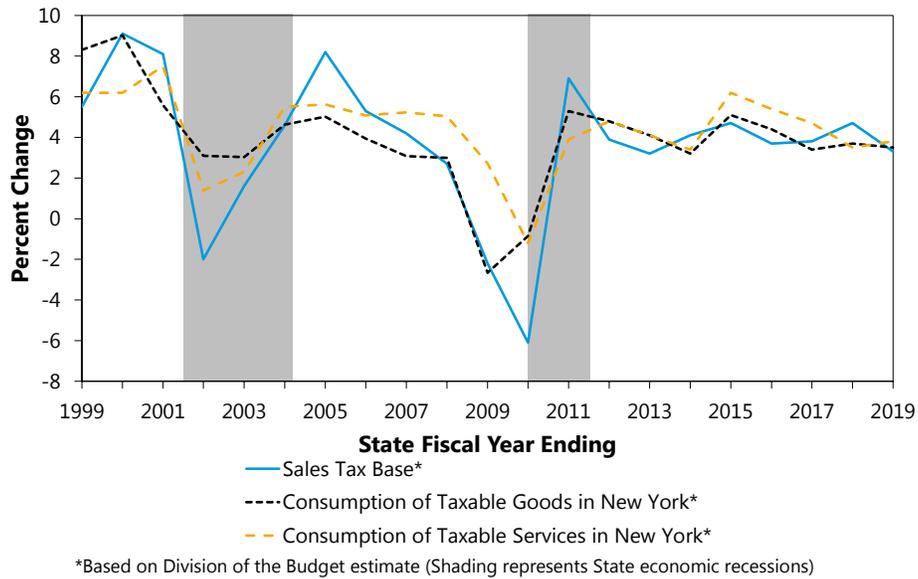
Tax Liability

The sales and compensating use tax, which accounted for 18.6 percent of FY 2017 All Funds tax receipts, is the second largest State tax revenue source (the personal income tax is the largest).

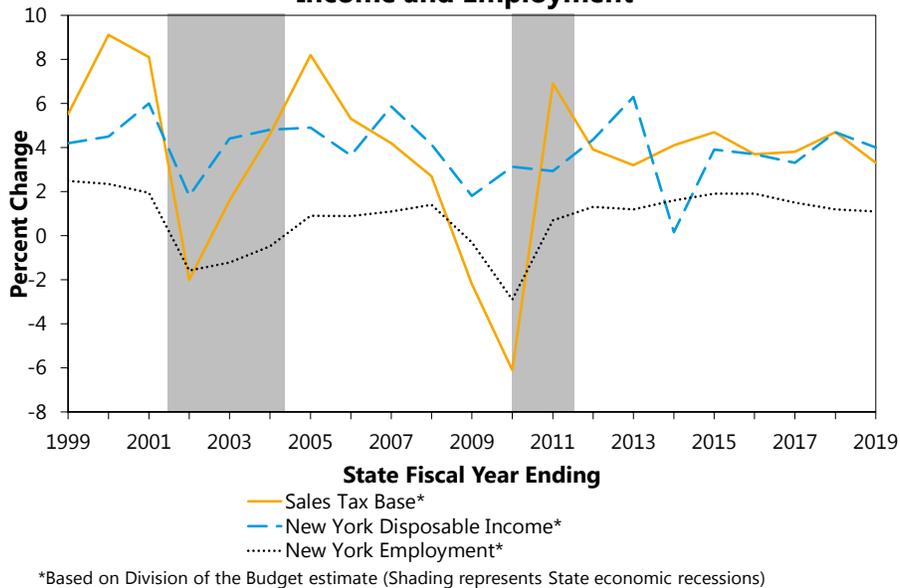
In the long run, sales tax receipts are a function of changes in the tax rate and economic activity, as measured by such factors as disposable income and employment. Short-run fluctuations in receipts can result from rapid changes in consumer prices, auto sales, and home sales. The following table and graphs show the growth rate of major economic factors affecting the sales tax. For a more detailed discussion of the methods and models used to develop estimates and projections for the sales and use tax, please see the *Economic, Revenue, and Spending Methodologies* at www.budget.ny.gov.

MAJOR ECONOMIC FACTORS AFFECTING SALES TAX RECEIPTS										
FY 2010 to FY 2019										
Percent Change										
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Estimated FY 2018	Projected FY 2019
Consumption of Taxable Goods in NY	(0.9)	5.3	4.8	4.1	3.2	5.1	4.4	3.4	3.7	3.5
Consumption of Taxable Services in NY	(1.2)	3.9	4.8	4.1	3.4	6.2	5.4	4.7	3.5	3.8
NY Employment	(2.9)	0.7	1.3	1.2	1.6	1.9	1.9	1.5	1.2	1.1
NY Disposable Income	3.1	2.9	4.4	6.3	0.2	3.9	3.7	3.3	4.7	4.0
NY Nominal Value of New Auto and Light Truck Sales	(1.7)	21.8	4.6	10.9	7.1	6.5	8.9	2.2	0.3	1.1
Sales Tax Base	(6.1)	6.9	3.9	3.2	4.1	4.7	3.7	3.8	4.6	3.3

Historical Growth in State Sales Tax Base and Taxable Consumption



Historical Growth in State Sales Tax Base Income and Employment



Although numerous exemptions from tax on the sales of tangible personal property have been enacted (see *Tax Expenditure Report*), roughly 45 percent of total sales and purchases subject to the sales and use tax are collected by the retail trade industry. The increase in the retail trade share after 2008 reflects repeal of the clothing exemption from October 2010 to April 2012. The service industry (including accommodations, food and administrative services), the next largest share of taxable sales and purchases at roughly 29 percent, continues to increase its share, reflecting the rise of the service economy.

FYE ²	Retail		Wholesale		Information	Other ³	Utilities	Manufacturing	Construction	Unclassified
	Trade	Services	Trade							
2007	45.8	23.4	8.7	7.5	4.7	3.4	2.7	2.4	1.4	
2008	44.1	25.0	8.8	7.6	4.8	3.5	2.8	2.5	1.0	
2009	44.2	25.1	9.0	7.7	4.6	3.6	2.7	2.5	0.7	
2010	45.1	25.4	8.4	7.8	4.6	3.5	2.5	2.3	0.4	
2011 ⁴	48.2	25.7	5.0	6.4	4.5	3.5	4.3	2.3	0.2	
2012	48.4	26.2	5.2	6.0	4.5	3.1	4.2	2.4	0.0	
2013	46.4	26.7	5.5	7.0	4.6	3.1	4.2	2.5	0.1	
2014	45.8	27.3	5.6	6.8	4.6	3.0	4.1	2.7	0.2	
2015	45.3	28.1	5.6	6.7	4.7	2.8	4.1	2.6	0.1	
2016 ⁵	45.3	28.7	5.6	6.4	4.7	2.6	3.9	2.7	0.1	

¹ Industry shares within a FYE may not add to 100 due to rounding.
² March to February
³ Includes Agriculture, Mining, Transportation, FIRE (Finance, Insurance and Real Estate), Education, and Government.
⁴ The shift in industry shares in 2011 reflects the updating of NAICS code during the re-registration process and suspension of the clothing exemption.
⁵ Preliminary
 Source: New York State Department of Taxation and Finance.

Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$10,993.8 million, an increase of \$472.1 million (4.5 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$14,509 million, an increase of \$639.3 million (4.6 percent) from FY 2017. Through November, there has been year-over-year taxable sales growth in most of the industries measured. The three largest sales tax collection industries, food services, motor vehicles and wholesale trade, exhibited growth in taxable sales of 4.9 percent, 4.4 percent, and 4.9 percent, respectively. Accommodation and Manufacturing taxable sales fell \$18 million and \$14 million, respectively. For the first three fiscal year quarters, the sales tax base (i.e., excluding law changes) has grown 3.4 percent, 5.3 percent and 5.4 percent, respectively.

Base growth during the final quarter of FY 2018 is estimated to be 4 percent. This equates to total base growth of 4.6 percent for FY 2018.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$15,266 million, an increase of \$757 million (5.2 percent) from FY 2018. This projected growth is based on the economic factors noted earlier. This includes a \$176 million increase in revenues from Budget proposals.

The primary risk factor for the sales and use tax estimate is the economic forecast, which provides the basis for the sales tax estimates. Unexpected slowdowns in income, employment, auto sales, and the associated consumption of taxable goods would adversely impact the level of taxable sales.

General Fund

Direct deposits to the General Fund for FY 2018 are estimated to be \$6,783.5 million, an increase of \$300.1 million (4.6 percent) from FY 2017 receipts. General Fund receipts for FY 2019 are projected to be \$7,139.5 million, an increase of \$356 million (5.2 percent) from FY 2018 receipts.

Local Government Assistance Corporation Fund

The Local Government Assistance Corporation (LGAC) was created in 1990 to help the State eliminate its annual spring borrowing. To pay the debt service on the bonds issued by LGAC, the State has diverted an amount equal to the yield of one-fourth of net sales and use tax collections from the 4 percent statewide sales tax to the Local Government Assistance Tax Fund (LGATF). Sales tax deposits to LGATF are estimated to be \$3,391.8 million in FY 2018, and \$3,569.8 million in FY 2019. LGATF receipts in excess of debt service requirements on LGAC bonds are transferred to the General Fund.

Sales Tax Revenue Bond Fund

Effective April 1, 2013, receipts from one percent of the State's four percent sales tax rate are directed to the Sales Tax Revenue Bond Fund (STBF). This increases to a two percent rate when LGAC bonds have been retired or defeased. Sales tax deposits to the STBF are estimated to be \$3,391.8 million in FY 2018 and \$3,569.8 million in FY 2019. STBF receipts in excess of debt service requirements on STBF bonds are transferred to the General Fund.

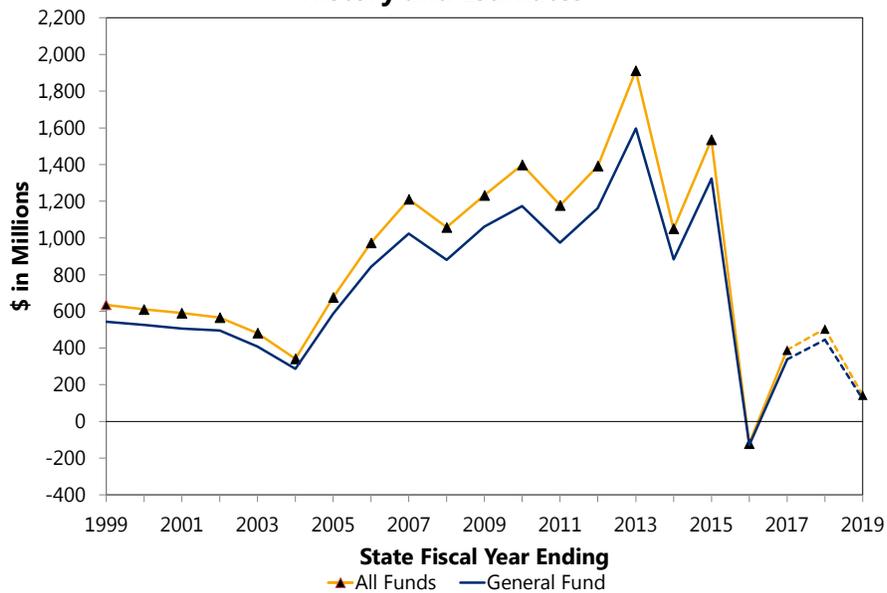
Mass Transportation Operating Assistance Fund

The Mass Transportation Operating Assistance Fund (MTOAF) was created in 1981 to finance State public transportation needs. MTOAF derives part of its revenues from the 0.375 percent sales and compensating use tax imposed in the MCTD. MTOAF will receive an estimated \$942 million in FY 2018 and \$987 million in FY 2019. All proceeds from the MCTD tax are earmarked for MTOAF.

BANK TAX (millions of dollars)							
	FY 2017	FY 2018		Percent	FY 2019		Percent
	Actual	Estimated	Change	Change	Projected	Change	Change
General Fund	337.6	445.0	107.4	31.8	122.0	(323.0)	(72.6)
Other Funds	52.1	60.0	7.9	15.2	21.0	(39.0)	(65.0)
All Funds	389.7	505.0	115.3	29.6	143.0	(362.0)	(71.7)

Note: Totals may differ due to rounding.

Bank Tax Receipts History and Estimates



BANK TAX BY FUND (millions of dollars)							
	Gross General Fund		Gross Special Revenue Funds		Special Revenue Funds ¹	All Funds Receipts	
	Fund	Refunds	Fund	Funds	Refunds		
FY 2009	1,296	234	1,062	208	36	1,234	
FY 2010	1,243	70	1,173	241	15	1,399	
FY 2011	1,199	226	973	245	40	1,178	
FY 2012	1,280	117	1,163	254	25	1,392	
FY 2013	1,741	144	1,597	326	11	1,912	
FY 2014	991	103	888	178	16	1,050	
FY 2015	1,525	202	1,323	264	51	1,536	
FY 2016 ²	410	72	338	63	11	390	
FY 2017	359	21	338	56	4	390	
Estimated							
FY 2018	469	24	445	64	4	505	
FY 2019	122	0	122	21	0	143	

¹ Receipts from the MTA surcharge are deposited in the Mass Transportation Operating Assistance Fund.
² Corporate tax reform merged the bank tax with the corporation franchise tax.

Description

The bank tax (Article 32) was merged with the corporation franchise tax (Article 9-A), effective with tax years beginning on and after January 1, 2015. Chapter 59 of the Laws of 2014 enacted corporate tax reform which established a single modern system of taxation for general business corporations and banking corporations by repealing the separate provisions of the Tax Law for banking corporations (Article 32) and amending the business corporation tax under Article 9-A to accommodate changes in the financial services industry and make other modernization changes.

Receipts: Estimates and Projections

BANK TAX (millions of dollars)							
	FY 2017	FY 2018		Percent	FY 2019		Percent
	Actual	Estimated	Change	Change	Projected	Change	Change
General Fund							
Non-Audit Receipts	(47)	10	57	(121.1)	0	(10)	(100.0)
Audit Receipts	385	435	50	13.0	122	(313)	(72.0)
Executive Budget Initiatives	0	0	0	--	0	0	--
Total	338	445	107	31.8	122	(323)	(72.6)
Other Funds							
Non-Audit Receipts	(13)	(15)	(2)	11.9	0	15	(100.0)
Audit Receipts	66	75	10	14.5	21	(54)	(72.0)
Executive Budget Initiatives	0	0	0	--	0	0	--
Total	52	60	8	15.2	21	(39)	(65.0)
All Funds							
Non-Audit Receipts	(61)	(5)	56	(91.8)	0	5	(100.0)
Audit Receipts	450	510	60	13.2	143	(367)	(72.0)
Executive Budget Initiatives	0	0	0	--	0	0	--
Total	390	505	115	29.6	143	(362)	(71.7)

Note: Totals may differ due to rounding.

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$381.5 million, a decrease of \$9.2 million (2.4 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$505 million, an increase of \$115.3 million (29.6 percent) from FY 2017. This increase stems from higher audit receipts (additional \$60 million) and smaller prior period adjustments.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$143 million, a decrease of \$362 million (71.7 percent) from FY 2018. This decrease is due to lower projected audit receipts.

General Fund

General Fund FY 2018 receipts are expected to be \$445 million, an increase of \$107.4 million (31.8 percent) from FY 2017.

For FY 2019, General Fund receipts are projected to be \$122 million, a decrease of \$323 million (72.6 percent) from FY 2018.

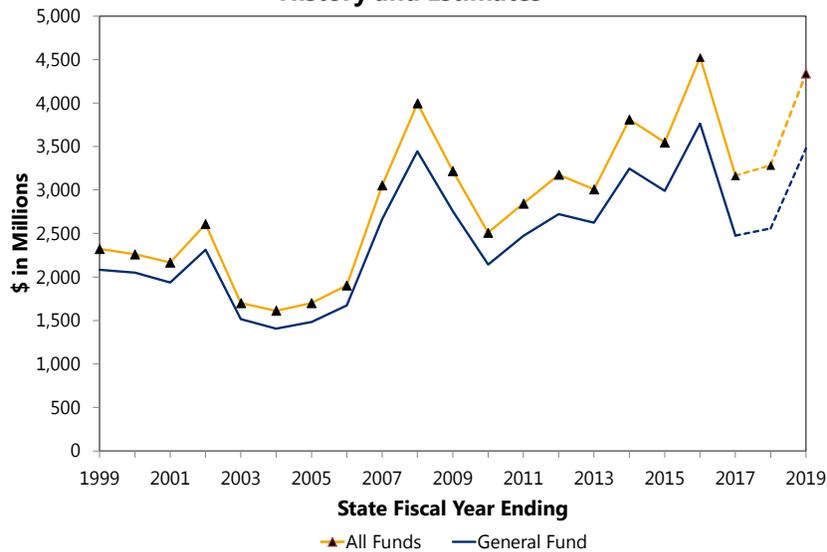
Other Funds

Bank tax receipts from the business tax surcharge deposited to MTOAF generally reflect the All Funds trends described above. The MCTD business tax surcharge will result in MTOAF deposits of an estimated \$60 million in FY 2018 and a projected \$21 million in FY 2019.

CORPORATION FRANCHISE TAX (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	2,475.8	2,559.0	83.2	3.4	3,479.0	920.0	36.0
Other Funds	689.8	727.0	37.2	5.4	862.0	135.0	18.6
All Funds	3,165.6	3,286.0	120.4	3.8	4,341.0	1,055.0	32.1

Note: Totals may differ due to rounding.

Corporation Franchise Tax Receipts History and Estimates



CORPORATION FRANCHISE TAX BY FUND (millions of dollars)							
	Gross General Fund		Gross Special Revenue Funds		Special Revenue Funds ¹		All Funds Receipts
	Fund	Refunds	Fund	Funds	Refunds	Funds ¹	
FY 2009	3,579	824	2,755	541	76	465	3,220
FY 2010	2,942	797	2,145	442	76	366	2,511
FY 2011	3,234	762	2,472	458	84	374	2,846
FY 2012	3,432	708	2,724	495	43	452	3,176
FY 2013	3,283	659	2,624	434	49	385	3,009
FY 2014	3,878	633	3,245	613	46	567	3,812
FY 2015	3,898	908	2,990	598	40	558	3,548
FY 2016 ²	4,943	1,180	3,763	823	59	764	4,527
FY 2017	3,774	1,298	2,476	757	67	690	3,166
Estimated							
FY 2018	3,891	1,332	2,559	811	84	727	3,286
FY 2019							
Current Law	4,848	1,451	3,397	947	85	862	4,259
Proposed Law	4,930	1,451	3,479	947	85	862	4,341

¹ Receipts from the MTA surcharge are deposited in the Mass Transportation Operating Assistance Fund.
² Corporate tax reform merged the bank tax into the corporation franchise tax.

Proposed Legislation

Legislation proposed with this Budget would:

- Extend the Hire-A-Vet Tax Credit for two years;
- Enhance the New York Youth Jobs Program;
- Allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions;
- Defer business related tax-credit claims; and
- Extend the statute of limitations on amended tax returns.

Description

Tax Base and Rate

Chapter 59 of the Laws of 2014 enacted corporate tax reform which established a single modern system of taxation for general business corporations and banking corporations by repealing the separate provisions of the Tax Law for banking corporations (Article 32) and amending the business corporation tax under Article 9-A to accommodate changes in the financial services industry and make other modernization changes. This was accomplished by replacing the entire net income base with a similar business income base, effective January 1, 2015, subject to a fully effective tax rate of 6.5 percent effective January 1, 2016.

The corporation franchise tax is levied by Articles 9-A and 13 of the Tax Law. Article 9-A imposes a franchise tax on domestic and foreign corporations for the privilege of exercising their corporate franchise or doing business, employing capital, owning or leasing property, or maintaining an office in New York. The Article 9-A tax is made up of business entities classified as either C corporations or S corporations. Article 13 of the Tax Law imposes a 9 percent tax on certain not-for-profit entities on business income earned from activities not related to their exempt purpose.

For C corporations, current law requires corporation franchise tax liability to be computed under three alternative bases, with tax due based on the highest tax calculated under three alternative bases. The three alternative bases are:

- A business income base, which begins with Federal taxable income before net operating loss deductions and special deductions, and is further adjusted by the exclusion, deduction or addition of certain items. The resulting base is allocated to New York and subject to a tax rate of 6.5 percent. Certain manufacturers and qualified emerging technology companies are subject to the rates as shown in the table below.

Type of Business	Tax Year 2017	Tax Year 2018 and Thereafter
Qualified New York Manufacturers	0%	0%
Qualified Emerging Technology Companies (QETCs)	5.5%	4.875%
Remaining Taxpayers	6.5%	6.5%

- A capital base imposed at a rate of 0.125 percent on business and investment capital allocated to New York. For most taxpayers, the maximum annual tax is \$5 million. The capital base is being phased out over six years following the schedule shown below.

Type of Business	Tax Year 2017	Tax Year 2018	Tax Year 2019	Tax Year 2020	Tax Year 2021 and Thereafter
Qualified New York Manufacturers and QETCs	0.085%	0.056%	0.038%	0.019%	0%
Cooperative Housing Corporations	0.040%	0.040%	0.040%	0.025%	0%
Remaining Taxpayers	0.100%	0.075%	0.050%	0.025%	0%

- A fixed dollar minimum tax, which is based on a taxpayer's New York receipts as shown in the following schedule.

QUALIFIED NEW YORK MANUFACTURER C CORPORATIONS AND QETCS FIXED DOLLAR MINIMUM TAXES		
New York Receipts	Tax Year 2017	Tax Year 2018 and Thereafter
\$100,000 or less	\$21	\$19
\$100,001 - \$250,000	\$63	\$56
\$250,001 - \$500,000	\$148	\$131
\$500,001 - \$1,000,000	\$423	\$375
\$1,000,001 - \$5,000,000	\$1,269	\$1,125
\$5,000,001 - \$25,000,000	\$1,961	\$2,625
Over \$25,000,000	\$4,230	\$3,750

REMAINING C CORPORATION TAXPAYERS FIXED DOLLAR MINIMUM TAXES	
New York Receipts	Tax Year 2015 and Thereafter
\$100,000 or less	\$25
\$100,001 - \$250,000	\$75
\$250,001 - \$500,000	\$175
\$500,001 - \$1,000,000	\$500
\$1,000,001 - \$5,000,000	\$1,500
\$5,000,001 - \$25,000,000	\$3,500
\$25,000,001 - \$50,000,000	\$5,000
\$50,000,001 - \$100,000,000	\$10,000
\$100,000,001 - \$250,000,000	\$20,000
\$250,000,001 - \$500,000,000	\$50,000
\$550,000,001 - \$1,000,000,000	\$100,000
Over \$1 billion	\$200,000

S corporations are subject to a fixed dollar minimum tax imposed at the rates shown in the table below.

S CORPORATIONS FIXED DOLLAR MINIMUM TAXES	
New York Receipts	S Corp Min Tax
\$100,000 or less	\$25
\$100,001 - \$250,000	\$50
\$250,001 - \$500,000	\$175
\$500,001 - \$1,000,000	\$300
\$1,000,001 - \$5,000,000	\$1,000
\$5,000,001 - \$25,000,000	\$3,000
Over \$25,000,000	\$4,500

Effective January 1, 2016, Real Estate Investment Trusts (REITs) and Regulated Investment Companies (RICs) are subject to a fixed dollar minimum tax imposed at the rates shown in the table below.

REITs/RICs FIXED DOLLAR MINIMUM TAXES	
New York Receipts	S Corp Min Tax
\$100,000 or less	\$25
\$100,001 - \$250,000	\$75
\$250,001 - \$500,000	\$175
Over \$500,000	\$500

Additionally, corporations conducting business in the Metropolitan Commuter Transportation District (MCTD) are subject to a surcharge on the portion of the total State tax liability allocated to the MCTD region. The tax year 2017 surcharge tax rate was 28.3 percent. The rate for 2018 is 28.6 percent. The Department of Taxation and Finance will compute the surcharge tax rate for each tax year beginning with tax year 2016 with the goal of achieving revenue neutrality for the MCTD based on the most recent Enacted Budget forecast. Additionally, the MCTD surcharge is now permanent. Collections from the surcharge are deposited into the Mass Transportation Operating Assistance Fund (MTOAF).

Administration

Corporations that reasonably expect their tax liability to exceed \$1,000 for the current tax year are required to make a mandatory first installment of estimated tax and three additional estimated payments. The mandatory first installment is due 75 days from the end date of a taxpayer's fiscal year. The remaining three estimated tax payments are due on the 15th day of the third month of the fiscal year quarter. The majority of taxpayers have a fiscal year that ends December 31. The mandatory first installment for these taxpayers is due March 15 with the remaining three estimated payments due on June 15, September 15 and December 15. A final payment is also required of all taxpayers. This payment is due 106 days (April 15 for taxpayers that have a fiscal year that ends December 31) from the end date of a taxpayer's fiscal year. Taxpayers that expect their tax liability to exceed \$100,000 for the current tax year are required to make a mandatory first installment equal to 40 percent of their tax from two tax years prior. Taxpayers with expected liability greater than \$1,000 and less than \$100,000 are required to make a mandatory first installment equal to 25 percent of their tax from two tax years prior. Taxpayers may make periodic adjustments to these payments after the close of the tax year as their actual liability for a given tax year becomes more definite.

Tax Expenditures

Tax expenditures are defined as features of the Tax Law that by exclusion, exemption, deduction, allowance, credit, deferral, preferential tax rate or other statutory provisions reduce the amount of a taxpayer's liability to the State by providing either economic incentives or tax relief to particular entities to achieve a public purpose. The corporation franchise tax structure includes various tax expenditures, and the distribution of these benefits varies widely among firms and industries. Among the major tax expenditure items for the corporation franchise tax are modifications to federal taxable income for qualified residential loan portfolios and community banks and small thrifts and deductions for investment income and other exempt income from New York business income as well as the investment tax credit, Empire Zones, the Excelsior Jobs Program, Brownfields and Film Production tax credits, and the preferential tax rates for manufacturers. For a more detailed discussion of tax expenditures, see the *Annual Report on New York State Tax Expenditures*, prepared by the Department of Taxation and Finance and the Division of the Budget.

Significant Legislation

Significant statutory changes to the corporation franchise tax since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2012		
Empire State Commercial Production Tax Credit	Extended the annual allocation of \$7 million in tax credits for two years through 2014. Also, changed the distribution of the tax credits between the MTA district and the rest of the State.	January 1, 2012
New York Youth Works Tax Credit Program	Extended the deadline for participation in the program and for youths to commence employment by an additional six months to November 30, 2012 and December 31, 2012, respectively.	January 1, 2012
Empire State Post Production Tax Credit	Increased post-production credit percentage from 10 percent to 30 percent within the MTA region and to 35 percent in areas outside the MTA region.	July 24, 2012
Legislation Enacted in 2013		
Empire State Film Production Credit	Extended the Empire State film production tax credit allocation of \$420 million per year for an additional five years (2015 - 2019). For the period 2015 through 2019 certain upstate counties will receive an additional 10 percent credit for wages and salaries paid.	January 1, 2015
	Reduced restrictions on the post production portion of the credit and required additional reporting to document the effectiveness of the credit in creating jobs.	March 28, 2013
Royalty Income Loophole	Closed a loophole that allowed New York companies earning royalty income to avoid paying taxes on that income. New York taxpayers must show on their tax return that the taxpayer's Non-New York parent company included the royalty income in its tax liability. The demonstration absolves taxpayers of the obligation to pay tax on their royalty income.	January 1, 2013
New York State Business Incubator and Innovation Hot Spot Program	Created a new high tech incubator program in which start-up businesses will be free of property, sales and business income taxes for the first five years. Hot spots must demonstrate an affiliation with, and the support of, at least one college, university or independent research institution and offer programs consistent with regional economic development strategies.	March 28, 2013
Hire-a-Vet Tax Credit	Provided a refundable tax credit for tax years 2015 and 2016 equaling 10 percent of the wages paid to a qualified veteran (capped at \$5,000) and 15 percent of wages paid to a qualified veteran (capped at \$15,000).	January 1, 2015
Youth Works Tax Credit	Provided a four year refundable tax credit capped at \$6 million per year for tax years 2014 through 2017 for hiring unemployed, low-income or at risk youth ages 16-24 in cities with populations greater than 55,000 or towns with populations greater than 480,000.	January 1, 2014
Excelsior Jobs Program	Changed the job requirement parameters for the Excelsior Jobs Program and allowed a portion of the unallocated tax credits from any taxable year to be used to award tax credits in another taxable year.	May 27, 2013
Manufacturer Tax Reduction	Provided a phased in manufacturing tax reduction of 9.2 percent in tax year 2014, 12.3 percent in 2015, 15.4 percent in 2016 and 2017, and 25 percent effective for tax years beginning in 2018.	January 1, 2014
Historic Properties Tax Credit	Extended for five years the maximum Historic Preservation Tax Credit amount of \$5 million, which had previously been scheduled to revert to \$100,000 following the conclusion of tax year 2014, and permanently made the credit refundable for tax years beginning on or after January 1, 2015.	January 1, 2015
Charge NY Electric Vehicle Recharging Equipment Credit	Created a credit equal to 50 percent or \$5,000 per station, whichever is less, of the cost of electric vehicle recharging or alternative fuel vehicle refueling equipment. The credit sunsets December 31, 2017.	January 1, 2013

Subject	Description	Effective Date
Minimum Wage Reimbursement Credit	Provided a refundable tax credit for tax years 2014 through 2018 equal to the product of the number of hours worked by qualifying minimum wage-earning employees and 1) \$0.75 in tax year 2014; 2) \$1.31 in tax year 2015; and 3) \$1.35 in tax years 2016 through 2018. Qualifying employees must be students aged 16 to 19, and the credit is reduced if the federal minimum wage is increased to a level in excess of 85 percent of the New York minimum wage.	January 1, 2014
START-UP NY	Established tax-free zones on or near qualifying university and college campuses. Qualifying businesses operating within such zones are exempt from taxation under the Corporate Franchise Tax.	January 1, 2014
Legislation Enacted in 2014		
Corporate Tax Reform	Merged the bank tax with the corporation franchise tax. Repealed the separate provisions of the bank tax and amended the corporate franchise tax to accommodate changes in the financial services industry and make other modernization changes.	January 1, 2015
	Lowered the business income tax rate from 7.1 percent to 6.5 percent for non-manufacturers.	January 1, 2016
	Phased out the capital base over a 6-year period.	January 1, 2016
	Made the MTA surcharge permanent.	January 1, 2015
Property Tax Credit for Manufacturers	Made qualified New York manufacturers eligible for a new tax credit equal to 20 percent of the real property taxes paid.	January 1, 2014
Enhance the Youth Works Tax Credit	Enhanced the credit by providing additional credit for youth retained in either a full-time or part-time status for one additional year, lowered the part-time hourly threshold from 20 hours to 10 hours for full-time high school students and increased the allocation from \$6 million to \$10 million for programs two through five (2014-2017).	January 1, 2014
Expand the Upstate Counties Eligible for the Enhanced Film Production Tax Credit	Added the counties of Albany and Schenectady to the list of upstate counties eligible for the additional 10 percent credit on wages and salaries.	January 1, 2015
Workers with Disabilities Tax Credit	Provided a non-refundable tax credit for tax years 2015 through 2019 equaling 15 percent of wages paid to a developmentally disabled individual employed full time (capped at \$5,000) and 10 percent of wages paid if the individual is employed part time (capped at \$2,500). This credit has an annual allocation of \$6 million.	January 1, 2015
Musical and Theatrical Production Credit	Provided a refundable tax credit for tax years 2015 through 2018 equaling 25 percent of qualified expenses for qualified musical and theatrical productions in certain upstate theaters. This credit is capped at \$4 million annually.	January 1, 2015
START-UP NY Amendments	Provided a refundable tax credit equal to the excise tax paid on telecommunications services paid by businesses in START-UP NY areas.	January 1, 2014
	Added four correctional facilities owned by the State of New York to be included as START-UP NY areas.	January 1, 2014
Entire Net Income Tax Rate for Qualified Manufacturers	Lowered the entire net income tax rate to zero percent.	January 1, 2014
Empire State Commercial Production Tax Credit	Extended the annual allocation of \$7 million for two years through tax year 2016. Also, lowered the minimum required production costs for upstate productions from \$200,000 to \$100,000.	March 31, 2014

Subject	Description	Effective Date
Legislation Enacted in 2015		
Expand the Excelsior Jobs Program	Expanded eligibility for the program to include entertainment companies that meet certain criteria, music production companies and video game software developers.	April 13, 2015
Employee Training and Incentive Program (ETIP) Tax Credit	Provided a refundable tax credit for tax years 2015 and after equaling 50 percent of employee training costs (\$10,000 cap per employee) or internship costs (\$3,000 cap per intern). The amount of tax credits allocated per year is capped at \$5 million and will be allotted from funds available under the Excelsior Jobs Program.	January 1, 2015
Section 186-e on Mobile Telecommunication Services	Imposed a state excise tax rate of 2.9 percent and a 0.721 percent MCTD rate on the sale of mobile communications services and dedicated 7.6 percent of Section 186-e receipts to the MTOAF and the DHBTF. Both of these changes are effective May 1, 2015.	May 1, 2015
Urban Youth Jobs Program	Enhanced the credit (formerly the New York Youth Works Tax Credit) by increasing the allocation from \$10 million to \$20 million for programs three through five (2015-2017).	April 13, 2015
Alternative Fuel Vehicle Refueling Property Tax Credit	Allowed the credit for spending not covered by a grant. The amount of the credit is amended to equal the lesser of \$5,000 or the product of 50 percent and the cost of any property less any costs paid from the proceeds of a grant.	January 1, 2015
Brownfields Clean-Up Program	Reformed the program and extended the tax credits through March 31, 2026. Reforms included the prioritization of (1) site redevelopment in economically distressed areas, (2) low income housing, or (3) properties that are upside down or underutilized; also provided for the creation of an expedited remediation program (BCP-EZ), a more detailed description of eligible costs for redevelopment tax credits, and allowed the real property tax and environmental remediation insurance credits to sunset.	July 1, 2015
START-UP NY Amendments	Added two airport facilities owned by the State of New York to be included as START-UP NY areas.	April 13, 2015
Corporate Tax Reform Technical Amendments	Made several changes to the 2014 Corporate Tax Reform statute, including: changes to the definition of investment capital and income; changes to the apportionment rules for qualified financial instruments (QFI); clarifications to the economic nexus test, certain tax rates for QETC and qualified manufacturers, net operating losses, and the alternative base tax credit.	January 1, 2015
Legislation Enacted in 2016		
Conform to New Federal Tax Filing Dates	Changed New York State tax filing deadlines to conform to federal filing deadlines. C corporations are now required to file their final return on or before the 15 th day of the fourth month following the close each taxable year, which is April 15 for calendar year filers. Taxpayers are still required to remit mandatory first installments (MFI) of estimated taxes on or before the 15 th day of the third month following the close of each taxable year, which is March 15 for calendar year filers. The amount of the MFI will now be a percentage of tax from two tax years prior, instead of the preceding year's tax.	January 1, 2016
Hire-a-Veteran Credit	Extended the credit for two additional years to January 1, 2019.	January 1, 2017
Commercial Production Credit	Extended the credit for two additional years to January 1, 2019.	January 1, 2017
Credit for Companies That Provide Transportation to People with Disabilities	Extended the expiration date of this credit for six years until December 31, 2022.	December 31, 2016

Low-Income Housing Credit	Extended the statewide limitation for the aggregate dollar amount of credit the Commissioner of Division of Housing and Community Renewal (DHCR) may allocate to eligible low-income buildings. The credit allocation pool was increased by \$8 million for each of the next five fiscal years.	April 1, 2017
Clean Heating Fuel Credit	Modified and extended the clean heating fuel credit. The minimum biodiesel fuel thresholds were increased. The credit was extended for three years to January 1, 2020.	January 1, 2017
Excelsior Jobs Program Tax Credit	Extended claims period through 2026, allowing Empire State Development the ability of offering a 10 year benefit period for companies entering the program in 2016 and 2017. Unused credits from previous years will be used to fund the extension. Reduce annual credit allocations a total of \$150 million over the period 2016 through 2024.	April 13, 2016
Real Property Tax Credit for Manufacturers	Extended the real property tax credit for manufacturers to agricultural businesses. This change conforms the Article 9-A credit to the personal income tax credit for these businesses.	January 1, 2014
Urban Youth Jobs Tax Credit	Increased the allocation for the final two program years from \$20 million to \$50 million.	April 13, 2016
Economic Transformation and Facility Redevelopment Program	Modified to include any psychiatric facility previously owned by New York State and located within the MCTD (excluding NYC) to qualify as a closed facility under this program. Prospective participants must submit an application by September 1, 2016.	April 13, 2016
Special Additional Mortgage Recording Tax Credits	Allowed Article 9-A taxpayers to claim a refund of the credit attributable to the special additional mortgage recording tax that a taxpayer pays on or after January 1, 2015 as a lender with respect to residential mortgages.	January 1, 2015
Alcoholic Beverage Production Credit	Expanded the beer production credit available under the corporation franchise tax to include wine, liquor and cider.	January 1, 2016
The Farm Workforce Retention Credit	Created a refundable credit that is available to farm employers equal to a fixed amount per eligible farm employee. The credit varies between \$250 per eligible farm employee in tax year 2017 up to \$600 for tax year 2021. This credit expires after tax year 2021.	January 1, 2017
Legislation Enacted in 2017		
Establish Life Sciences Tax Incentives	Established tax incentives to support the State's new life sciences initiative. Existing life science companies are eligible to participate in the Excelsior Jobs Program and new life sciences companies can receive a 15 or 20 percent refundable tax credit on new research and development expenditures based on company size.	January 1, 2018
Extend the Empire State Film and Post Production Tax Credits	Extended the credit for three additional years through 2022.	April 10, 2017
Extend the Alternative Fuels Property and Electric Vehicle Recharging Property Credit	Extended the credit for five additional years through 2022.	April 10, 2017
Treat Disregarded Entities as a Single Taxpayer for Tax Credit Purposes	Protected existing tax credit structures following an August 2016 decision of the Tax Appeals Tribunal that could have resulted in certain taxpayers losing their tax credits. An individual taxpayer and associated single-member LLCs (disregarded entities) will now be treated as one entity for tax credit purposes.	April 10, 2017
Excelsior Jobs Program	Doubled the excelsior research and development credit cap from three to six percent.	January 1, 2018
	Reduced the minimum required net new job requirements for most industries and added a definition for significant capital investment.	April 10, 2017

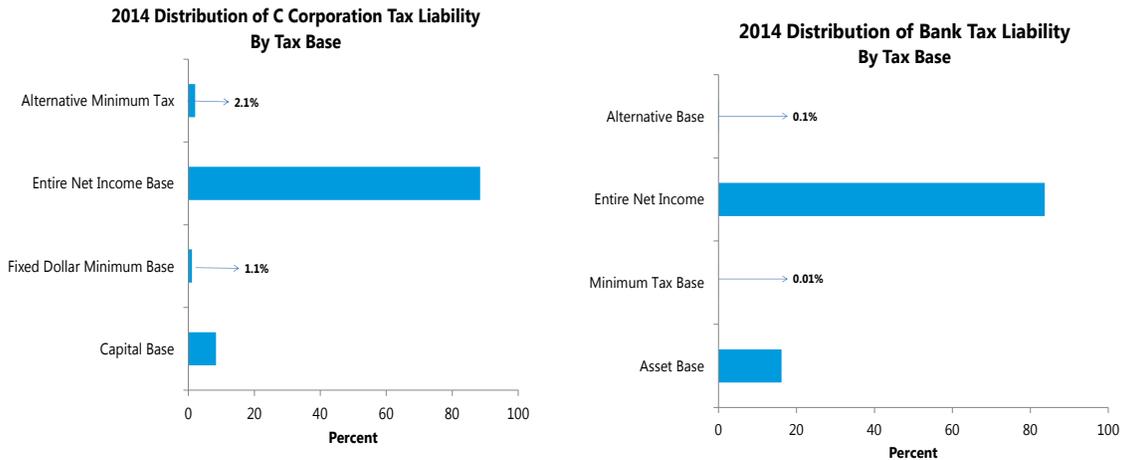
Employee Training Incentive Program	Expanded the current program to include incumbent worker training as an eligible expense, given that such training is part of a company's expansion and retention projects. The requirement to create additional jobs is removed.	April 10, 2017
New York Youth Jobs Program	Extended the credit for two additional years to January 1, 2020 with an annual allocation of \$40 million beginning with the 2018 allocation year.	April 10, 2017
Empire State Apprenticeship tax credit program	Created a carve out from the New York Youth Jobs Program for an apprenticeship credit. Provides a tax credit of \$10 million annually for tax years 2018 through 2022 to certified employers that employ a qualified apprentice for at least 6 months of the calendar year.	January 1, 2018
Investment Tax Credit	Modified the investment tax credit to exclude costs related to the production and delivery of steam or water and the delivery of natural gas as credit-eligible activities.	April 10, 2017
Real Estate Investment Trusts (REITS)/Regulated Investment Companies (RICS)	Amended the business allocation rules and Fixed Dollar Minimum (FDM) tax to allow REITS/RICS to utilize the 8 percent qualified financial instrument allocation election for sourcing New York income and added a separate State fixed dollar minimum schedule.	January 1, 2016
Credit for Farm Donations to Food Pantries	Created a refundable credit equal to 25 percent of the fair market value of qualified donations by qualified farmers to eligible food pantries, up to a \$5,000 maximum credit per farm annually.	January 1, 2018

Tax Liability

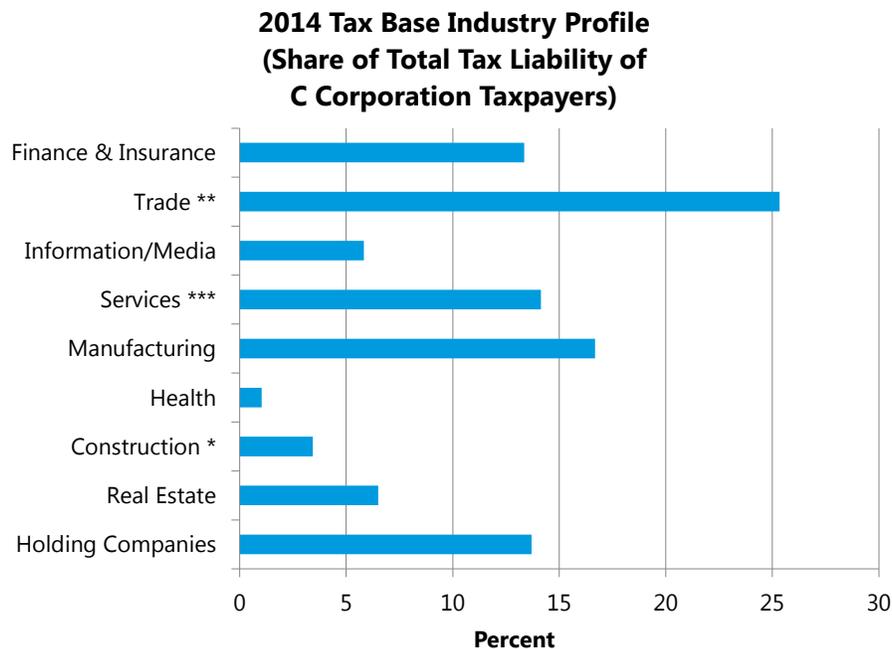
The Corporation Franchise Tax Study File, which is compiled by the Department of Taxation and Finance's Office of Tax Policy Analysis (OTPA), contains the most recent tax liability data available for corporations filing under Article 9-A. The most current liability information is for the 2014 tax year. Liability for tax years 2010 through 2012 is artificially inflated as a result of 2010 legislation that deferred certain tax credit claims (to tax years 2013 through 2015) that would have otherwise been included on tax returns for tax years 2010 through 2012. Due to the repeal of Article 32 and absorption of former Article 32 taxpayers into Article 9-A, effective January 1, 2015, select Article 32 information for tax year 2014 is also included in this section for informational purposes.

Although the Division of the Budget Corporation Franchise Tax Study File does not include information on non-allocating fixed dollar minimum tax filers and S corporations, OTPA compiles corporate tax return data relating to the total number of C and S corporations and tax liability for these entities. For 2014, approximately 284,033 taxpayers filed as C corporations, while approximately 417,000 taxpayers filed as S corporations.

In tax year 2014, C corporations paid under the highest of four alternative bases. In 2014, 88 percent of liability was paid under the entire net income base (see graph below). The capital base was the second largest liability base, at 8 percent. For the past several years, both the alternative minimum tax and the fixed dollar minimum tax bases have represented a minimal percentage of total tax liability. A similar pattern is seen for bank taxpayers, although the asset base represents a larger share of tax liability for bank taxpayers than it does for C corporations. This is unsurprising, however, as the bank tax asset base provided for uncapped tax liability, while the corporation franchise tax liability under the capital base was capped at \$1 million.



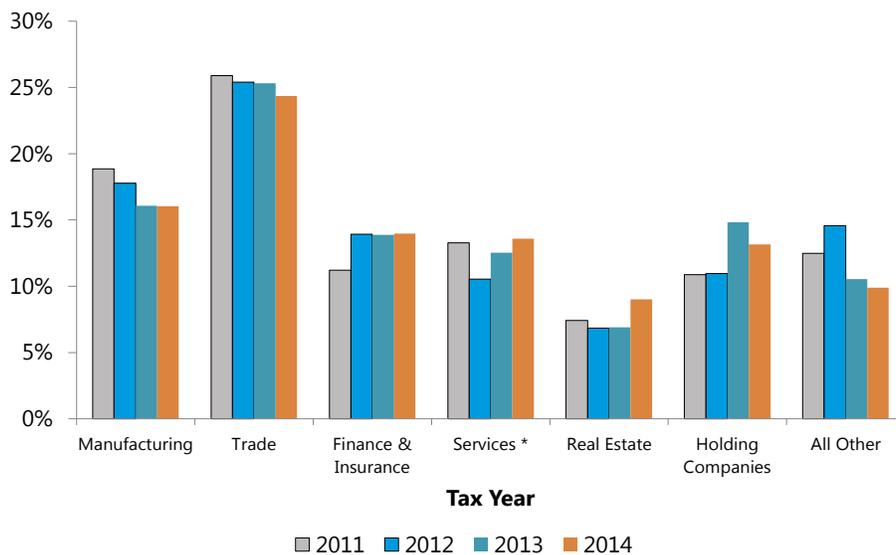
The next chart shows the distribution of tax liability by major industry sector. The 2014 Study File indicates that nearly 25 percent of total C corporation liability was paid by the trade sector and 17 percent by the manufacturing sector. The trade sector has consistently been the largest sector since 2009 while manufacturing has represented the second largest sector since 2011 when it displaced Finance and Insurance.



- * Construction, agriculture, mining, and utilities. (NAICS Sectors 11, 21, 22, and 23)
- ** Wholesale trade, retail trade and transportation and warehousing. (NAICS Sectors 42, 44, 45, 48 and 49)
- *** Services consist of: professional, scientific, and technical services; administrative and support and waste management and remediation services; art, entertainment, and recreation services; accommodation and food services; and other services. (NAICS Sectors 54, 56, 71, 72, and 81)

The following chart illustrates the percentage of liability paid by the industry groups of the State's tax base between 2011 and 2014. Liability for the services sector has shown an upward trend since 2012 with all other sectors remaining relatively stable over the past several years. Beginning in tax year 2015, it is likely finance and insurance will become a larger percentage of liability due to the addition of former bank taxpayers to the Corporation Franchise Tax and the elimination of most tax bases for manufacturers.

**Industry Profile: Percent of Total Liability
(2011-2014)**



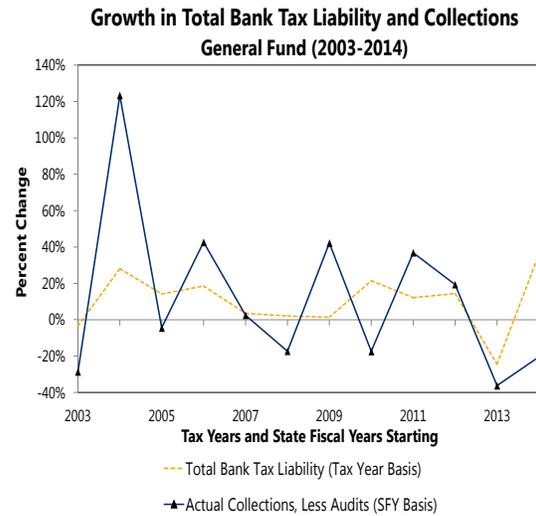
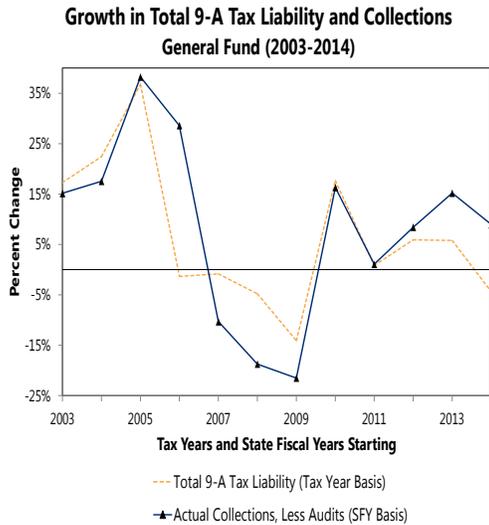
Starting with 2011, the study file contains NAICS codes as reported by the taxpayer.

*Services consist of: professional, scientific, and technical services; administrative and support and waste management and remediation services; art, entertainment, and recreation services; accommodation and food services; and other services. (NAICS Sectors 53, 54, 55, 56, 71, 72, and 81)

The link between underlying corporate tax liability and cash receipts in any given State fiscal year is often obscured by the timing of payments, the carry forward of prior year losses or credits and the reconciliation of prior year liabilities. Tax collections are the net payments and adjustments made by taxpayers on returns and extensions over the course of a State fiscal year. Taxpayers with a fiscal year ending December 31 make up the majority of taxpayers and follow the payment schedule described earlier under “Administration.”

Tax liability in the current year is based on estimated performance for the same year. It is generally calculated by using tax bases, tax rates, special deductions and additions, losses, and tax credits. Since taxpayers must pay estimated taxes months in advance of knowing actual liability, it is difficult for taxpayers to determine the proper level of payments needed over the course of a year. This is especially true if business or economic conditions change. The accompanying graphs compare historical corporation tax liability and bank tax liability and fiscal year cash receipts. They illustrate the volatility in the underlying relationship between payments and liability, which, for many taxpayers, is often compounded by the difference between a taxpayer’s tax year and the State

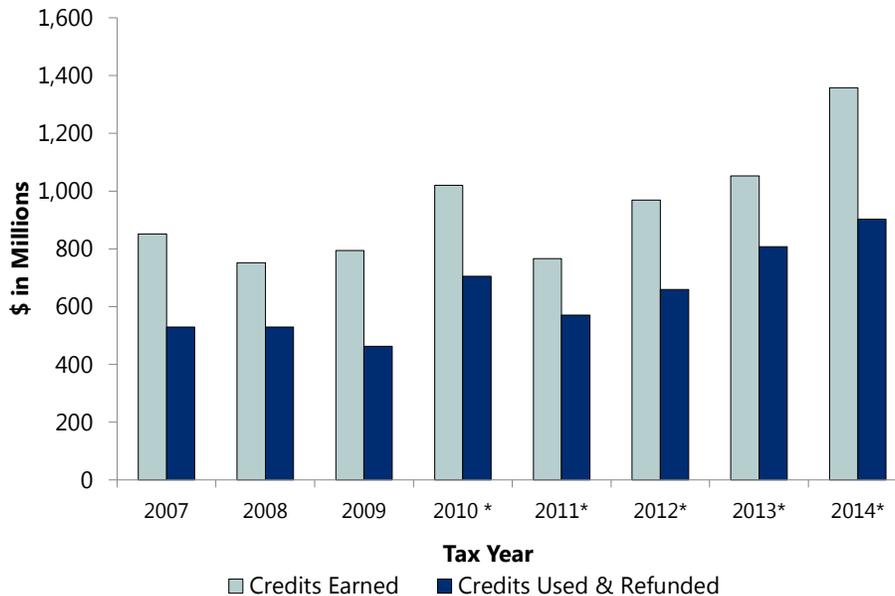
fiscal year. As seen in the graph, bank tax liability and collections have been more volatile than 9-A liability and collections.



Credits

The following graph shows all available credits earned and used by Article 9-A taxpayers, and illustrates that the amount of credits earned has exceeded the amount of credits used. The increase in earned and used and refunded credits seen in 2014 is attributable to the Empire Zones program. Credit earned is the amount of credit earned by a taxpayer in the current tax year. This is prior to any credit recapture, and does not include credits earned in or carried over from prior years. Generally, Tax Law provisions prevent taxpayers from using tax credits to reduce final liability below the fixed dollar minimum tax. This results in taxpayers carrying forward a significant amount of non-refundable tax credits into subsequent tax years. The majority of recently enacted tax credits are refundable. Refundable credits can be used to more than offset tax liability through requests for cash refunds. For these credits, the credit earned and credit used and refunded amounts will be equal for a tax year. The four largest tax credit programs in terms of credits earned and credits used and refunded over the period shown in the following chart are the Investment Tax Credit (including the now-expired Financial Services Investment Tax Credit), Empire Zone credits, the Film Production Tax Credit, and the Brownfield Clean-Up program. These four credits have comprised the majority of credits earned and credits used and refunded in recent years.

**Total Credits Earned and Credits Used/Refunded
(2007-2014)**



*Amounts shown assume credits deferred to tax years 2013-2015 under the tax credit deferral program were used or refunded in the year shown.

As seen above, credits earned and credits used and refunded have generally trended upward, with credits earned consistently exceeding credits used and refunded. Deviation from this upward trend is primarily driven by the Brownfields Clean-Up Program and the Empire Zone Program. These two programs reflect the number and size of projects being completed. There are no new entrants into the Empire Zone program (it expired June 30, 2010 and was replaced with the Excelsior Jobs Program), but current participants will be claiming credits for the remainder of their benefit period which will result in credits earned and credits used and refunded continuing for several more years. The Investment Tax Credit program can also be skewed by the number and size of projects, although that program has been more stable. Credits earned and credits used and refunded for the Film Production Tax Credit have increased steadily over this period and are expected to continue that trend in the future. The program is currently funded through tax year 2022 and demand for the program continues to be robust. The Film Production Tax Credit is the largest tax credit program in the State’s current economic development portfolio in terms of dollars spent. Tax year 2012 was the first year of credit claims for the Excelsior Jobs Program. This program is expected to continue to grow in the future.

For a more detailed discussion of the methods and models used to develop estimates and projections for the corporation franchise tax, please see the *Economic, Revenue and Spending Methodologies* at www.budget.ny.gov.

Receipts: Estimates and Projections

CORPORATION FRANCHISE TAX (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund							
Non-Audit Receipts	2,037	2,009	(28)	(1.4)	2,779	770	38.3
Audit Receipts	439	550	111	25.3	700	150	27.3
Executive Budget Initiatives	0	0	0	--	0	0	--
Total	2,476	2,559	83	3.4	3,479	920	36.0
Other Funds							
Non-Audit Receipts	602	635	33	5.5	746	111	17.5
Audit Receipts	88	92	4	4.5	116	24	26.1
Executive Budget Initiatives	0	0	0	--	0	0	--
Total	690	727	37	5.4	862	135	18.6
All Funds							
Non-Audit Receipts	2,639	2,644	5	0.2	3,525	881	33.3
Audit Receipts	527	642	115	21.8	816	174	27.1
Executive Budget Initiatives	0	0	0	--	0	0	--
Total	3,166	3,286	120	3.8	4,341	1,055	32.1

Note: Totals may differ due to rounding.

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$2,586.4 million, a decrease of \$9.6 million (0.4 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$3,286 million, an increase of \$120.4 million (3.8 percent) from FY 2017. The increase reflects higher audits and minimal growth in gross receipts.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$4,341 million, an increase of \$1,055 million (32.1 percent) from FY 2018. This increase reflects projected growth in corporate profits, higher audits, Executive Budget legislation that would defer certain tax credit claims, and continued progress by the Department of Taxation and Finance on completion of new regulations related to 2014 corporate tax reform.

General Fund

General Fund FY 2018 receipts are estimated to be \$2,559 million, an increase of \$83.2 million (3.4 percent) from FY 2017. The increase reflects the same trends impacting All Funds receipts for FY 2018.

General Fund FY 2019 receipts are projected to be \$3,479 million, an increase of \$920 million (36 percent) from FY 2018. The increase reflects the same trends impacting All Funds receipts for FY 2019.

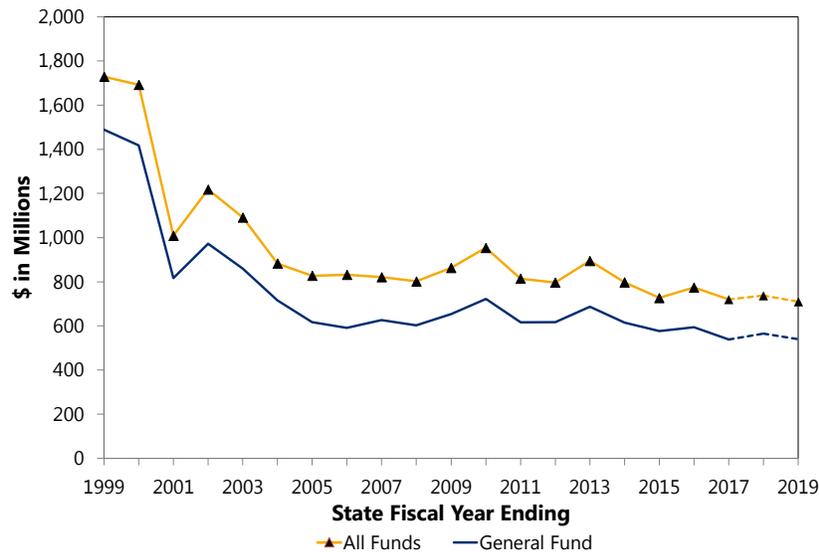
Other Funds

Corporation franchise tax receipts from the business tax surcharge deposited to MTOAF generally reflect the All Funds trends described above. The MCTD business tax surcharge will result in MTOAF deposits of an estimated \$727 million in FY 2018 and a projected \$862 million in FY 2019.

CORPORATION AND UTILITIES TAXES (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	538.1	565.0	26.9	5.0	540.0	(25.0)	(4.4)
Other Funds	182.2	172.3	(9.9)	(5.4)	169.9	(2.4)	(1.4)
All Funds	720.3	737.3	17.0	2.4	709.9	(27.4)	(3.7)

Note: Totals may differ due to rounding.

Corporation and Utilities Tax Receipts History and Estimates



CORPORATION AND UTILITIES TAXES BY FUND (millions of dollars)											
	Gross General Fund		Gross Special Revenue Funds		Special Revenue Funds ¹		Gross Capital Project Funds		Capital Projects Funds ²		All Funds Receipts
	Fund	Refunds	Fund	Funds	Refunds	Funds ¹	Funds	Refunds	Funds ²		
FY 2009	666	12	654	198	7	191	19	2	18	863	
FY 2010	741	19	722	225	13	212	21	2	20	954	
FY 2011	635	19	616	200	19	181	19	3	16	814	
FY 2012	642	25	617	185	18	167	16	3	13	797	
FY 2013	691	5	686	201	8	194	16	2	15	895	
FY 2014	657	43	615	187	18	169	15	2	14	797	
FY 2015	582	6	577	151	10	141	11	2	10	727	
FY 2016	607	13	594	170	5	165	15	0	15	774	
FY 2017	543	5	538	173	6	167	16	0	15	720	
Estimated											
FY 2018	585	20	565	170	12	158	16	1	14	737	
FY 2019											
Current Law	560	20	540	168	12	156	15	1	14	710	
Proposed Law	560	20	540	168	12	156	15	1	14	710	

¹ Receipts from the MTA surcharge and a portion of receipts from the taxes imposed by sections 183, 184 and 186-e of the Tax Law deposited in accounts of the Mass Transportation Operating Assistance Fund (MTOAF).

² A portion of receipts from taxes imposed by sections 183, 184 and 186-e of the Tax Law deposited to Dedicated Highway and Bridge Trust

Proposed Legislation

Legislation proposed with this Budget would:

- Simplify the taxation of mobile handsets;
- Allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions; and
- Extend the statute of limitations on amended tax returns.

Description

Tax Base and Rate

Article 9 of the Tax Law imposes taxes and fees on a number of specialized industries, including public utilities, transportation and transmission companies, and agricultural cooperatives. The telecommunications industry and regulated utilities are the primary collection sources.

Section 183 provides for a franchise tax on the capital stock of transportation and transmission companies, including telecommunication, trucking, railroad, and other transportation companies. The tax is imposed at the highest of the following three alternatives:

- 1.5 mills per dollar of the net value of capital stock allocated to New York State;
- 0.375 mills per dollar of par value for each one percent of dividends paid on capital stock if dividends amount to six percent or more; or
- A minimum tax of \$75.

Section 184 levies an additional franchise tax of 0.375 percent on the gross earnings of transportation and transmission companies. Gross earnings from international, interstate, and inter-Local Access Transport Areas (LATAs) services and 30 percent of intra-LATA gross receipts are excluded from the tax.

Railroad and trucking companies that elected to remain subject to Article 9 taxes (rather than to become subject to the corporate franchise tax imposed under Article 9-A) pay the tax at a rate of 0.375 percent of gross earnings, including an allocated portion of receipts from interstate transportation-related transactions.

Section 185 imposes a franchise tax on farmers, fruit-growers and other agricultural cooperatives through taxable years beginning before January 1, 2018. The tax is imposed at the highest of the following three alternatives:

- One mill per dollar of the net value of capital stock allocated to New York State;
- 0.25 mill per dollar of par value for each one percent of dividends paid on capital stock if dividends amount to 6 percent or more; or
- A minimum tax of \$10.

Section 186-a imposes a two percent gross receipts tax on charges for the transportation, transmission, distribution, or delivery of electric and gas utility services for residential customers.

Section 186-e imposes a 2.5 percent gross receipts tax on charges for non-mobile telecommunication services. A 2.9 percent gross receipts tax is imposed on mobile telecommunication services.

Article 9 taxpayers that conduct business in the Metropolitan Commuter Transportation District (MCTD) are subject to a 17 percent surcharge on their liability attributable to the MCTD. The collections from the surcharge are deposited into the Mass Transportation Operating Assistance Fund (MTOAF).

Administration

Taxpayers subject to Sections 184, 186-a and 186-e make quarterly tax payments of equal installments on an estimated basis in June, September and December. A final payment is made in April. Additionally, taxpayers are required to make a mandatory first installment equal to 40 percent of their tax from two tax years prior. This is paid in March.

Significant Legislation

Significant statutory changes to the corporation and utilities taxes since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2012		
Sections 183 and 184	Lowered the distribution to the Metropolitan Mass Transportation Operating Assistance account to 54 percent from 80 percent. The remaining 26 percent is distributed to the Public Transportation Systems Operating Assistance account. This distribution is in effect for one year, through March 31, 2013.	April 1, 2012
Legislation Enacted in 2013		
Charge NY Electric Vehicle Recharging Equipment Credit	Created a credit equal to 50 percent or \$5,000 per station, whichever is less, of the cost of electric vehicle recharging or alternative fuel vehicle refueling equipment. The credit sunsets December 31, 2017.	January 1, 2013
LIPA Restructuring	Eliminated the requirement for LIPA to pay tax under Section 186. LIPA is still liable for the MTA surcharge.	January 1, 2014

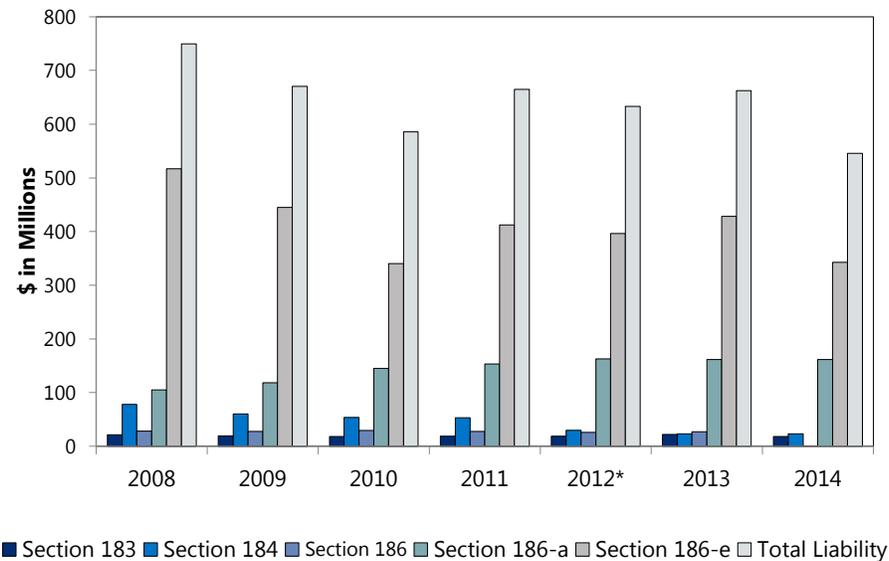
Subject	Description	Effective Date
Sections 183 and 184	Extended the distribution to the Metropolitan Mass Transportation Operating Assistance account of 54 percent of receipts and the Public Transportation Systems Operating Assistance account's distribution of 26 percent of receipts, through March 30, 2018.	April 1, 2013
START-UP NY	Established tax-free zones on or near qualifying university and college campuses. Qualifying businesses operating within such zones are exempt from taxation under Sections 180 and 181.	January 1, 2014
Minimum Wage Reimbursement Credit	Provided a refundable tax credit for tax years 2014 through 2018 equal to the product of the number of hours worked by qualifying minimum wage-earning employees and 1) \$0.75 in tax year 2014; 2) \$1.31 in tax year 2015; and 3) \$1.35 in tax years 2016 through 2018. Qualifying employees must be students aged 16 to 19, and the credit is reduced if the federal minimum wage is increased to a level in excess of 85 percent of the New York minimum wage.	January 1, 2014
Legislation Enacted in 2014		
Repeal the franchise tax on agricultural cooperatives (Section 185)	Repeals the Article 9, Section 185 tax on agricultural co-operatives effective for tax years beginning on or after January 1, 2018.	January 1, 2018
Corporate Tax Reform	Repealed the organization tax on In-State corporations (Section 180) and the license and maintenance fees on Out-of-State corporations (Section 181).	January 1, 2015
	Made the MTA surcharge permanent.	January 1, 2015
Legislation Enacted in 2015		
Section 186-e on Mobile Telecommunication Services	Imposed a state excise tax rate of 2.9 percent and a 0.721 percent MCTD rate on the sale of mobile communications services and dedicated 7.6 percent of Section 186-e receipts to the MTOAF and the DHBTF. Both of these changes are effective May 1, 2015.	May 1, 2015
Alternative Fuel Vehicle Refueling Property Tax Credit	Allowed the credit for spending not covered by a grant. The amount of the credit is amended to equal the lesser of \$5,000 or the product of 50 percent and the cost of any property less any costs paid from the proceeds of a grant.	January 1, 2015
Brownfields Clean-Up Program	Reformed the program and extended the tax credits through March 31, 2026. Reforms included the prioritization of (1) site redevelopment in economically distressed areas, (2) low income housing, or (3) properties that are upside down or underutilized; also provided for the creation of an expedited remediation program (BCP-EZ), a more detailed description of eligible costs for redevelopment tax credits, and allowed the real property tax and environmental remediation insurance credits to sunset.	July 1, 2015
START-UP NY Amendments	Added two airport facilities owned by the State of New York to be included as START-UP NY areas.	April 13, 2015
Legislation Enacted in 2016		
Conform to New Federal Tax Filing Dates	New York State tax filing deadlines were changed to conform to federal filing deadlines. Taxpayers that file under Section 184, 184-a, 186-A, 186-e and 186-c are now required to file their final return on or before April 15. Taxpayers are still required to remit mandatory first installments (MFI) of estimated taxes on or before March 15. The amount of the MFI will now be a percentage of tax from two tax years prior, instead of the preceding year's tax.	January 1, 2016
	Taxpayers filing under Sections 183 and 183-a are subject to the same changes described above.	January 1, 2017

Subject	Description	Effective Date
Clean Heating Fuel Credit	Modified and extended the clean heating fuel credit. The minimum biodiesel fuel thresholds were increased. The credit was extended for three years to January 1, 2020.	January 1, 2017
Legislation Enacted in 2017		
Extend the Alternative Fuels Property and Electric Vehicle Recharging Property Credit	Extended the credit for five additional years through 2022.	April 10, 2017
Treat Disregarded Entities as a Single Taxpayer for Tax Credit Purposes	Protects existing tax credit structures following an August 2016 decision of the Tax Appeals Tribunal that could have resulted in certain taxpayers losing their tax credits. An individual taxpayer and associated single-member LLCs (disregarded entities) will now be treated as one entity for tax credit purposes.	April 10, 2017
Excelsior Jobs Program	Doubled the excelsior research and development credit cap from three to six percent.	January 1, 2018
	Reduced the minimum required net new job requirements for most industries and added a definition for significant capital investment.	April 10, 2017

Tax Liability

The chart below shows Article 9 liability by tax section over the most recent seven available years, from 2008 through 2014. Data for 2014, the most recent data available, is from the Article 9 Tax Study File compiled by the Department of Taxation and Finance's Office of Tax Policy Analysis (OTPA). Liability for tax years 2010 through 2012 is artificially inflated as a result of 2010 legislation that deferred certain credit claims (to tax years 2013 through 2015) that would have otherwise been included on tax returns for tax years 2010 through 2012.

Article 9 Tax Liability (2008-2014)



*Section 184 includes amended returns from taxpayers that provide mobile telecommunication services.

The long-run decline since tax year 2008 marked the beginning of several significant changes to the telecommunications industry. An increasing share of monthly bills consist of data plans which are non-taxable as the result of legislation signed into law in October 1998 that codified existing State policy with regard to the taxation of internet access. Effective February 1, 1997, internet access service is not subject to the telecommunications excess tax imposed under Section 186-e. Households with both mobile and landline phones increasingly opted to discontinue their use of landlines, customers began moving towards inexpensive prepaid plans instead of postpaid plans, and use of internet-based communication tools such as Twitter, Facebook and other messaging applications (apps) and services became more widespread.

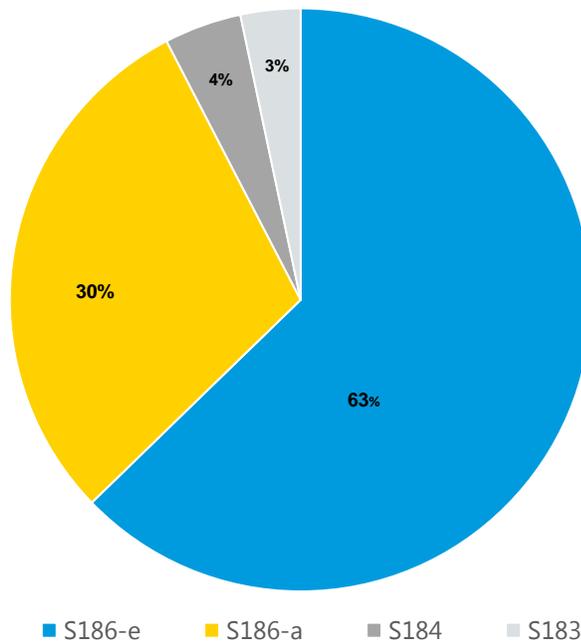
The table below shows significant events in the telecommunications industry that have impacted tax liability as described above. Changes to the telecommunications industry since 2014 could negatively impact tax liability going forward because they shift revenue from the taxable base to the non-taxable base.

SIGNIFICANT EVENTS IN THE TELECOMMUNICATIONS INDUSTRY

Year	Event
2007	First iPhone sold with AT&T as the sole carrier
2008	Peak household ownership of landline and wireless telephone service in US
2011	Facebook Messenger introduced
2011	iMessage released
2012	Smartphones account for more than half of active cell phones in the US for the first time
2012	Average text messages per month per person in the US declines for the first time
2013	Major carriers offer unsubsidized phone plans
2013	Data revenue exceeds voice revenue for the first time in the US
2015	AT&T purchases DirecTV which may promote bundling
2016	Mobile data revenue now accounts for 75% of overall revenue
2016	Device revenue declined sharply as consumers are upgrading at a slower pace
2017	All four phone carriers offer unlimited plans
2017	Over 90 percent of the population own a smartphone
2017	The average mobile data consumption in the U.S. is likely to cross 6GB/month by the end of 2017

Industry Profile: By Section

Article 9 Tax Liability by Section 2014



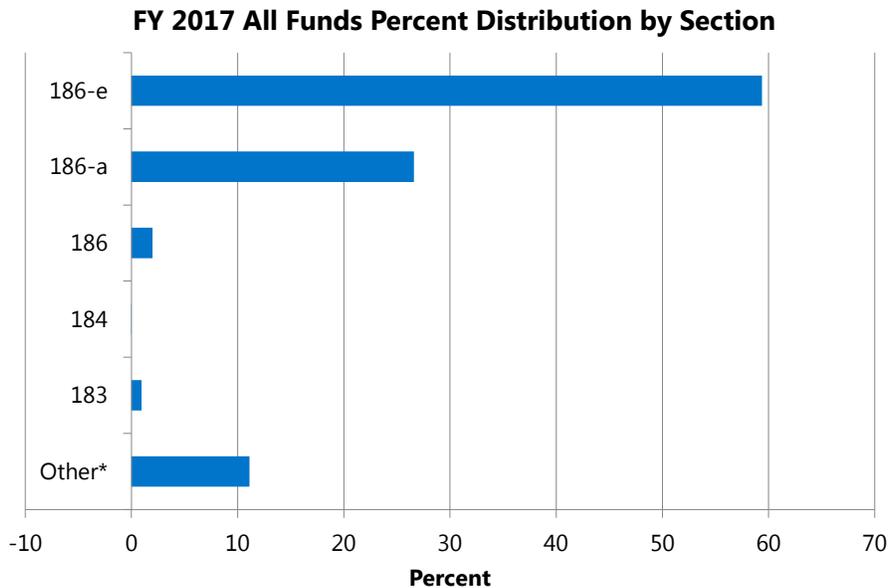
S185 and S186 represent less than 0.02% of liability.

For tax year 2014, Sections 186-e and 186-a represented the largest share of liability, at 93 percent, combined. Sections 183 and 184 represent approximately seven percent of liability, combined.

Although a broad range of industries are represented on the study file for Sections 183 and 184, the overwhelming portion of the tax is paid by the telecommunications industry, which represented approximately 53 percent of total tax paid for Section 183 and 89 percent for Section 184. For Section 183, management of companies and enterprises made up the second largest industry (approximately 27 percent). In Section 184, truck transportation represented approximately seven percent of total liability. The same pattern is exhibited by Section 186-e, the excise tax on telecommunication services. Nearly all of Section 186-e tax liability was paid by the telecommunications industry. Section 186-a is the gross receipts tax paid on the furnishing of utility services and the majority of that tax was paid by the utilities industry.

Receipts: By Section

The bar graph below depicts the share of total FY 2017 Article 9 All Funds attributable to each section of Article 9. Section 186-e, the gross receipts tax on telecommunications services, represents nearly 60 percent of All Funds receipts. The next largest section, 186-a, the gross receipts tax on utility services, represents approximately 27 percent.



The table below reflects the tax collections attributable to each section of Article 9 for FY 2017, FY 2018, and FY 2019. The All Funds total reflects taxes from the various sections prior to the distribution of receipts from sections 183, 184 and 186-e to MTOAF and DHBTf.

CORPORATION AND UTILITIES BY TAX LAW SECTION (millions of dollars)				
Section of Law	Type of Companies	FY 2017 Actual	FY 2018 Estimated	FY 2019 Projected
180 ¹	Organization tax on New York (domestic) corporations	0.0	0.0	0.0
181 ^{1,2}	License and maintenance fees on out-of-State (foreign) corporations	30.1	2.0	0.0
183	Franchise tax on transportation and transmission companies	48.7	14.0	14.1
184	Additional franchise tax on transportation and transmission companies	0.7	22.7	22.9
185 ³	Franchise tax on agricultural cooperatives	0.0	0.0	0.0
186	Franchise tax on water, steam, gas, electric, light and power companies	0.8	0.0	0.0
186a	Gross receipts tax on public utilities	174.9	177.0	193.0
186e	Excise tax on telecommunications	359.3	417.0	374.3
Other	186-a (non-PSC) and 189	0.2	0.0	0.0
Various	MTA Surcharge	105.6	104.6	105.7
All Funds Total		720.3	737.3	710.0
Less Other Funds				
	MTA Surcharge	105.6	104.6	105.7
	MTOAF ⁴	61.3	53.3	50.4
	DHBTf ⁴	15.3	14.4	13.9
General Fund		538.1	565.0	540.0

¹ Repealed for tax years beginning on or after January 1, 2015.
² Due to the filing period, payments are expected to continue to be received through FY 2018.
³ Repealed for tax years beginning on or after January 1, 2018.
⁴ Includes Sections 183, 184, and a portion of 186e.

Note: Totals may differ due to rounding.

For a more detailed discussion of the methods and models used to develop estimates and projections for the corporation and utilities tax, please see the *Economic, Revenue, and Spending Methodologies* at www.budget.ny.gov.

Receipts: Estimates and Projections

CORPORATION AND UTILITIES TAX (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund							
Non-Audit Receipts	521	521	(0)	(0.0)	510	(11)	(2.1)
Audit Receipts	17	44	27	158.8	30	(14)	(31.8)
Executive Budget Initiatives	0	0	0	--	0	0	--
Total	538	565	27	5.0	540	(25)	(4.4)
Other Funds							
Non-Audit Receipts	151	151	0	0.0	156	5	3.1
Audit Receipts	31	21	(10)	(31.9)	14	(7)	(33.6)
Executive Budget Initiatives	0	0	0	--	0	0	--
Total	182	172	(10)	(5.4)	170	(2)	(1.4)
All Funds							
Non-Audit Receipts	672	672	(0)	(0.0)	666	(6)	(0.9)
Audit Receipts	48	65	17	35.6	44	(21)	(32.4)
Executive Budget Initiatives	0	0	0	--	0	0	--
Total	720	737	17	2.4	710	(27)	(3.7)

Note: Totals may differ due to rounding.

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$459.7 million, a decrease of \$4.3 million (0.9 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$737.3 million, an increase of \$17 million (2.4 percent) from FY 2017. Higher audits received from telecommunication companies are partially offset by weakness in 2017 liability payments from both telecommunications and utility taxpayers.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$709.9 million, a decrease of \$27.4 million (3.7 percent) from FY 2018. The decline is primarily attributed to audit payments from telecommunication companies received in FY 2018 that are not expected to recur.

General Fund

General Fund FY 2018 receipts are estimated to be \$565 million, an increase of \$26.9 million (5 percent) from FY 2017. The increase reflects the same trends impacting FY 2018 All Funds receipts.

General Fund FY 2019 receipts are projected to be \$540 million, a decrease of \$25 million (4.4 percent) from FY 2018. The decrease reflects the same trends impacting FY 2019 All Funds receipts.

Other Funds

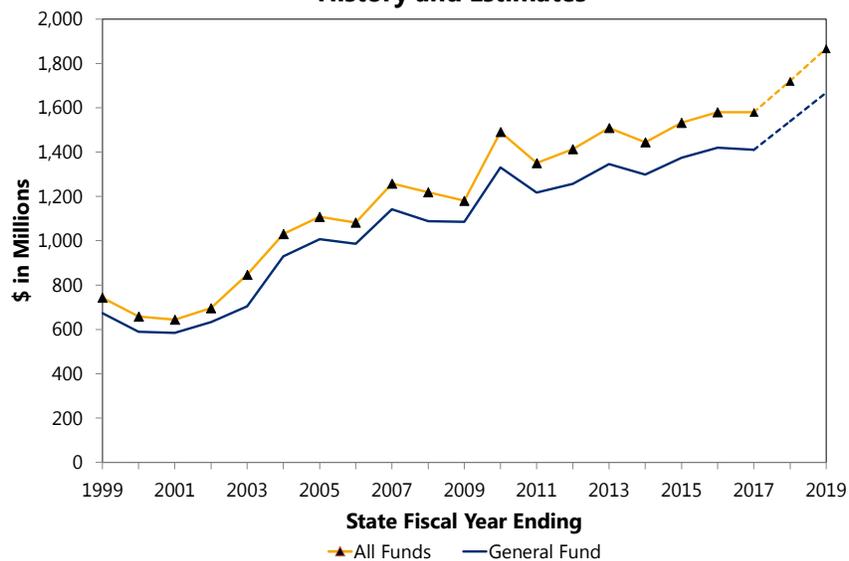
Eighty percent of Section 183 and 184 and 6.08 percent of Section 186-e collections are deposited into the MTOAF and will total an estimated \$53.3 million for FY 2018 and \$50.4 million for FY 2019. The remaining twenty percent of Section 183 and 184 and 1.52 percent of Section 186-e are earmarked for the DHBTF. DHBTF receipts are estimated at \$14.4 million in FY 2018 and projected at \$13.9 million for FY 2019.

Corporation and utilities tax receipts from the business tax surcharge deposited to MTOAF generally reflect the All Funds trends described above. The MCTD 17 percent business tax surcharge will result in MTOAF deposits of an estimated \$104.6 million in FY 2018 and a projected \$105.7 million in FY 2019.

INSURANCE TAXES (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	1,410.0	1,539.0	129.0	9.1	1,668.0	129.0	8.4
Other Funds	169.6	182.0	12.4	7.3	200.0	18.0	9.9
All Funds	1,579.6	1,721.0	141.4	9.0	1,868.0	147.0	8.5

Note: Totals may differ due to rounding.

Insurance Tax Receipts History and Estimates



INSURANCE TAXES BY FUND (millions of dollars)							
	Gross General Fund		Gross Special Revenue Funds		Special Revenue Funds ¹		All Funds Receipts
	Fund	Refunds	Fund	Funds	Refunds	Funds ¹	Receipts
FY 2009	1,135	49	1,086	106	11	95	1,181
FY 2010	1,360	29	1,331	167	7	160	1,491
FY 2011	1,248	31	1,217	140	6	134	1,351
FY 2012	1,290	33	1,257	163	6	157	1,414
FY 2013	1,397	51	1,346	171	8	163	1,509
FY 2014	1,335	37	1,298	154	8	146	1,444
FY 2015	1,391	16	1,375	167	9	158	1,533
FY 2016	1,433	14	1,419	167	7	161	1,580
FY 2017	1,443	33	1,410	173	4	170	1,580
Estimated							
FY 2018	1,589	50	1,539	189	7	182	1,721
FY 2019							
Current Law	1,718	50	1,668	207	7	200	1,868
Proposed Law	1,718	50	1,668	207	7	200	1,868

¹Receipts from the MTA surcharge are deposited in the Mass Transportation Operating Assistance Fund.

Proposed Legislation

Legislation proposed with this Budget would:

- Allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions; and
- Extend the statute of limitations on amended tax returns.

Description

Tax Base and Rate

Under Article 33 of the Tax Law and the Insurance Law, the State imposes taxes on insurance corporations, insurance brokers and certain insured for the privilege of conducting business or otherwise exercising a corporate franchise in New York.

Tax Rate on Non-Life Insurers

Non-life insurers are subject to a premiums-based tax. Accident and health premiums received by non-life insurers are taxed at the rate of 1.75 percent and all other premiums received by non-life insurers are taxed at the rate of 2 percent. A \$250 minimum tax applies to all non-life insurers.

Tax Rate on Life Insurers

The franchise tax on life insurers has two components. The first component is a franchise tax computed under four alternative bases, with tax due based on the highest tax calculated under the four alternative bases. In addition, a 0.8 of one mill tax rate applies to each dollar of subsidiary capital allocated to New York.

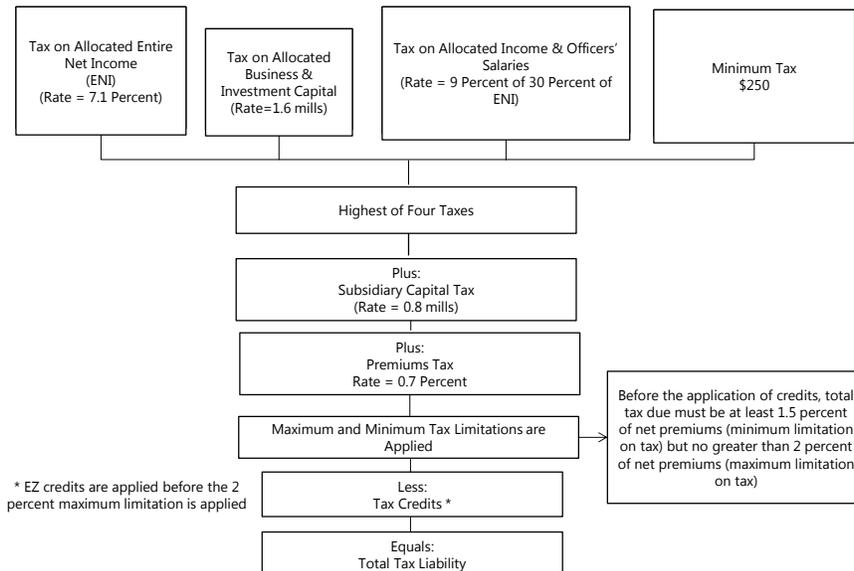
Tax is allocated to New York under the entire net income (ENI) base by a formula that apportions ENI based on weighted ratios of premiums (with a weight of nine) and wages (with a weight of one) earned or paid in New York, to total premiums and total wages for all employees for the tax year.

The second component is an additional franchise tax on gross premiums, less returned premiums. The tax rate on premiums is 0.7 percent and applies to premiums written on risks located or resident in New York. This tax is added to the sum of the tax due on the highest of the alternatives from the income base plus the tax imposed on subsidiary capital.

Maximum and minimum tax limitations are computed based on net premiums. Life insurers determine their maximum limitation by multiplying net premiums by 2 percent and their minimum limitation by multiplying net premiums by 1.5 percent. Under these limitations, the total tax calculated under the highest of the four alternative bases plus the tax imposed on subsidiary capital

plus the 0.7 percent tax on net premiums must be at least as high as the minimum tax or “floor” (1.5 percent of net premiums) but no greater than the maximum limitation (2 percent of net premiums).

Computation of Article 33 Tax on Life Insurance Companies



Generally, taxpayers with a tax liability that exceeds the floor may not reduce their liability with tax credits to a level below the floor. However, taxpayers may use Empire Zone and Zone Equivalent Area tax credits to do so. Entry into the Empire Zone Program expired on June 30, 2010. There are no new entrants into the program, but current participants will be claiming credits for the remainder of their benefit period.

Article 33 taxpayers conducting business in the Metropolitan Commuter Transportation District (MCTD) are subject to a 17 percent surcharge on the portion of their tax liability which is attributable to the MCTD area. The collections from the surcharge are deposited into the Mass Transportation Operating Assistance Fund (MTOAF).

Article 33 of the Tax Law also imposes a premiums tax on captive insurance companies licensed by the Superintendent of the Department of Financial Services (DFS) for the privilege of conducting business or otherwise exercising a corporate franchise in New York. The tax is imposed on net premiums and net reinsurance premiums (gross premiums less return premiums) written on risks located or resident in the State at rates which vary with the amount of net premiums. The top rate is 0.4 percent on direct premiums and 0.225 percent on reinsurance premiums. Captive (i.e., affiliates that insure the risks of the other corporate members) insurers are subject to a minimum tax of \$5,000. Tax credits are not allowed against the tax imposed on captive insurance companies and these companies are not subject to the MTA business tax surcharge.

Other Taxes Imposed on Insurers

Article 33-A of the Tax Law imposes a tax at the rate of 3.6 percent of premiums on independently procured insurance. This tax is imposed on any insured purchasing or renewing an insurance contract covering certain property and casualty risks from an unauthorized insurer where the home state of the insured is New York. An unauthorized insurer is an insurer not authorized to transact business in New York under a certificate of authority from the Superintendent of the DFS.

The Insurance Law imposes a premiums tax on a licensed excess line (i.e., covering unique or very large risks) insurance broker when a policy covering a risk where the home state of the insured is New York is procured through such broker from an unauthorized insurer. Transactions involving a licensed excess lines broker and an insurer not authorized to do business in New York are permissible under limited circumstances delineated in Article 21 of the Insurance Law. The tax is imposed at a rate of 3.6 percent of premiums covering risks located in New York.

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 gave the “home state” of the insured the sole authority to regulate and collect taxes on these transactions. Generally, the insured’s home state is the state where it is headquartered, or in the case of individuals, their place of residence.

The Insurance Law authorizes the Superintendent of the DFS to assess and collect retaliatory taxes from a foreign insurance corporation when the overall tax rate imposed by its home jurisdiction on New York companies exceeds the comparable tax rate imposed by New York on such foreign insurance companies.

Retaliatory taxes have been employed by the states since the nineteenth century to ensure a measure of fairness in the interstate taxation of insurance corporations. Retaliatory taxes deter other states from discriminating against foreign corporations and effectively require states with a domestic insurance industry to maintain an overall tax rate on insurance corporations that is generally consistent with other states.

Nevertheless, there are a variety of mechanisms for taxing insurance corporations throughout the states, and differences in overall tax rates among the states are inevitable. New York provides an additional measure of protection for its domestic insurance industry by allowing domestic corporations to claim a credit under Article 33 of the Tax Law for 90 percent of the retaliatory taxes legally required to be paid to other states.

Administration

Insurance companies that reasonably expect their tax liability to exceed \$1,000 for the current tax year are required to make a mandatory first installment of estimated tax and three additional estimated payments. The mandatory first installment is due 75 days from the end date of a taxpayer's fiscal year. The remaining three estimated tax payments are due on the 15th day of the third month of the fiscal year quarter. The majority of taxpayers have a fiscal year that ends December 31. The mandatory first installment for these taxpayers is due March 15 with the

remaining three estimated payments due on June 15, September 15 and December 15. A final payment is also required of all taxpayers. This payment is due 106 days (April 15 for taxpayers that have a fiscal year that ends December 31) from the end date of a taxpayer's fiscal year. Taxpayers that expect their tax liability to exceed \$100,000 for the current tax year are required to make a mandatory first installment equal to 40 percent of their tax from two tax years prior. Taxpayers with expected liability greater than \$1,000 and less than \$100,000 are required to make a mandatory first installment equal to 25 percent of their tax from two tax years prior. Life insurance companies with expected liability of less than \$1,000 make no mandatory first installment.

Tax Expenditures

Tax expenditures are defined as features of the Tax Law that by exclusion, exemption, deduction, allowance, credit, deferral, preferential tax rate or other statutory provision reduce the amount of a taxpayer's liability to the State by providing either economic incentives or tax relief to particular entities to achieve a public purpose. Article 33 taxpayers are eligible for several targeted tax credits, including the investment tax credit (ITC), the long-term care insurance credit, the low income housing credit, and the Excelsior Jobs program tax credits. For a more detailed discussion of tax expenditures, see the *Annual Report on New York State Tax Expenditures*, prepared by the Department of Taxation and Finance and the Division of the Budget.

There are also several types of insurance contracts that are exempt from the franchise tax. These include, but are not limited to, certain annuity contracts, certain reinsurance premiums and certain health insurance contracts for insured's aged 65 years and older. Certain corporations and other entities that provide insurance are exempt from State franchise taxes and the regional business surcharge. Non-profit medical expense indemnity corporations and other health service corporations, organized under Article 43 of the Insurance Law, are exempt from these State taxes. In addition, cooperative insurance companies in effect (operation) prior to January 1, 1974, are exempt from taxation while those formed on or after that date are subject to the tax.

Significant Legislation

Significant statutory changes to insurance taxes since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2013		
Royalty Income Loophole	Closed a loophole that allowed New York companies that earn royalty income to avoid paying taxes on that income. New York taxpayers must show on their tax return that the taxpayer's Non-New York parent company included the royalty income in its tax liability. The demonstration absolves taxpayers of the obligation to pay tax on their royalty income.	January 1, 2013
Historic Properties Tax Credit	Extended for five years the maximum Historic Preservation Tax Credit amount of \$5 million, which had previously been scheduled to revert to \$100,000 following the conclusion of tax year 2014, and permanently made the credit refundable for tax years beginning on or after January 1, 2015.	January 1, 2015
Hire-a-Vet	Provided a refundable tax credit for tax years 2015 and 2016 equaling 10 percent of the wages paid to a qualified veteran (capped at \$5,000) and 15 percent of wages paid to a qualified veteran (capped at \$15,000).	January 1, 2015

Subject	Description	Effective Date
Minimum Wage Reimbursement Credit	Provided a refundable tax credit for tax years 2014 through 2018 equal to the product of the number of hours worked by qualifying minimum wage-earning employees and 1) \$0.75 in tax year 2014; 2) \$1.31 in tax year 2015; and 3) \$1.35 in tax years 2016 through 2018. Qualifying employees must be students aged 16 to 19, and the credit is reduced if the federal minimum wage is increased to a level in excess of 85 percent of the New York minimum wage.	January 1, 2014
Excelsior Jobs Program	Changed the job requirement parameters for the Excelsior Jobs Program and allowed a portion of the unallocated tax credits from any taxable year to be used to award tax credits in another taxable year.	May 27, 2013
Legislation Enacted in 2014		
Corporate Tax Reform	Made the MTA surcharge permanent.	January 1, 2015
Legislation Enacted in 2015		
Expand the Excelsior Jobs Program	Expanded eligibility for the program to include entertainment companies that meet certain criteria, music production companies and video game software developers.	April 13, 2015
Brownfields Clean-Up Program	Reformed the program and extended the tax credits through March 31, 2026. Reforms included the prioritization of (1) site redevelopment in economically distressed areas, (2) low income housing, or (3) properties that are upside down or underutilized; also provided for the creation of an expedited remediation program (BCP-EZ), a more detailed description of eligible costs for redevelopment tax credits, and allowed the real property tax and environmental remediation insurance credits to sunset.	July 1, 2015
Legislation Enacted in 2016		
Conform to New Federal Tax Filing Dates	New York State tax filing deadlines were changed to conform to federal filing deadlines. C corporations are now required to file their final return on or before the 15 th day of the fourth month following the close each taxable year, which is April 15 for calendar year filers. Taxpayers are still required to remit mandatory first installments (MFI) of estimated taxes on or before the 15th day of the third month following the close of each taxable year, which is March 15 for calendar year filers. The amount of the MFI will now be a percentage of tax from two tax years prior, instead of the preceding year's tax.	January 1, 2016
Hire a Veteran Credit	Extended the credit for two additional years to January 1, 2019.	January 1, 2017
Low-Income Housing Credit	Extended the statewide limitation for the aggregate dollar amount of credit the Commissioner of DHCR (Division of Housing and Community Renewal) may allocate to eligible low-income buildings. The credit allocation pool was increased by \$8 million for each of the next five fiscal years.	April 1, 2017
Economic Transformation and Facility Redevelopment Program	Modified to include any psychiatric facility previously owned by New York State and located with the MCTD (excluding NYC) to qualify as a closed facility under this program. Prospective participants must submit an application by September 1, 2016.	April 13, 2016
Legislation Enacted in 2017		
Treat Disregarded Entities as a Single Taxpayer for Tax Credit Purposes	Protects existing tax credit structures following an August 2016 decision of the Tax Appeals Tribunal that could have resulted in many taxpayers losing their tax credits. An individual taxpayer and associated single-member LLCs (disregarded entities) will now be treated as one entity for tax credit purposes.	April 10, 2017

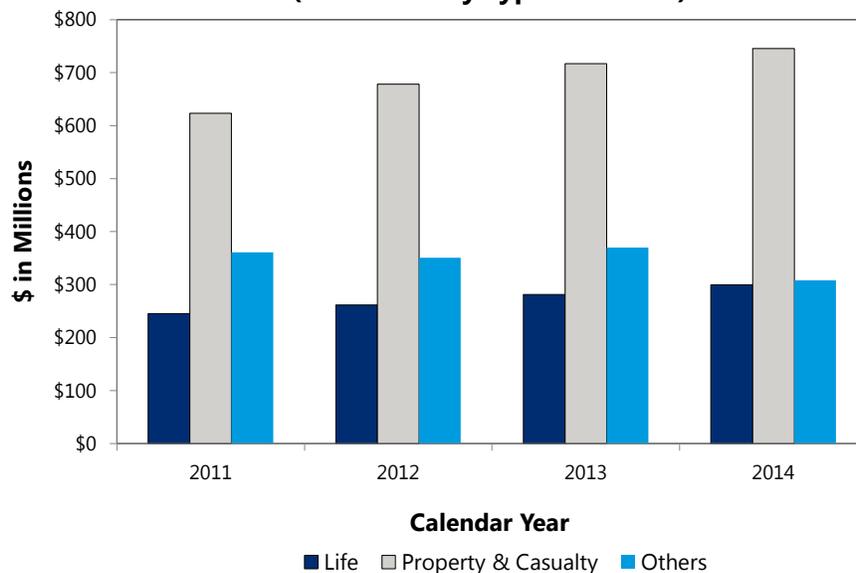
Excelsior Jobs Program	Doubled the excelsior research and development credit cap from three to six percent.	January 1, 2018
	Reduced the minimum required net new job requirements for most industries and added a definition for significant capital investment.	April 10, 2017
Employee Training Incentive Program	Expanded the current program to include incumbent worker training as an eligible expense, given that such training is part of a company's expansion and retention projects. The requirement to create additional jobs is removed.	April 10, 2017

Tax Liability

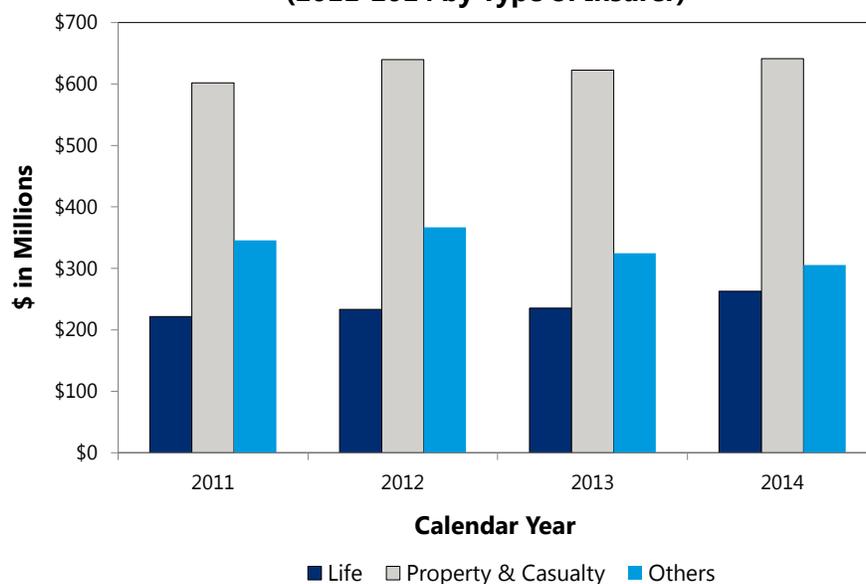
The Department of Taxation and Finance’s Insurance Franchise Tax Study File contains tax liability data for the 2014 tax year, the most recent year for which such data are available. Liability for tax years 2010 and 2012 is artificially inflated as a result of 2010 legislation that deferred certain tax credit claims (to tax years 2013 through 2015) that would have otherwise been included on tax returns for tax years 2010 through 2012. The most recent Study File indicates that the property and casualty sector is the largest sector, accounting for 53 percent of total tax liability. Other insurers, which include accident and health insurers, are the second largest, with 25 percent of total liability. The 22 percent balance is attributable to life insurers. These ratios have remained consistent over the past several years.

The following graphs show insurance tax liability for life insurers, property and casualty insurers and all other insurers from 2011 through 2014 before and after the application of the limitation of tax due as determined by taxable premiums and credits.

Article 33 Tax Liability *before* Limitation and Credits (2011-2014 by Type of Insurer)



**Article 33 Tax Liability *after* Limitation and Credits
(2011-2014 by Type of Insurer)**



Property and Casualty and Life Companies

The table below reports actual property and casualty premiums and growth from 2010 through 2016 for New York State. The three largest lines of business under the property and casualty sector in 2016 were automobile, general liability and worker's compensation. Total premiums for property and casualty companies grew by 3.5 percent in 2016, consistent with growth over the past few years.

PROPERTY AND CASUALTY INSURANCE PREMIUMS NEW YORK CALENDAR YEAR (millions of dollars/percent)							
Lines of Insurance	2010	2011	2012	2013	2014	2015	2016
Automobile	11,895.0	12,148.3	12,636.8	13,074.0	13,583.6	14,145.1	15,004.4
percent change	1.3	2.1	4.0	3.5	3.9	4.1	6.1
Worker's Compensation	3,623.2	4,157.4	4,754.7	5,191.5	5,261.1	5,523.6	5,893.9
percent change	5.8	14.7	14.4	9.2	1.3	5.0	6.7
Commercial Multi-Peril	2,986.5	3,056.9	3,249.5	3,487.5	3,613.5	3,591.8	3,659.4
percent change	(1.3)	2.4	6.3	7.3	3.6	(0.6)	1.9
General Liability	4,137.6	4,089.0	4,466.1	4,977.7	5,313.7	5,709.7	5,829.8
percent change	(0.4)	(1.2)	9.2	11.5	6.8	7.5	2.1
Homeowner's Multi-Peril	4,336.1	4,499.7	4,704.4	4,901.5	5,085.5	5,195.8	5,224.1
percent change	2.8	3.8	4.5	4.2	3.8	2.2	0.5
Other	6,036.0	6,196.3	6,133.0	6,373.1	6,436.3	6,391.7	6,380.8
percent change	(4.4)	2.7	(1.0)	3.9	1.0	(0.7)	(0.2)
TOTAL P/C PREMIUMS	33,014.4	34,147.6	35,944.4	38,005.2	39,293.8	40,557.8	41,992.5
percent change	0.4	3.4	5.3	5.7	3.4	3.2	3.5

Source: New York State Department of Financial Services Annual Report to the Governor and the Legislature and the NAIC's I-site for 2016.

For a more detailed discussion of the methods and models used to develop estimates and projections for insurance taxes, please see the *Economic, Revenue, and Spending Methodologies* at www.budget.ny.gov.

Receipts: Estimates and Projections

INSURANCE TAXES (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund							
Non-Audit Receipts	1,387	1,518	131	9.5	1,647	129	8.5
Audit Receipts	23	21	(2)	(9.9)	21	0	0.0
Executive Budget Initiatives	0	0	0	--	0	0	--
Total	1,410	1,539	129	9.1	1,668	129	8.4
Other Funds							
Non-Audit Receipts	164	172	8	5.0	190	18	10.5
Audit Receipts	6	10	4	72.4	10	0	0.0
Executive Budget Initiatives	0	0	0	--	0	0	--
Total	170	182	12	7.3	200	18	9.9
All Funds							
Non-Audit Receipts	1,551	1,690	140	9.0	1,837	147	8.7
Audit Receipts	29	31	2	6.5	31	0	0.0
Executive Budget Initiatives	0	0	0	--	0	0	--
Total	1,580	1,721	141	9.0	1,868	147	8.5

Note: Totals may differ due to rounding.

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$1,086.3 million, an increase of \$81 million (8.1 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$ 1,721 million, an increase of \$141.4 million (9 percent) from FY 2017. Projected growth in tax year 2017 liability as well as lower expected credit claims for assessments paid to the Life Insurance Guaranty Corporation (LIGC) account for the year-over-year increase.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$1,868 million, an increase of \$147 million (8.5 percent) from FY 2018. Projected growth in insurance tax premiums combined with lower expected LIGC credit claims contribute to this year-over-year growth. Additionally, FY 2019

includes the first year of premiums tax from the Family Paid Leave Act. Employers are required to either increase coverage or purchase additional policies to provide coverage for this benefit.

General Fund

General Fund FY 2018 receipts are estimated to be \$1,539 million, an increase \$129 million (9.1 percent) from FY 2017. The increase reflects the same trends impacting FY 2018 All Fund receipts.

General Fund FY 2019 receipts are projected to be \$1,668 million, an increase \$129 million (8.4 percent) from FY 2018. The increase reflects the same trends impacting All Funds receipts for FY 2019.

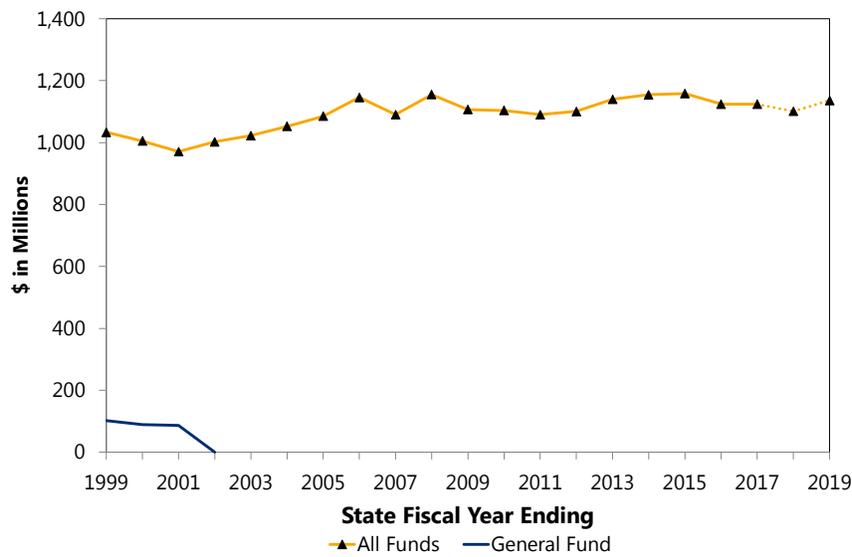
Other Funds

Insurance tax receipts from the business tax surcharge deposited to MTOAF generally reflect the All Funds trends described above. The MCTD 17 percent business tax surcharge will result in MTOAF deposits of an estimated \$182 million in FY 2018 and a projected \$200 million in FY 2019.

PETROLEUM BUSINESS TAXES (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Funds	1,123.7	1,101.0	(22.7)	(2.0)	1,136.0	35.0	3.2
All Funds	1,123.7	1,101.0	(22.7)	(2.0)	1,136.0	35.0	3.2

Note: Totals may differ due to rounding.

Petroleum Tax Receipts History and Estimates



PETROLEUM BUSINESS TAXES BY FUND (millions of dollars)								
	Net General Fund	Gross Special Revenue Funds	Refunds	Net Special Revenue Funds ¹	Gross Capital Projects Funds	Refunds	Net Capital Projects Funds ²	Net All Funds Receipts
FY 2009	0	508	15	493	639	25	614	1,107
FY 2010	0	502	11	491	631	18	613	1,104
FY 2011	0	497	13	484	626	20	606	1,090
FY 2012	1	505	17	488	638	27	611	1,100
FY 2013	0	521	15	506	658	24	634	1,140
FY 2014	0	531	17	514	668	27	641	1,155
FY 2015	0	537	23	514	681	37	644	1,158
FY 2016	0	515	16	499	650	25	625	1,124
FY 2017	0	512	12	500	638	14	624	1,124
Estimated								
FY 2018	0	507	20	487	638	24	614	1,101
FY 2019								
Current Law	0	517	18	499	659	22	637	1,136
Proposed Law	0	517	18	499	659	22	637	1,136

¹ Dedicated Mass Transportation Trust Fund and Mass Transportation Operating Assistance Fund.
² Dedicated Highway and Bridge Trust Fund.

Proposed Legislation

Legislation proposed with this Budget would allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions.

Description

Tax Base and Rate

Article 13-A of the Tax Law imposes a tax on petroleum businesses for the privilege of operating in the State, based upon the quantity of various petroleum products imported for sale or use in the State. PBT rates have two components: the base tax, whose rates vary by product type; and the supplemental tax, which is imposed, in general, at a uniform rate.

Tax rates are indexed with annual adjustments made on January 1 of each year to the base and supplemental tax rates to reflect the percent change in the producer price index (PPI) for refined petroleum products for the 12 months ending August 31 of the preceding year. To prevent significant changes in tax rates resulting from large changes in the petroleum PPI, tax rates cannot increase or decrease by more than 5 percent per year. In addition to the 5 percent cap on tax rate changes, the statute requires, in general (i.e., excluding diesel), that the base and supplemental tax rates each be rounded to the nearest tenth of one cent. As a result, the percentage change in tax rates is usually less than the 5 percent limit.

Based on changes in the petroleum PPI, the PBT rate index decreased by 5 percent on January 1, 2017, and increased by 5 percent on January 1, 2018. The petroleum PPI is estimated to increase by 20.8 percent through August 2018, resulting in a 5 percent increase in PBT rates on January 1, 2019.

PETROLEUM BUSINESS NET TAX RATES FOR 2017 - 2019 (cents per gallon)									
Petroleum Product	2017			2018			2019 ¹		
	Base	Supp	Total	Base	Supp	Total	Base	Supp	Total
Automotive fuel									
Gasoline and other non diesel	9.70	6.50	16.20	10.10	6.80	16.90	10.60	7.10	17.70
Highway Use Diesel	9.70	4.75	14.45	10.10	5.05	15.15	10.60	5.35	15.95
Aviation gasoline or Kero-Jet Fuel	6.50	0.00	6.50	6.80	0.00	6.80	7.10	0.00	7.10
Non-Highway Use diesel fuels									
Commercial Gallonage	8.90	0.00	8.90	9.30	0.00	9.30	9.70	0.00	9.70
Nonresidential heating	4.80	0.00	4.80	5.00	0.00	5.00	5.20	0.00	5.20
Residual petroleum products									
Commercial gallonage	6.80	0.00	6.80	7.10	0.00	7.10	7.40	0.00	7.40
Nonresidential heating	3.70	0.00	3.70	3.80	0.00	3.80	3.90	0.00	3.90
Railroad diesel fuel	8.40	0.00	8.40	8.80	0.00	8.80	9.30	0.00	9.30

¹ Projected – The projected petroleum producer price index increase of 10 percent through August 2018 will result in a projected increase of 5 percent in the PBT rate index on January 1, 2019.

PETROLEUM PPI AND PETROLEUM BUSINESS TAX RATE INDEX		
(percent change)		
Year	Petroleum PPI	PBT Rate Index
2009	42.1	5.0
2010	(34.9)	(5.0)
2011	18.6	5.0
2012	29.8	5.0
2013	9.2	5.0
2014	(0.8)	(0.8)
2015	(3.2)	(3.2)
2016	(29.1)	(5.0)
2017	(30.4)	(5.0)
2018	13.6	5.0
2019*	20.8	5.0

* Estimated

The Motor Fuel Tax section contains a table showing New York’s combined fuel tax rank among the 50 states and the District of Columbia.

Administration

The tax is collected monthly in conjunction with the State motor fuel tax (Article 12-A). Article 13-A also imposes the petroleum business carrier tax on fuel purchased outside New York and consumed within the State. The carrier tax is collected quarterly along with the fuel use tax portion of the highway use tax (see section titled Highway Use Tax).

Businesses with yearly motor fuel and petroleum business tax liability of more than \$5 million are required to remit, using electronic funds transfer, their tax liability for the first 22 days of the month within three business days after that date. Taxpayers can choose to make either a minimum payment of three-fourths of the comparable month’s tax liability for the preceding year, or 90 percent of actual liability for the first 22 days. The tax for the balance of the month is paid with the monthly returns filed by the twentieth of the following month.

Tax Expenditures

Specifically exempted from Article 13-A taxes are fuels used for manufacturing, residential or not-for-profit organization heating purposes, fuel sold to governments, sales for export from the State, kerosene other than kero jet fuel, crude oil, liquefied petroleum gas (LPG), certain bunker fuel, and motor fuels sold to volunteer ambulance and volunteer fire departments. For a complete list of tax expenditure items related to the PBT, see the *New York State Tax Expenditure Report*.

Significant Legislation

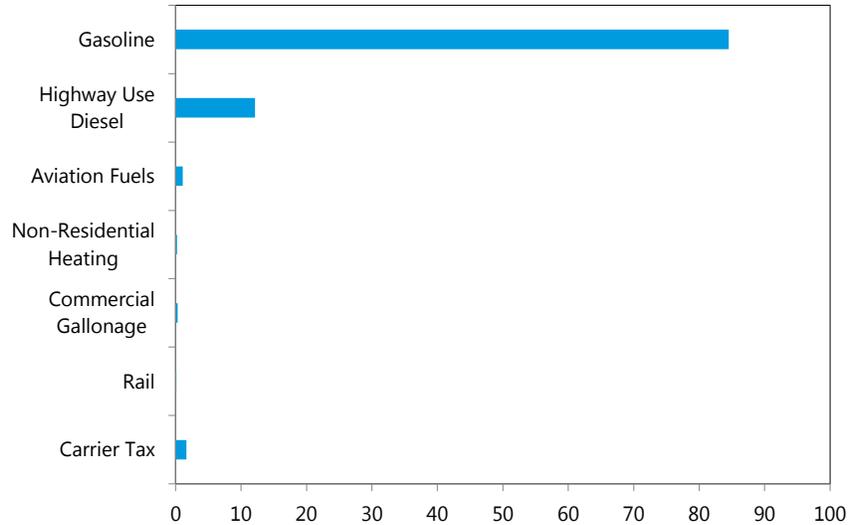
Significant statutory changes to petroleum business taxes since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2012		
Alternative Fuels	Extended PBT exemptions on alternative fuels through August 31, 2014.	September 1, 2012
Legislation Enacted in 2013		
Volunteer First Responders	Provides a reimbursement for motor fuel and diesel motor fuel used by volunteer ambulance and fire departments.	June 1, 2013
Interdistributor Sales	Allowed for tax free interdistributor sales of highway diesel motor fuel sold below the rack (i.e., not delivered by truck).	August 1, 2013
Legislation Enacted in 2014		
Alternative Fuels	Extended the exemption on alternative fuels through August 31, 2016.	September 1, 2014
Legislation Enacted in 2016		
Alternative Fuels	Extended the exemption on alternative fuels through August 31, 2021.	September 1, 2016
Expand Motor Fuel Wholesaler Registration Requirements	Required certain wholesalers of motor fuel to file informational returns and register with the Department of Taxation and Finance. This information will be used to detect and prevent tax evasion.	December 1, 2016
Comply with Federal Tax Regulations on Aviation Fuel	Required that all revenue collected from the petroleum business tax on aviation fuel is directed to a new dedicated airport fund.	April 1, 2017

Tax Liability

Petroleum business tax receipts are primarily a function of the number of gallons of fuel imported into the State by distributors. Taxable gallonage is largely determined by overall fuel prices, the number of gallons held in inventories, the fuel efficiency of motor vehicles and State economic performance. The following chart displays the composition of PBT receipts by fuel type.

PBT Components Share of FY 2017 Receipts



For a more detailed discussion of the methods and models used to develop estimates and projections for the petroleum business taxes, please see the *Economic, Revenue, and Spending Methodologies* at www.budget.ny.gov.

Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$827 million, a decrease of \$36.1 million (4.2 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$1,101 million, a decrease of \$22.7 million (2 percent) from FY 2017. The decrease in receipts is primarily due to the 5 percent decrease in the PBT index on January 1, 2017, partially offset with results of a 5 percent increase in the PBT index on January 1, 2018.

Petroleum business tax receipts derived from motor fuel and diesel motor fuel are assumed to follow the same consumption trends as fuel subject to the motor fuel excise tax (see section titled Motor Fuel Tax).

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$1,136 million, an increase of \$35 million (3.2 percent) from FY 2018. This is due to a 5 percent increase in the PBT index, effective January 1, 2018, paired with a projected 5 percent increase in the PBT index on January 1, 2019.

General Fund

No PBT receipts are deposited into the General Fund.

Other Funds

The base and supplemental tax are split as follows:

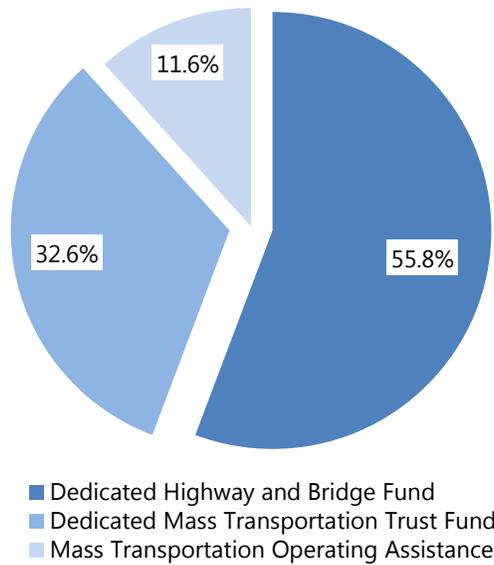
PBT BASE AND SUPPLEMENTAL TAX FUND DISTRIBUTION (current law) (percent)		
<u>Tax Category</u>	<u>MTOAF¹</u>	<u>Dedicated Funds Pool²</u>
Base Tax	19.7	80.3
Supplemental Tax	0.0	100.0

¹ This fund is split between the Public Transportation System Operating Assistance Account and the Metropolitan Mass Transportation Operating Assistance Account.

² This pool is split between the Dedicated Mass Transportation Trust Fund (37 percent) and the Dedicated Highway and Bridge Trust Fund (63 percent).

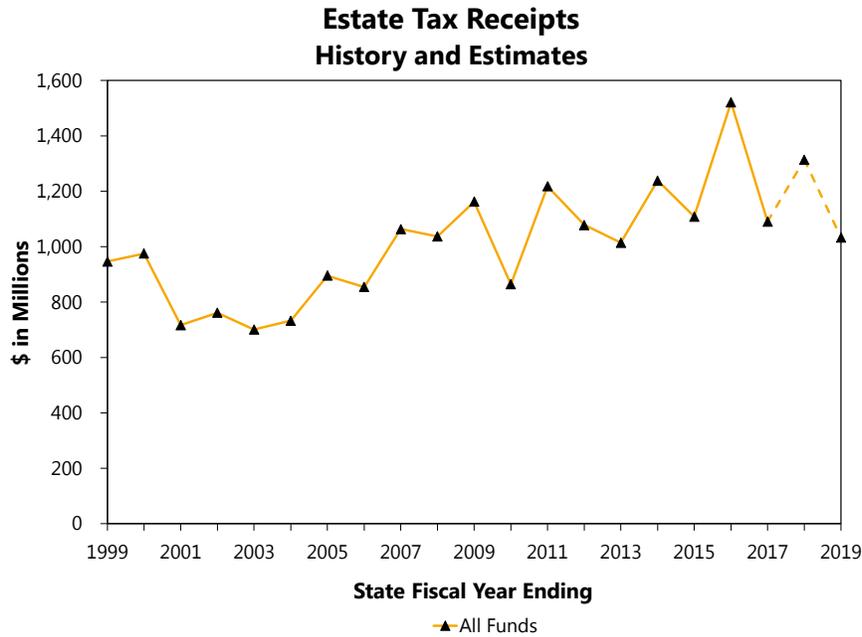
Petroleum business tax receipts in FY 2018 are estimated to be \$128.6 million for the Mass Transportation Operating Assistance Fund (MTOA), \$613.8 million for the Dedicated Highway and Bridge Trust Fund (DHBTF), and \$358.6 million for the Dedicated Mass Transportation Trust Fund (DMTTF). Petroleum business tax receipts in FY 2019 are projected to be \$131.2 million for MTOA, \$637 million for the DHBTF, and \$367.8 million for DMTTF. Effective FY 2018, revenue collected from the tax on aviation fuel will be directed to an Aviation Purpose Account within the DHBTF. This revenue is estimated to be \$3.6 million in FY 2018 and \$10.7 million in FY 2019.

Estimated PBT Receipts FY 2018



ESTATE TAX (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	1,090.5	1,314.0	223.5	20.5	1,033.0	(281.0)	(21.4)
Other Funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All Funds	1,090.5	1,314.0	223.5	20.5	1,033.0	(281.0)	(21.4)

Note: Totals may differ due to rounding. Excludes gift tax residual payments.



ESTATE TAX BY FUND (millions of dollars)				
	Gross General Fund		General Fund	All Funds Receipts
		Refunds		
FY 2009	1,277	114	1,163	1,163
FY 2010	910	45	865	865
FY 2011	1,269	51	1,218	1,218
FY 2012	1,148	69	1,078	1,078
FY 2013	1,070	56	1,014	1,014
FY 2014	1,300	61	1,238	1,238
FY 2015	1,179	71	1,108	1,108
FY 2016	1,598	77	1,521	1,521
FY 2017	1,170	80	1,091	1,091
Estimated				
FY 2018	1,404	90	1,314	1,314
FY 2019				
Current Law	1,113	80	1,033	1,033
Proposed Law	1,113	80	1,033	1,033

Proposed Legislation

Legislation proposed with this Budget would allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions.

Description

Tax Base and Rate

New York imposes a tax on the estates of deceased State residents and on the part of a nonresident's estate made up of real and tangible personal property located within New York State. The New York estate tax is based on the estate tax provisions of the Federal Internal Revenue Code, with New York modifications.

The tax base is calculated by first determining the value of the gross estate using Federal estate tax provisions. The Federal gross estate comprises the total amount of real estate, stocks and bonds, mortgages, notes, cash, insurance on the decedent's life, jointly owned property, other miscellaneous property, transfers during the decedent's life, powers of appointment, and annuities that the decedent owned.

The Federal gross estate is reduced by the Qualified Conservation Easement Exclusion and the following deductions: funeral expenses and expenses incurred in administering property subject to claims; debts of the decedent; mortgages and liens; net losses during administration, and expenses incurred in administration of the property not subject to claims; bequests to a surviving spouse (marriage deduction); charitable, public, and similar gifts; and a qualified family-owned business interest deduction. This yields the taxable estate for New York and becomes the basis for calculating New York's estate tax.

The total value of all items of real and tangible personal property of the taxpayer located outside of New York State is divided by the taxpayer's Federal gross estate to arrive at the proportion of the estate outside New York State. This proportion is then used to allocate the taxable estate to New York.

The computation of New York State estate taxes is a graduated schedule with rates that range from 3.06 percent on adjusted taxable estates not in excess of \$500,000, to 16 percent on adjusted taxable estates for New York State of \$10,100,000 or more. Practically, however, the tax is not imposed below the threshold as noted in the following paragraph.

The FY 2014 Enacted Budget replaced the unified threshold of \$1 million (associated with the State's prior "pick-up tax" methodology) with an applicable credit equal to the tax on a basic threshold amount equal to \$2,062,500 for those dying in FY 2015; \$3,125,000 in FY 2016; \$4,187,500 in FY 2017; and \$5,250,000 from April 1, 2017 to December 31, 2018. The basic threshold will equal an amount equal to the Federal basic threshold amount pursuant to Federal law as it existed on December 1, 2017, with annual inflation indexing for those dying on or after January 1, 2019. The credit, similar to the results under the pick-up tax, phases out in the range

from the threshold amount to 5 percent above the threshold amount (i.e., taxable estates at more than 105 percent of the threshold pay the full tax calculated on the rate table).

Administration

The Surrogate Court has jurisdiction of the probate of the estate and the authority to finalize the amount of the tax. The tax due is required to be paid on or before the date fixed for filing the return, nine months after the decedent’s date of death. A twelve-month extension may be granted by the Commissioner of Taxation and Finance.

If the payment of the tax will cause undue hardship, the Commissioner may authorize a payment extension for up to four years from the decedent’s date of death. It may be necessary for the taxpayer to provide a bond in an amount of no more than twice the amount due if an extension is approved for payment of the tax.

If the payment of the tax due is not made within nine months of the decedent’s date of death, additional interest is charged to the remaining payments of the tax. The interest for extended payments is computed and compounded daily on the portion remaining from the first day of the tenth month following the decedent’s date of death to the date of the payment. There is no discount for early payment of the estate tax.

The executor and the beneficiaries who have received property are personally liable for the payment of the estate tax. If there is no will, the Federal, New York and foreign death taxes paid or payable by the estate’s representatives are apportioned among the beneficiaries.

There is reciprocity with other states for the collection of inheritance and estate taxes in nonresident estates. Refund claims of an overpayment of the tax must be filed by the executor within three years from the time the return was filed or two years from the time the tax was paid, whichever is later.

Tax Expenditures

The principal policy tool used to relieve the estate tax burden is the tax threshold, which effectively exempts otherwise taxable estates under such amounts. The increased threshold amounts enacted in 2014 were intended to provide relief to small business and farmers.

Significant Legislation

Significant statutory changes to the estate tax since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2014		
Reform Estate Tax	Created a “stand-alone” NYS estate tax with a basic threshold amount that increases over four years and equals the Federal basic exemption amount starting January 1, 2019.	April 1, 2014

Tax Liability

The recent yield of this tax has been heavily influenced by two factors: 1) annual variations in the relatively small number of extra-large and super-large estates, and 2) the value of the equity market, given the large component of corporate stock in large taxable estates. As a result, volatility is expected to remain a characteristic of this revenue source.

In developing projections for estate tax receipts, the value of household net worth is used to forecast receipts from estates that make payments of less than \$4 million. In addition to the value of equities, a distributional analysis is utilized to estimate receipts and the number of estates where payments exceed \$4 million.

For a more detailed discussion of the methods and models used to develop estimates and projections for the estate tax, please see the *Economic, Revenue, and Spending Methodologies* at www.budget.ny.gov.



Receipts: Estimates and Projections

ESTATE TAX RECEIPTS BY SIZE OF ESTATE (millions of dollars)						
	Super-Large ¹ and Extra-Large ² Estates		Large Estates ³		Small Estates ⁴	Grand Total
	Number	Taxes	Number	Taxes	Taxes	Taxes
FY 2009	30	418.9	246	297.4	446.3	1,162.6
FY 2010	23	220.2	197	236.4	408.0	864.6
FY 2011	34	420.8	279	344.1	453.2	1,218.1
FY 2012	30	232.1	306	371.9	474.4	1,078.4
FY 2013	25	219.8	273	306.9	487.3	1,014.0
FY 2014	36	434.8	285	327.1	476.4	1,238.3
FY 2015	38	320.8	285	330.6	456.8	1,108.2
FY 2016	55	733.0	358	431.6	356.1	1,520.7
FY 2017	44	443.3	385	451.0	196.2	1,090.5
Estimated						
FY 2018	55	758.7	395	474.0	81.3	1,314.0
FY 2019	42	529.7	400	490.5	12.8	1,033.0

¹ Payment of at least \$25 million.
² Payment of at least \$4 million, but less than \$25 million.
³ Payment of at least \$0.5 million, but less than \$4 million.
⁴ Payment less than \$0.5 million. (Small estates include all CARTS less all refunds.)

FY 2018 Estimates

All Funds preliminary receipts through December are \$967.7 million, an increase of \$81.5 million (9.2 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$1,314 million, an increase of \$223.5 million (20.5 percent) from FY 2017. This increase is mainly the result of an estimated increase in the number of super-large payments and average super-large payment value compared to FY 2017, partially offset by 2014 legislation that raised the estate tax threshold.

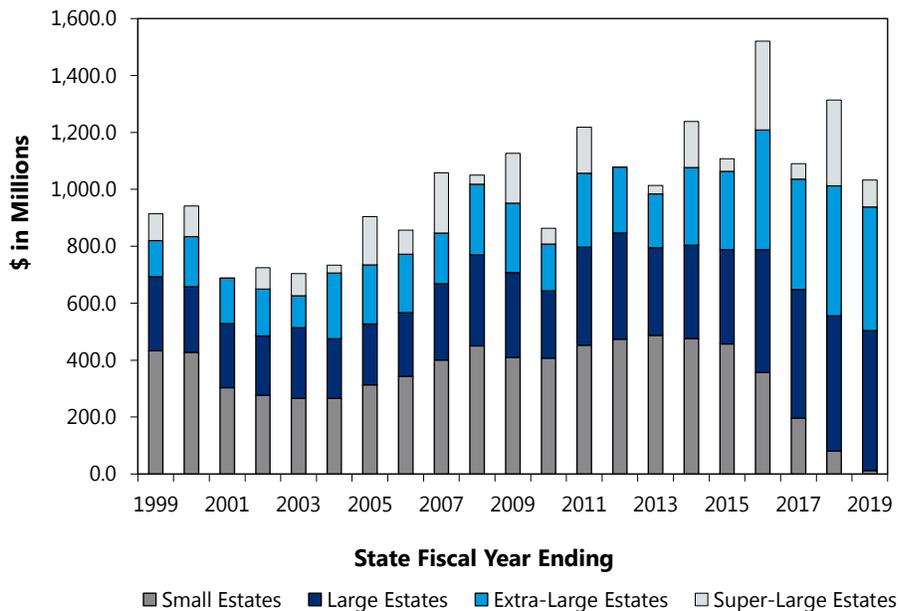
Small estate FY 2018 receipts are estimated to be \$81.3 million, a decrease of \$114.9 million (58.6 percent) from FY 2017. Large estate FY 2018 receipts are estimated to be \$474 million, an increase of \$23 million (5.1 percent) from FY 2017. Extra-large (payments between \$4 million and \$25 million) and super-large (payments greater than \$25 million) estate FY 2018 payments are estimated to be a combined \$758.7 million, an increase of \$315.4 million (71.1 percent) from FY 2017.

FY 2019 Projections

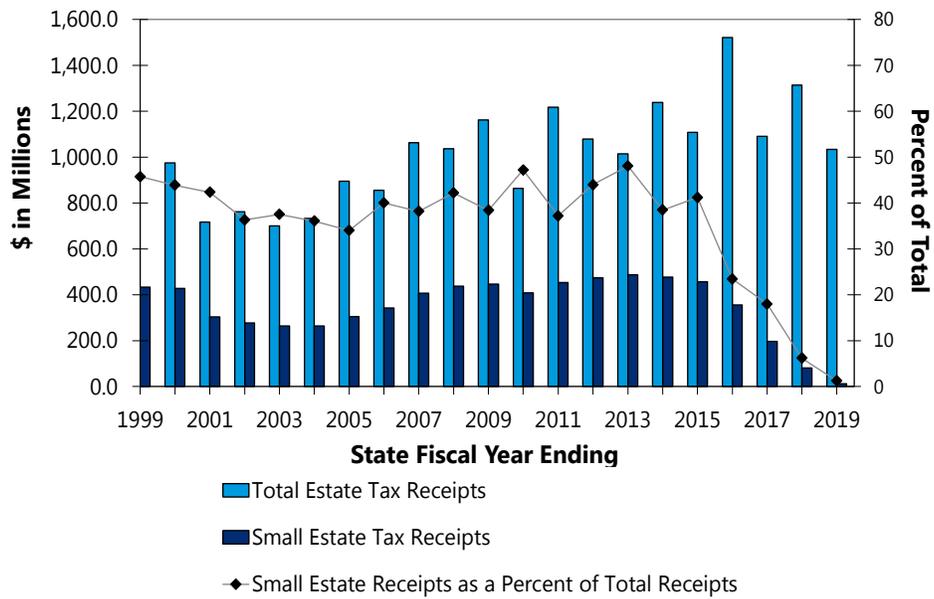
All Funds FY 2019 receipts are projected to be \$1,033 million, a decrease of \$281 million (21.4 percent) from FY 2018. This decrease is mainly the result of a return to an average historical number and value of super-large payments, as well as 2014 legislation that raised the estate tax filing threshold from one, to over five million dollars.

Large estate FY 2019 receipts are projected to be \$490.5 million, an increase of \$16.5 million (3.5 percent), and receipts from small estate payments are projected to be \$12.8 million, a decrease of \$68.5 million (84.3 percent) from FY 2018. Super-large and extra-large estate FY 2019 receipts are projected to be \$529.7 million, a decrease of \$229 million (30.2 percent) from FY 2018.

New York State Estate Tax Receipts



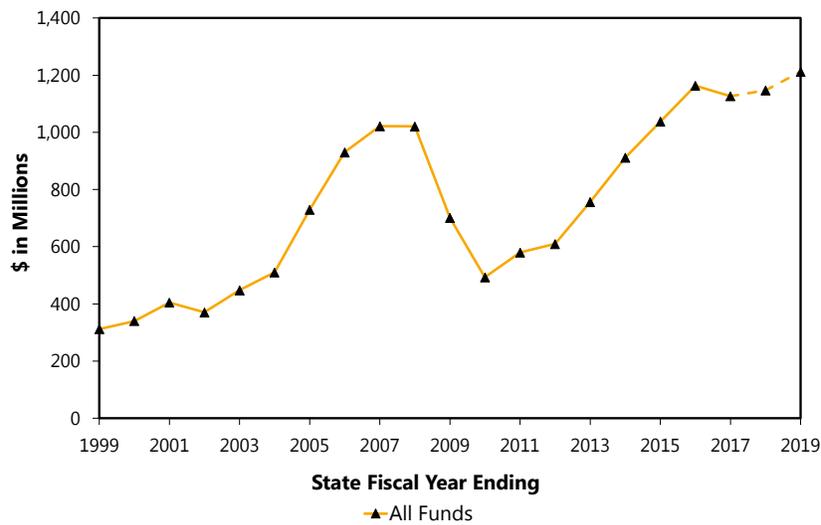
New York State Total Estate Tax Receipts vs. Receipts from Small Estates



REAL ESTATE TRANSFER TAX (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Funds	1,126.4	1,147.0	20.6	1.8	1,212.0	65.0	5.7
All Funds	1,126.4	1,147.0	20.6	1.8	1,212.0	65.0	5.7

Note: Totals may differ due to rounding.

Real Estate Transfer Tax Receipts History and Estimates



REAL ESTATE TRANSFER TAX BY FUND (millions of dollars)					
	Capital Projects Funds ¹	Gross Debt Service Funds ²	Refunds	Net Debt Service Funds ²	All Funds Receipts
FY2009	237	465	1	464	701
FY2010	199	295	1	294	493
FY2011	119	461	0	461	580
FY2012	119	492	1	491	610
FY2013	119	637	0	637	756
FY2014	119	793	1	792	911
FY2015	119	919	0	919	1,038
FY2016	119	1,044	1	1,043	1,162
FY2017	119	1,008	1	1,007	1,126
Estimated					
FY2018	119	1,029	1	1,028	1,147
FY2019					
Current Law	119	1,094	1	1,093	1,212
Proposed Law	119	1,094	1	1,093	1,212

¹ Environmental Protection Fund.
² Clean Water/Clean Air Bond Debt Service Fund.

Proposed Legislation

Legislation proposed with this Budget would:

- Amend the refund and joint liability provisions of the real estate transfer tax; and
- Allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions.

Description

Tax Base and Rate

The New York State real estate transfer tax is imposed by Article 31 of the Tax Law on each conveyance of real property or interest therein, when the consideration exceeds \$500, at a rate of \$4 per \$1,000 of consideration (price). The tax became effective August 1, 1968. Prior to May 1983, the rate was \$1.10 per \$1,000 of consideration. Effective July 1, 1989, an additional 1 percent tax was imposed on residential conveyances for which the consideration is \$1 million or more.

Administration

Typically, the party conveying the property (grantor) is responsible for payment of the tax, either through the purchase of adhesive documentary stamps, by the use of a metering machine, or through other approaches provided by the Commissioner of Taxation and Finance.

For deeded transfers, the tax is paid to a recording agent (generally the county clerk). For non-deeded transactions, payments are made directly to the Commissioner of Taxation and Finance (“central office” collections). All payments are due to the recording agent within 15 days of the transfer. For counties with more than \$1.2 million in liability during the previous calendar year, payments received between the first and fifteenth day of the month are due to the Commissioner by the twenty-fifth day of the same month. Payments received in such counties between the sixteenth and the final day of the month are due to the Commissioner by the tenth day of the following month. Payments from all other counties are due to the Commissioner by the tenth day of the month following their receipt. Although the county payment schedule is statutory, it is not useful for predicting monthly cash flows, due to the unpredictable payment behavior of some large counties.

Tax Expenditures

The tax rate imposed on conveyances into new or existing real estate investment trusts (REITs) is \$2 per \$1,000 of consideration. New York State (including agencies, instrumentalities, subdivisions, and public corporations), the United States (including agencies and instrumentalities), and the United Nations are exempt. If an exempt entity is the grantor in a transfer, the tax burden falls upon the grantee. Other significant exemptions from the tax are: conveyances pursuant to the Federal bankruptcy act and mere change of identity conveyances. A deduction from taxable

consideration is allowed for any lien or encumbrance remaining at the time of sale involving a one, two, or three-family house or individual residential condominium unit.

Significant Legislation

Significant statutory changes to the real estate transfer tax since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2013		
START-UP NY	Established tax-free zones on or near qualifying university and college campuses. Qualifying businesses operating within such zones are exempt from taxation under the real estate transfer tax.	January 1, 2014

Tax Liability

Real estate transfer tax receipts are a function of the number and type of conveyances and the consideration per conveyance. Conveyances and prices are largely determined by mortgage rates, vacancy rates and inflation. The Manhattan commercial real estate market, which has historically been subject to large swings in demand and capacity, can have a significant impact on receipts.

For a more detailed discussion of the methods and models used to develop estimates and projections for the real estate transfer tax, please see the *Economic, Revenue, and Spending Methodologies* at www.budget.ny.gov.

Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$864.7 million, an increase of \$0.4 million from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$1,147 million, an increase of \$20.6 million (1.8 percent) from FY 2017.

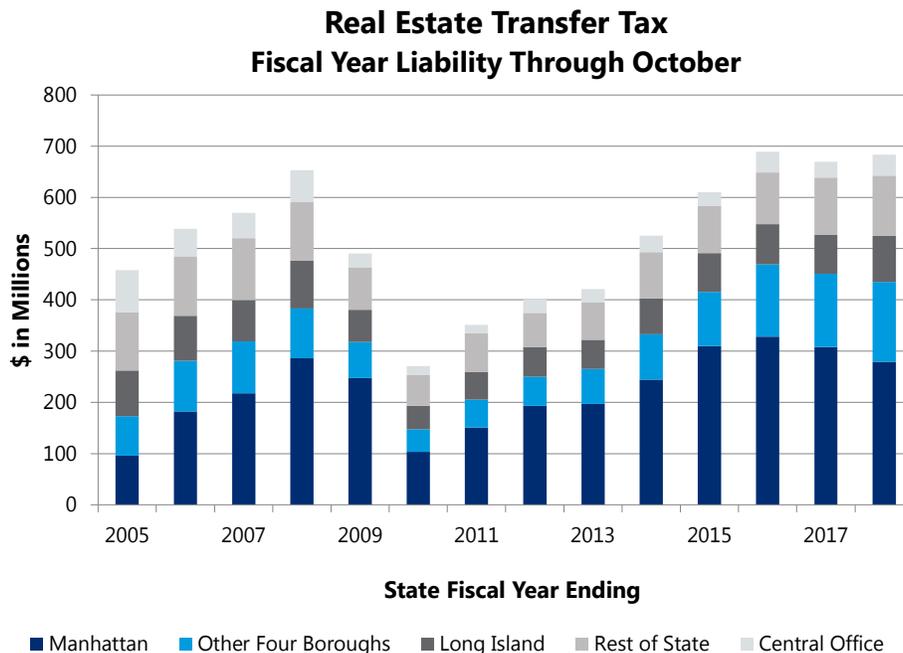
New York’s recent residential real estate experience has largely followed nationwide trends. Pending and closed sales exhibited continued growth statewide through November 2017 compared to the same period in the prior year; however, housing inventory contracted by double digits over the same period. The combination of strong homebuyer demand and shrinking inventory has led the statewide average and median sales prices to grow between 5 and 6 percent through November 2017. Mortgage rates have increased slightly and will likely continue to increase into 2018 due to the Federal Reserve’s expected rate increases. Statewide, the

expectation for the remainder of the fiscal year is that market growth will be relatively weak compared to the same period in FY 2017.

New York City specifically has seen growth in both housing prices and transaction volumes slow compared to the record growth exhibited in recent years. Manhattan has seen its median sales price grow moderately, while the average sales price has declined slightly through December 2017 compared to the same period in the prior year. Total home sales have grown by approximately 4 percent over the same period, though total sales volume in the fourth quarter was at its lowest level in six years, likely due to the uncertainty regarding the impact of the new Federal tax reform law. In particular, the Manhattan luxury market has declined in terms of sales price and transaction volume as the pipeline of new development legacy contracts where deals were signed at significantly higher prices has cleared out. This should allow the luxury market to return to a more stable level in terms of pricing. The other boroughs in New York City have exhibited strong growth in both sales price and number of sales.

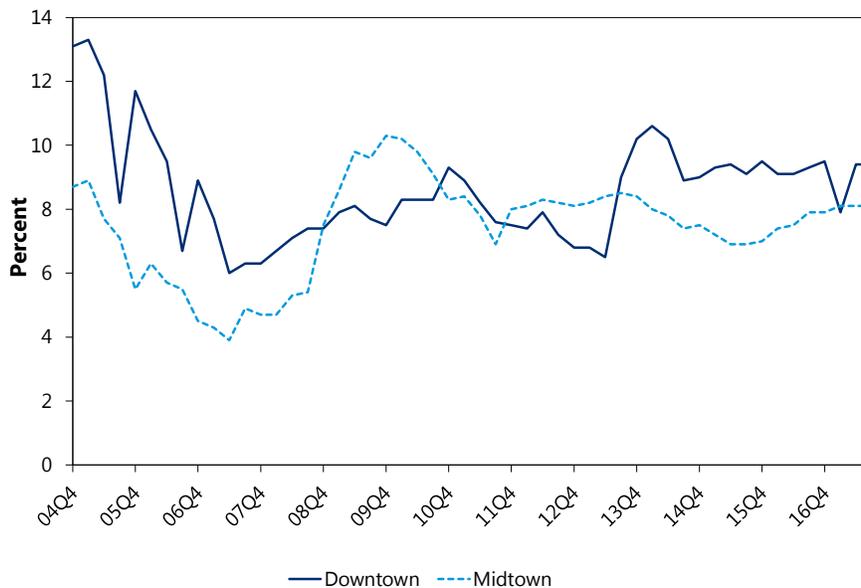
The mansion tax has played an important role in the receipts growth that has characterized recent fiscal years. In FY 2008, mansion tax receipts were \$316 million (31.1 percent of total receipts). In FY 2017, mansion tax receipts were \$424.6 million (37.8 percent of total receipts), substantially higher than the 2008 pre-recession peak. Mansion tax receipts are expected to total \$439.3 million (38.3 percent of total receipts) in FY 2018. This growth in mansion tax receipts has largely been driven by an increase in the volume of sales as the number of transactions in FY 2017 was 23 percent higher than the number in FY 2008.

The following chart compares tax liability by location through October since FY 2005.



In New York City, commercial real estate transfer tax collections and transactions have declined significantly year-over-year. Transaction volume has declined since the 2014 peak and prices have dropped from their peak in 2015. This is a normal market correction following recent years characterized by record sales volume and prices. Overall, the Manhattan commercial market has slightly higher vacancies when compared to the prior year. Downtown’s vacancy rates were 9.4 percent during both the second and third quarter of 2017 compared to 9.1 and 9.3 percent during the same period in 2016. Midtown rates increased from 7.5 and 7.9 percent to 8.1 and 8.1 percent during the same period.

Vacancy Rates in Manhattan



FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$1,212 million, an increase of \$65 million (5.7 percent) from FY 2018.

The short term outlook for the housing market is based upon a number of factors, including small growth in both housing starts and housing prices, mortgage rates slowly ticking upward, continued easing of credit standards and steady overall economic growth. The uncertainty regarding the impact of the new federal tax bill on the housing market does pose a negative risk, likely concentrated on the high-end portion of the market. Some of this risk is mitigated by the high percentage of foreign buyers in New York City who are unaffected by the Federal tax law changes.

In FY 2019, moderate growth in REIT and other commercial activity is expected, following the likely market correction that has occurred during FY 2018. The continuing diversification of the NYC economy is likely to positively impact the commercial market and demand for office space moving forward.

General Fund

The General Fund receives no direct deposit of real estate transfer tax receipts.

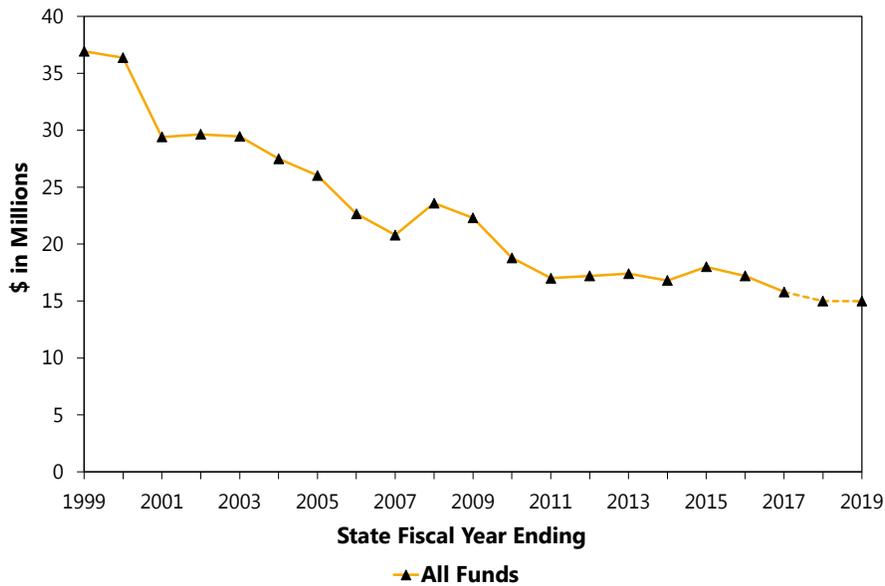
Other Funds

A statutory annual amount of real estate transfer tax receipts of \$119.1 million is deposited into the Environmental Protection Fund. Remaining real estate transfer tax receipts are deposited into the Clean Water/Clean Air Fund for debt service. The balance of the Clean Water/Clean Air Fund not needed for debt service is transferred into the General Fund.

PARI-MUTUEL TAXES (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	15.8	15.0	(0.8)	(5.1)	15.0	0.0	0.0
Other Funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All Funds	15.8	15.0	(0.8)	(5.1)	15.0	0.0	0.0

Note: Totals may differ due to rounding.

Pari-Mutuel Taxes Receipts History and Estimates



PARI-MUTUEL TAXES BY FUND (thousands of dollars)				
	General Fund			All Funds Receipts
	Flat	Harness	OTB	
FY 2009	7,602	589	14,110	22,301
FY 2010	6,710	669	11,439	18,818
FY 2011	7,355	661	9,024	17,040
FY 2012	10,903	589	5,706	17,198
FY 2013	11,407	593	5,416	17,416
FY 2014	11,039	538	5,244	16,821
FY 2015	12,428	482	5,128	18,038
FY 2016	11,423	466	5,293	17,182
FY 2017	10,604	426	4,726	15,756
Estimated				
FY 2018	10,310	380	4,310	15,000
FY 2019				
Current Law	10,310	380	4,310	15,000
Proposed Law	10,310	380	4,310	15,000

Proposed Legislation

Legislation proposed with this Budget would:

- Extend certain tax rates and certain simulcasting provisions for one year; and
- Allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions.

Description

Tax Base and Rate

The State has levied taxes on pari-mutuel wagering activity conducted at horse racetracks since 1940. There are numerous tax rates imposed on wagering on horse races, which vary depending upon the type of racing, the type of wager (regular, multiple, or exotic) and location at which it is placed.

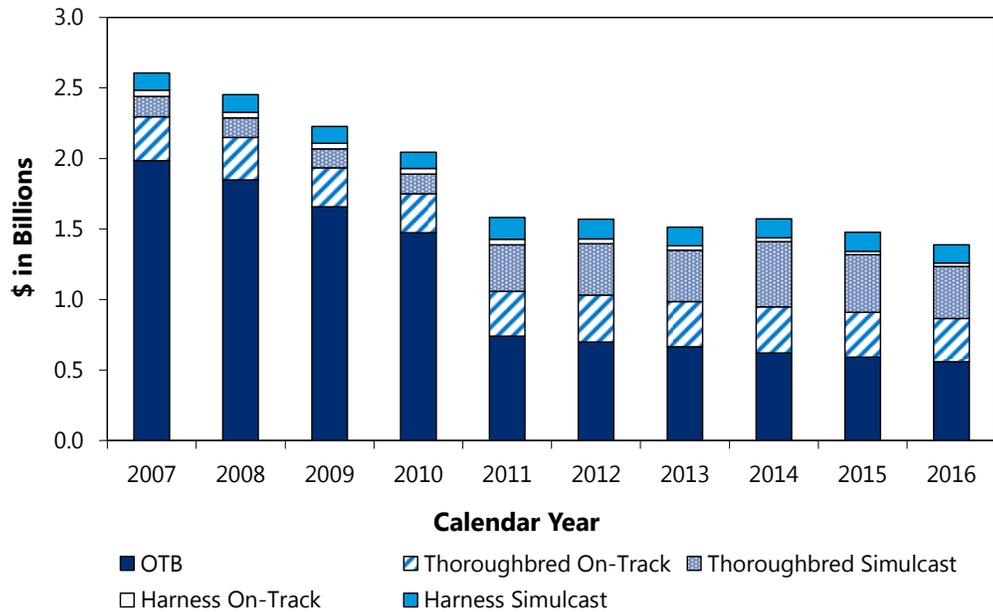
Receipts are broken down into three categories:

- Flat: There are four thoroughbred (“flat”) facilities including Finger Lakes, Aqueduct, Belmont and Saratoga. In 2008, the State awarded a 25-year license to the New York Racing Association (NYRA) to operate Aqueduct, Belmont, and Saratoga Racetracks;
- Harness: There are seven harness tracks located in Batavia, Buffalo, Monticello, Saratoga, Tioga, Vernon and Yonkers; and
- Off-track Betting (OTB): There are operational OTBs in five regions (Capital District, Catskill, Nassau, Suffolk and Western). Since the demise of the New York City OTB in December 2010, the statewide handle from OTBs has declined from over 75 percent to 40 percent in 2016.

To promote industry growth, the State has authorized higher take-outs to support capital improvements at non-NYRA tracks and, more importantly, reduced its on-track tax rates by as much as 90 percent at thoroughbred and harness tracks, authorized the expansion of simulcasting at racetracks and OTB facilities, allowed in-home simulcasting experiments and telephone betting, lowered the tax rates on simulcast wagering, reduced tax rates on NYRA bets, and directed a portion of video lottery gaming receipts to be used for purse enhancements and for the breeders’ fund.

The following chart compares handle by source for the calendar year since 2006.

New York State Pari-Mutuel Handle by Source



Administration

The New York State Gaming Commission has general jurisdiction over all horse racing activities and all pari-mutuel betting activities, both on-track and off-track, in the State and over the corporations, associations, and persons engaged in gaming activities. Racetracks and OTBs calculate the pari-mutuel tax owed to the State from the portion of the commission (the “takeout”) withheld from wagering pools (the “handle”) and then remit the taxes to the Department of Taxation and Finance as prescribed by law.

Significant Legislation

Significant statutory changes to pari-mutuel taxes since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2013		
Market Origin Fee	Provided for the regulation of out-of-state advanced deposit wagering (ADW) and imposed a Market Origin Fee equal to five percent of wagers taken by out-of-state ADWs from New York residents. Five percent of the Market Origin Fee is transferred to the Department of Taxation and Finance to be treated as pari-mutuel taxes.	January 1, 2014

Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$12.8 million, a decrease of \$0.1 million (0.9 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$15 million, a decrease of \$0.8 million (5.1 percent) from FY 2017. The decrease in estimated receipts reflects a decline in OTB results-to-date.

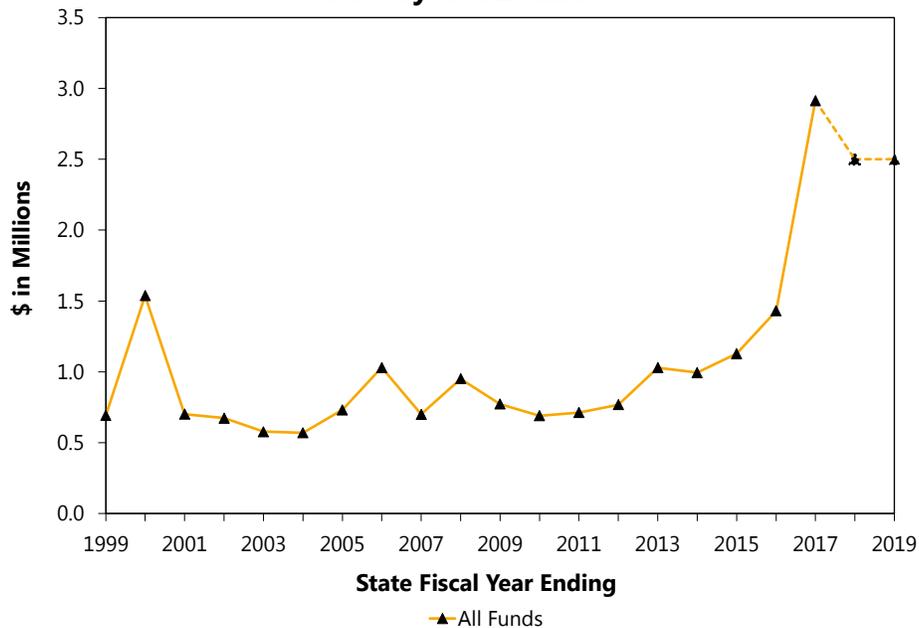
FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$15 million, unchanged from FY 2018.

OTHER TAXES (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	2.9	2.5	(0.4)	(13.8)	2.5	0.0	0.0
Other Funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All Funds	2.9	2.5	(0.4)	(13.8)	2.5	0.0	0.0

Note: Totals may differ due to rounding.

Other Taxes Receipts History and Estimates



OTHER TAXES BY FUND (thousands of dollars)			
	General Fund		All Funds Receipts
	Admissions	Exhibitions	
FY 2009	369	404	773
FY 2010	340	350	690
FY 2011	352	361	713
FY 2012	355	413	768
FY 2013	371	658	1,029
FY 2014	350	645	995
FY 2015	501	627	1,128
FY 2016	554	871	1,425
FY 2017	536	2,378	2,914
Estimated			
FY 2018	500	2,000	2,500
FY 2019			
Current Law	500	2,000	2,500
Proposed Law	500	2,000	2,500

Proposed Legislation

Legislation proposed with this Budget would allow the Department of Taxation and Finance to appeal Tax Appeals Tribunal decisions.

Description

Tax Base and Rate

Racing Admissions Tax – A tax is levied on the charge for admissions to racetracks and simulcast theaters throughout the State. The racing admissions tax rate is 4 percent of the admissions charge.

Authorized Combative Sports Tax – There are two different categories of authorized combative sports:

- Boxing, sparring, and wrestling events.
 - A 3 percent tax on gross receipts from ticket sales (maximum amount of tax due per event is \$50,000).
 - A 3 percent tax on gross receipts from broadcasting rights (maximum amount of tax due per event is \$50,000).
- Kick boxing, single discipline martial arts, and mixed martial arts events.
 - An 8.5 percent tax on gross receipts from ticket sales, with no maximum amount of tax due per event.
 - A 3 percent tax on gross receipts from broadcasting rights and digital streaming over the Internet (maximum amount of tax due per event is \$50,000).

Administration

The Department of Taxation and Finance is responsible for collecting the receipts of the racing admissions tax and the authorized combative sports tax.

Tax Liability

The major factors that affect racing admissions tax liability are the number of customers who attend on-track races and the price of admission. Customer volume is dependent on factors such as the weather and competition from other types of entertainment.

The major factors that affect authorized combative sports tax liability are the notoriety of the participants and the number of high profile events held in a given fiscal year.

Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$2.3 million, a decrease of \$0.1 million (5.1 percent) from the comparable period in the prior fiscal year. All Funds FY 2018 receipts are estimated to be \$2.5 million, a decrease of \$0.4 million (13.8 percent) from FY 2017. This decrease reflects a decline in the overall draw from combative sports events in FY 2018.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$2.5 million, unchanged from FY 2018.

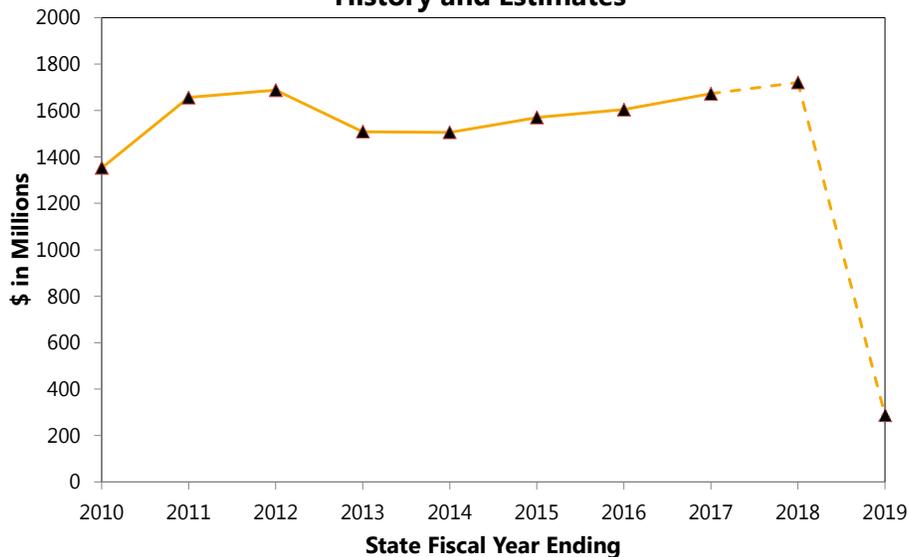
Metropolitan Transportation Authority Financial Assistance Fund Receipts



METROPOLITAN FINANCIAL ASSISTANCE FUND RECEIPTS (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Funds	1,672.9	1,736.0	63.1	3.8	302.0	(1,434.0)	(82.6)
All Funds	1,672.9	1,736.0	63.1	3.8	302.0	(1,434.0)	(82.6)

Note: Totals may differ due to rounding.

**Metropolitan Financial Assistance Fund Receipts
History and Estimates**



METROPOLITAN FINANCIAL FUND (millions of dollars)					
	Mobility Tax	MVF	ART (MCTD)	Taxicab	All Funds Receipts
FY 2009	0	0	0	0	0
FY 2010	1,228	88	24	13	1,353
FY 2011	1,360	180	35	81	1,656
FY 2012	1,376	186	39	87	1,688
FY 2013	1,205	180	41	83	1,509
FY 2014	1,204	174	43	85	1,506
FY 2015	1,271	171	45	82	1,570
FY 2016	1,306	178	47	73	1,604
FY 2017	1,380	180	49	64	1,673
Estimated					
FY 2018	1,438	191	48	59	1,736
FY 2019					
Current Law	1,493	193	50	59	1,795
Proposed Law	0	193	50	59	302



Metropolitan Transportation Authority Financial Assistance Fund Receipts

Proposed Legislation

Legislation proposed with this Budget would change the process for distributing mobility tax revenues to the Metropolitan Transportation Authority (MTA).

Description

The Metropolitan Transportation Authority Financial Assistance Fund (MTAF AF) is under the joint custody of the Commissioner of Taxation and Finance and the State Comptroller. Monies in this special fund are to be kept separately from and not be commingled with any other monies in the joint or sole custody of the State Comptroller or the Commissioner of Taxation and Finance. The fund contains all monies collected, credited or transferred to it from any other fund, account or source, including the revenues derived from the following sources:

- The metropolitan commuter transportation mobility tax;
- The supplemental tax on passenger car rentals in the Metropolitan Commuter Transportation District (MCTD);
- The tax on New York City taxicab and hail vehicle trips; and
- Supplemental motor vehicle fees: a supplemental learner permit/license fee and registration fee in the MCTD.

Revenues generated from the mobility tax are directed to the Mobility Tax Trust Account of the MTA Financial Assistance Fund. Revenues generated from supplemental motor vehicle fees, the supplemental tax on car rentals, and the tax on taxicab rides are directed to the MTA Aid Trust Account of the MTA Financial Assistance Fund.

Metropolitan Commuter Transportation Mobility Tax

Tax Base and Rate

Article 23 of the Tax Law imposes the metropolitan commuter transportation mobility tax on certain employers and self-employed individuals engaging in business within the Metropolitan Commuter Transportation District. The MCTD consists of New York City (NYC) and the counties of Dutchess, Nassau, Orange, Putnam, Rockland, Suffolk, and Westchester. Article 23 applies to:

- Employers (other than exemptions noted below); and
- Self-employed individuals (other than exemptions noted below).

The mobility tax is imposed at a rate of 0.34 percent of an employer's payroll expense for all covered employees for each calendar quarter. For individuals with net earnings from self-

Metropolitan Transportation Authority Financial Assistance Fund Receipts



employment, the tax is 0.34 percent of the net earnings from self-employment allocated to the MCTD for the tax year.

Entities exempt from the mobility tax are as follows:

- 1) An employer that is an agency or instrumentality of the United States, the United Nations, or an interstate agency or public corporation created under an agreement or compact with another state or Canada (for example, the Port Authority of New York and New Jersey);
- 2) All elementary and secondary schools; and
- 3) All public libraries, free association libraries, and public library systems (effective January 1, 2016).

Credits: no tax credit may be used to reduce the amount of mobility tax due.

No mobility tax is due from employers with a quarterly payroll of \$312,500 or less; individuals with net earnings from self-employment allocated to the MCTD of \$50,000 or less; and the non-wage portion of S corporation member income. Employers with quarterly payroll greater than \$312,500, but no greater than \$375,000 are taxed at a reduced rate of 0.11 percent and employers with a quarterly payroll greater than \$375,000 but no greater than \$437,500 are taxed at a reduced rate of 0.23 percent.

Administration

Taxpayers who make electronic withholding tax payments must make their mobility tax payments at the same time. These payments are due within three days of the respective payroll date. Taxpayers who make quarterly withholding payments and those with self-employment income must make quarterly payments. For employers, these payments are due on the last business day of the month following the end of the calendar quarter in which the taxpayer made the payroll (e.g., January 31 for the calendar quarter ending December 31). Taxpayers with self-employment income must make quarterly estimated MCTMT payments in conjunction with personal income tax quarterly estimated payments.

Significant Legislation

Significant statutory changes to the mobility tax since 2012 are summarized below:

Subject	Description	Effective Date
Legislation Enacted in 2014		
Filing Due Date Alignment with PIT for Self Employed	Changed the due dates for filing returns and making estimated tax payments for self-employed individuals subject to the MCTMT to the same due dates as PIT estimated payments and final returns.	January 1, 2015
Legislation Enacted in 2015		
Exemption Changes	Exempted all public libraries, free association libraries, and public library systems from the mobility tax.	January 1, 2016



Metropolitan Transportation Authority Financial Assistance Fund Receipts

FY 2018 Estimates and FY 2019 Projections

Preliminary mobility tax receipts through December are \$963 million, an increase of \$39 million (4.2 percent) from the comparable period in the prior fiscal year. Mobility tax FY 2018 receipts are estimated to be \$1,438 million, an increase of \$58 million (4.2 percent) from FY 2017, reflecting moderate wage and self-employment income growth. The FY 2019 Executive Budget projects no FY 2019 MTAFAF revenue from the mobility tax due to the Executive Budget proposal to provide the revenue directly to the MTA.

Supplemental Tax on Passenger Car Rentals

A supplemental tax of 5 percent is imposed on the rental of a passenger vehicle in the MCTD. The tax base and administration of this tax are the same as the State auto rental tax.

FY 2018 Estimates and FY 2019 Projections

Preliminary auto rental supplemental tax receipts through December are \$38.4 million, a decrease of \$1.6 million (3.9 percent) from the comparable period in the prior fiscal year.

Auto rental supplemental tax FY 2018 receipts are estimated to be \$48 million, a decrease of \$1 million (2 percent) from FY 2017. The reduction is due to a one-time accounting charge.

Auto rental supplemental tax FY 2019 receipts are projected to be \$50 million, an increase of \$2 million (4.2 percent) from FY 2018.

Tax on New York City Taxicab and Hail Vehicle Trips

Tax Base and Rate

A tax of 50 cents is imposed on all NYC taxicab and hail vehicle trips that originate in NYC and end in the MCTD. The quarterly period and filing due dates are:

Quarterly Period	Due Date for Filing Return
January through March	April 20
April through June	July 20
July through September	October 20
October through December	January 20

FY 2018 Estimates and FY 2019 Projections

Preliminary taxicab/hail tax receipts through December are \$41.9 million, a decrease of \$7.4 million (15.1 percent) from the comparable period in the prior fiscal year.

Taxicab/hail tax FY 2018 receipts are estimated to be \$59 million, a decrease of \$5 million (7.8 percent) from FY 2017. The decrease reflects an increase in the use of alternative transportation options not subject to the taxicab/hail tax in New York City.

Taxicab/hail tax FY 2019 receipts are projected to be \$59 million, unchanged from FY 2018.

Supplemental Motor Vehicle Fees

There is a supplemental motor vehicle license fee of one dollar per six month interval and a supplemental registration fee of \$25 in the MCTD. The timing and administration of these fees are the same as the State fee.

FY 2018 Estimates and FY 2019 Projections

Preliminary motor vehicle fee receipts through December are \$148.3 million, an increase of \$9.6 million (6.9 percent) from the comparable period in the prior fiscal year.

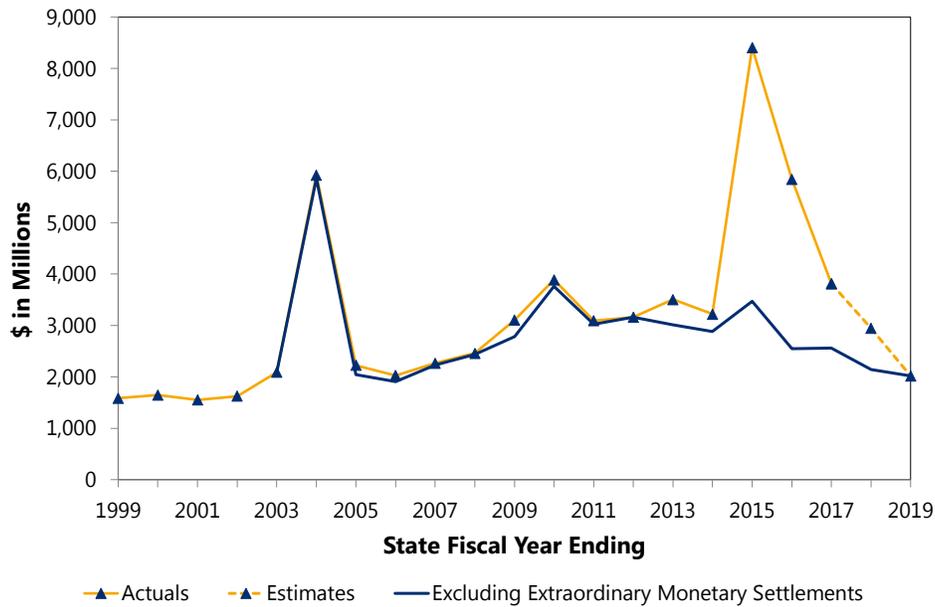
Motor vehicle fee FY 2018 receipts are estimated to be \$191 million, an increase of \$11.3 million (6.3 percent) from FY 2017. This increase is primarily due to FY 2018 representing a peak year during the eight-year driver's license renewal cycle.

Motor vehicle fee FY 2019 receipts are projected to be \$193 million, an increase of \$2 million (1 percent) from FY 2018. This increase reflects the same trend described above.

MISCELLANEOUS RECEIPTS - GENERAL FUND (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	3,813.0	2,946.5	(866.5)	(22.7)	2,019.3	(927.2)	(31.5)

Note: Totals may differ due to rounding.

Miscellaneous Receipts History and Estimates



MISCELLANEOUS RECEIPTS - GENERAL FUND (millions of dollars)					
	FY 2015 Actual	FY 2016 Actual	FY 2017 Actual	FY 2018 Estimated	FY 2019 Projected
Licenses, Fees, Etc.	588.0	630.0	644.0	665.2	669.7
Abandoned Property	652.0	527.0	438.0	450.0	450.0
Reimbursements	266.0	232.0	246.0	272.8	107.1
Investment Income	4.0	13.0	24.0	30.0	10.0
ABC License Fees	61.0	66.0	61.0	67.0	66.0
Motor Vehicle Fees	191.0	194.0	174.0	232.0	269.0
Other Transactions	6,648.0	4,180.0	2,226.0	1,229.5	447.5
Total	8,410.0	5,842.0	3,813.0	2,946.5	2,019.3

Note: Totals may differ due to rounding.

Description

Miscellaneous receipts cover a broad range of unrelated revenue sources with significant recurring income derived from abandoned property, investment earnings, fees, licenses, fines, and various reimbursements to the State’s General Fund. Each year, reported receipts may be significantly impacted by various nonrecurring transactions.

Significant Legislation

Significant statutory changes to General Fund Miscellaneous Receipts since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2012		
18-a Utility Assessment	Lowered and phased out the temporary PSL Article 18-a utility assessment.	March 29, 2012
Traffic Ticket Plea Bargaining	Established \$25 State surcharge to a series of lesser violations that speeding tickets are frequently pled down to, and increased the State surcharge on most other vehicle and traffic violations by \$8.	March 29, 2012
Legislation Enacted in 2013		
18-a Utility Assessment	Extended the temporary PSL Article 18-a utility assessment.	April 1, 2013
Legislation Enacted in 2014		
Motor Vehicle Fees	Simplified the fund distribution of Motor Vehicle Fee Receipts.	March 31, 2014
Legislation Enacted in 2015		
Fee Repeal	Repealed 16 nuisance fees charged by various State agencies.	April 1, 2015
Legislation Enacted in 2017		
e-911 Wireless Surcharge	Expanded the e-911 surcharge on wireless phones to include pre-paid cellular phones and cards.	April 1, 2017
Ridesharing for Upstate New York	Authorized Transportation Network Companies (i.e. Uber and Lyft) to operate across New York and levied a 4 percent assessment fee.	July 1, 2017

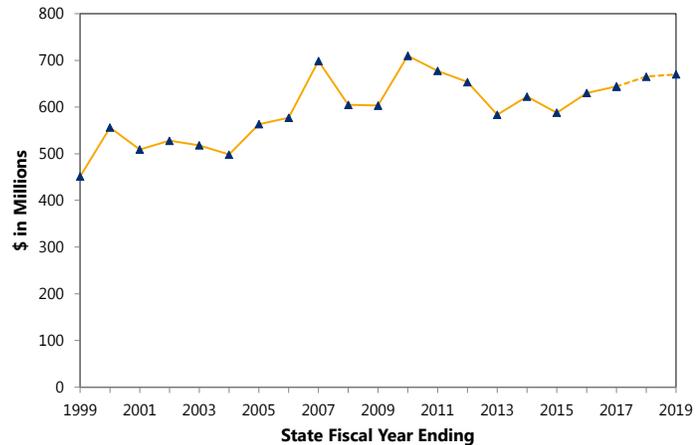
Components of Miscellaneous Receipts

Historically, General Fund license and fee revenues have grown modestly and consistently, aside from minimal peaks and troughs associated with law changes. In FY 2018 and FY 2019, revenues are expected to remain relatively constant.

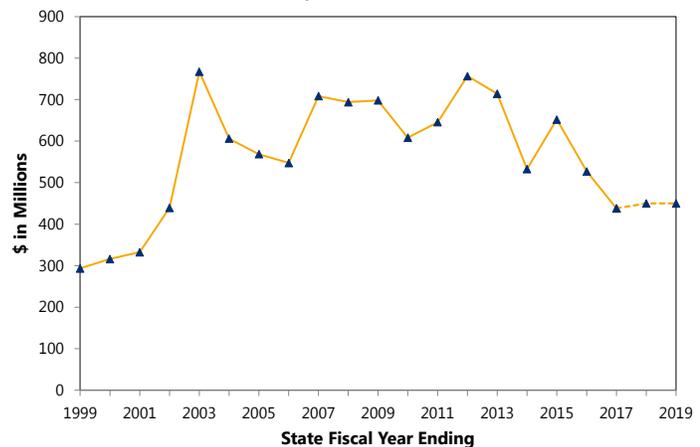
Historically, unclaimed and abandoned property revenue has remained relatively stable with minimal growth, aside from spikes in FY 2003 and FY 2004. This property was associated with the sale of stocks as well as a reduction in the dormancy period of uncashed checks. Unclaimed and abandoned property revenue increased significantly in FY 2012 due to 2011 legislation that reduced dormancy periods on several items, then decreased in FY 2013 and FY 2014 as more claims were paid. In FY 2018 and FY 2019, revenues are expected to decline as fewer dormant securities are remitted to the State as a result of recent SEC regulations accelerating customer contact requirements with holders of dormant accounts.

Historically, reimbursements of General Fund expenses and revenue advances have remained on a relatively constant three-year cycle with occasional exceptions. Receipts in FY 2018 and FY 2019 are expected to maintain historical trends. In FY 2006, a portion of General Fund Federal Grants were reclassified to this category.

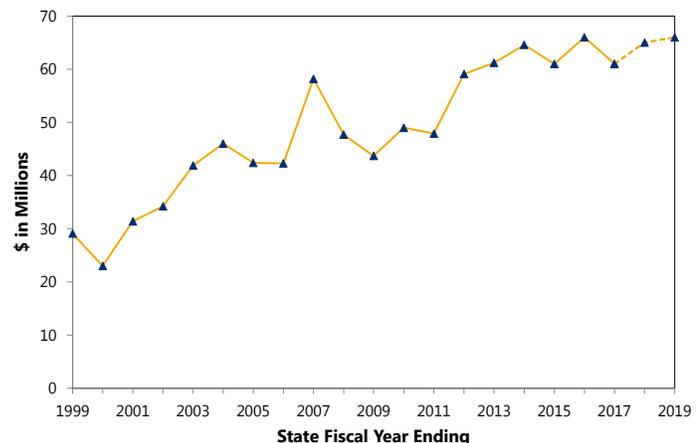
**Licenses and Fees
History and Estimates**



**Unclaimed and Abandoned Property
History and Estimates**



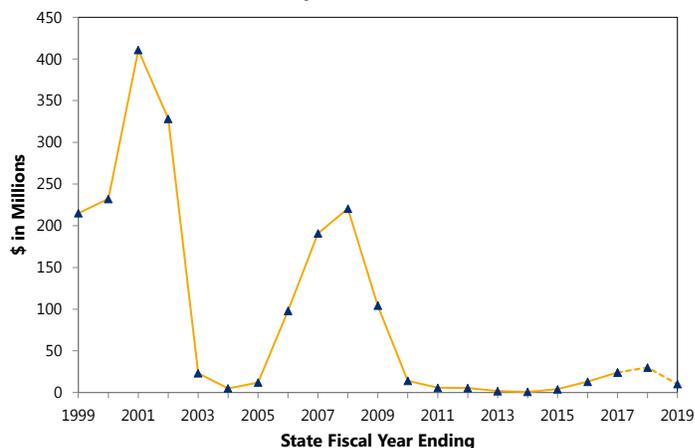
**Alcohol Beverage Control License Fees
History and Estimates**



Miscellaneous Receipts General Fund

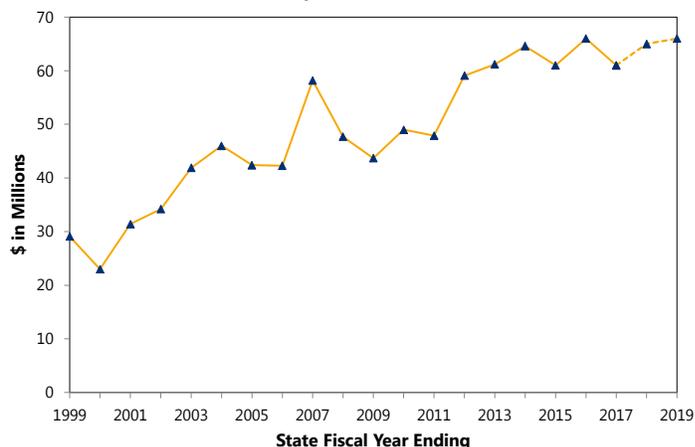


**Investment Income
History and Estimates**



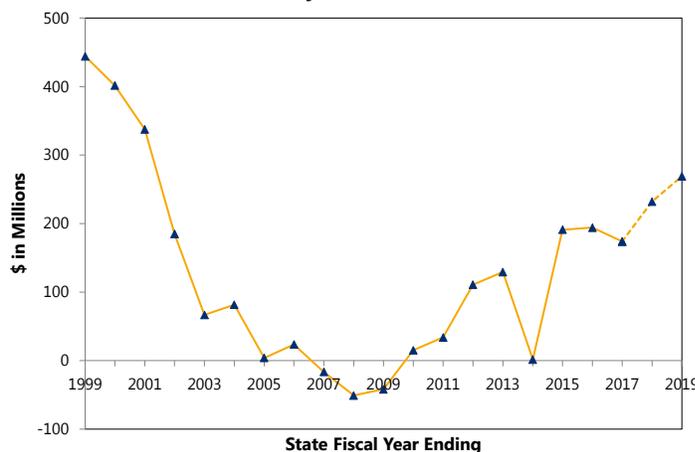
Trends in investment income are directly related to General Fund Account balances and interest rates. For example, the large increases in FY 2001 and FY 2007 followed by the severe drops in FY 2003 and FY 2010 were the result of the impact of economic growth and subsequent recession on State finances; balances declined and interest rates declined sharply. The forecast for investment income is expected to remain relatively low in FY 2018 and FY 2019.

**Alcohol Beverage Control License Fees
History and Estimates**



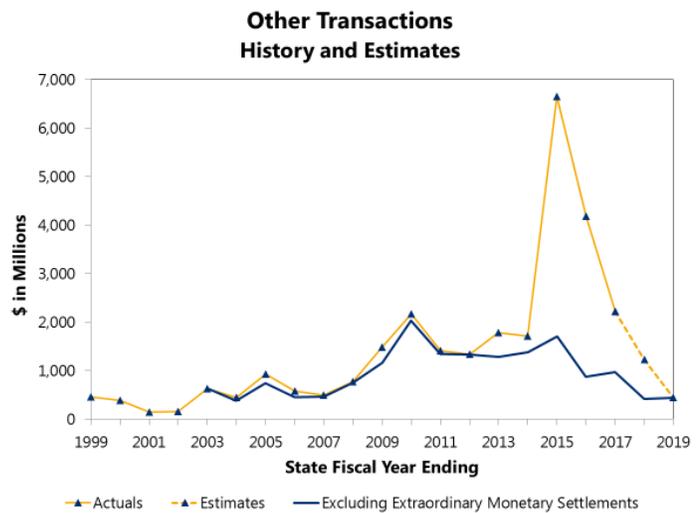
Historically, the number of alcoholic beverage control licenses has remained relatively constant. However, changes in license fees and length of licenses have caused variation in receipts. Overall this revenue is cyclical and based on license renewal patterns. In FY 2018 revenue is expected to increase slightly in FY 2018 and FY 2019.

**Motor Vehicle Fees
History and Estimates**



From FY 2006 to FY 2014, \$169.4 million of General Fund receipts were swept into the Dedicated Transportation Funds. Effective FY 2015, this fund sweep was replaced with generic transfers to these Dedicated Funds. In addition, all revenue from the Driver Responsibility Assessment is now directed to the Dedicated Highway and Bridge Trust Fund. This law change had no net impact on the Financial Plan. For a further discussion of motor vehicle fees, please see the Motor Vehicle Fees section of this document.

Other transactions are an unrelated grouping of transactions and payments, which do not fall under the other miscellaneous receipts categories. Differences in collections year-to-year are the result of large, unusual payments to the State, including: bond issuance charges; a supplemental wireless surcharge; State of New York Mortgage Agency (SONYMA), timing-of-payments pursuant to Section 18a of Public Service Law, and atypical fines. In FY 2015, FY 2016, and FY 2017, other transactions received \$4.9 billion, \$3.3 billion, and \$1.3 billion respectively, in one-time monetary settlements reached by the Department of Financial Services (DFS), Department of Law, and Manhattan District Attorney's Office. For more information on settlements, please see the Monetary Settlements section in the 5 Year Financial Plan volume of this publication.



FY 2018 Estimates

General Fund FY 2018 receipts are estimated to be \$2.947 billion, a decrease of \$866 million (22.7 percent) from FY 2017 collections. The FY 2018 estimate includes: \$811 million in atypical fines and civil recoveries; \$665 million in fees, licenses, fines, royalties, and rents; \$450 million in unclaimed and abandoned property; \$273 million in reimbursements; \$232 million in receipts from motor vehicle fees; \$98 million in additional bond issuance charges and cost recovery assessments; \$90 million in Bottle Bill proceeds; \$89 million in medical provider assessments; \$82 million from the supplemental wireless surcharge; \$67 million in receipts from alcohol beverage control license fees; \$30 million in realized refunding savings from the city of New York associated with Sales Tax Asset Receivable Corporation (STARC) bonding accruals; \$30 million in interest earnings on short-term investments and bank accounts (this amount is net of certain expenses incurred in providing banking services to various State agencies); \$23 million in resources transferred from the New York State Energy Research and Development Authority (NYSERDA) to the General Fund from proceeds collected from the auction or sale of carbon dioxide emissions under the Regional Greenhouse Gas Initiative (RGGI); and \$7 million for certain health care revenues, pursuant to the proposed consolidation of operations from the DOH offset accounts to the General Fund as part of an ongoing effort to simplify the State accounting structure.

FY 2019 Projections

Miscellaneous receipts are projected to be \$2.019 billion in fiscal year FY 2019, a decrease of \$927 million (31.5 percent) from FY 2018 estimates. The FY 2019 projection includes: \$670 million in fees, licenses, fines, royalties, and rents; \$450 million in unclaimed and abandoned property; \$269 million in receipts from motor vehicle fees; \$107 million in reimbursements; \$98 million in additional bond issuance charges and cost recovery assessments; \$90 million from the supplemental wireless surcharge; \$90 million in Bottle Bill proceeds; \$89 million in medical provider assessments; \$66 million in receipts from alcohol beverage control license fees; \$30 million in realized refunding savings from the city of New York associated with Sales Tax Asset Receivable Corporation (STARC) bonding accruals; \$23 million in resources transferred from the New York State Energy Research and Development Authority (NYSERDA) to the General Fund from proceeds collected from the auction or sale of carbon dioxide emissions under the Regional Greenhouse Gas Initiative (RGGI); \$20 million in payments from the New York Power Authority; \$10 million in interest earnings on short-term investments and bank accounts (this amount is net of certain expenses incurred in providing banking services to various State agencies); and \$7 million for certain health care revenues, pursuant to the proposed consolidation of operations from the Department of Health (DOH) offset accounts to the General Fund as part of an ongoing effort to simplify the State accounting structure.

MISCELLANEOUS RECEIPTS - SPECIAL REVENUE FUNDS (millions of dollars)							
	FY 2017 Results	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	FY 2018 Change	Percent Change
State Fund	17,487	16,962	(525)	-3.0%	17,570	608	3.6%
Federal Funds	199	159	(40)	-20.1%	202	43	27.0%
All Funds	17,686	17,121	(565)	-3.2%	17,772	651	3.8%

Miscellaneous receipts deposited to special revenue funds represent roughly 22 percent of total special revenue receipts, excluding transfers from other funds. These receipts include: SUNY tuition, fees, and patient income; revenues from lottery ticket sales and Video Lottery Terminals (VLTs) for supplemental education aid; health care surcharges, assessments, and conversion proceeds used to finance Health Care Reform Act (HCRA) programs; assessments on regulated industries, and a variety of fees and licenses. All of which are dedicated to support specific programs. The following table summarizes miscellaneous receipts for FY 2017 results through projected FY 2019.

MISCELLANEOUS RECEIPTS - SPECIAL REVENUE FUNDS (millions of dollars)			
	FY 2017	Estimated	
		FY 2018	FY 2019
HCRA	4,923	4,925	5,870
State University Income	4,689	4,586	4,761
Lottery and VLTs	3,380	3,353	3,276
Industry Assessments	577	670	687
Medicaid (non-HCRA)	850	832	832
Motor Vehicle Fees	401	420	422
All Other	2,866	2,335	1,924
Total	17,686	17,121	17,772

HCRA Financing

HCRA receipts include recurring surcharges and assessments on hospital revenues, physician procedures, a “covered lives” assessment paid by insurance carriers, a portion of cigarette tax revenues, and other revenues dedicated by statute, as well as proceeds from insurance company conversions. These resources help finance the State’s Medicaid program, workforce recruitment and retention, the Elderly Pharmaceutical Insurance Coverage (EPIC) program, Child Health Plus (CHP), Graduate Medical Education, AIDS programs, disproportionate share payments to hospitals and other various public health initiatives and the NYSOH Exchange.

State University Income

The majority of special revenue receipts that support SUNY's operations are provided by tuition, patient revenue, and user fees. SUNY's three teaching hospitals at Brooklyn, Stony Brook and Syracuse, as well as the Long Island Veterans' Home, receive patient revenue from third-party payers including Medicare, Medicaid, insurance companies, and individuals. User fees, which include fees for food, parking, career placement and recreation, are generated from service users; including students, faculty, staff, and the public. Other receipts primarily include interest earnings and fringe benefit recoveries from SUNY's other special revenue accounts.

Lottery

Receipts from the sale of lottery tickets and proceeds from VLTs at racetracks are used to support public education, as well as administrative costs associated with Lottery operations. The State Lottery is discussed in detail in a separate section.

Industry Assessments

State agencies funded entirely from assessments include the Department of Financial Services, the Public Service Commission, and the Workers' Compensation Board.

Medicaid

In addition to the General Fund, State Medicaid costs are financed by various Special Revenue Funds which include the HCRA Resources Fund (described above) and the Provider Assessments Fund, which is currently supported by a partially-reimbursable assessment of 6 percent on nursing home revenues and a 0.35 percent assessment on hospital and home care revenues.

Motor Vehicle Fees

Motor vehicle fees are imposed by the Vehicle and Traffic Law. In general, motor vehicles, motorcycles, trailers, semi-trailers, buses, and other types of vehicles operating in New York are required to be registered with the Department of Motor Vehicles. Numerous other fees, related to the processes of registration or licensing, are also components of motor vehicle fees. Examples are: fees for inspection and emission stickers; repair shop certificates; and insurance civil penalties. Motor Vehicle Fees are discussed in more detail in a separate section.

All Other

ALL OTHER COMPONENTS OF MISCELLANEOUS RECEIPTS (millions of dollars)		
	Estimated	
	FY 2018	FY 2019
Other Public Health	184	182
Environmental Conservation	183	178
Tribal State Compact	200	200
Labor	135	135
Other Education	122	121
Housing	63	63
Homeland Security	122	133
State Police	136	127
SUNY Dormitory	344	344
Commercial Gaming	119	168
All Other	727	273
Total Miscellaneous Receipts	2,335	1,924

This category includes fees, licenses, and other assessments collected by State agencies, primarily to support all or specific components of their operations. The major sources of all other miscellaneous receipts are detailed below.

Other public health receipts include reimbursement for patient care provided at the Department's health care facilities, regulatory fees, audit recoveries, and registration, testing and certification fees for various public health services.

Environmental Conservation fees include vehicle emission inspection fees and fees on regulated pollutants, sporting license fees, revenues from the sale of forest products, and recreational user fees.

Tribal State Compact receipts consist of all revenues resulting from tribal state compacts executed pursuant to Executive Law.

Labor receipts reflect fees received by the Department of Labor associated with the implementation of labor laws and regulations.

Other education miscellaneous revenue sources include professional licensing fees and disciplinary fines, teacher certification fees and filing fees on certain documents filed in county clerks' offices.

Miscellaneous Receipts Special Revenue Funds



Housing receipts include income received from New York City and other cities associated with enforcement of housing laws and regulations.

Homeland Security and Emergency Services miscellaneous receipts consist of wireless telephone surcharge revenues collected by telephone companies pursuant to Tax Law.

State Police miscellaneous revenue sources include seized assets, fees for accident reports and an annual fee on insurance policies of all registered motor vehicles.

SUNY Dormitory revenue is generated by student rents of these facilities. All rental revenues initially flow to DASNY for the payment of debt service on SUNY Dormitory Facilities, after which the balance of rental revenues is credited to the State's SUNY Dormitory Income Fund to support other costs associated with SUNY Dormitory Facilities.

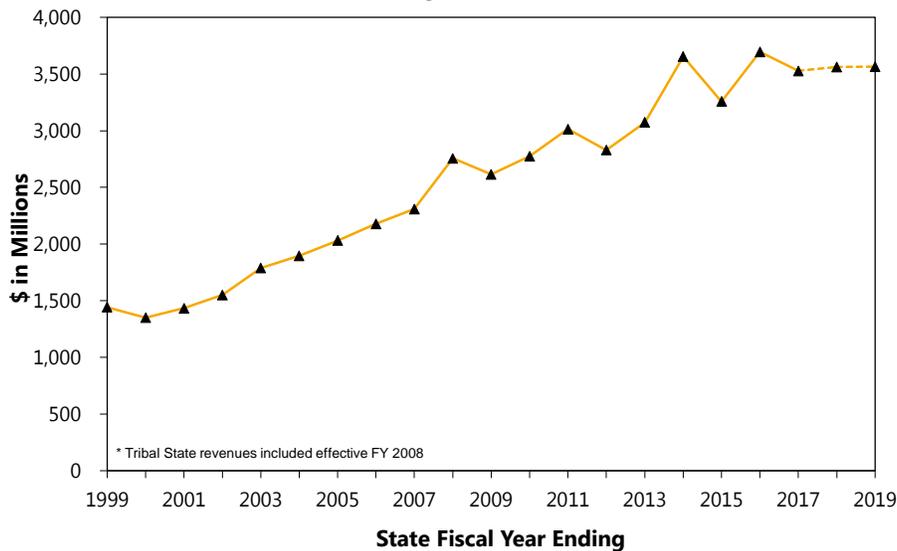
Commercial Gaming revenues represent licensing fee revenue collected by the Gaming Commission from licensed commercial gaming facilities. Commercial Gaming is discussed in more detail in a separate section.

Consistent with past years, the aggregate spending projections (i.e., the sum of all projected spending by individual agencies) in State Special Revenue Funds have been adjusted downward in all fiscal years, based on typical spending patterns and the observed variance between estimated and actual results over time. A corresponding downward adjustment is also made to miscellaneous receipts which is reflected in all other miscellaneous receipts.

MISCELLANEOUS RECEIPTS - GAMING (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Funds	3,528.4	3,562.4	34.0	1.0	3,565.8	3.4	0.1
All Funds	3,528.4	3,562.4	34.0	1.0	3,565.8	3.4	0.1

Note: Totals may differ due to rounding.

Gaming Receipts History and Estimates



GAMING RECEIPTS BY COMPONENT (millions of dollars)						
	Traditional Lottery	VLTs	Commercial Gaming	IFS	TSC	Total Receipts
FY 2009	2,109.1	434.9	N/A	N/A	71.3	2,615.3
FY 2010	2,152.2	492.5	N/A	N/A	129.6	2,774.3
FY 2011	2,108.2	906.6	N/A	N/A	0.0	3,014.8
FY 2012	2,147.4	681.7	N/A	N/A	0.0	2,829.1
FY 2013	2,217.0	857.0	N/A	N/A	0.0	3,074.0
FY 2014	2,235.0	937.7	N/A	N/A	481.9	3,654.6
FY 2015	2,190.6	906.8	N/A	N/A	160.9	3,258.3
FY 2016	2,350.7	961.2	151.0	N/A	232.7	3,695.6
FY 2017	2,322.0	958.2	38.2	3.2	206.8	3,528.4
Estimated						
FY 2018	2,301.0	958.2	98.2	5.0	200.0	3,562.4
FY 2019						
Current Law	2,294.0	958.2	86.6	5.0	200.0	3,543.8
Proposed Law	2,294.0	906.8	160.0	5.0	200.0	3,565.8

Note: Totals may differ due to rounding.

Proposed Legislation

Legislation proposed with this Budget would:

- Simplify Video Lottery Gaming (VLG) rate and additional commission provisions;
- Eliminate the Video Lottery Gaming (VLG) hold harmless transfer provision; and
- Amend racing operation provisions.

Description

Gaming revenue includes receipts from traditional lottery games, Video Lottery Gaming (VLG), commercial gaming, interactive fantasy sports (IFS) and the various Tribal State Compacts (TSC).

Traditional Lottery

There are three types of traditional lottery games:

- Instant scratch-off games have either a 65 or 75 percent prize-payout (approximately 48 games are currently active with prices ranging from \$1 to \$30). In FY 2017, roughly 35 percent of the education contribution from traditional lottery games was derived from scratch-off games;
- Jackpot games include Mega Millions, Powerball, Lotto and Cash4Life. For Lotto, Mega Millions and Powerball games, the value of any top prize not won is added to the top prize in the subsequent drawing. On October 28, 2017, the Mega Millions game changed significantly with an increased cost to play, jackpot starting at \$40 million and increased odds of winning. Now, Powerball, Cash4Life and Mega Millions all cost \$2 to play. In FY 2017, roughly 15 percent of the education contribution from traditional lottery games was derived from jackpot games; and
- Daily games include Numbers, Win 4, Quick Draw, Take 5 and Pick 10. Instant Win, Lucky Sum, Close Enough are offered as add-on games to Numbers and Win 4. The base top payout is \$500,000 in Pick 10 and \$100,000 in Quick Draw. In FY 2017, roughly 50 percent of the education contribution from traditional lottery games was derived from daily games.

There have also been short-run promotional lottery games, such as the Halloween Millions Raffle in October 2013.

The table below shows the statutory distribution of lottery sales among prizes, revenue for education and the allowance for expenses related to administration of the games. Any unused administration revenue is earmarked for education.

PERCENT DISTRIBUTION OF LOTTERY SALES AND FREQUENCY OF DRAWINGS

	Prizes	Education	Admin. Allowance	Inception Date	Frequency of Drawings
Cash4Life	55	30	15	2014	Monday and Thursday at 9:30 PM
Instant (65%)	65	20	15	1999	N/A
Instant (75%)	75	10	15	2002	N/A
Lotto	40	45	15	1976	Wednesday and Saturday at 11:21 PM
Mega Millions*	55	30	15	2002	Tuesday and Friday at 11:00 PM
Numbers	50	35	15	1980	Twice Daily
Pick 10	50	35	15	1988	Once Daily
Powerball*	55	30	15	2010	Wednesday and Saturday at 10:59 PM
Quick Draw	60	25	15	1995	Every four minutes
Take 5	50	35	15	1992	Once Daily
Win 4	50	35	15	1981	Twice Daily

* Mega Millions and Powerball currently offer a 50% prize payout.

Video Lottery Gaming

Video Lottery Gaming is authorized at certain thoroughbred and harness tracks; and Nassau and Suffolk Off-track Betting (OTB) are authorized to have one site each with up to 1,000 terminals. There are currently Video Lottery Terminals (VLT) at Batavia Downs Gaming, Empire City Casino (Yonkers Raceway), Finger Lakes Gaming & Racetrack, Hamburg Gaming, Jake's 58 (Suffolk OTB facility), Monticello Casino & Raceway, Resorts World Casino (which also hosts the Nassau OTB terminals), Saratoga Casino and Vernon Downs Casino. In FY 2017, roughly 70 percent of the VLT education contribution was derived from Resorts World and Empire City.

The following table shows the current distribution of VLT receipts (after prizes) among revenue for education, administration, operator commission, and funds available for promotions and capital. Distributions to purses and breeders' funds are made from the operators' commissions, and are not separately shown. A Budget proposal would simplify the current distribution structure of VLT receipts, by reducing the number of VLG commission rates from no less than 27 to just 7.

DISTRIBUTION OF VLT RECEIPTS AFTER PRIZES* (Percent)

Tracks with 1,100 or more machines (Saratoga)					
	Lottery				
	<u>Education</u>	<u>Administration</u>	<u>Commission</u>	<u>Marketing</u>	<u>Capital</u>
Net Machine Income					
Up to \$62.5 million	45	10	31	10	4
More than \$62.5 million up to \$100 Million	49	10	31	10	0
Over \$100 million	51	10	31	8	0
Tracks with 1,100 or more machines west of State Route 14 (Finger Lakes)					
	Lottery				
	<u>Education</u>	<u>Administration</u>	<u>Commission</u>	<u>Marketing</u>	<u>Capital</u>
Net Machine Income					
Up to \$62.5 million	45	10	31	10	4
Over \$62.5 million	49	10	31	10	0
Tracks with less than 1,100 machines west of State Route 14 (Batavia)					
	Lottery				
	<u>Education</u>	<u>Administration</u>	<u>Commission</u>	<u>Marketing</u>	<u>Capital</u>
Net Machine Income					
Up to \$50 million	41	10	35	10	4
More than \$50 million to \$62.5 million	48	10	28	10	4
More than \$62.5 million up to \$100 Million	52	10	28	10	0
More than \$100 million up to \$150 Million	54	10	28	8	0
Over \$150 million	57	10	25	8	0
Tracks within 15 miles of a Class III Native American Casino (Vernon)**					
	Lottery				
	<u>Education</u>	<u>Administration</u>	<u>Commission</u>	<u>Marketing</u>	<u>Capital</u>
Net Machine Income					
Up to \$62.5 million	35	10	41	10	4
More than \$62.5 million to \$100 million	39	10	41	10	0
Over \$100 million	41	10	41	8	0
Tracks within 15 miles of a Class III Native American Casino west of State Route 14 (Buffalo Fairgrounds)					
	Lottery				
	<u>Education</u>	<u>Administration</u>	<u>Commission</u>	<u>Marketing</u>	<u>Capital</u>
Net Machine Income					
Up to \$62.5 million	35	10	41	10	4
Over \$62.5 million	39	10	41	10	0
Tracks Located in Sullivan County within 60 miles of Gaming Facility in a Contiguous State (Monticello)					
	Lottery				
	<u>Education</u>	<u>Administration</u>	<u>Commission</u>	<u>Marketing</u>	<u>Capital</u>
Net Machine Income					
Up to \$100 million	39	10	41	10	0
Over \$100 million	41	10	41	8	0
Facilities located in Nassau or Suffolk County operated by an Off-Track Betting Corporation***					
	Lottery				
	<u>Education</u>	<u>Administration</u>	<u>Commission</u>	<u>Marketing</u>	<u>Capital</u>
Net Machine Income					
Up to \$100 million	45	10	35	10	0
Over \$100 million	47	10	35	8	0
Tracks with 1,100 or more machines located in Westchester County (Yonkers)					
	Lottery				
	<u>Education</u>	<u>Administration</u>	<u>Commission</u>	<u>Marketing</u>	<u>Capital</u>
Net Machine Income					
Up to \$62.5 million	47	10	31	8	4
Over \$62.5 million	51	10	31	8	0
Aqueduct Racetrack					
	Lottery		Commission	<u>Marketing</u>	<u>Capital</u>
	<u>Education</u>	<u>Administration</u>	(see note 1)		
Net Machine Income					
No Nassau OTB terminals hosted	44	10	38	8	0
400 to 999 Nassau OTB terminals hosted	43	10	38	8	1
1,000 or more Nassau OTB terminals hosted	40	10	38	8	4

* Not less than 90 percent of sales must be used for prizes.

** For FY 18 and FY 19, Vernon Downs will receive additional monies to sustain operation of the facility (as determined by the Gaming Commission) and has flexibility to use capital award monies for operations.

*** Includes terminals designated as hosted by Resorts World on behalf of Nassau OTB.

Does not include the additional commission that Saratoga, Monticello and Finger Lakes receive due to a competing casino operating in their gaming region.

Net Machine Income is gross receipts minus prize payments. Free-play, up to 15 percent of the facilities' NMI, is excluded from the calculation of NMI.

Commercial Gaming

Following a 2013 referendum:

On December 17, 2014, the New York Gaming Facility Location Board recommended the following applicants to be considered for a commercial gaming license from the New York State Gaming Commission: Montreign Resort Casino (Region One); Rivers Casino & Resort at Mohawk Harbor (Region Two) and del Lago Resort and Casino (Region Five). On December 21, 2015, the New York State Gaming Commission unanimously approved licenses to these three destination resorts. Lago and Rivers both opened in February 2017. On May 18, 2017, Montreign was renamed Resorts World Catskills.

On October 14, 2015, the New York Gaming Facility Location Board recommended to the New York State Gaming Commission that Tioga Downs, an existing Video Lottery Terminal Facility in Region Five, be considered for a commercial gaming license. On August 30, 2016, the New York State Gaming Commission unanimously approved a license to this destination resort. Tioga Downs opened in December 2016.

Interactive Fantasy Sports

On August 3, 2016, the State legalized the operation of Interactive Fantasy Sports (IFS) in New York State. These companies offer fee-based contests in which participants (using their skills and knowledge) assemble a fantasy roster of players and compete against other participants. There is a 15 percent tax on IFS gross revenue generated in New York and an additional tax rate of one-half of one percent (capped at \$50,000 per taxpayer annually). All revenues are directed to the IFS Fund for the sole purpose of providing aid to education.

The law put in place consumer safeguards to protect the integrity of the contests, which include:

- allowing only one account per user;
- prohibiting minors from playing;
- providing accurate odds of winning;
- addressing addictive personality concerns;
- identifying all highly experienced players;
- disclosing the number of entries permissible by each user (cannot be more than 150 entries per player per contest or 3 percent of total entries) and the maximum number of entries allowed per contest;
- addressing privacy concerns;
- making the value of prizes known;

- ensuring that winning outcomes reflect the relative knowledge and skill of the player; and
- ensuring that no winning outcome is based on the score of a single sports team or single performance.

Tribal State Compact

The Indian Gaming Regulatory Act permitted federally recognized Indian tribes the ability to conduct gaming activities such as bingo, pull tabs, lotto, punch boards, tip jars, and certain card games on tribal land. However, it requires a Tribal State Compact (TSC) for all other forms of gaming. The State has compact agreements with three Nations, the Seneca Nation of Indians, the St. Regis Mohawk and the Oneida Nation of New York to host “class III gaming” facilities.

The Seneca Nation operates three casinos in the Western region including Seneca Niagara Casino (2002), Seneca Allegany Casino (2004) and Seneca Buffalo Casino (2007). In 2013, the Seneca Nation and the State reached a settlement agreement of \$349.7 million, in which \$209.8 million was directed to the State and \$139.9 million was directed to host counties. Seneca kept \$209 million (that would have otherwise gone to the State) and resumed ongoing payments from casino operations to the State. The Western New York zone is excluded from bidding on casino gaming. In FY 2017, 60.5 percent of State TSC revenue was derived from Seneca payments. New York State and the Seneca Nation are currently in arbitration since the Nation stopped remitting payments to the State in FY 2018.

The Mohawk Nations operate the Akwesasne Mohawk Casino (1999). There was a settlement payment of \$30 million in 2013 from which the State received \$23 million, and the remaining \$7 million was directed to the host counties. Under the agreement, the State will not authorize casino gaming in the eight-county Mohawk exclusivity zone. The agreement did not resolve outstanding land claim disputes between the Tribe, the State and St. Lawrence and Franklin Counties. In FY 2017, 9.5 percent of State TSC revenue was derived from Mohawk payments.

In 2014, the State, the Oneida Nation and Oneida and Madison Counties came to an agreement in which Madison County received a one-time payment of \$11 million from the Oneida Nation to settle past tax claims and would receive an annual amount of \$3.5 million from the State share. Oneida County is considered the host county (25 percent of the State’s payment) and receives an additional \$2.5 million annual payment from the State for 19 and one-quarter years to settle prior property tax claims. At the time, the Oneida Nation only operated one casino, Turning Stone, located in Oneida County. However, in 2015, the Oneida Nation opened Yellow Brick Road Casino in Madison County. Based on the settlement agreement, Oneida County was considered the host county for both casinos. In FY 2017, roughly 30 percent of State TSC revenue was derived from Oneida payments.

Administration

Gaming components noted herein are administered by the New York State Gaming Commission.

Traditional Lottery and VLT Games

The Gaming Commission develops new lottery games, markets and advertises, distributes games, provides terminals and computer programming, regulatory oversight and otherwise performs all functions necessary to operate an effective State lottery. The Comptroller, pursuant to an appropriation, distributes all net receipts from the Lottery directly to school districts. This aid includes special allowances for textbooks for all school children and additional amounts for pupils in approved State-supported schools for the deaf and the blind.

The Lottery game vendor notifies sales agents of the State's share of sales proceeds by the Monday following the liability week. The agent has until Tuesday to deposit sufficient funds into a specified bank account, at which time the operations vendor sweeps the funds and transfers them to the Gaming Commission by Wednesday morning. For VLTs, the Commission sweeps the accounts daily. All gaming funds are transferred to the State on Wednesday.

Under the Gaming Act, there is a transfer from the Commercial Gaming Revenue Fund for education to the State Lottery Fund for education to maintain VLT base year revenue. The base year revenue is all VLT revenue generated to support education for the twelve months preceding the initial operation of a casino or the Nassau/Suffolk OTB terminals. Since the Nassau OTB terminals became operational in October 2016, VLT revenues must be at least \$958.2 million on an annual basis. A Budget proposal would eliminate this transfer.

The Gaming Act also provides that two facilities (Monticello and Saratoga) will receive additional commission to offset the reduction in revenues due to competition from a nearby casino (2016 legislation enabled Finger Lakes to receive additional commission as well). The Gaming Commission shall remit this additional commission two months after the end of the fiscal year. A Budget proposal would cap the additional commission to the amount a casino lost due to competition from a nearby casino opening.

Commercial Gaming

The Gaming Commission regulates commercial gaming facilities and administers the tax on gaming revenues. The Commission also collects license fees as established by the New York State Resort Gaming Facility Location Board.

Commercial gaming taxes are paid as a percent of gaming revenue generated at each licensed facility. Factors that affect commercial gaming revenue include proximity to population centers, regional income variations, proximity to and competition from existing facilities, and the applicable tax rates in the different gaming regions. Those rates are: 10 percent on table game receipts in all regions; 39 percent on slot machine receipts at Resorts World Catskills (Region One); 45 percent on slots at Rivers (Region Two); and 37 percent on slots at Lago and Tioga (Region Five).

All commercial gaming tax (see below) and license fee revenue collected by the Gaming Commission is deposited into the Commercial Gaming Revenue Fund. From that Fund, tax and license fee revenue is distributed as follows: 80 percent of all commercial gaming revenue (less an amount transferred to the State Lottery Fund for education required to maintain VLT base revenue)

for elementary and secondary education or property tax relief; 10 percent of the revenue generated by any commercial gaming facility in a gaming region is provided equally to the host county and municipality in that region and 10 percent of the revenue generated by any commercial gaming facility in a gaming region is provided on a per capita basis to non-host counties within such region.

Interactive Fantasy Sports

The New York State Gaming Commission administers and regulates IFS entities and administers the two tax components. The Commission also imposes regulatory fees to cover the cost of regulating this industry. Registrants must file an annual report by June 30 covering activity from June of the previous year to May of the current year detailing the number of accounts held by all players and experienced players, new and closed accounts, financial information and the number of registrants that excluded themselves from contests (similar to other gaming venues where customers voluntarily ban themselves from a gaming establishment). The Commission must then publish a report based on this information no later than 180 days after submission. Based on the CY 2016 report, which covered the first four months of operations, roughly 10 percent of players were residents of New York, 1.6 percent of all accounts were held by experienced players, roughly 1.5 million new accounts were established in the preceding year, and 392 players excluded themselves from the contests.

The first filing date was October 10, 2016, and filing will continue on a monthly basis. Fifteen entities have been issued temporary permits.

Tribal State Compact

Section 99-h of the State Finance Law established the tribal-state revenue account. Based on the compacts, the State receives a payment of 25 percent of the net drop from gaming devices in which the host county or counties receive 25 percent of this payment. The Gaming Act directed 10 percent of the State payment to the regional communities on a per capita basis.

The Gaming Commission regulates Indian gaming facilities and administers the payments made to the State on gaming revenues and the distribution to localities. The Gaming Commission maintains a twenty-four hour presence in each casino, in which inspectors ensure that gaming operations, such as dealing procedures, internal accounting and other controls, strictly conform to the applicable provisions of the compact and their appendices.

The Certification and Registration Unit is responsible for the review and subsequent approval or denial of the applications submitted by all persons involved with Indian gaming in the State. No employee or manager may be employed by the casino operator unless the individual has been previously approved by the Board. All applicants are fingerprinted and must undergo a background investigation by the Federal Bureau of Investigation, the New York State Division of Criminal Justice Services and the New York State Police - Casino Detail.

All of the State's regulatory expenses, for both personnel and equipment, are paid for or reimbursed by the regulated Indian Nation or Tribe as required under federal law.

Significant Legislation

Significant gaming statutory changes since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2012		
Quick Draw	Eliminated the restriction requiring minimum food sales at locations that have a license for on-premises liquor consumption.	March 30, 2012
Gaming Commission	Established the Gaming Commission by merging the Division of the Lottery and the Racing and Wagering Board.	February 1, 2013
Legislation Enacted in 2013		
Video Lottery Gaming	Authorized two video lottery facilities with up to 1,000 terminals each in Nassau and Suffolk Counties operated by Off-Track Betting Corporations.	January 1, 2014
Commercial Gaming	Authorized up to four resort destination gaming facilities.	January 1, 2014
Legislation Enacted in 2014		
Video Lottery Gaming	Increased the free-play allowance from 10 to 15 percent.	March 31, 2014
Legislation Enacted in 2015		
Electronic Games	Provided that electronic table games that include an element of skill can be offered at certain racetracks.	May 1, 2015
Legislation Enacted in 2016		
Additional Compensation	Provided for an additional commission for the Finger Lakes facility.	January 1, 2014
Legislation Enacted in 2017		
NYRA	Provided for the reprivatization of NYRA.	April 1, 2017
Drug Testing	Modified requirements for horsemen and racetracks to contribute to equine drug testing.	April 1, 2017
Vernon Downs	Provided for financial relief to Vernon Downs.	June 29, 2017

Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

All Funds preliminary receipts through December are \$2,253.3 million, a decrease of \$0.4 million from the comparable period in the prior fiscal year. All Funds FY 2018 receipts are estimated to be \$3,562.4 million, an increase of \$34 million (1 percent) from FY 2017.

All Funds FY 2018 traditional lottery receipts are estimated to be \$2,301 million, a decrease of \$21 million (0.9 percent) from FY 2017. Instant Game receipts are estimated to increase by \$35 million with a stronger sales in both 65 and 75 percent payout games. Jackpot games are estimated to increase by roughly \$3 million due to a recent higher jackpot in Mega Millions and Powerball offset by weaker Lotto sales. Daily games receipts are estimated to decrease by roughly

\$7 million reflecting a decline in Numbers and Quick Draw sales. Administrative allowances and miscellaneous income are estimated to return to historic levels, which equates to a decrease of \$52 million.

All Funds FY 2018 VLT receipts are estimated to be \$958.2 million, unchanged from FY 2017. A transfer of \$10.8 million from the Commercial Gaming Revenue Fund for education to the State Lottery Fund for education is estimated to be necessary to maintain this statutorily set amount.

All Funds FY 2018 commercial gaming receipts are estimated to be \$98.2 million, an increase of \$60 million (157.1 percent) from FY 2017. This increase reflects three of the four upstate casinos being operational for a full year and the Resorts World Catskills casino opening in February, offset by a transfer of \$10.8 million from the Commercial Gaming Revenue Fund for education to the State Lottery Fund for education.

All Funds FY 2018 IFS receipts are estimated to be \$5 million, an increase of \$1.8 million (56.3 percent) from FY 2017. This increase reflects a full year with the tax in effect.

All Funds FY 2018 TSC revenues are estimated to be \$200 million, a decrease of \$6.8 million (3.3 percent) from FY 2017. This decrease reflects the estimated impact on Oneida Nation payments due to the opening of the del Lago casino. This estimate assumes that the Seneca mediation will be successfully resolved in FY 2018.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$3,565.8 million, an increase of \$3.4 million (0.1 percent) from FY 2018. This includes an increase of \$22 million from Budget proposals.

All Funds FY 2019 traditional lottery receipts are projected to be \$2,294 million, a decrease of \$7 million (0.3 percent) from FY 2018. Instant Game receipts are projected to decrease by roughly \$12 million as sales in both 65 and 75 percent games achieved historic levels in FY 2018. Jackpot game receipts are estimated to increase by roughly \$5 million due to higher sales from the new Mega Millions game. Administrative allowances and miscellaneous income are projected to be unchanged from FY 2018.

All Funds FY 2019 VLT receipts are projected to be \$906.8 million, a \$51.4 million decrease (5.4 percent) from FY 2018. This estimate includes the Executive Budget proposal to eliminate the transfer from the Commercial Gaming Revenue Fund for education to the State Lottery Fund for education.

All Funds FY 2019 commercial gaming receipts are projected to be \$160 million, an increase of \$61.8 million (62.9 percent) from FY 2018. This increase reflects (1) that all four upstate casinos are projected to be operational (but not fully operational) in FY 2019, and (2) the Executive Budget proposal to eliminate the transfer from the Commercial Gaming Revenue Fund for education to the State Lottery Fund for education.

All Funds FY 2019 IFS receipts are projected to be \$5 million, unchanged from FY 2018.

All Funds FY 2019 TSC revenues are projected to be \$200 million, unchanged from FY 2018.

General Fund

Revenue from 65 percent of TSC payments (less \$6 million in annual aid payments) is directed to the General Fund. TSC payments are estimated to be \$124 million in FY 2018 and in FY 2019.

Other Funds

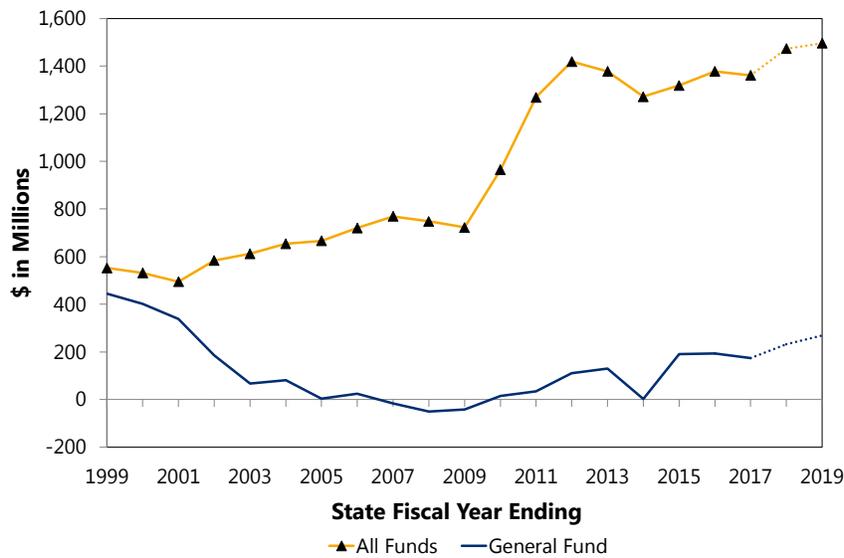
Revenues from traditional lottery, VLT lottery and IFS are all directed to education. Eighty percent of commercial gaming receipts (less the transfer amount) are directed to education. FY 2018 receipts of \$3,345.9 million and FY 2019 receipts of \$3,338.5 million will be used for aid to education. This includes a casino balance rollover of \$5.3 million in FY 2018 and \$4.7 million in FY 2019.

Twenty percent of commercial gaming receipts and 35 percent of TSC revenues (plus \$6 million in annual aid payments) are directed to certain localities. FY 2018 receipts of \$97.8 million and FY 2019 receipts of \$108 million will be directed to certain localities.

MOTOR VEHICLE FEES (millions of dollars)							
	FY 2017 Actual	FY 2018 Estimated	Change	Percent Change	FY 2019 Projected	Change	Percent Change
General Fund	173.8	232.0	58.2	33.5	269.0	37.0	15.9
Capital Funds	786.8	825.0	38.2	4.9	809.0	(16.0)	(1.9)
SR Funds	400.7	416.0	15.3	3.8	418.0	2.0	0.5
All Funds	1,361.3	1,473.0	111.7	8.2	1,496.0	23.0	1.6

Note: Totals may differ due to rounding.

Motor Vehicle Fee Receipts History and Estimates



MOTOR VEHICLE FEES BY FUND (millions of dollars)								
	Gross General Fund		General Fund	Special Revenue Funds ¹	Gross Capital Projects Funds		Capital Projects Funds ²	All Fund Receipts
	Fund	Refunds	Fund	Funds ¹	Funds	Refunds	Funds ²	
FY 2009	(37)	5	(42)	218	562	16	546	722
FY 2010	20	5	15	322	643	15	628	965
FY 2011	39	5	34	422	830	17	813	1,269
FY 2012	116	5	111	496	837	25	812	1,419
FY 2013	134	5	129	453	821	25	796	1,378
FY 2014	7	5	2	485	810	25	785	1,272
FY 2015	196	5	191	401	752	25	727	1,319
FY 2016	199	5	194	431	779	25	754	1,378
FY 2017	179	5	174	401	812	25	787	1,361
Estimated								
FY 2018	237	5	232	416	850	25	825	1,473
FY 2019								
Current Law	250	5	245	418	857	25	832	1,495
Proposed Law	250	5	269	418	834	25	809	1,496

¹ Dedicated Mass Transportation Trust Fund (DMTTF), the MTA Aid Trust Account and other SR Accounts.
² Dedicated Highway and Bridge Trust Fund (DHBTf).

Proposed Legislation

Legislation proposed with this Budget would:

- Create an online pre-licensing course; and
- Redirect certain motor vehicle fees currently deposited in the Dedicated Highway and Bridge Trust Fund to the General Fund.

Description

Fee Base

Motor vehicle fees are imposed by the Vehicle and Traffic Law. In general, motor vehicles, motorcycles, trailers, semi-trailers, buses, and other types of vehicles operating in New York are required to be registered with the Department of Motor Vehicles. In 2016, 11.3 million vehicles were registered in New York State, including 9.5 million standard series vehicles and 778,102 commercial vehicles. The Vehicle and Traffic Law also requires drivers to be licensed by the Department of Motor Vehicles. The current license renewal period is eight years. In 2016, New York State had 12 million licensed drivers. Numerous other fees, related to the processes of registration or licensing, are also components of motor vehicle fees. Examples are: fees for inspection and emission stickers; repair shop certificates; and insurance civil penalties.

Fee Schedules

Most vehicle registration fees in New York are based on weight. Two important exceptions are buses, which are charged according to seating capacity, and semi-trailers, which are charged a flat fee. Registration fees for vehicles weighing less than 18,000 pounds are imposed biennially. The main registration fees are as follows:

MAIN REGISTRATION FEES		
Type of Vehicle	Weight of Vehicle	Annual Fee* (dollars)
Passenger vehicle	Each 100 lbs. or major fraction thereof up to 3,500 lbs.	0.81
	Plus: for each 100 lbs. or major fraction thereof above 3,500 lbs.	1.21
Passenger vehicle - minimum fee		12.94
Passenger vehicle - maximum fee		70.08
Passenger vehicle propelled by electricity		16.18
Auto truck and light delivery vehicle	Each 500 lbs. maximum gross weight or fraction thereof	3.60
Tractors (registered separately from semi-trailers)	Each 100 lbs. maximum gross weight or fraction thereof	1.51
Trailers	Each 500 lbs. maximum gross weight or fraction thereof	5.39
Semi-trailers - pre-1989 model year		28.75 per year
Semi-trailers - model year 1989 or later		28.75 per year or 86.25 for a period of 5.5 to 6.5 years
Bus - seating capacity 15 to 20 passengers		74.75

*This does not include the \$25 supplemental fee imposed on registrations in the Metropolitan Commuter Transportation District (MCTD).

The main licensing fees are listed below:

MAIN DRIVER LICENSING FEES	
Type of License	Fee* (dollars)
Photo Fee	12.50
Original/Renewal	
• A, B, CDL, or C (Commercial)	9.50 - for each six months
• Non CDL/C or E	6.25 - for each six months
• D (Passenger)	3.25 - for each six months
• M (Motorcycle)	3.75 - for each six months

*This does not include the \$1 supplemental fee per six months imposed on licenses in the MCTD.

Administration

Registration and licensing occur in person or by mail at the central and district offices of the Department of Motor Vehicles, and county clerks' offices in most counties. Many transactions can also be completed via the Internet. County clerks receive 12.7 percent of gross receipts as compensation. This totaled \$43.1 million in FY 2017.

Fee Exemptions

Certain vehicles registered in New York are exempt from registration fees. The exemptions include: vehicles owned by the State or municipalities; passenger vehicles owned by consular offices; and vehicles owned and used for the transportation of animals by societies for the prevention of cruelty to animals. Vehicles owned by nonresidents and registered with a political

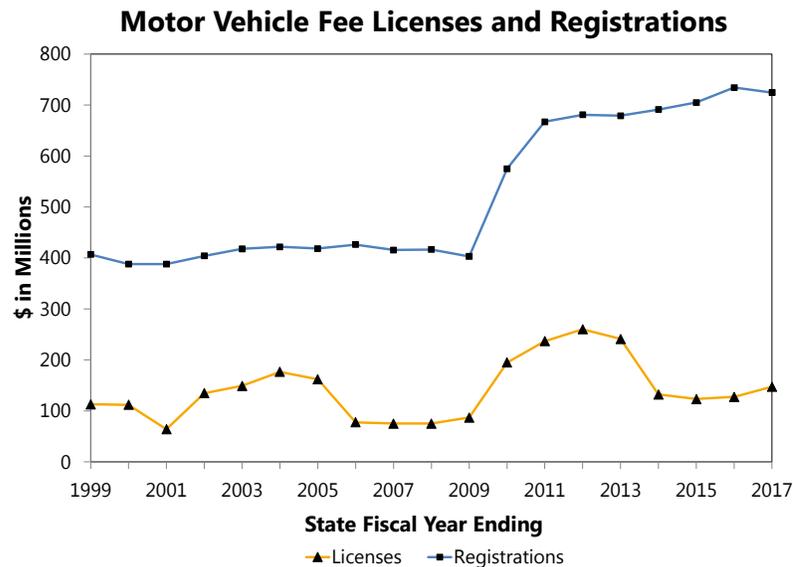
jurisdiction outside the State are not usually required to be registered in New York. The revenue loss from these exemptions is minimal.

Significant Legislation

Significant statutory changes to motor vehicle fees since 2012 are summarized below.

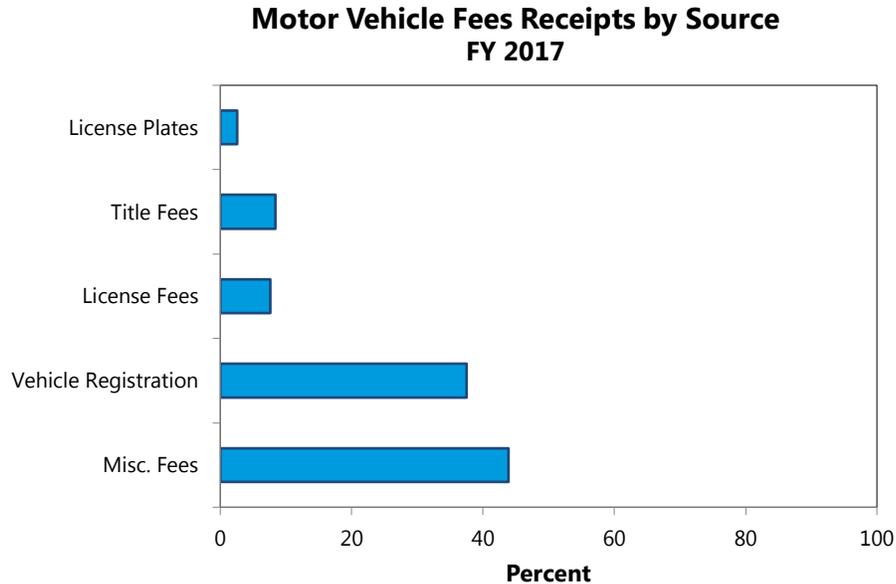
Subject	Description	Effective Date
Legislation Enacted in 2014		
GF MVF Transfer	General Fund transfers to the DMTTF and DHBTF that are specifically sourced from General Fund motor vehicle fee receipts were replaced with generic General Fund transfers to these two funds.	April 1, 2014
DRA Receipts	The first \$40.7 million in Driver Responsibility Assessment (DRA) receipts that remained in the General Fund were instead directed to the DHBTF thereby accomplishing direction of all revenue from this Assessment to the DHBTF.	April 1, 2014
Legislation Enacted in 2016		
Redirect funds to DHBTF	Redirected fees from the DMV Seized Assets, Compulsory Insurance, Internet Point Insurance Reduction Program, and the Motorcycle Safety Funds to the DHBTF.	April 13, 2016

Fee-Liability



Vehicle registration and driver licensing fee totals are a function of fee schedules, the number of licensed drivers and registered vehicles, and the number of years between license and vehicle registration renewals. These motor vehicle fees have fluctuated little as a result of economic conditions, but law changes in 2000 and in 2009 altered revenue collections. In 2000, the license

renewal period was extended from four to eight years. In 2009, most registration and license fees were increased by 25 percent.



Receipts: Estimates and Projections

All Funds

FY 2018 Estimates

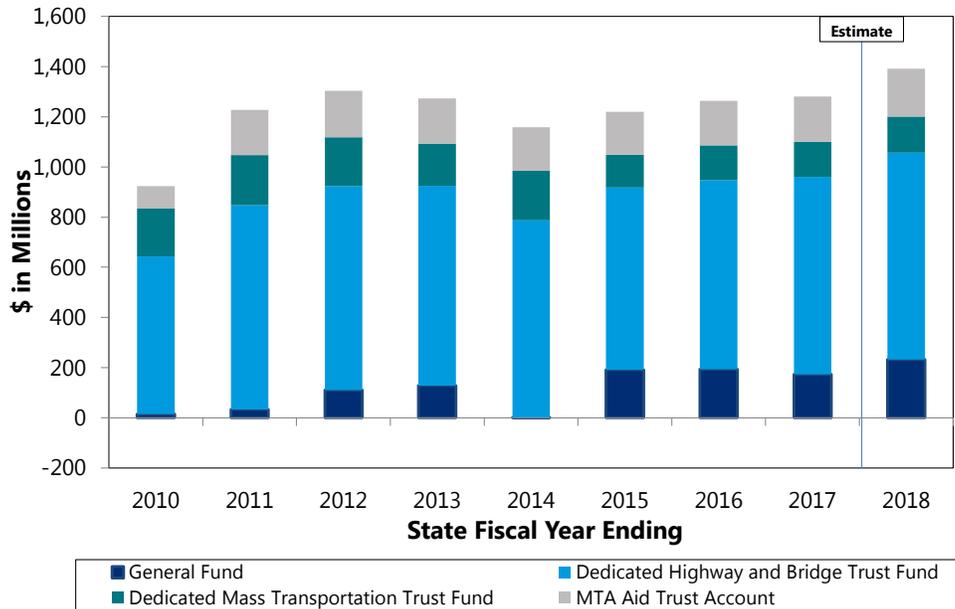
All Funds preliminary receipts through December are \$1,131.9 million, an increase of \$96.4 million (9.3 percent) from the comparable period in the prior fiscal year.

All Funds FY 2018 receipts are estimated to be \$1,473 million, an increase of \$111.7 million (8.2 percent) from FY 2017. This increase is primarily due to FY 2018 representing a peak year during the eight-year driver's license renewal cycle.

FY 2019 Projections

All Funds FY 2019 receipts are projected to be \$1,496 million, an increase of \$23 million (1.6 percent) from FY 2018. This increase is primarily due to FY 2019 also representing a peak year during the eight-year driver's license renewal cycle.

Motor Vehicle Fees Fund Distribution History and Estimate



General Fund

General Fund motor vehicle fees are estimated to be \$232 million in FY 2018 and \$269 million in FY 2019.

Other Funds

Revenues from the 25 percent registration and license fee increase, effective September 1, 2009, are directed solely to the Dedicated Highway and Bridge Trust Fund (DHBTF). The balance of registration and license fees is dedicated as follows: 80 percent to the DHBTF and 20 percent to the Dedicated Mass Transportation Trust Fund (DMTTF).

All receipts from the supplemental fee on registrations and licenses are dedicated to the MTA Aid Trust Account of the MTA Special Assistance Fund.

In FY 2018, the DHBTF will receive an estimated \$825 million and the DMTTF will receive an estimated \$144 million. The MTA Aid Trust Account is estimated to receive \$191 million. Various other dedicated funds (Special Revenue Other) are estimated to receive a total of \$81 million.

In FY 2019, under proposed law, the DHBTF is projected to receive \$809 million and the DMTTF is projected to receive \$144 million. The MTA Aid Trust Account is projected to receive \$193 million. Various other dedicated funds (Special Revenue Other) are projected to receive a total of \$81 million.

Miscellaneous Receipts Capital Projects Funds



MISCELLANEOUS RECEIPTS - CAPITAL PROJECTS FUNDS (millions of dollars)

	FY 2017	FY 2018		Percent	FY 2019		Percent
	Results	Estimated	Change	Change	Projected	Change	Change
State Funds	4,635	7,291	2,656	57%	7,703	412	6%
Federal Funds	2,603	2,265	(338)	-13%	2,424	159	7%
All Funds	7,238	9,556	2,318	32%	10,127	571	6%

Note: Totals may differ due to rounding.

MISCELLANEOUS RECEIPTS - CAPITAL PROJECTS FUNDS (millions of dollars)

	FY 2017	FY 2018	FY 2019
Authority Bond Proceeds			
Transportation	1,335	2,322	2,475
Public Protection	187	380	337
Health and Social Welfare	197	480	1,182
Education	29	64	85
Mental Hygiene	229	385	322
Economic Development	1,298	1,182	1,543
General Government	156	214	296
Other	768	1,409	676
State Park Fees	36	26	26
Environmental Revenues	99	60	60
All Other	881	1,486	1,360
Total	5,215	8,008	8,362
Accounting Adjustment	(580)	(717)	(659)
Financial Plan Total	4,635	7,291	7,703

Miscellaneous receipts in the Capital Projects Fund type include reimbursements from the proceeds of bonds sold by public authorities, fees, and other sources of revenue dedicated to specific capital projects funds, primarily for environmental or transportation capital purposes. The Miscellaneous Receipts table reflects an accounting adjustment for spending made directly from bonds sold by public authorities for State projects. This capital activity, commonly referred to as “Off-Budget Spending,” is not reflected in the Comptroller’s accounting system, but is included in the Five-Year Capital Program and Financial Plan estimates and projections. Federal Funds receipts are shown above to provide a more complete picture of non-tax receipts, but the discussion of Federal Funds is included in a separate section.

State Funds receipts finance two types of capital spending. Authority bond proceeds are used for spending financed with Authority Bonds, while Other Miscellaneous Receipts (Parks, Environmental, and Other receipts) finance State Pay-As-You-Go spending. Federal Funds receipts (Federal Grants) finance Federal Pay-As-You-Go spending.

Reimbursement from Authority Bond Proceeds

Pursuant to statutory authorizations, State agencies enter into contractual arrangements with public authorities to provide for the financing of State capital projects. Such contractual arrangements for financing capital project spending exist with the Empire State Development Corporation, the Dormitory Authority of the State of New York, the Environmental Facilities Corporation, the New York State Housing Finance Authority, and the New York State Thruway Authority. Currently, the primary functional areas for which authority bond proceeds finance capital projects spending are transportation, higher education, and economic development. After the State makes payments directly from appropriations for project costs, it is reimbursed by the public authority from the proceeds of bonds sold previously, except for the “Off-Budget Spending” mentioned previously. The amount of reimbursements received annually reflects the level of bondable capital spending in that year and may fluctuate depending upon when the spending occurs and the timing of related bond sales. As bondable spending fluctuates to reflect the progress of capital programs across all areas, so do the bond receipts received as reimbursements.

State Parks, Environmental, and Other Revenues

The following miscellaneous receipts do not include reimbursements from authority bond proceeds.

State Parks user fees are deposited into the State Parks Infrastructure Fund and the Miscellaneous Capital Projects Fund. These revenues, which are projected at \$26 million in FY 2018 and \$26 million in FY 2019, will be used to finance improvements at various facilities across the State’s park system.

Other miscellaneous environmental revenues include receipts primarily from the sale of surplus State lands, the leases of coastal State property, and the sale of environmental license plates. These are deposited into the Environmental Protection Fund. Other environmental revenues from settlements with individuals and other parties who are liable for damage caused to State environmental properties are deposited in the Natural Resource Damages Fund.

Other moneys and fees are received in the various Capital Projects Funds to support capital programs. Finally, certain receipts reimburse the State for capital spending on behalf of municipalities, public authorities, and private corporations, primarily for transportation and environmental projects. A major portion of these receipts reflect repayments pursuant to previously negotiated agreements.

Miscellaneous Receipts Debt Service Funds



MISCELLANEOUS RECEIPTS - DEBT SERVICE FUNDS (millions of dollars)							
	<u>FY 2017</u> <u>Results</u>	<u>FY 2018</u> <u>Estimated</u>	<u>Change</u>	<u>Percent</u> <u>Change</u>	<u>FY 2019</u> <u>Projected</u>	<u>Change</u>	<u>Percent</u> <u>Change</u>
General Fund	0	0	0	0.0	0	0	0.0
Other Funds	458	467	10	2.1	465	(2)	(0.5)
All Funds	458	467	10	2.1	465	(2)	(0.5)

Note: Totals may differ due to rounding.

MISCELLANEOUS RECEIPTS - DEBT SERVICE FUNDS (millions of dollars)			
	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>
Mental Hygiene Patient Receipts	329	321	317
Health Patient Receipts	123	144	144
All Other	5	3	4
	<u>458</u>	<u>467</u>	<u>465</u>

Miscellaneous receipts in the Debt Service fund type include patient revenues, rental fees, medical insurance payments, interest income on investments, and other revenues. These revenues are typically first dedicated for the payment of lease-purchase agreements, contractual obligations, and debt service. These revenues support about 8 percent of the State's debt service payments and have been pledged as security for bonds issued for Mental Hygiene facilities and Department of Health facilities. The revenues are also used by the State to pay debt service on general obligation housing bonds. After such requirements are satisfied, the balance of most miscellaneous receipts, together with other receipts and transfers, flow back to the General Fund or to Special Revenue funds to offset the cost of State operations.

Mental Hygiene Patient Receipts

Payments from patients and various third-party payers, including Medicare and insurance companies, for services provided by the mental hygiene agencies are deposited in the Mental Health Services Fund as miscellaneous receipts. The revenues received are used to make lease-purchase payments to the Dormitory Authority of the State of New York (DASNY) for debt service on mental health services bonds. Additionally, portions of State and local assistance and Federal Medicaid payments to not-for-profit community facilities are earmarked to pay their share of debt service. These are also deposited as miscellaneous receipts in the Mental Health Services Fund. DASNY makes loans to eligible not-for-profit agencies providing mental health services and, in return, the voluntary agencies make rental payments equal to the amount of debt service on bonds issued to finance their projects.

Health Patient Receipts

Patient care reimbursements from the Department of Health's hospitals and the veterans' homes (Oxford, New York City and Western New York) are deposited into the Health Income Fund to make lease-purchase rental payments to DASNY. Similar to the Mental Hygiene Services Fund, the receipts are pledged for debt service of bonds issued by DASNY to finance the construction and rehabilitation of State hospitals and veterans' homes. These receipts are composed of payments from Medicaid, Medicare, insurance, and individuals.

All Other

The all other miscellaneous receipts category primarily includes investment income receipts from the Local Government Assistance Corporation, and payments from local housing agencies to finance the debt service costs on general obligation bonds.

To qualify to receive Federal grants, the State must comply with guidelines established by the Federal government. Each Federal grant must be used pursuant to Federal laws and regulations. Additionally, the State is required to follow specific cash management practices regarding the timing of cash draws from the Federal government pursuant to regulations for each grant award. In most cases, the State finances spending in the first instance, then receives reimbursement from the Federal government.

Total receipts from the Federal government are projected at \$57.8 billion in FY 2018 and \$57.9 billion in FY 2019. These revenues represent approximately one-third of total receipts in governmental funds, excluding general obligation bond proceeds, and are deposited into the General Fund, Special Revenue, Capital Projects and the Debt Service fund types.

FEDERAL GRANTS BY FUND (millions of dollars)								
	General Fund	Special Revenue Funds			Capital Projects Funds	Debt Service Funds	Total All Funds	
		Medicaid	Welfare	All Other				
FY 2003	6	17,297	2,542	11,847	31,686	1,567	0	33,259
FY 2004	654	21,435	2,018	11,668	35,121	1,548	0	37,323
FY 2005	9	22,666	1,998	9,828	34,492	1,721	0	36,222
FY 2006	0	21,524	2,097	9,741	33,362	1,767	0	35,129
FY 2007	151	22,906	2,243	8,540	33,689	1,738	0	35,578
FY 2008	69	22,417	2,184	8,494	33,095	1,745	0	34,909
FY 2009	45	24,844	2,597	9,466	36,907	1,882	0	38,834
FY 2010	71	30,054	2,721	10,605	43,380	2,061	13	45,525
FY 2011	55	31,423	2,674	12,596	46,693	2,499	57	49,304
FY 2012	60	28,195	2,520	11,640	42,355	2,115	80	44,610
FY 2013	62	27,043	2,583	10,950	40,576	2,126	79	42,843
FY 2014	0	26,538	3,168	11,699	41,405	2,313	71	43,789
FY 2015	2	31,852	2,633	12,044	46,531	2,030	73	48,636
FY 2016	0	34,874	2,863	11,368	49,105	2,146	73	51,324
FY 2017	0	38,923	2,300	11,502	52,725	2,608	73	55,406
Estimated								
FY 2018	0	41,816	2,377	11,241	55,434	2,270	73	57,777
FY 2019	0	42,242	2,627	10,507	55,376	2,429	73	57,878

General Fund

Federal grants are deposited into the General Fund only in limited instances. The Federal subsidy payment related to Medicare Part D was the main Federal grant in the General Fund in prior years, however, starting in FY 2014, the State has received this payment through a different reimbursement mechanism.

Special Revenue Funds

Federal grants account for nearly two-thirds of all special revenue receipts and are used to support a wide range of programs at the State and local government level. Medicaid is the single largest program supported by Federal funds, and helps finance health care, medical supplies, and professional services for eligible persons. The State receives funds from the Federal government to make payments to providers for both State-operated and non-State-operated facilities. The State-operated category includes facilities of the Offices of Mental Health and People with Developmental Disabilities. These facilities receive Medicaid funds for the delivery of eligible services to patients.

Other Federal grants in the Special Revenue Funds support programs administered primarily by the departments of Education, Family Assistance, Health, and Labor. These programs include Public Assistance, Foster Care, Food and Nutrition Services, and Supplementary Educational Services. The State also receives Federal grants to support extraordinary costs associated with disaster assistance.

Capital Projects Funds

Federal grants in Capital Projects Funds finance transportation planning, engineering, and construction projects. Federal grants also support local wastewater treatment projects financed through the State's Revolving Loan Fund. Other Federal grants are for the rehabilitation of State armories, eligible housing programs, and other environmental purposes.

Debt Service Funds

Federal grants in the Debt Service fund type reflect interest subsidies received on Build America Bonds (BABs), pursuant to a financing option provided to the State through the American Recovery and Reinvestment Act (ARRA).

All or portions of several tax sources, including the personal income tax, transportation-related taxes and fees, cigarette taxes, sales and use taxes, and corporate taxes are statutorily dedicated to various Special Revenue, Debt Service and Capital Projects Funds. The following discussion identifies the statutory provisions which establish the dedicated funds, the source of dedicated tax receipts, the formula used to allocate tax receipts to the funds, and the purposes for which those deposits may be used.

Special Revenue Funds

School Tax Relief Fund (“STAR” Fund-053)

The School Tax Relief Fund (STAR) was established by Section 97 of the State Finance Law. The Fund consists of all moneys credited or transferred thereto from the General Fund or from any other fund or sources. The moneys of the Fund are appropriated for school property tax exemptions granted pursuant to the Real Property Tax Law.

SCHOOL TAX RELIEF FUND (STAR)						
(millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Actual	Estimated	Recommended	Recommended	Recommended	Recommended
Personal Income Tax	3,139	2,585	2,410	2,322	2,261	2,217
Total STAR	3,139	2,585	2,410	2,322	2,261	2,217

Dedicated Mass Transportation Trust Fund (“DMTTF” Fund-073)

The Dedicated Mass Transportation Trust Fund (DMTTF) was established by Section 89-c of the State Finance Law. State tax receipts of the DMTTF are derived from the State’s motor fuel tax, motor vehicle fees, and a portion of the petroleum business tax. The moneys of the DMTTF, pursuant to an appropriation, are used for the reconstruction, replacement, purchase, modernization, improvement, reconditioning, preservation and maintenance of mass transit facilities, vehicles, and rolling stock, or the payment of debt service or operating expenses incurred by mass transit operating agencies, and for rail projects. Revenue shown below does not include an annual General Fund transfer of \$62.7 million, effective FY 2015, or motor vehicle fees.

DEDICATED MASS TRANSPORTATION TRUST FUND (DMTTF)						
(millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Actual	Estimated	Recommended	Recommended	Recommended	Recommended
Petroleum Business Tax	367	359	368	378	375	373
Motor Fuel Tax	109	108	107	106	105	105
Total DMTTF	476	466	475	484	480	477

Metropolitan Transportation Authority Financial Assistance Fund (“MTAFAF” Fund-225)

The Metropolitan Transportation Authority Financial Assistance Fund (MTAFAF) was established by Section 92-ff of the State Finance Law under the joint custody of the Commissioner of Taxation and Finance and the State Comptroller. The fund contains all revenues derived from the metropolitan commuter transportation mobility tax, supplemental motor vehicle fees, the supplemental tax on passenger car rentals in the Metropolitan Commuter Transportation District (MCTD) and the tax on New York City taxicab and hail vehicle trips. Revenues generated from the mobility tax are directed to the Mobility Tax Trust Account of the MTA Financial Assistance Fund. Revenues generated from the supplemental motor vehicle fees, supplemental tax on car rentals, and the tax on taxicab rides are directed to the MTA Aid Trust Account of the MTA Financial Assistance Fund. Revenue shown below does not include motor vehicle fees.

The FY 2019 Executive Budget projects no MTAFAF revenue from the mobility tax after FY 2018, due to the proposed mobility tax revenue distribution change.

METROPOLITAN TRANSPORTATION AUTHORITY FINANCIAL ASSISTANCE FUND (MTAFAF)						
(millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Actual	Estimated	Recommended	Recommended	Recommended	Recommended
Payroll Tax	1,380	1,438	0	0	0	0
Auto Rental Tax	49	48	50	53	56	59
Taxicab Surcharge	64	59	59	59	59	59
Total MTAFAF	1,493	1,545	109	112	115	118

Mass Transportation Operating Assistance Fund (“MTOA” Fund-313)

The Mass Transportation Operating Assistance Fund (MTOA) was established by Section 88-a of the State Finance Law. Tax receipts dedicated to the fund are comprised of a business tax surcharge levied on the portion of the State general business corporation tax, corporations and utilities tax, and the insurance tax allocated to the Metropolitan Commuter Transportation District (MCTD), a 0.375 percent sales tax levied in the MCTD, a portion of the petroleum business tax, and a portion of the taxes on transportation and transmission companies and telecommunication services. The moneys of the MTOAF are subject to appropriation and are allocated among two accounts within the Fund. The moneys in each account must be used for the transportation assistance purposes for which each account was established. The accounts of MTOAF include:

- Public Transportation Systems Operating Assistance Account (PTOA - Fund 313-01); and
- Metropolitan Mass Transportation Operating Assistance Account (MMTOA - Fund 313-02).

The PTOA receives:

- 45 percent of the 19.7 percent of the basic petroleum business tax that is dedicated to the MTOAF;

Dedicated Fund Tax Receipts



- 26 percent of the receipts collected from the tax imposed on transportation and transmission companies by Sections 183 and 184 of Article 9 of the Tax Law; and
- 1.976 percent of the receipts collected from the tax on charges for telecommunication services by section 186-e of Article 9 of the Tax Law.

The MMTOA receives:

- 54 percent of the receipts collected from the taxes imposed on transportation and transmission companies by Sections 183 and 184 of Article 9 of the Tax Law;
- 4.104 percent of the receipts collected from the tax on charges for telecommunication services by section 186-e of Article 9 of the Tax Law;
- All tax receipts from the business tax surcharge imposed on taxpayers that are subject to the corporation franchise tax, corporation and utilities tax, and the insurance tax and that conduct business in the MCTD;
- Tax receipts from the 0.375 percent sales and use tax imposed in the MCTD; and
- 55 percent of the 19.7 percent of the basic petroleum business tax that is dedicated to the MTOAF.

MASS TRANSPORTATION OPERATING ASSISTANCE FUND (MTOA)						
(millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Actual	Estimated	Recommended	Recommended	Recommended	Recommended
Corporate Surcharges						
Corporate Franchise Tax	690	727	862	913	950	994
Corporation and Utilities Tax	106	105	106	109	113	117
Insurance Tax	170	182	200	207	221	230
Bank Tax	52	60	21	11	0	0
Other						
Sales and Use Tax	903	942	987	1,029	1,066	1,104
Petroleum Business Tax	133	129	131	135	134	133
Transmission Tax ¹	61	53	50	50	50	50
Total MTOA	2,114	2,198	2,357	2,454	2,534	2,628

¹ Includes sections 183, 184, and 186-e.

Health Care Reform Act Resources Fund (“HCRA” Fund-061)

The Health Care Reform Act (HCRA) Resources Fund was established by Section 92-dd of the State Finance Law and receives 76 percent of total State cigarette tax revenues. Other revenues dedicated to this Fund include hospital surcharges and assessments, a Covered Lives Assessment on commercial insurers and a portion of cigarette revenue from New York City’s locally imposed cigarette tax. These resources support numerous public health, Medicaid and insurance programs for the uninsured/underinsured; including Family Health Plus, Healthy NY, Child Health Plus, anti-tobacco initiatives, graduate medical education, working disabled, and indigent care.

HEALTH CARE REFORM ACT RESOURCE FUND (HCRA)						
(millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Actual	Estimated	Recommended	Recommended	Recommended	Recommended
Cigarette Tax	876	837	806	771	739	707
Total HCRA	876	837	806	771	739	707

Medical Marihuana Trust Fund (“MMTF” Fund-S02)

The Medical Marihuana Trust Fund (MMTF) was established by Section 89-h of the State Finance Law. The Fund consists of all moneys from a seven percent excise tax imposed when a New York dispensary sells medical marihuana to a patient or designated caregiver, which is remitted by the dispensary.

MEDICAL MARIHUANA TRUST FUND (MMTF)						
(millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Actual	Estimated	Recommended	Recommended	Recommended	Recommended
Medical Marihuana Tax	1	2	2	2	2	2
Total MMTF	1	2	2	2	2	2

Highway Use Tax Administration Account (“HUTAA” Fund S-03)

The Highway Use Tax Administration Account (HUTAA) was established by Section 99-y of the State Finance Law. This account consists of all monies collected from highway use tax registration fees collected pursuant to the highway use tax. The revenue generated from these fees is used for costs of the Commissioner of Taxation and Finance to administer the highway use tax.

HIGHWAY USE TAX ADMINISTRATION ACCOUNT (HUTAA)						
(millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Actual	Estimated	Recommended	Recommended	Recommended	Recommended
Highway Use Tax	2	2	3	2	2	3
Total HUTAA	2	2	3	2	2	3

Interactive Fantasy Sports Fund (“IFS” Fund-S04)

There is a 15 percent tax on interactive fantasy sports gross revenue generated in New York and an additional tax rate of one-half of one percent (capped at \$50,000 per taxpayer annually). Based on Section 71 of the State Finance Law, OSC will direct all revenues to the Interactive Fantasy Sports Fund for the sole purpose of providing aid to education.

INTERACTIVE FANTASY SPORTS (IFS)						
(millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Actual	Estimated	Recommended	Recommended	Recommended	Recommended
IFS Tax	3	5	5	5	5	5
Total IFS	3	5	5	5	5	5

Debt Service Funds

General Debt Service Fund (“GDS” Fund-311)

The General Debt Service Fund (GDS) includes the Revenue Bond Tax Fund and the Sales Tax Revenue Bond Fund.

The Revenue Bond Tax Fund was established by Section 92-z of the State Finance Law. The Fund receives 25 percent of the receipts from the State personal income tax imposed by Article 22 of the Tax Law. Payments from the Fund are pledged to pay the debt service on State-supported Personal Income Tax Revenue Bonds, which support a variety of capital projects. No later than the fifteenth day of each month, the Comptroller is required to pay over to the General Fund all money in the RBTF in excess of the aggregate amount required to be set aside for debt service.

The Sales Tax Revenue Bond Fund was established by Section 92-h of the State Finance Law. The Fund receives moneys collected from the imposition of the State sales and compensating use taxes in an amount attributable to a one percent rate of taxation. This will increase to a two percent rate when LGAC bonds have been retired or defeased. Payments from the Fund are dedicated to pay the debt service on State Sales Tax Revenue Bonds which, along with State PIT Revenue Bonds, are used to finance various State capital purposes. The Comptroller is required to pay over to the General Fund all money in the STBF in excess of the aggregate amount required to be set aside for debt service.

GENERAL DEBT SERVICE (GDS)						
(millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Actual	Estimated	Recommended	Recommended	Recommended	Recommended
Personal Income Tax	11,892	12,734	12,311	13,473	13,875	14,487
Sales and Use Tax	3,242	3,392	3,570	3,733	3,874	4,017
Total GDS	15,133	16,126	15,881	17,206	17,749	18,504

Clean Water/Clean Air Fund (“CWCAF” Fund-361)

The Clean Water Clean Air Fund (CWCAF) was established by Section 97-bbb of the State Finance Law. The Fund receives all real estate transfer taxes in excess of the deposit to the Environmental Protection Fund. The moneys in the Fund are used to reimburse the General Fund for transfers made to the General Debt Service Fund to pay the debt service on 1996 Clean Water/Clean Air general obligation bonds. At the end of each month, the Comptroller is required to pay over to the General Fund all moneys in the CWCAF in excess of the aggregate amount required for such reimbursements.

CLEAN WATER/CLEAN AIR FUND (CWCAF)						
(millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Actual	Estimated	Recommended	Recommended	Recommended	Recommended
Real Estate Transfer Tax	1,007	1,028	1,093	1,150	1,184	1,221
Total CWCAF	1,007	1,028	1,093	1,150	1,184	1,221

Local Government Assistance Tax Fund (“LGATF” Fund-364)

The Local Government Assistance Tax Fund (LGATF) was established by Section 92-r of the State Finance Law. The Fund receives moneys collected from the imposition of the State sales and compensating use taxes in an amount attributable to a 1 percent rate of taxation. Payments from the Fund are dedicated to pay the debt service on State-supported Local Government Assistance Corporation Bonds originally issued in the early 1990s to finance payments to local governments previously financed by the State. The Comptroller is required to pay over to the General Fund all money in the LGATF in excess of the aggregate amount required to be set aside for debt service. In addition, local aid payments due to New York City and assigned by the City to the Sales Tax Asset Receivable Corporation (STARC) are appropriated from the LGATF.

LOCAL GOVERNMENT ASSISTANCE TAX FUND (LGATF)						
(millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	<u>Actual</u>	<u>Estimated</u>	<u>Recommended</u>	<u>Recommended</u>	<u>Recommended</u>	<u>Recommended</u>
Sales and Use Tax	3,242	3,392	3,570	3,733	3,874	4,017
Total LGATF	3,242	3,392	3,570	3,733	3,874	4,017

Capital Projects Funds

Dedicated Highway and Bridge Trust Fund (“DHBTF” Fund-072)

The Dedicated Highway and Bridge Trust Fund (DHBTF) was established by Section 89-b of the State Finance Law. The DHBTF receives moneys from the motor fuel tax, motor vehicle fees, highway use tax, auto rental tax, petroleum business tax, and a portion of the taxes on transportation and transmission companies and telecommunication services. The moneys of the Fund, pursuant to an appropriation, are used to support transportation, including the reconstruction, replacement, reconditioning, restoration, rehabilitation and preservation of State, county, town, city and village roads, aviation projects, matching Federal highway grants, snow and ice removal, acquisition of real property, bus safety inspection, rail freight facilities, intercity rail passenger facilities, state, municipal and private ports, ferry lines, and certain DMV expenses. Payments from the Fund are also pledged to support the debt service on State-supported Dedicated Highway and Bridge Trust Fund Bonds. Revenue shown below does not include an annual General Fund transfer of roughly \$66 million, effective FY 2015, or motor vehicle fees. Revenue collected from taxes on aviation fuel is directed to an Aviation Purpose Account within the DHBTF.

DEDICATED HIGHWAY AND BRIDGE TRUST FUND (DHBTF)						
(millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	<u>Actual</u>	<u>Estimated</u>	<u>Recommended</u>	<u>Recommended</u>	<u>Recommended</u>	<u>Recommended</u>
Petroleum Business Tax	624	614	637	654	649	645
Motor Fuel Tax	410	407	405	401	399	396
Highway Use Tax	136	94	139	140	141	142
Transmission Tax	15	14	14	14	14	14
Auto Rental Tax	78	85	87	92	96	101
Total DHBTF	1,264	1,214	1,282	1,301	1,299	1,297

Environmental Protection Fund (“EPF” Fund-078)

The Environmental Protection Fund (EPF) was established by Section 92-s of the State Finance Law. The Fund currently receives real estate transfer taxes in the amount of \$119.1 million annually. Moneys in the Fund are deposited to the following accounts:

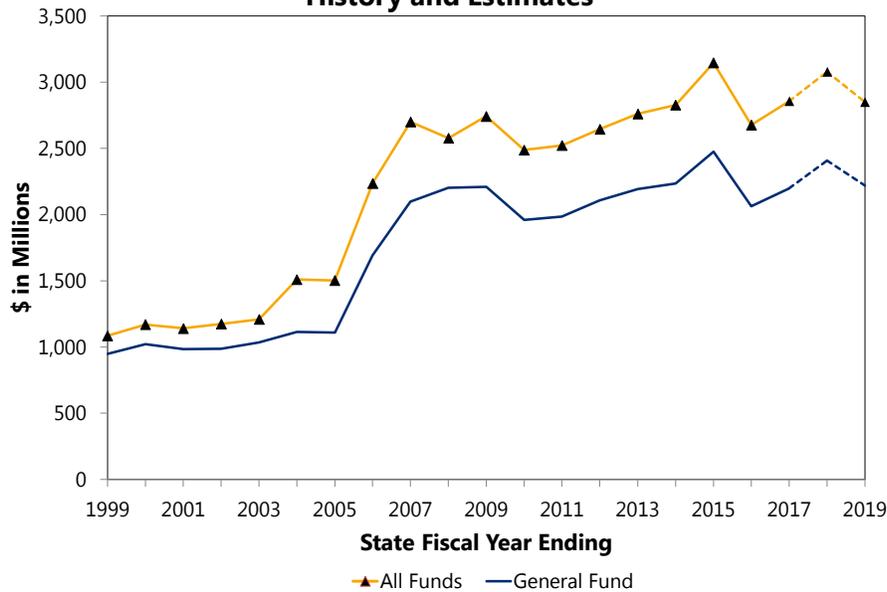
- The Solid Waste Account for any non-hazardous municipal landfill closure project, municipal waste reduction or recycling project, or local solid waste management plans.
- The Parks, Recreation and Historic Preservation Account for any municipal park project, historic preservation project, urban cultural park project, waterfront revitalization program, or coastal rehabilitation project.
- The Open Space Account for any open space land conservation project, bio-diversity stewardship and research, non-point source abatement and control projects, upon the request of the Director of the Division of the Budget.

ENVIRONMENTAL PROTECTION FUND (EPF)						
(millions of dollars)						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Actual	Estimated	Recommended	Recommended	Recommended	Recommended
Real Estate Transfer Tax	119	119	119	119	119	119
Total EPF	119	119	119	119	119	119

AUDIT AND COMPLIANCE RECEIPTS (millions of dollars)							
	FY2017 Actual	FY2018 Estimated	Change	Percent Change	FY2019 Projected	Change	Percent Change
General Fund	2,198.4	2,408	209.6	9.5	2,219	(189.0)	(7.8)
Other Funds	658.4	671.4	13.0	2.0	631.4	(40.0)	(6.0)
All Funds	2,856.8	3,079	222.6	7.8	2,850	(229.0)	(7.4)

Note: Totals may differ due to rounding.

Audit and Compliance Receipts History and Estimates



Estimated Receipts for FY 2018

TABLE 1 ALL FUNDS AUDIT AND COMPLIANCE COLLECTIONS BY TAX TYPE (millions of dollars)				
	FY2017	FY2018	Change from Prior Year	Percent Change from Prior Year
Personal Income Tax	1,306	1,283	(23)	(1.8)
User Taxes and Fees	445	489	44	10.0
Business Taxes	1,066	1,266	200	18.8
Corporation and Utilities Taxes	48	65	17	35.1
Corporation Franchise Tax	527	642	115	21.8
Bank Tax	450	510	60	13.2
Insurance Tax	29	31	2	6.5
Petroleum Business Taxes	12	18	6	55.2
Other Taxes	40	41	1	3.5
Total	2,857	3,079	223	7.8

Audit and compliance receipts for FY 2018 are estimated to be \$3.079 billion, an increase of \$223 million (7.8 percent) from FY 2017. The increase is driven primarily by a business tax receipts increase of \$200 million (18.8 percent), and an increase in User tax receipts of \$44 million (10 percent). The user tax increase is the result of a large, one-time audit.

Estimated Receipts for FY 2019

TABLE 2
ALL FUNDS AUDIT AND COMPLIANCE COLLECTIONS BY TAX TYPE
(millions of dollars)

	FY2018	FY2019	Change from Prior Year	Percent Change from Prior Year
Personal Income Tax	1,283	1,352	69	5.4
User Taxes and Fees	489	412	(77)	(15.7)
Business Taxes	1,266	1,045	(221)	(17.5)
Corporation and Utilities Taxes	65	44	(21)	(32.3)
Corporation Franchise Tax	642	816	174	27.1
Bank Tax	510	143	(367)	(72.0)
Insurance Tax	31	31	0	0.0
Petroleum Business Taxes	18	11	(7)	(38.9)
Other Taxes	41	41	0	0.0
Total	3,079	2,850	(229)	(7.4)

Audit and compliance receipts for FY 2019 are projected to be \$2.850 billion, a decrease of \$229 million (7.4 percent) from FY 2018. The decrease in bank tax and user taxes is partially offset by higher corporation franchise tax and personal income tax receipts.

Proposed Legislation

Legislation proposed with this Budget would:

- Provide for employee wage reporting consistency between the Department of Taxation and Finance and Labor;
- Allow warrantless tax debt to be assessed against unclaimed funds;
- Amend the refund and joint liability provisions of the real estate transfer tax; and
- Extend the statute of limitations on amended tax returns.

Description

This section summarizes the cash collected by the Department of Taxation and Finance related to its audit and compliance activities. The amounts reported are already reflected in the estimates of individual tax receipts contained in this volume.

The Department of Taxation and Finance’s Office of Tax Enforcement (OTE) is composed of the Audit Division, the Division of Collections and Civil Enforcement (“Collections”) and the Criminal Division. The Audit Division is responsible for verifying that the correct tax has been paid and the Compliance Division is responsible for collecting the correct tax.

The collections base of OTE activities is the correct amount of taxes legally required to be paid, which is verified through the audit process. Receipts from enforcement activities are the result of incorrect tax payments, including filing returns with math errors, filing past due returns or the incorrect return, the improper interpretation of Tax Law, regulations or instructions, and tax evasion that results in a gap between the amount that is legally due and required to be paid and the amount that was voluntarily paid. In certain instances, taxpayers may also be subject to penalties and interest.

Growth in Recent Collections

TABLE 3
GROWTH ALL FUNDS AUDIT AND COMPLIANCE COLLECTIONS
(millions of dollars)

	All Funds Audit and Compliance Collections	Change from Prior Year	Percent Change from Prior Year
FY 2001	1,174	33	2.9
FY 2002	1,209	35	3.0
FY 2003	1,510	301	24.9
FY 2004	1,232	(278)	(18.4)
FY 2005	1,503	271	22.0
FY 2006	2,237	734	48.8
FY 2007	2,705	468	20.9
FY 2008	2,585	(120)	(4.4)
FY 2009	2,743	158	6.1
FY 2010	2,489	(254)	(9.3)
FY 2011	2,522	33	1.3
FY 2012	2,646	124	4.9
FY 2013	2,759	113	4.3
FY 2014	2,827	68	2.5
FY 2015	3,146	319	11.3
FY 2016	2,677	(469)	(14.9)
FY 2017	2,857	180	6.7
Estimated			
FY 2018	3,079	223	7.8
FY 2019	2,850	(229)	(7.4)

All amounts after FY 2009 include Metropolitan Commuter Transportation Mobility Tax and Taxicab surcharge receipts.

Trends in All Funds Audit and Tax Receipts

Table 4 below reports All Funds audit and compliance collections, All Funds tax receipts, and All Funds audit and compliance collections as a percent of All Funds tax receipts. Although All Funds audit and compliance receipts have fluctuated over time, they have consistently comprised roughly 3 percent to 5 percent of total All Funds tax receipts. This pattern is expected to continue in both FY 2018 and FY 2019.

TABLE 4
All FUNDS AUDIT AND COMPLIANCE COLLECTIONS
As A Percent of All Funds Tax Receipts
(millions of dollars)

	All Funds Audit and Compliance Collections	All Funds Tax Receipts	Audit and Compliance As a Percent of All Funds
FY 2001	1,174	44,658	2.6
FY 2002	1,209	42,475	2.8
FY 2003	1,510	39,626	3.8
FY 2004	1,232	42,851	2.9
FY 2005	1,503	48,598	3.1
FY 2006	2,237	53,578	4.2
FY 2007	2,705	58,740	4.6
FY 2008	2,585	60,871	4.2
FY 2009	2,743	60,338	4.5
FY 2010	2,489	57,668	4.3
FY 2011	2,522	60,871	4.1
FY 2012	2,646	64,299	4.1
FY 2013	2,761	66,300	4.2
FY 2014	2,827	69,690	4.1
FY 2015	3,146	71,034	4.4
FY 2016	2,677	74,673	3.6
FY 2017	2,857	74,373	3.8
Estimated			
FY 2018	3,079	78,955	3.9
FY 2019	2,850	77,368	3.7

All amounts after FY 2009 include Metropolitan Commuter Transportation Mobility Tax (through FY 2018) and Taxicab surcharge

As shown in Table 5 below, the historical distribution of audit and compliance receipts by broad tax categories (i.e., personal income tax, business taxes, user taxes and fees, and miscellaneous/other taxes) differs significantly from the distribution of total receipts by tax category. As a result of significant audit collections, the share of audit receipts derived from business taxes is much greater than the share of All Funds tax receipts derived from business taxes. Since 2008, the business tax share of audit receipts has been between 37 and 53 percent compared to 9 to 14 percent of All Funds tax receipts. In contrast, the share of All Funds revenue derived from the personal income tax has been greater (60 percent or higher) than its share of audit receipts (46 percent or less). The share of audit receipts derived from user taxes and fees has averaged about 14 percent since 2008 compared to roughly 22 percent for its share of All Funds revenue.

In FY 2018 and FY 2019, the share of audit receipts from the business taxes category is expected to remain below the FY 2006 to FY 2009 levels, at 41 and 38 percent, respectively. This percentage share reduction is mainly due to a decline in large case settlements and an increase in the personal income tax share. The FY 2018 and FY 2019 audit and compliance share for the personal income tax is expected to remain above FY 2006 through FY 2009 levels. The share of audit receipts from user taxes and fees is expected to remain at recent historical levels in FY 2018 and FY 2019.

Table 5

	PERCENT OF ALL FUNDS AUDIT AND COMPLIANCE Collections By Tax Category				PERCENT OF ALL FUNDS Collections By Tax Category			
	Business Taxes	Other Taxes and Fees	User Taxes and Fees	Personal Income Tax	Business Taxes	Other Taxes and Fees	User Taxes and Fees	Personal Income Tax
FY 2001	31	4	22	43	13	8	19	60
FY 2002	32	5	20	43	12	8	19	61
FY 2003	31	4	20	45	13	8	22	57
FY 2004	27	4	23	46	12	8	23	57
FY 2005	34	3	21	42	12	8	23	57
FY 2006	51	3	15	31	12	8	21	59
FY 2007	57	3	13	27	15	3	23	59
FY 2008	53	1	14	32	14	3	23	60
FY 2009	53	2	14	31	13	3	23	61
FY 2010	44	2	15	39	13	5	22	60
FY 2011	44	2	17	37	12	5	23	60
FY 2012	48	2	15	36	12	5	23	60
FY 2013	47	2	14	37	12	5	22	61
FY 2014	48	1	13	38	12	5	22	61
FY 2015	47	1	12	40	12	5	22	61
FY 2016	38	2	15	45	11	5	21	63
FY 2017	37	1	16	46	9	5	22	64
Estimated								
FY 2018	41	1	16	42	10	5	21	65
FY 2019	38	1	14	47	12	3	23	64

All amounts after FY 2009 include Metropolitan Commuter Transportation Mobility Tax (through FY 2018) and Taxicab

Significant Legislation

Significant statutory changes that have had an impact on audit and compliance activities since 2012 are summarized below.

Subject	Description	Effective Date
Legislation Enacted in 2013		
Suspension of Driver's Licenses of Persons Delinquent in the Payment of Past-Due Tax Liabilities	Allowed for suspending the New York State drivers' licenses of certain taxpayers who owe past-due tax liabilities equal to or in excess of \$10,000 and fail to pay the past due amount or enter into a payment agreement with the Department of Taxation and Finance.	March 28, 2013
Warrantless Wage Garnishment	Authorized the Department of Taxation and Finance (DTF) to serve income executions (wage garnishments) on individual tax debtors if the taxpayer fails to pay within 21 calendar days after a notice and demand is issued. These provisions expire April 1, 2015.	March 28, 2013

Legislation Enacted in 2015

Warrantless Wage Garnishment Extension	Extended the sunset date to April 1, 2017 for allowing the Tax Department to serve an income execution (wage garnishments) to individual tax debtors.	April 13, 2015
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Legislation Enacted in 2016

Extend Tax Shelter Reporting Provisions	Extended the sunset date for the current tax shelter disclosure and reporting provisions in the Tax Law to July 1, 2019.	July 2, 2015
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Legislation Enacted in 2017

Close Sales Tax Related Entities Loopholes	Closed tax loopholes related to non-resident business purchases, and leasing below cost to related entities.	April 10, 2017
Streamline Bank Account Data Matching	Authorized the Department of Taxation and Finance (DTF) to submit fixed and final debt to financial institutions for delinquent taxpayer data matching purposes through March 31, 2020.	April 10, 2017
Warrantless Wage Garnishment Extension	Extended the sunset date to April 1, 2020 for allowing the Tax Department to serve an income execution (wage garnishments) to individual tax debtors.	April 1, 2017

Risk to the Forecast

The audit and compliance plan in the forecast period contains risk. Even though the share of audit and compliance receipts received from business taxes is expected to remain below the high levels of FY 2006 through FY 2009, these taxes still represent 40 percent of total expected audit and compliance receipts. Audit and compliance receipts for the FY 2006 through FY 2009 period were driven by voluntary compliance programs and the settlement of several large financial services and multi-state taxpayer cases. Corporate tax reform legislation enacted in the FY 2015 Budget is expected to improve voluntary tax compliance which would, in the long run, reduce audit collections from the corporation franchise tax. Quantifying the impact of this shift will be difficult until tax returns beginning with tax year 2015 are audited.