



NEW YORK STATE SENATE MAJORITY FINANCE COMMITTEE

ECONOMIC AND REVENUE REVIEW

FY 2019



**GLOBAL
INSIGHT**



SENATOR JOHN J. FLANAGAN

Temporary President of the Senate
Majority Coalition Leader

SENATOR CATHARINE M. YOUNG

Chair of the Finance Committee

SENATOR DIANE J. SAVINO

Vice-Chair of the Finance Committee

SHAWN MACKINNON

Secretary to the Finance Committee

SENATOR JEFFREY D. KLEIN

Independent Democratic Conference Leader
Majority Coalition Leader

FEBRUARY 2018

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FISCAL YEAR 2019

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In conjunction with:
IHS GLOBAL INSIGHT

FEBRUARY 2018

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Executive Summary

In conjunction with IHS Global Insight, the Senate Finance Committee reviewed and analyzed the economic and revenue projections contained within the Executive Budget for FY 2019. Based upon IHS Global Insight's February economic forecast, the Senate Finance Committee projects All Funds tax revenues to be \$817.2 million above the Executive for FY 2019. This amount is enhanced by the estimate of tax revenues for the remainder of the FY 2018, which is \$654.2 million above the Executive estimate. This results in a two year All Funds tax revenue forecast that is \$1.471 billion above the Executive projection.

The Senate Finance Committee projects \$976 million in General Fund revenues (inclusive of miscellaneous receipts and transfers) above the Executive Budget forecast for FY 2019. This amount is enhanced by the estimate for the remainder of FY 2018, which is \$683 million above the Executive estimate.

All signs are pointing to strong economic growth in 2018 due to numerous factors including consumer spending and residential and non-residential investment. Consumer spending is growing at a good pace due to continued wage, disposable income, and employment growth; and the increased consumer confidence resulting from both the recently enacted Federal tax reductions and market performance.

While economic growth improved in 2017, the growth of the national economy once again outpaced New York, 2.3 percent to 1.6 percent, respectively. This trend is projected to accelerate in 2018, with New York growth projected to grow 2.2 percent, while national growth is projected to grow 2.7 percent.

Estimates for the remainder of the current fiscal year reflect increased personal income tax collections due to wage and salary growth in 2017. These estimates also reflect strong sales tax resulting from increases in disposable income and consumer confidence. IHS Global Insight's forecast of the overall national economy in 2018 is similar to the economic forecast presented by the Executive, with stronger wage, employment, corporate profit growth, consumption, and overall economic growth.

Although the forecast exhibits stronger revenue growth for the upcoming fiscal year based on the projection of stronger economic growth, there are both upside and downside risks associated with the forecast, as with any forecast. The current administration has created uncertainty regarding trade; however, there has not been a significant change in U.S. trade policy through 2017. It is not yet fully known what impact the recent Federal tax changes will have on the economy. Additionally, while the past year has seen unprecedented growth in the stock market, recent volatility shows an element of risk.

On the positive side, increased employment and wage growth as a result of a more optimistic business outlook would have a positive impact on the State's personal income and sales tax revenues. Additional revenues realized by the State should support the State's reserve funds or be used to support taxpayer relief to make New York more competitive for job creation and more affordable for families.

FY 2018 General Funds Tax Collections
(Millions of Dollars)

	Senate Finance	Executive Budget	Variance
Personal Income Tax	36,228	35,616	612
Withholding	40,149	39,459	690
Estimated Payments	17,793	17,734	59
Final Returns	2,480	2,441	39
Other Payments	1,427	1,426	1
Gross Collections	61,848	61,060	788
Refunds	(10,097)	(10,125)	28
STAR	(2,585)	(2,585)	0
RBTF	(12,938)	(12,734)	(204)
User Taxes and Fees	7,393	7,386	7
Sales and Use	6,794	6,784	10
Cigarette / Tobacco	338	340	(2)
Alcoholic Beverage	261	262	(1)
Business Taxes	4,977	5,108	(131)
Corporate Franchise	2,442	2,559	(117)
Corporate Utilities	553	565	(12)
Insurance	1,537	1,539	(2)
Bank Tax	445	445	0
Other Taxes	1,332	1,332	0
Estate and Gift	1,314	1,314	0
Pari-mutuel Taxes	15	15	0
Other	3	3	0
Total General Fund Taxes	49,931	49,442	489
Miscellaneous Receipts	2,946	2,946	0
Transfers	19,248	19,053	195
Total General Fund Receipts	72,124	71,441	683

Note: totals may not add due to rounding

FY 2019 General Funds Tax Collections
(Millions of Dollars)

	Senate Finance	Executive Budget	Variance
Personal Income Tax	22,585	22,211	374
Withholding	41,415	41,314	101
Estimated Payments	16,085	14,921	1,164
Final Returns	2,053	2,599	(546)
Other Payments	1,562	1,500	62
Gross Collections	61,114	60,334	780
Refunds	(11,123)	(11,091)	(32)
STAR	(2,410)	(2,410)	0
RBTF	(24,996)	(24,622)	(374)
User Taxes and Fees	7,807	7,752	55
Sales and Use	7,198	7,139	59
Cigarette / Tobacco	344	346	(2)
Alcoholic Beverage	264	267	(3)
Business Taxes	5,949	5,869	80
Corporate Franchise	3,503	3,539	(36)
Corporate Utilities	527	540	(13)
Insurance	1,801	1,668	133
Bank Tax	117	122	(5)
Other Taxes	1,148	1,051	97
Estate and Gift	1,132	1,033	99
Pari-mutuel Taxes	14	15	(1)
Other	2	3	(1)
Total General Fund Taxes	37,489	36,883	606
Miscellaneous Receipts	2,019	2,019	0
Transfers	32,669	32,298	371
Total General Fund Receipts	72,176	71,200	976

Note: totals may not add due to rounding

FY 2018 All Funds Tax Collections (Millions of Dollars)

	Senate Finance	Executive Budget	Variance
Personal Income Tax	51,751	50,935	816
Withholding	40,149	39,459	690
Estimated Payments	17,793	17,734	59
Final Returns	2,480	2,441	39
Other Payments	1,427	1,426	1
Gross Collections	61,848	61,060	788
Refunds	(10,097)	(10,125)	28
User Taxes and Fees	16,765	16,753	13
Sales and Use	14,530	14,509	21
Cigarette / Tobacco	1,170	1,177	(7)
Alcoholic Beverage	261	262	(1)
Motor Fuel Tax	517	515	2
Highway Use Tax	97	96	1
Auto Rental	132	133	(1)
MTA Taxicab	55	59	(4)
Medical Marihuana	1.8	1.8	0
Business Taxes	7,192	7,350	(158)
Corporate Franchise	3,136	3,286	(150)
Corporate Utilities	722	737	(15)
Insurance	1,719	1,721	(2)
Bank Tax	505	505	0
Petroleum Business	1,110	1,101	9
Other Taxes	2,459	2,479	(19)
Real Estate Transfer	1,127	1,147	(20)
Estate and Gift	1,314	1,314	0
Pari-mutuel Taxes	15	15	0
Other	3	3	0
Payroll Tax	1,441	1,438	3
Total All Funds Taxes	79,609	78,954	656

Note: totals may not add due to rounding

FY 2019 All Funds Tax Collections (Millions of Dollars)

	Senate Finance	Executive Budget	Variance
Personal Income Tax	49,991	49,243	748
Withholding	41,415	41,314	101
Estimated Payments	16,085	14,921	1,164
Final Returns	2,053	2,599	(546)
Other Payments	1,562	1,500	62
Gross Collections	61,114	60,334	780
Refunds	(11,123)	(11,091)	(32)
User Taxes and Fees	17,787	17,664	123
Sales and Use	15,393	15,266	127
Cigarette / Tobacco	1,144	1,152	(8)
Alcoholic Beverage	264	267	(3)
Motor Fuel Tax	517	512	5
Highway Use Tax	146	142	4
Auto Rental	137	137	(0)
MTA Taxicab	56	59	(3)
Medical Marihuana	1	2	(1)
Proposed Opioid Surcharge	127	127	0
Business Taxes	8,114	8,198	(84)
Corporate Franchise	4,238	4,341	(103)
Corporate Utilities	767	710	57
Insurance	1,798	1,868	(70)
Bank Tax	143	143	0
Petroleum Business	1,169	1,136	33
Other Taxes	2,293	2,263	30
Real Estate Transfer	1,145	1,212	(67)
Estate and Gift	1,132	1,033	99
Pari-mutuel Taxes	14	15	(1)
Other	2	3	(1)
Payroll Tax*			0
Total All Funds Taxes	78,185	77,368	817

Note: totals may not add due to rounding

*The Executive Budget moves the MTA Payroll Tax off budget

United States Economic Outlook

(Dollar Figures in Billions of Dollars)

	2017	2018	2019	2020
GDP	\$19,386.8	\$20,381.8	\$21,449.0	\$22,466.9
Percent Change	4.1%	5.1%	5.2%	4.7%
Real GDP	\$17,093	\$17,559	\$18,038	\$18,416
Percent Change	2.3%	2.7%	2.7%	2.1%
Consumption Expenditures	\$11,889	\$12,231	\$12,520	\$12,782
2009 Dollars, Percent Change	2.7%	2.9%	2.4%	2.1%
Government Expenditures	\$2,903	\$2,922	\$2,939	\$2,955
2009 Dollars, Percent Change	0.1%	0.6%	0.6%	0.5%
Investment Expenditures	\$2,915	\$3,055	\$3,237	\$3,396
2009 Dollars, Percent Change	4.0%	4.8%	6.0%	4.9%
Change in Inventories	\$2,327	\$2,381	\$2,455	\$2,521
2009 Dollars, Percent Change	0.6%	2.3%	3.1%	2.7%
Exports	\$2,191	\$2,317	\$2,458	\$2,595
2009 Dollars, Percent Change	3.4%	5.7%	6.1%	5.6%
Imports	\$2,813	\$3,018	\$3,191	\$3,387
2009 Dollars, Percent Change	3.9%	7.3%	5.7%	6.1%
CPI - All Urban, Percent Change	2.1%	2.3%	1.7%	2.7%
CPI - Core, Percent Change	1.8%	2.1%	2.3%	2.5%
Pretax Corporate Profits	\$2,194	\$2,395	\$2,485	\$2,527
Percent Change	5.8%	9.2%	3.8%	1.7%
After-tax Corporate Profits	\$1,659	\$1,714	\$1,769	\$1,829
Percent Change	6.4%	3.3%	3.2%	3.4%
Personal Income	\$16,417	\$17,109	\$18,022	\$18,933
Percent Change	3.1%	4.2%	5.3%	5.1%
Wages and Salaries	\$8,340	\$8,737	\$9,200	\$9,671
Percent Change	3.1%	4.8%	5.3%	5.1%
Nonagricultural Employment, Millions	146.6	149.0	151.6	153.5
Percent Change, Seasonally Adjusted	1.6%	1.6%	1.8%	1.3%
Unemployment Rate	4.4%	4.0%	3.6%	3.6%
Interest Rates				
T-Bill Rate, 3 Month	0.9%	1.8%	2.6%	3.1%
T-Note Rate, 10 Year	2.3%	3.0%	3.5%	3.7%
T-Bond Rate, 30 Year	2.9%	3.3%	3.9%	4.2%
Standard and Poor's 500 Stock Index				
Percent Change	17.0%	15.3%	-2.9%	-0.9%

Source: IHS Global Insight US Macroeconomic Forecast: February 2018

The National Economy

All signs are pointing to strong economic growth in 2018 due to numerous factors including consumer spending and residential and non-residential investment. Consumer spending is growing at a good pace due to continued wage, disposable income, and employment growth, and the increased consumer confidence resulting from both the passage of the Tax Cuts and Jobs Act and the recent market performance.

While the election of a new administration created economic uncertainty, through 2017 there was a positive economic impact as a result of strong consumer and business confidence as a result of tax and other reforms. While no large changes were made to US trade policy, negotiations to make amendments to NAFTA are ongoing. It is possible that these changes, as well as any future changes to trade policy with China, could have a negative impact not only US economic growth, but as global economic conditions.

It is expected that the Fed will increase interest rates four times this year, but this could be put on hold or even reversed if inflation begins to slow, if growth in the labor market is reversed or if there is any shock to the economy. Increasing the interest rates too soon could lead to reduced consumer spending, which has been a driving force in economic growth.

ECONOMIC GROWTH

The size of a country's economy is measured by its Gross Domestic Product (GDP), the total amount of output of goods and services produced in the country. The percentage change in GDP shows whether the economy is growing or contracting as well as whether the economy is going into recession, in recovery, or expanding.

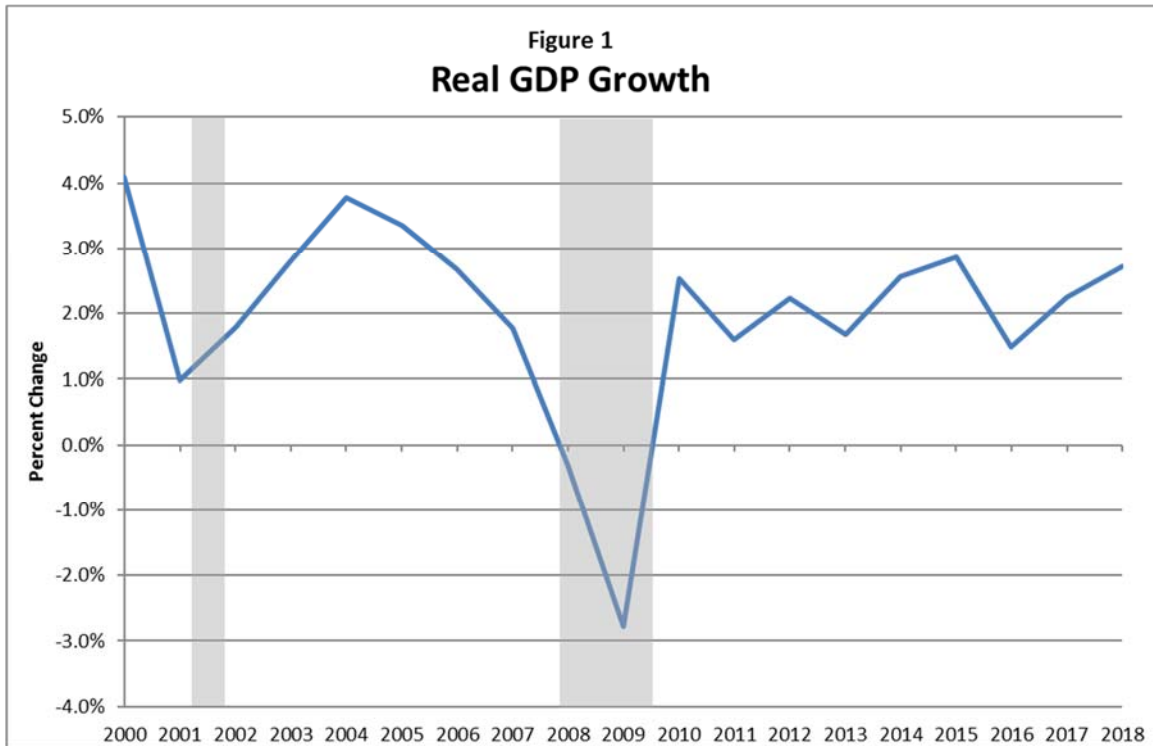
Although varieties of factors are used to determine when an economy goes into recession, the most simplistic explanation is a decline in GDP for at least two consecutive quarters. When GDP turns positive, the economy is considered to be in recovery. As the economy becomes stronger and grows at a faster pace, usually in excess of its long-term trend growth rate, it is then in the expansion phase.

The main factors driving economic growth are the result of productivity from participation in the labor market and investments in capital. When an economy is in the recovery phase, these factors are either not growing at the same rate or one may be growing while the other is in decline or is stagnant. The speed by which an economy transitions from the recovery phase to the expansion phase depends on all of these factors working efficiently and growing in tandem. Of importance in achieving this growth is consumption; whether the consumer is an individual or a business.

In order to effectively evaluate the economic output of goods and services produced in the country from year to year, the effects of price changes or inflation need to be removed.

This allows one to determine if fluctuations in the economy are caused by changes in prices or actual output.

The recovery and expansion phases from the last two recessions are shown in Figure 1 (the recessions are represented by the shaded areas). The recovery from the 2001 recession lasted longer than previous recessions, not reaching the expansion phase until 2004. However, the recovery from the Great Recession has been much slower; with 2017 marking the eighth year of economic expansion.



In the first half of 2017, GDP grew at a higher rate than it had in five of the previous seven years. However, the second half of the year grew at a slightly lower rate than previously expected as a result of weaker than expected data on trade and inventories, which was

largely balanced out by strong retail sales during the holiday season. For the year, exports were stronger than they have been recently, including the highest fourth quarter growth in roughly four years. This is in part due to a weaker dollar, which results in U.S. goods being less expensive in other countries.

The first quarter of 2018 has started out on strong footing, as a result of a number of factors, including the recent Federal tax cuts, rising asset values, steady job growth, wage growth, and mild inflation. Consumer spending ended 2017 on a strong note, with retail sales in November and December growing roughly 4.7 percent above the same period in 2016. Consumer spending is expected to continue to grow at a strong rate as a result of continued wage growth and the passage of the Tax Cuts and Jobs Act.

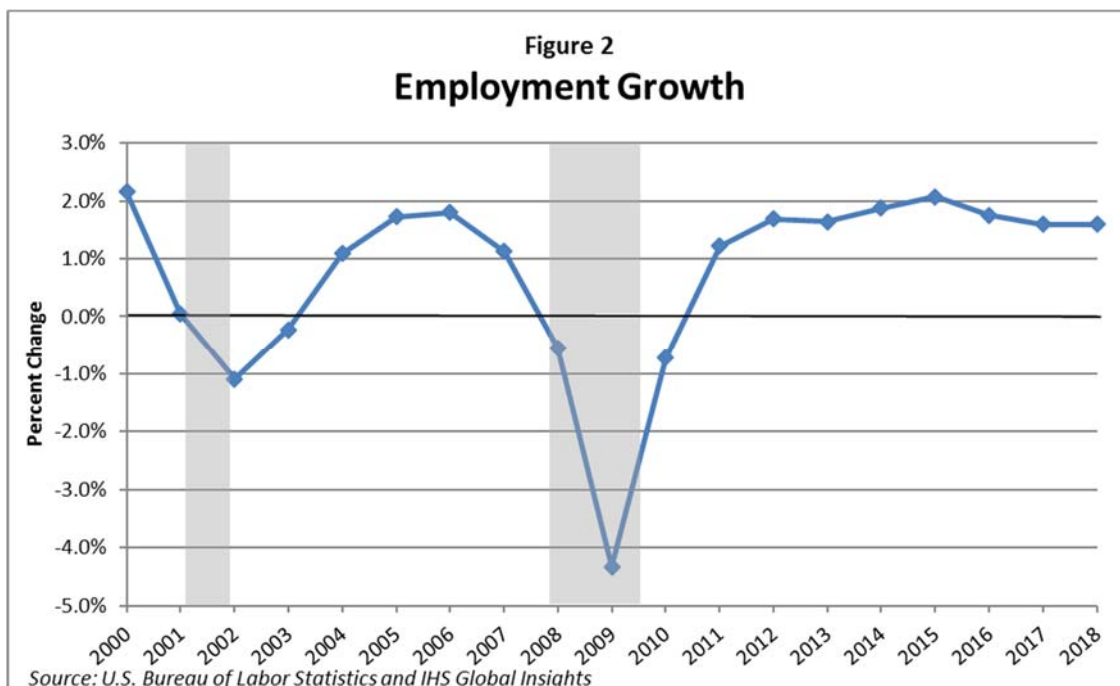
LABOR MARKET

As stated above, one of the factors that contribute to an expanding economy is a strong labor market. While there is always some level of unemployment in any economy (the full employment unemployment rate varies between four and six percent), the economy needs a labor force that is able, available and willing to find employment. Growth in the labor market serves two purposes in the economy. First, wages and salaries earned by workers fuel consumption. Second, the productivity of the workforce increases output, allowing businesses to expand.

Employment Growth

When an economy contracts and goes into recession, either consumers are reducing their demand for goods and services, businesses are not expanding, or a combination of both is occurring. This results in a reduction in the need for additional employment and the possibility of layoffs. Over the last few years, we have seen solid job growth, which is projected to continue.

The recovery and expansion phases from the last two recessions are shown in Figure 2 (the recessions are represented by the shaded areas). The recovery from the Great Recession was a jobless recovery, with employment growth not returning until 2011. Similar to the previous recovery, employment growth remained at less than two percent in 2013, growing at 1.6 percent. Although job growth continued in 2014, the pace of such growth was only 1.9 percent, creating 2.93 million jobs with no change in productivity.



Employment growth continued in 2015, growing by 2.1 percent over the previous year, with a monthly average of 241,000 jobs created. In 2015, productivity increased by 0.7 percent, dampening what may have been much stronger job growth as an increase in productivity meant fewer workers were needed for the same output. Weakness in corporate profit growth, due to weak and uneven economic growth, has caused employers to find ways to increase worker productivity in order to cut costs. Employment growth continued in 2016, albeit slower, growing by 1.8 percent, with average monthly job gains of 207,000. Employment growth continued in 2017, again at a slightly slower rate of 1.6 percent, with average monthly job gains of 190,000.

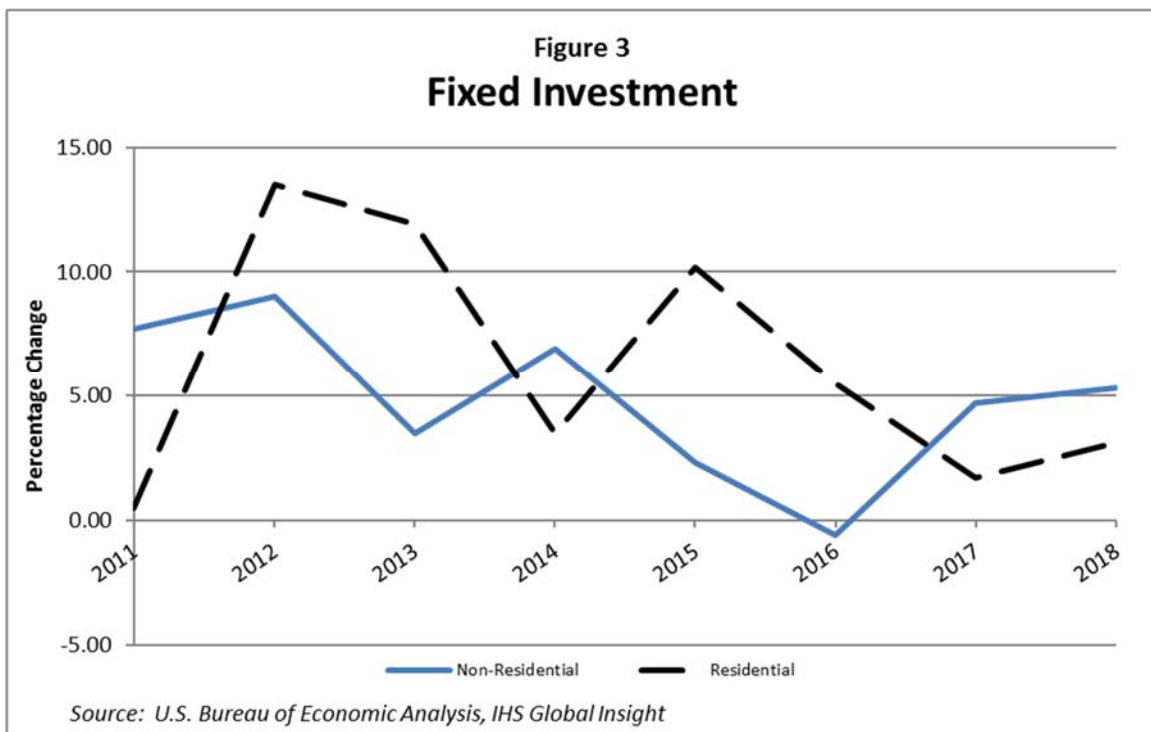
In 2018, job growth is expected to grow at 1.6% with average monthly job gains of 194,000. The year started out on a strong note, as 200,000 jobs were gained in January. It is expected that at some point in 2018, the current administration will invest in infrastructure spending. If this happens, it could cause a significant boost to employments. After 2019, job growth is expected to slow as a result of the long recovery leaving limited room for improvement.

The unemployment rate in 2019 is projected to be 3.6 percent, down from 4.4 percent in 2017 and a projected level of 4.0 percent in 2018.

CAPITAL INVESTMENT

The other area that requires consistent growth in order to transition an economy from the recovery stage to expansion is capital investment – both non-residential and residential.

When a business makes capital investments, whether in its facility or its equipment, it is usually doing so to increase its output and remain competitive in the marketplace. This, in turn, leads to increased jobs and increased profits for the company. Residential investment, whether the construction of a new home or an addition to an existing home, provides additional construction jobs and increased consumption of durable goods.



With the deflation of the high technology bubble in 2000, both non-residential fixed investments and residential investments declined and the economy went into recession in 2001.

During the recovery from the 2001 recession, residential investments benefitted from the existing low interest rate environment, which allowed for faster growth. Due to shocks to

the economy, primarily the corporate accounting scandals that resulted in stock market declines, businesses were hesitant to increase their capital investments. Such investments started to grow as federal legislation was enacted to allow companies to accelerate their depreciation costs, commonly known as bonus depreciation. However, the authorization for the use of bonus depreciation expired in 2008.

In order to boost capital investments at the end of the Great Recession, the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act once again enacted bonus depreciation, increasing the amount from fifty percent to one hundred percent for the 2011 tax year. Bonus depreciation was then reduced to fifty percent in 2012. As a result, non-residential capital investments nearly returned to their pre-recession growth rates.

As part of the American Taxpayer Relief Act, bonus depreciation was extended once more but, only for 2013. With the one-year extension of bonus depreciation, businesses were left with an investment decision to make, either take advantage of the bonus depreciation rules or postpone such investments until the economy was stronger. Many businesses chose to wait and as a result, growth in non-residential fixed investments slowed to 3.5 percent in 2013, from 9.0 percent in 2012.

As the dollar continued to appreciate, partially due to weak global economic growth, non-residential fixed investments fell 2 percent the first quarter of 2015. The strong dollar caused exports to decrease as U.S. goods became more expensive compared to those produced in other countries. The weak global economic growth was also a contributing

factor in the reduced demand for goods from the US. In addition, the strong dollar caused US producers to rely more heavily on imports, which decreased the demand from US manufacturers. This resulted in a drag on economic growth, as manufacturers are particularly sensitive to global competition.

Non-residential fixed investments remained weak in the second half of 2015. The projections for continued strong employment should have been encouraging to firms leading them to ramp up investments, but forces that halted investments in the first half of the year continued. The year ended with an annual average estimated growth in non-residential fixed investments of 2.3 percent.

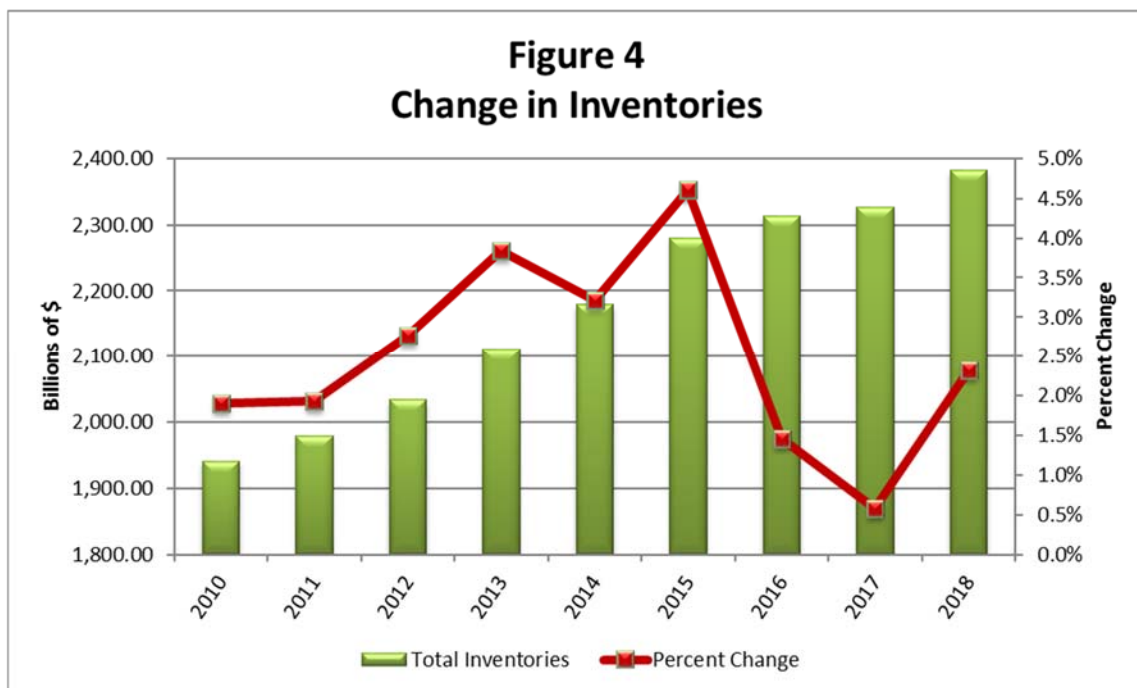
Non-residential fixed investments dropped slightly in 2016, due to continuing weak economic growth and discouraging corporate profits in the first half of the year. By the second half of the year, due to growth in both aircraft and energy related investments, growth in non-residential fixed investments improved, albeit 0.6 percent less than the previous year.

This growth continued in 2017, growing at 4.7 percent, largely due to strong business confidence. Growth in corporate profits and rebounding energy prices also had a positive impact on investments.

This growth is projected to continue in 2018, with expected growth of 5.3 percent. The Tax Cuts and Jobs Act, signed into law by the President in 2017, extends bonus depreciation by five years, followed by a three-year phase out period. Combined with the tax cuts for businesses included in the law, it is expected that capital investments will grow above previous projections. Additionally, it is possible that profits repatriated as a result of provisions in the Tax Cuts and Jobs Act could be channeled into investments

Inventories

During the recession, businesses experienced a period of inventory decumulation since consumer demand for their goods and services declined dramatically. During the recovery, businesses were hesitant to make significant expenditures or to ramp up production even though their profits were growing. After several years of slow growth and the intermittent decumulation, the economy started to grow again. Businesses found themselves with depleted inventories and, as a result, needed to ramp up production.



When economic growth started to slow at the end of 2010, businesses slowed their production and their inventory growth. Inventory decumulation persisted through the third quarter of 2011. Realizing increased sales in the fourth quarter, businesses had no choice but to increase their inventories to meet the demand.

Inventories continued to increase through the third quarter of 2012, mainly from the automotive industry. Due to declining wage and income growth over the course of the recession, consumers delayed large purchases, such as new automobiles. As the economy recovered and income growth occurred, people began purchasing again. This pent up demand for automobiles resulted in significant inventory growth. However, the drought in the Midwest resulted in a decumulation in farm inventories throughout 2012, muting inventory growth especially in the fourth quarter.

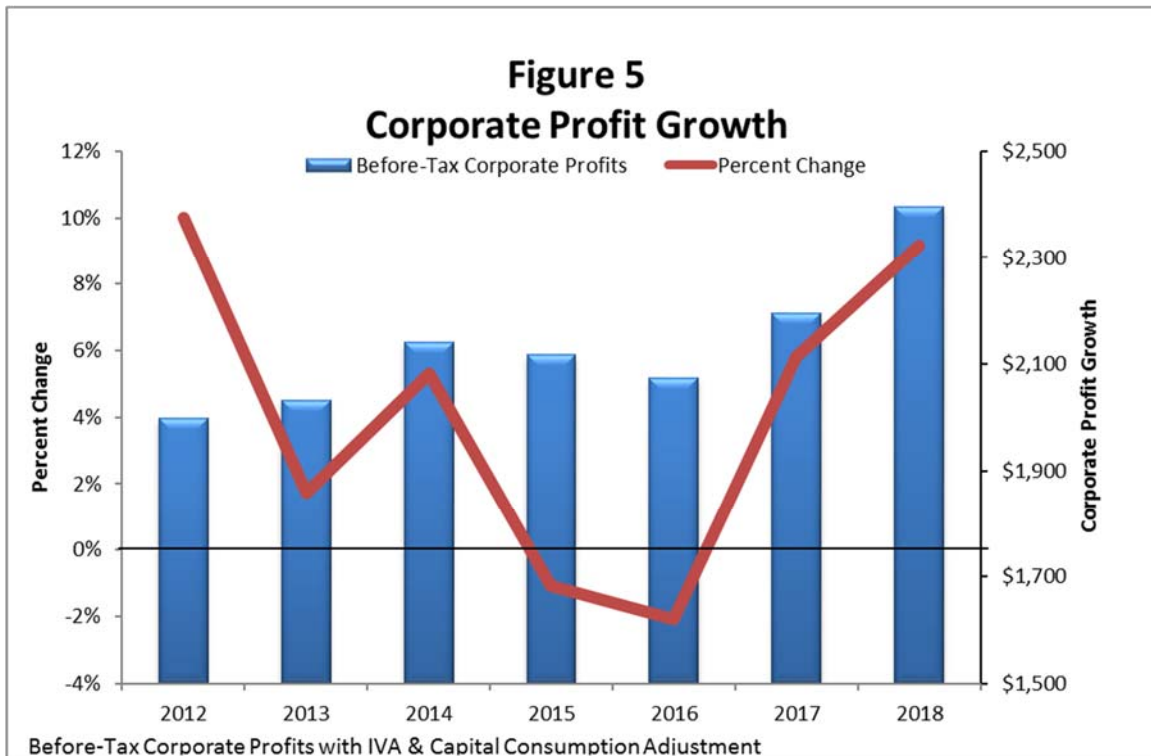
Inventory growth rebounded in 2013 as farmers replenished their stocks, after decumulations during the Midwestern drought. However, the largest inventory accumulation was realized in the non-farm sector, especially in wholesale trade. The reason for this large inventory accumulation in the latter part of the year was unclear.

The first half of 2015 began with large inventories, but was slowed in the second half of the year, as sales growth did not keep up with the inventory and resulted in over supplies. The building of inventories slowed in 2016 as consumers continue to spend and continued

to slow in 2017, growing by only 0.6 percent. It is expected that inventory growth will rebound in 2018, with projected growth of 2.3%.

Corporate Profits

Corporate profit growth, as shown in Figure 5, is the change in business' economic profits. Economic profits are defined as before tax profits adjusted by the inventory valuation adjustment and the capital consumption adjustment. The capital consumption adjustment reconciles the depreciation a business claims for tax purposes with the depreciation associated with the use of the capital equipment for the annual production of the business' goods. This adjustment has fluctuated in recent years due to bonus depreciation.



As machinery is used during the course of production, the value of that machinery diminishes. Businesses are allowed to claim such diminished value, or depreciation, as an expense, reducing their income for tax purposes. Starting in 2018, expensing is enhanced as a result of the Tax Cuts and Jobs Act, which allows for full expensing of short-term capital investments, such as machinery.

In order to induce businesses to increase their capital investments, especially in times of economic weakness, bonus depreciation was used as a fiscal policy tool. When the business purchased a new piece of machinery and put it into production, the business was allowed to deduct an additional depreciation expense in the year of purchase, essentially accelerating the depreciation expense into the first year.

Prior to 2012, businesses were allowed to claim 100 percent of the cost of machinery as bonus depreciation. The amount of bonus depreciation was then reduced to fifty percent in 2012. This resulted in a reduction in corporate profits since businesses were no longer allowed to claim the full depreciation as an expense. Growth in corporate profits continued in 2012 at 10 percent despite larger capital consumption adjustments.

Although the stock market grew to record levels in 2013, volatility remained in the market due to the uncertainty coming from Washington. In addition, the slow economic growth served to dampen corporate profits as well. Corporate profits increased at a slower rate than in previous years, increasing by 1.7 percent.

The financial markets can have a large impact on overall corporate profits and if the markets struggle, overall corporate profits can decrease. The financial sector struggled in 2015, resulting in a corporate profit decrease of 1.1 percent. However, when the markets are doing well, corporate profits can increase, such as they did in 2017, with 5.8 percent growth, year over year. This growth in corporate profits is projected to continue into 2018 at an average growth rate of 9.2 percent, with continued strong growth in the financial markets predicted.

GOVERNMENT

Government policies are employed in an attempt to influence the overall economy, whether it is to stimulate spending or to control inflation. Although the economy is cyclical in nature, the government tries to ensure that the economy does not expand too quickly causing inflation to spin out of control or to slow down too quickly resulting in a recession. There are two mechanisms by which government intervenes in the economy fiscal policy and monetary policy.

FISCAL POLICY

Fiscal policy entails directing the economy through tax policy or through government spending. When the Federal, state or local governments lower taxes, more money is left in the hands of consumers and businesses to spend as they wish.

In October of 2015, after years of uncertainty surrounding Federal fiscal policy that resulted in sequestrations and government shutdowns, the Federal government reached a two-year budget agreement that averted another government shutdown and prevented a default until at least September 30, 2017. In December of 2014, the Consolidated Appropriations Act, Protecting Americans from Tax Hikes Act of 2015 and the Fixing America's Surface Transportation (FAST) Act were signed into law. These Acts authorized \$1.1 trillion in government spending, providing \$700 billion in tax cuts and delaying any new taxes on health care.

The Protecting Americans from Tax Hikes Act of 2015 gave taxpayers more certainty in the tax code, by eliminating the continued practice of extending tax credits, by making certain tax credits such as the child tax credit and earned income tax credit permanent. In addition, Congress also lifted the 40-year ban on US crude oil exports.

In December of 2017, the President signed the Tax Cuts and Jobs Act. The Act makes significant cuts to both individual and business taxes.

The standard deduction is roughly doubled to \$12,000 for single filers and \$24,000 for married joint filers. However, the personal and dependent exemption, which is currently \$4,050 each, is eliminated. The prior number of tax brackets is retained, however the brackets themselves and the rates are modified. These provisions sunset at the end of 2025.

The Alternative Minimum Tax (AMT) is amended to increase the exception from its current level of \$86,200 to \$109,400, and raises the phase-out threshold of the tax to one million dollars. The dependent exemption is eliminated in exchange for enhancements to the Child Tax Credit, the maximum value of which would be increased from \$1,000 to \$2,000, with the first \$1,400 being refundable, and is further enhanced by increasing the income limits at which the credit phases out. The Act also creates a new \$500 credit for non-child dependents. In addition to the lower income tax rates there are several significant changes made to tax credits and deductions in the Act. The Act eliminates or modifies most itemized deductions. Some of the most notable actions include:

- The home mortgage interest deduction is modified to be capped at \$750,000 of principal on new mortgages;
- the deduction for charitable contributions is retained;
- the medical expenses deduction threshold is lowered from 10% to 7.5% in 2018 before reverting to 10% thereafter;
- the most notable exemption that would be modified is the state and local tax deduction (SALT), which under this bill is capped at a combined value of \$10,000 for property taxes and a taxpayer's choice of income or sales tax.

The Act also makes significant changes to business taxes. The corporate tax rate is reduced from 35% to 21%; the Corporate AMT is eliminated; a new 20% deduction for pass through business income is created, which, is limited to the greater of (i) 50% of wage income or (ii) 25% of wage income and 2.5% of the cost of tangible depreciable property.

These limitations do not apply for joint incomes below \$315,000; The Act allows businesses to immediately write off (expense) the cost of new investments until 2023, and then phase out the provisions for the next five years; the small business depreciation deduction is expanded from \$500,000 to \$1,000,000 and increase the phase-out from \$2 million to \$2.5 million. The tax treatment of interest is modified; currently businesses can fully deduct interest, under the Act interest deductions are capped at 30% of earnings before interest, taxes, depreciation and amortization for the first four years, with the cap moving to 30% of earnings before interest and taxes thereafter. The provisions of the tax code dealing with net operating losses are modified, under the prior treatment, net operating losses could be carried back two years or forward twenty years, with no limit to taxable income. Under the Act, net operating loss carrybacks are eliminated, while providing indefinite net operating loss carryforwards, which is limited to 80% of taxable income. Additionally, the Act allows businesses with up to \$25 million in income to use the cash method of accounting, up from the prior limit of \$5 million, and makes several changes in an attempt to repatriate revenue that is currently being held overseas.

MONETARY POLICY

Under the control of the Federal Reserve Board (Fed), monetary policy involves actions that are intended to adjust the supply of money that is available in the U.S. economy. The goal of the Feds in adjusting the money supply is to maximize employment, maintain stable prices, and moderate long-term interest rates. The Feds have three main monetary policy

tools, the discount rate, reserve requirements, and open market operations, which includes manipulating interest rates.

One of the ways the Fed manipulates rates is through the interest rate on Federal Funds which is the rate used when banks loan money to each other. The Federal Funds rate then becomes a basis upon which banks set their own loan rates such as mortgage rates and personal loan rates. When the economy is slow, the Fed will decrease interest rates to reduce the cost of capital in order to spur spending by consumers and businesses; thus boosting the economy. However, if the Fed thinks the economy is growing too fast and inflation is too high, it will increase interest rates to slow spending and encourage saving.

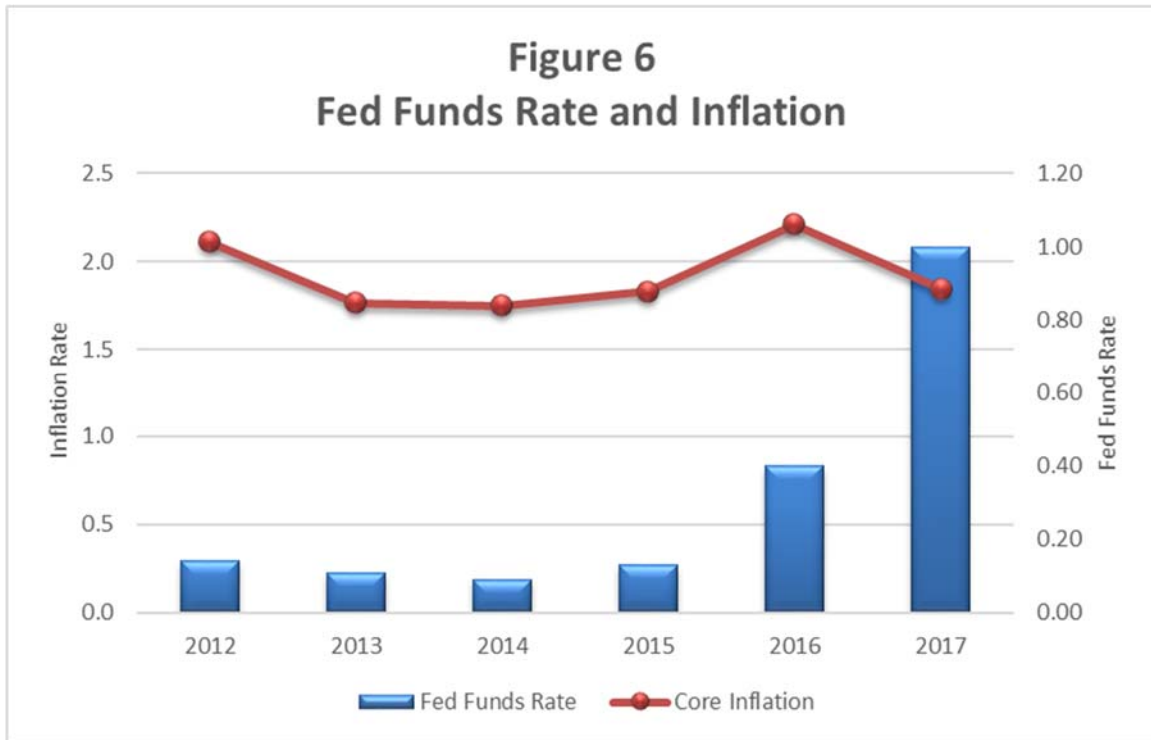
During the recession, in 2009, inflation was not a concern for the Fed. Instead, its concern was calming investors' fears and loosening the credit markets to allow money to flow through the economy. The Federal Reserve reduced the Fed Funds rate by approximately 400 basis points since the start of the recession in 2007. With the slow economic recovery and the volatility of the financial markets, the Federal Reserve has maintained the Fed Funds rate in the sub-0.25 percent range.

At the December 2015 meeting of the Federal Open Market Committee, it was announced that the Fed Funds rate would be increased to a target of 0.25-0.50 percent. This put an end to seven years of near zero rates and was the first time the Fed increased rates in nearly a decade. These rates were initially expected to be increased gradually, with four 25-basis

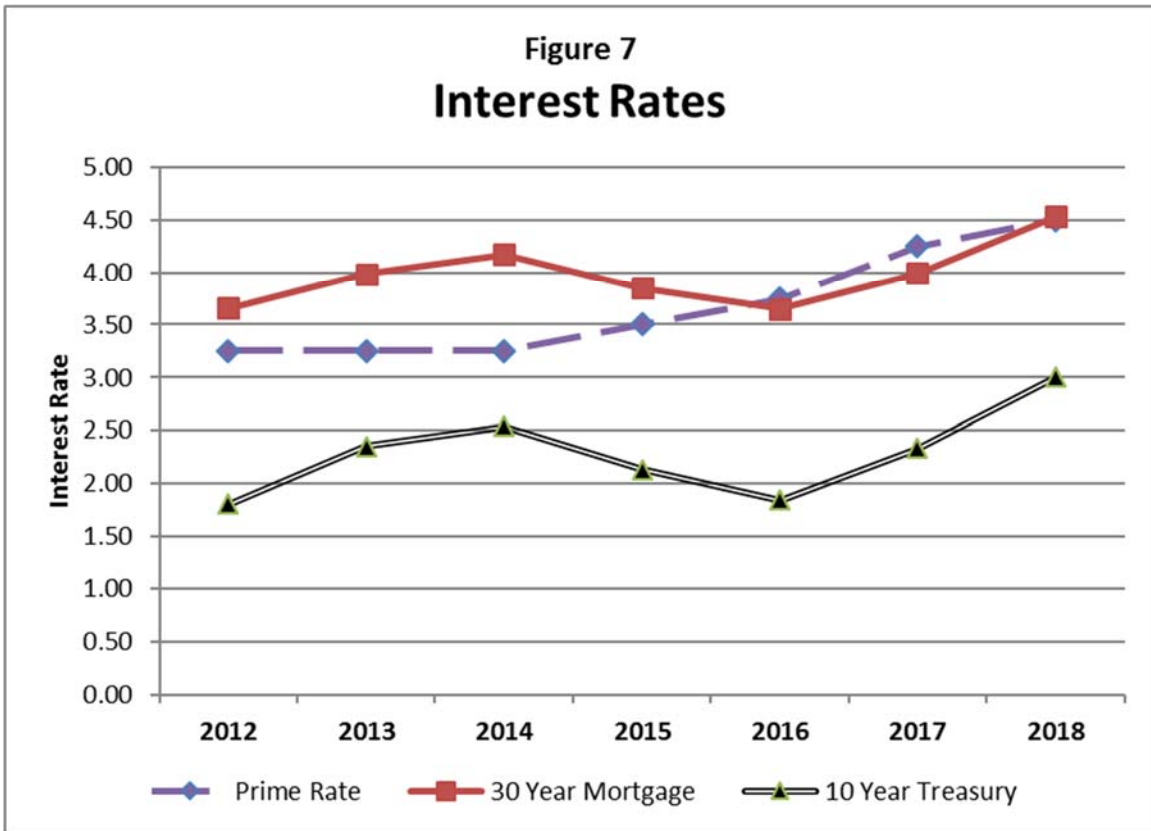
point increases in 2016. However, due to weak economic growth in beginning of the year, concerns surrounding the global economy and market volatility, rates were only increased once in 2016, in December by 0.25 percent to a target of 0.50-0.75 percent; this was the second increase in more than 10 years (June 2006). In 2017, the Feds raised interest rates three times, ending the year with a rate of 1.25-1.5 percent.

Due to increasingly positive economic activity, there is expected to be three or four rate increases in 2018. There is potential for larger or accelerated increases due to strong growth in the labor market and growth in inflation. While rates are projected to increase over the next few years, they are projected to be substantially lower than the recent high of 5.25 percent in 2006. However, the Fed plans could be put on hold or even reversed if inflation begins to slow, if growth in the labor market is reversed or if there is any shock to the economy.

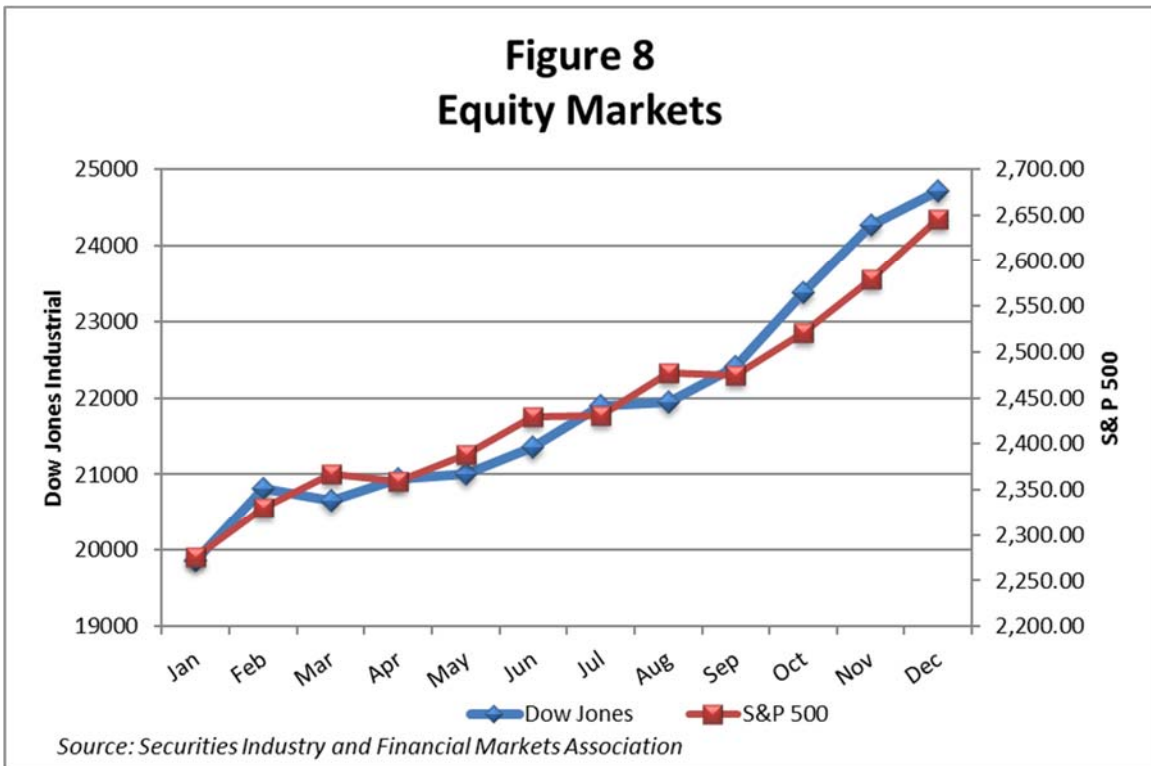
On February 5, 2018, former member of the Federal Reserve Board of Governors Jerome Powell was sworn in as the 16th Chairman of the Federal Reserve. It is not yet known how his policies regarding interest rates will differ from his predecessor Janet Yellen.



Since the Fed Funds rate is the rate used when banks loan money to each other and is the basis upon which banks set their own loan rates such as mortgage rates and personal loan rates, the increase to the rate will translate to higher returns on savings products and a higher cost to borrow for consumers. After the rate increase in December, various US lenders announced that they were increasing their prime rate, which is a short-term benchmark used to set the rates for various products such as credit card rates, from 4.25 percent to 4.5 percent. In addition, 30-year mortgage rates, which averaged 3.65 percent in 2016, rose 3.99 percent in 2017 and are projected to increase 4.53 percent in 2018.



FINANCIAL MARKETS



In 2016, after a 4.2 percent gain in the S&P in the fourth quarter, the year ended with an overall year-over-year gain of 1.5 percent.

Due to tax and other reforms, the S&P grew 17 percent in 2017 and is projected to grow an additional 15 percent in 2018.

On January 26, 2018, the Dow Jones Industrial Average reached a record high of 26,616.71 points. Since the 2016 election, the Dow Jones has hit over 95 new record highs. In recent weeks, market volatility has increased, including several days with large losses in February. The market has quickly rebounded from this volatility however, and the outlook for the remainder of 2018 remains strong.

GLOBAL ECONOMY

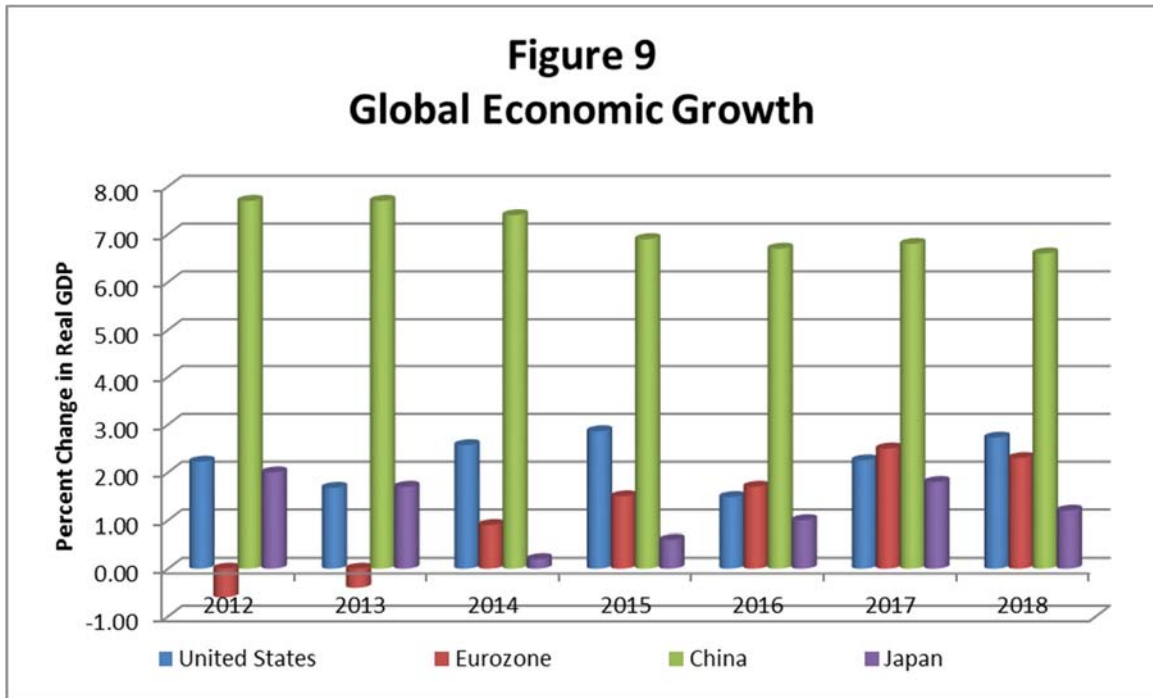
Any changes in the global economy can have a significant impact on the national economy even though trade is not a major contributor to overall national economic growth, as measured by GDP. This is due to increased participation of both businesses and investors in the economies of countries around the world. In the past couple of years, various international events, such as the debt crisis in the Eurozone and the slowdown in China, created uncertainty in the economy, especially in the financial markets. The impact of these changes is reflected not only in relation to the value of the in dollar comparison to other currencies, but with the strengths or weaknesses of other national economies, which primarily affects the amount of imports and exports into and out of the United States.

As shown in Figure 9, the Eurozone finally saw economic growth in 2014 after two years of recession primarily due to the growth in the German economy. This growth continued into 2015 as the labor market continued to increase and low oil prices resulted in increased consumer spending making it possible for businesses to build up inventories while costs were low. Unlike the U.S., the value of the Euro was relatively low, which allowed European countries to increase their exports. In 2016, in order to stimulate the economy, the European Central Bank cut interest rates and implemented quantitative easing. These policies encouraged growth and their economy grew by 1.7 percent in 2016, slightly faster than the 1.5 percent growth in 2015.

In mid-2016, the United Kingdom's referendum to leave the Eurozone unexpectedly was approved, causing stock markets to collapse globally, in this unprecedented move. While this move created significant uncertainty, to date, the effects on the markets were short lived and the effects on the Eurozone's growth was nonexistent. This could change as negotiations continue over the future trading relationship between the U.K. and the Eurozone. In 2017, Eurozone GDP grew 2.5 percent, which was the strongest growth in a decade.

After many years of strong economic growth in China, as expected, this growth has been slowing over the last few years, predominantly in the manufacturing sector. There was a large decline in China's exports in the first quarter of 2016, amplifying the decline in industrial output. This decline in exports made it very difficult for China to boost its

economy; however, this decline did eventually stabilize. Despite this structural challenges remain, and it is projected that there will be a growth slowdown at some point. Currently, China is projected to have growth of 6.6 percent in 2018 and 6.3 percent in 2019

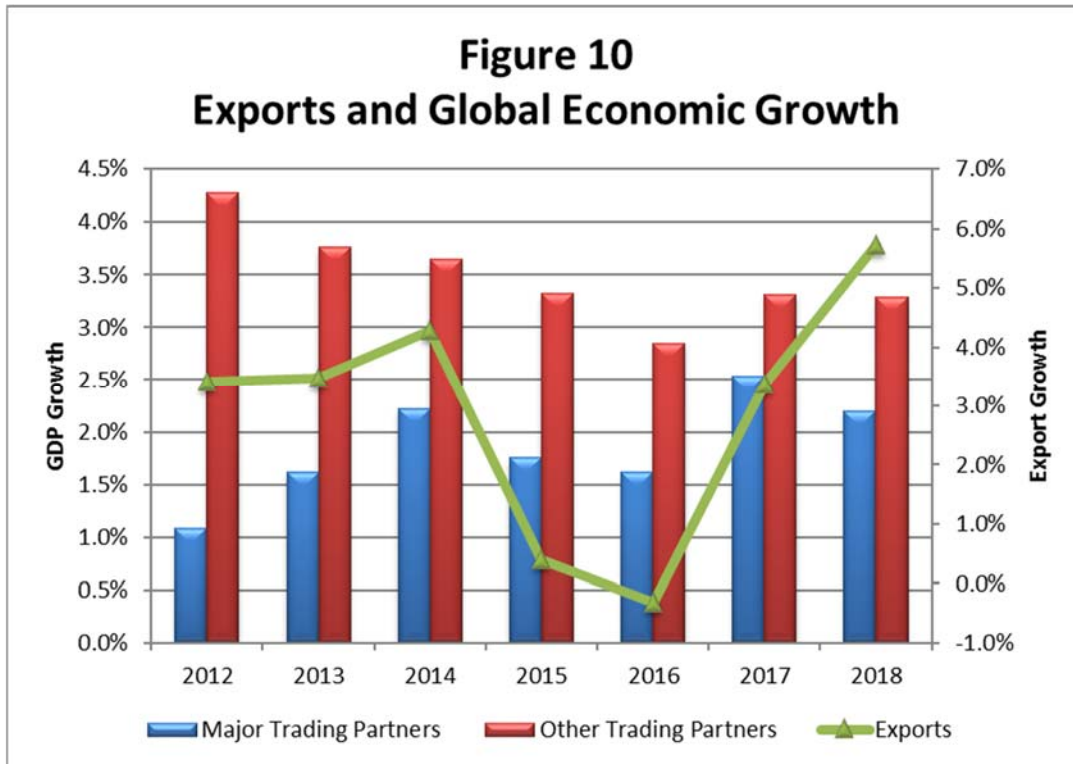


The strength of any nation’s economy affects the demand for their domestic goods but also the demand for other countries’ goods as well. As the supply of business inputs has become more globalized, a change in business spending and production in one country can impact business production in another.

In the first quarter of 2015, the labor dispute between the International Longshore and Warehouse Union and the Pacific Maritime Association affected ports in California, the second largest exporter in the country. This disruption may have been the cause of the largest trade deficit since October 2008, as exports failed to keep pace with imports, though

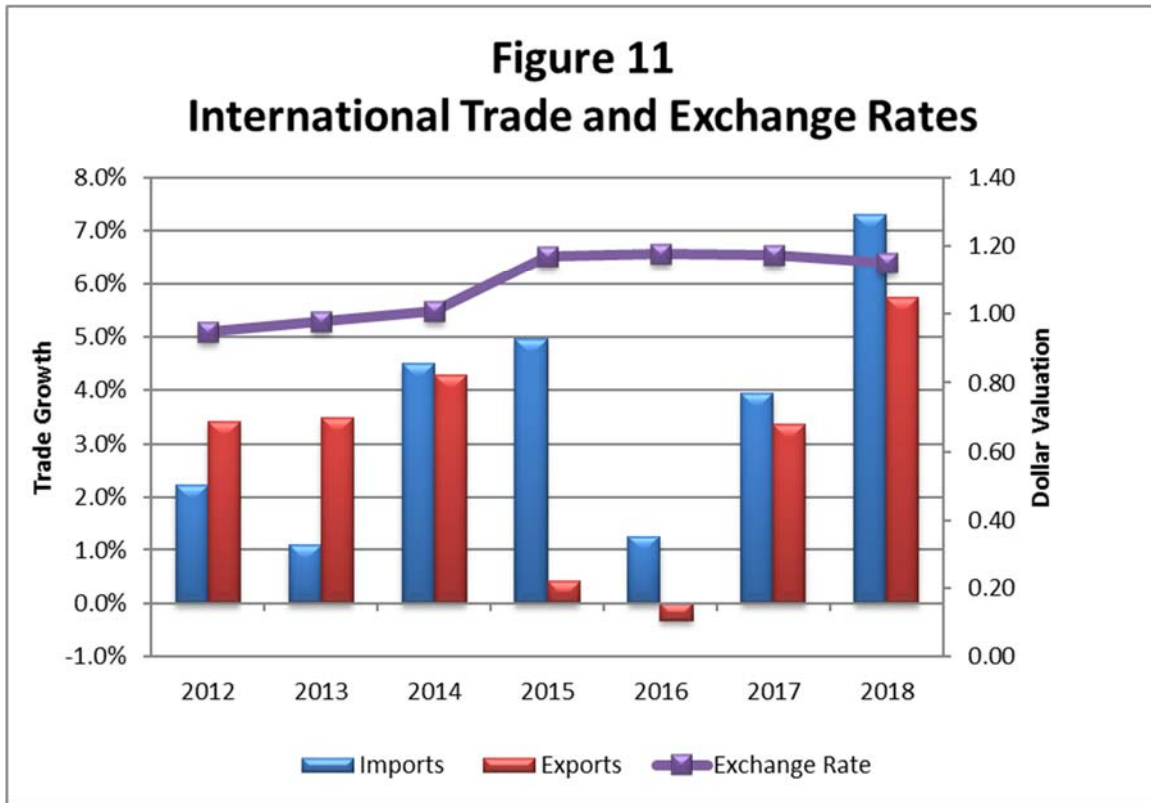
it is unclear whether this was the case. Exports remained weak throughout 2015 and 2016 due to the continued strong dollar, continued weak global economic growth, and the price of oil, which was reducing US petroleum products exports. This reduction in exports hurt businesses that had to drop the price of goods in order to remain globally competitive. The export of services however, had been largely unaffected by the strong dollar. In December of 2015, the US government lifted the 40-year ban on exporting crude oil, putting the petroleum deficit at an 18-year low in 2016. The projected growth in the global economy is expected to provide modest export growth in 2017, increasing 3.4 percent, largely supported by the continued strength of the export of services which was largely unaffected by the continuing appreciation of the dollar.

While there was no significant change in U.S. trade policy during the first year of the current administration, there is still uncertainty regarding the President's rhetoric on trade. While no large changes were made to US trade policy, negotiations to make amendments to NAFTA are ongoing.



The value of a nation’s currency also affects export and import growth. When the value of the currency increases, the price of domestic goods increases; making them more expensive compared to imported goods. Conversely, when the value of the currency declines, domestic goods become less expensive.

Beginning in December of 2016, the Federal Reserve increased interest rates, and growth rates among major trading partners led to the recent depreciation of the dollar. It is expected that the value of the dollar, compared to the currency of major trading partners, will decrease 1.9 percent in 2018. The depreciation of the dollar will impact the economy, resulting in fewer imports and an increase of exports.



HOUSING MARKET

Prior to the recession, as interest rates started to rise and the economy began to slow, the housing bubble began to deflate. With the collapse of the subprime mortgage market in 2008, all aspects of the housing market experienced significant declines. As part of the American Recovery and Reinvestment Act of 2009, a first time homebuyer’s tax credit was enacted and was in effect until the first quarter of 2010. This tax credit spurred growth in home sales; however, that growth was short lived. Once the tax credit expired, home sales declined in 2010. In 2011, mortgage rates remained at historical lows and sales of existing homes grew, but only by 2.3 percent. Since then, the housing market has been experiencing strong growth. New homes sales, single-family housing and multi-family housing starts

has made the housing market a bright spot for the economy and a critical component in the continued economic recovery.

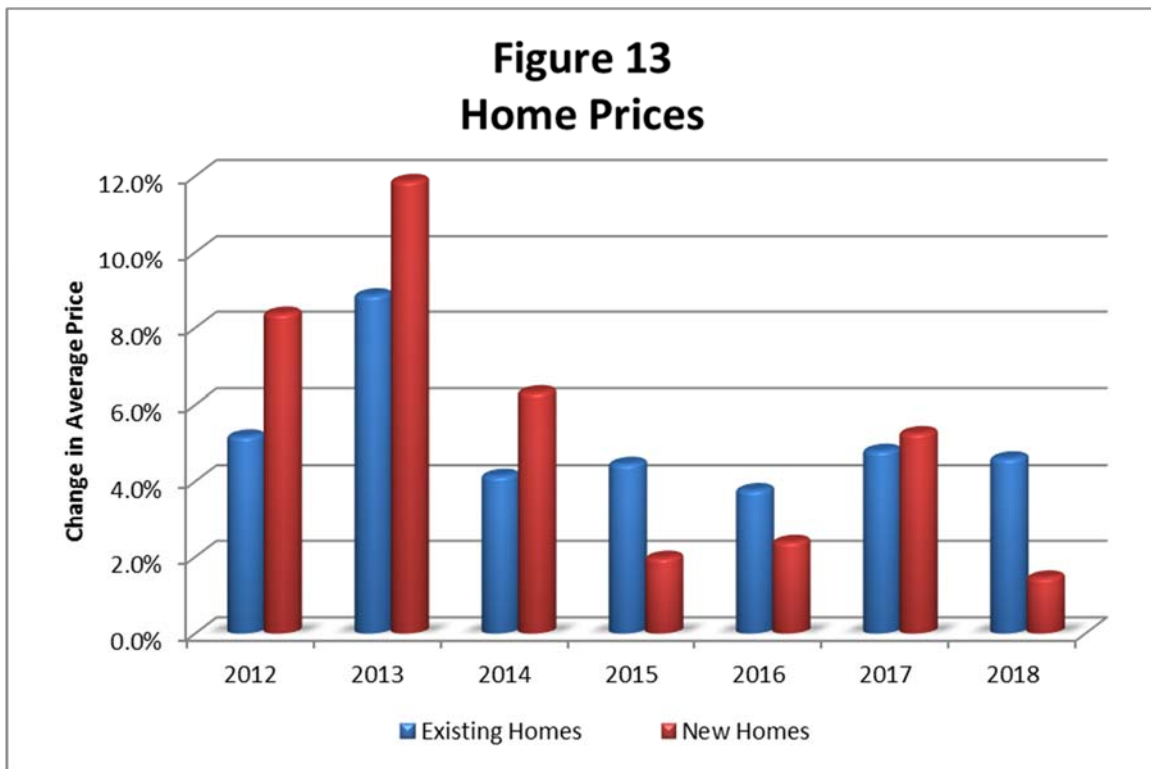


In the beginning of 2015, the FHA, Fannie Mae and Freddie Mac implemented programs targeting mostly first-time homeowners with good credit but small down payments, to increase their access to credit to make it more affordable to purchase a home. This relaxing of lending standards, in addition to the FHA cutting the annual mortgage insurance premium has contributed to the growth in sales of both new and existing homes. In addition, the standards for construction loans eased, making it easier for consumers to construct new homes. The year delivered the biggest gains in both housing starts and homes sales since 2007.

The number of mortgage applications surged, until new disclosure rules took effect in the beginning of October 2015. These rules increased the length of time it took to close on

homes, a burden for some homebuyers. However, this surge only caused a temporary boost in home sales, with growth beginning to slide at the end of the year.

In the beginning of 2016, the inventory of existing single-family homes was at the lowest level since 1995. However, real residential improvement spending increased by 11.5 percent over the previous year, which will boost the price of these homes when they are sold. Even though the inventory for single-family homes has remained low throughout the year, the homes that were for sale were going quick and the prices increased fast due to the competition as the low inventory has not reduced demand. Total home sales in 2017 totaled 5.55 million units, which was the highest level since 2006.



As a result of the Fed's rate hikes, 30-year mortgage rates, which averaged 3.62 percent in 2016, rose 3.99 percent in 2017 and are projected to increase 4.53 percent in 2018. However, with steady job growth predicted and continued strengthening of consumer confidence, strong growth in housing starts and new homes sales are projected to continue through 2018. Housing starts are projected to increase to 1.29 million units in 2018, up from 1.21 million units in 2017, growth of 7.2 percent. New homes sales are projected to increase to 690,000 units in 2018, up from 610,000 units in 2017, growth of 13.5 percent. Existing homes sales are projected to increase to 5.64 million units in 2018, up from 5.55 million units in 2017, growth of 1.7 percent.

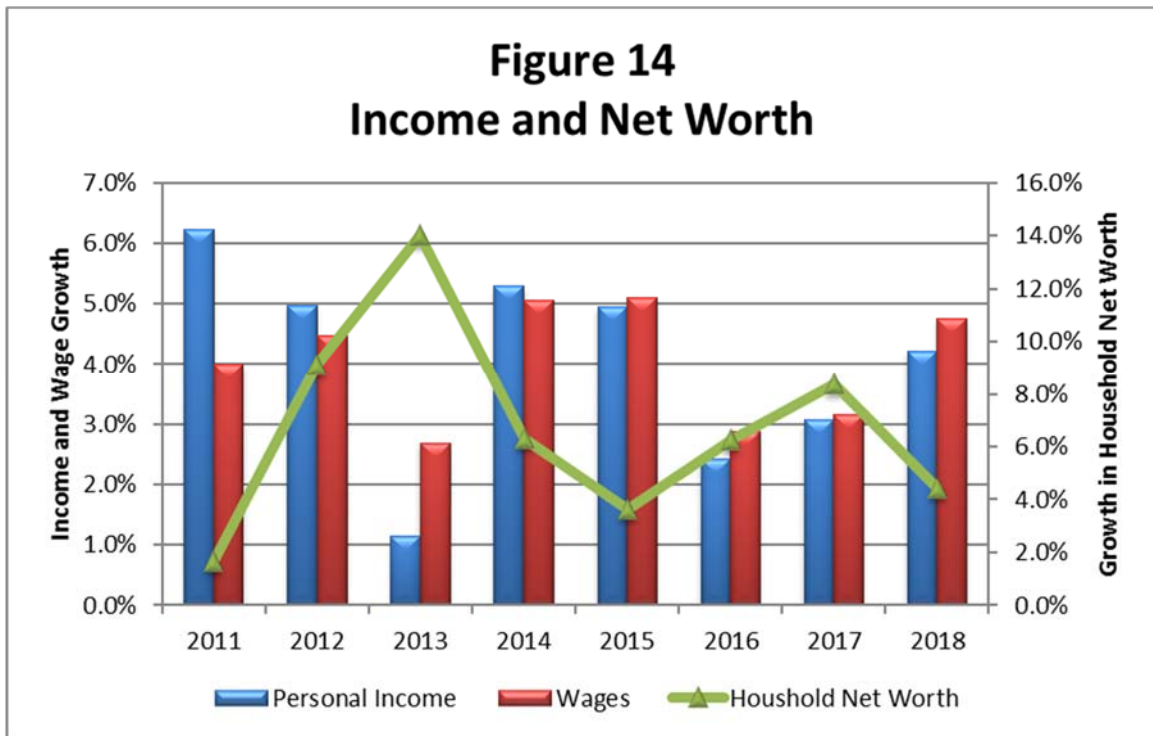
CONSUMER SPENDING

As the beginning of the report stated that in order for an economy to expand, consistent growth in the labor market and the capital market is required. Of importance in achieving this growth is consumption; whether or not the consumer is an individual or a business. Consumption of goods and services allows businesses to remain in operation, create jobs, and make capital investments. For the individual consumer, wages and property income (i.e. net worth) as well as the price of goods and services control his level of consumption in the economy.

After large job losses in 2009 and into 2010, the labor market strengthened in 2012, increasing wages 4.5 percent from 2011. Personal income growth in 2012 also benefitted from approximately \$26.4 billion in special dividends being paid in December of 2012

ahead of the new Medicare tax on investments that went into effect on January 1, 2013 and increased capital gains realizations in anticipation of the potential expiration of the Bush era tax cuts.

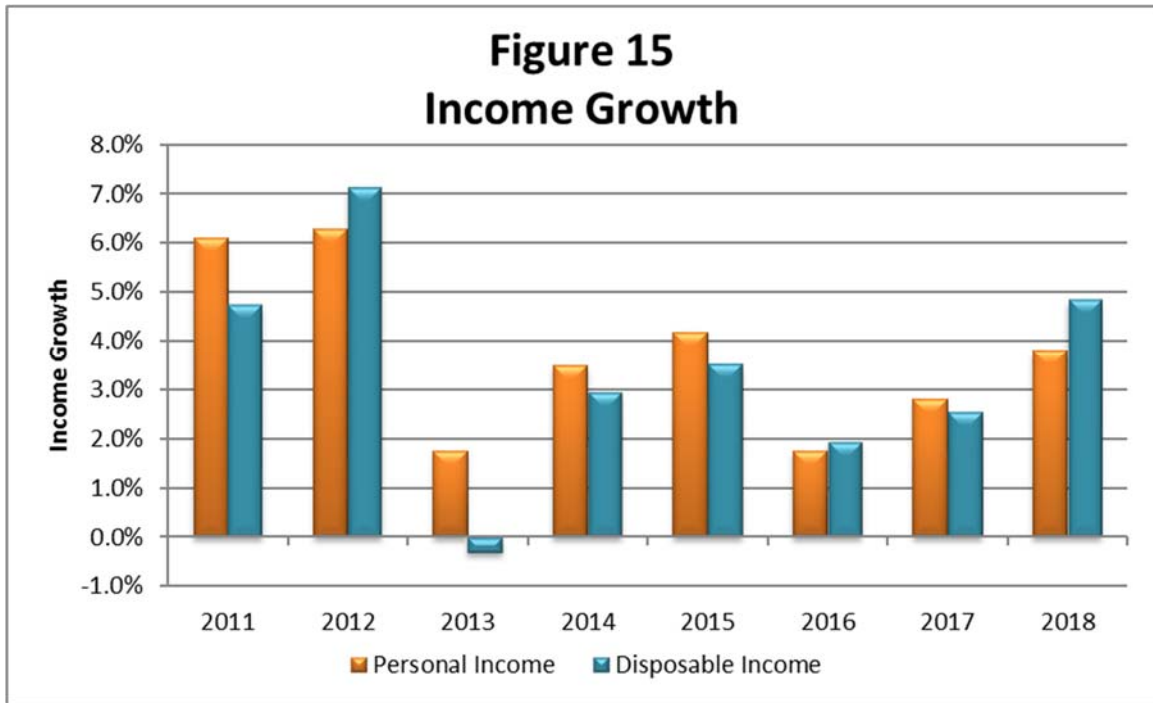
Employment growth continued in 2013 but at a slightly slower pace than in 2012. This slower employment growth resulted in slower wage growth of 2.7 percent. Personal income growth slowed as well, increasing by 1.1 percent. Along with the slower wage growth, personal income growth was impacted by the “spin up” of dividends and capital gains into 2012.



With the strengthening of the economy, the labor market continued to expand in 2014. With this increase in employment, wage growth accelerated by 5.1 percent, while personal income grew at a rate of 5.3 percent.

The economy continued to strengthen in 2015, as the labor market continued to expand. The number of jobs created was slightly less than in 2014 with wages and personal income growing at a rate of 5.1 percent and 5.0 percent, respectively. This growth continued into 2016, as the labor market continued to expand. The total number of new jobs created in 2016 was again less than the prior year, leading to slower wage and personal income growth, growing at a rate of 2.9 percent and 2.4 percent, respectively.

The total number of jobs created in 2017 was slightly less than the number created in 2016, however, due to projections in increased productivity, wage and personal income are projected to accelerate, both growing at a rate of 3.1 percent. In 2018, job creation is expected to exceed 2017 by 0.1 percent, with wage and personal income projected to increase 4.8 percent and 4.2 percent, respectively.



Personal income, also known as a person’s gross income, is the total amount of wages and property income received by the consumer. However, the actual amount the consumer has available to spend in the economy is their disposable income – their personal income less tax payments. Due to the temporary nature of tax benefits since 2010, the amount of the consumer’s disposable income has fluctuated. As shown in Figure 15, the growth in disposable income closely mirrored personal income growth in 2015 and 2016. In 2011 and 2013, disposable income growth lagged personal income growth primarily as a result of the expiration of tax credits in 2011, the expiration of emergency unemployment benefits and the expiration of payroll tax cuts in 2013.

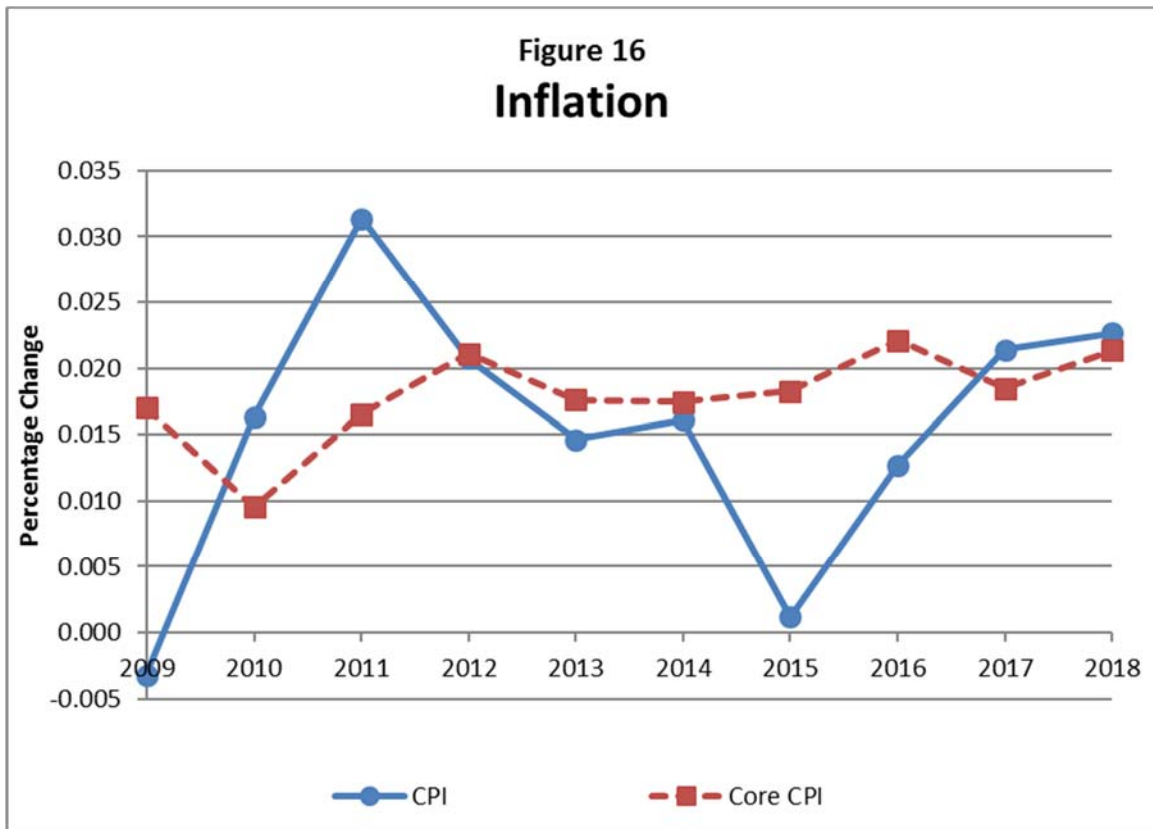
The emergency unemployment benefits and the payroll tax cuts expired at the end of 2013, but the offsetting positive effect of the huge drop in oil prices lead to disposable income growth in 2014. As a result, disposable income grew by 5.1 percent as compared to personal income growth of 5.3 percent.

Personal income and disposable income growth continued in 2016, growing at a rate of 2.4 percent and 2.6 percent, respectively, due to continued wage growth. Growth in personal income was hampered by weakness in the stock market, but was partially offset by increases in home equity, as the housing market remained strong. In 2017, personal income growth remained strong at 3.1 percent, as did disposable income, which grew 2.9 percent. It is projected that this will carry over into 2018 with personal and disposable income growth of 4.2 percent and 5.0 percent, respectively. These increases are both a result of continued wage growth and the recently enacted Federal tax cuts.

INFLATION

While income and wages are a major factor influencing consumption, the rate at which prices are increasing, also known as inflation, is a significant influence. This is especially true in relation to the prices of necessities, such as food and energy. Increases in the prices of these goods limits the amount of money a consumer has for discretionary spending. In addition, increases in energy costs impacts the price of finished goods as businesses take energy costs in the production process into account when pricing their goods. Core

inflation, which excludes food and energy prices, which tends to be very volatile, is generally a better indicator of long-term price changes.



During the global recession in 2009, there was a period of deflation. However, core inflation decreased but remained positive during the same time period. This difference between the two indices was due to a large decrease in oil prices.

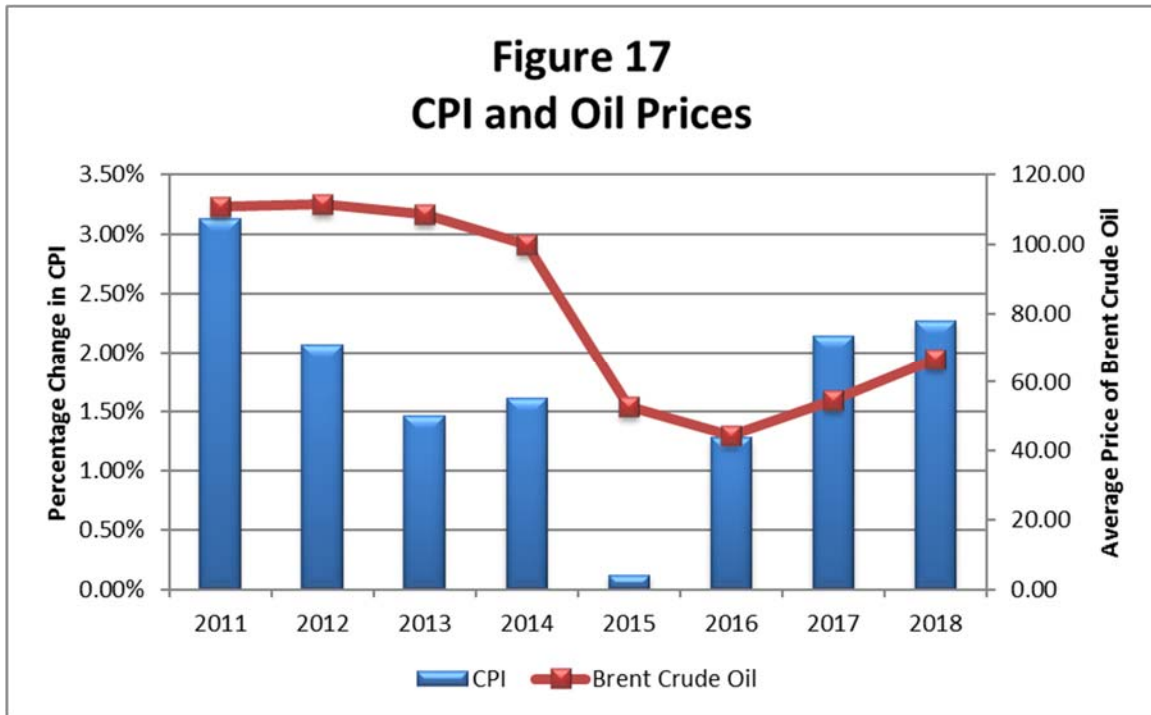
Inflation remained relatively low in 2016, increasing 1.3 percent from the prior year, in addition to the continued low price of oil; the strengthening dollar has restrained inflation by keeping the price of imported goods low. The dollar ended 2016 at the highest level, as compared to our major trading partners, since 2002. However, in 2017 the value of the

dollar decreased 0.6 percent compared to our major trading partners, and is expected to decrease another 1.9 percent in 2018. At the same time, the price of oil increased slightly, and inflation grew to 2.14 percent in 2017, and is expected to increase to 2.27 percent in 2018.

Figure 17 shows the relationship between the inflation rate and oil prices. Oil prices had been steadily decreasing since mid-2014 before slightly increasing in 2017. This is a primary factor in the slow growth of the Consumer Price Index, though this drop in oil prices is not expected to be permanent.

In November of 2016, OPEC and other major exporters of oil reached an agreement to limit the supply of oil by 1.8 million barrels a day, which contributed to the increase of the price of oil and inflation in 2017.

Oil prices fell from an average of \$99.8/barrel in 2014, to \$52.7/barrel in 2015, to \$44/barrel in 2016, before rising slightly to an average of \$54.8/barrel in 2017. Oil prices are projected to increase again in 2018, rising to \$66.8/barrel. Low oil prices mean low gas prices at the pump for consumers and lower transportation costs for businesses, leading to lower prices of goods for consumers. The average price of a gallon of gas was \$3.44 in 2014, \$2.52 in 2015, and \$2.25 2016. In 2017, the average price of a gallon of gas was to \$2.53.

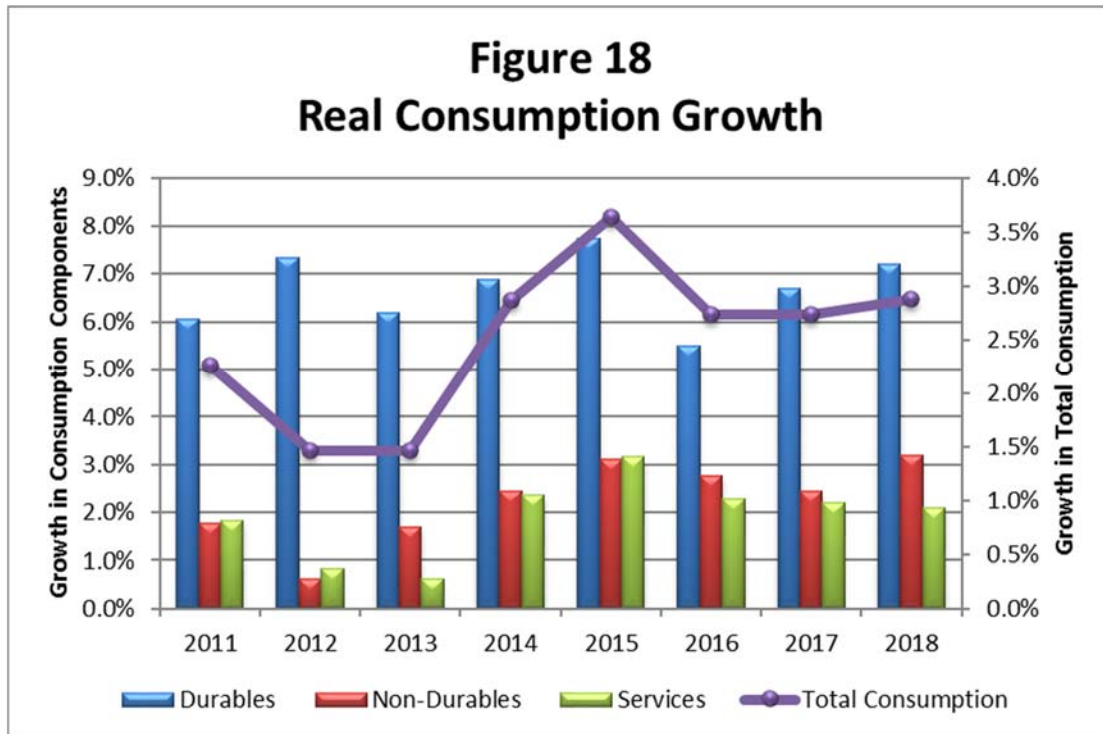


CONSUMPTION

The consumption of services accounts for approximately two thirds of all consumption expenditures. Services include not only personal services, restaurant meals and travel, but also include a consumer’s housing expenses, utility expenses, and health care.

The next largest component of consumption is the consumption of non-durables, comprising approximately 22 percent of total consumption. The main components of non-durable goods are clothing, food, and fuel. Growth in these components as well as services drive consumption growth.

With strong employment growth, relatively low oil prices, low interest rates, and rising disposable income, consumption grew by 2.7 percent in 2017 and is projected to rise by 2.9 percent in 2018. Growth in the out-years is likely to be bolstered by increased consumer confidence due to recent Federal tax changes.



RISKS TO THE FORECAST

Although the forecast exhibits stronger revenue growth for the upcoming fiscal year based on the projection of stronger economic growth, there are both upside and downside risks associated with the forecast, as with any forecast. The current administration has created uncertainty regarding trade; however, there has not been a significant change in U.S. trade policy through 2017. It is not yet fully known what impact the recent Federal

tax changes will have on the economy. Additionally, while the past year has seen unprecedented growth in the stock market, recent volatility shows an element of risk.

On the positive side, increased employment and wage growth as a result of a more optimistic business outlook would have a positive impact on the State's personal income and sales tax revenues. Additional revenues realized by the State should support the State's reserve funds or be used to support taxpayer relief to make New York more competitive for job creation and more affordable for families.

New York State Economic Outlook

Calendar Year

(Dollar Figures in Billions of Dollars)

	2017	2018	2019	2020
Gross State Product	\$1,551	\$1,622	\$1,696	\$1,766
Percent Change	3.4%	4.6%	4.6%	4.1%
Real Gross State Product	\$1,300	\$1,329	\$1,355	\$1,374
Percent Change	1.6%	2.2%	1.9%	1.5%
Nonagricultural Employment, Thousands	9,522	9,607	9,705	9,768
Percent Change	1.3%	0.9%	1.0%	0.6%
Unemployment Rate	4.6%	4.3%	3.8%	3.8%
Personal Income	\$1,209	\$1,255	\$1,313	\$1,371
Percent Change	2.8%	3.8%	4.6%	4.4%
Wages and Salaries	\$656	\$682	\$713	\$745
Percent Change	2.6%	4.0%	4.6%	4.5%
Retail Sales	\$304	\$317	\$327	\$340
Percent Change	4.4%	4.1%	3.4%	3.9%
Housing Starts, Thousands	33.8	33.2	31.4	30.2

Source: IHS Global Insight US Macroeconomic Forecast: February 2018

New York State Economic Outlook

State Fiscal Year Ending

(Dollar Figures in Billions of Dollars)

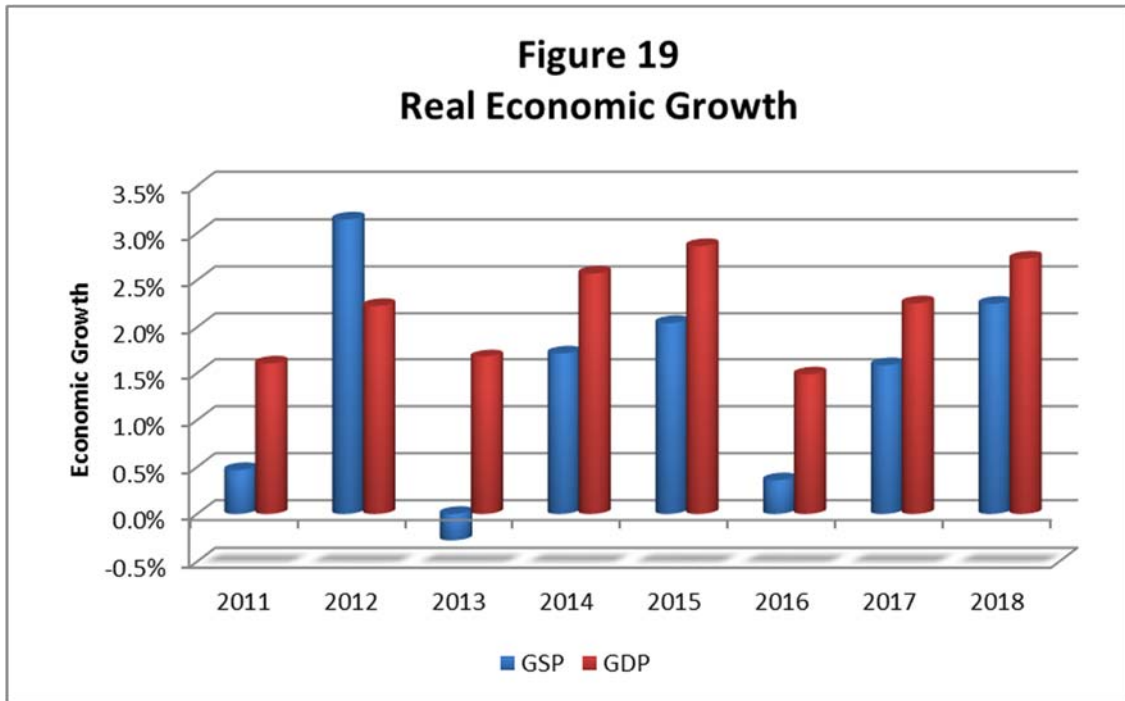
	2017	2018	2019	2020
Gross State Product	\$1,511	\$1,567	\$1,641	\$1,714
Percent Change	2.7%	3.7%	4.7%	4.4%
Real Gross State Product	\$1,282	\$1,307	\$1,336	\$1,360
Percent Change	0.3%	2.0%	2.2%	1.8%
Nonagricultural Employment, Thousands	9,431	9,542	9,633	9,725
Percent Change	1.4%	1.2%	1.0%	1.0%
Unemployment Rate	4.8%	4.6%	4.1%	3.8%
Personal Income	\$982	\$1,219	\$1,269	\$1,327
Percent Change	1.6%	24.2%	4.1%	4.6%
Wages and Salaries	\$643	\$661	\$690	\$721
Percent Change	1.6%	2.8%	4.4%	4.5%
Retail Sales	\$295	\$308	\$319	\$330
Percent Change	2.9%	4.5%	3.6%	3.4%
Housing Starts, Thousands	32.7	32.3	33.0	31.1

Source: IHS Global Insight US Macroeconomic Forecast: February 2018

The New York Economy

Gross Domestic Product is the total amount of output of goods and services produced in the country. Similarly, Gross State Product (GSP) is the output of the various industries within a state since products made in the state are utilized and consumed both in the state as well as in other states. The outputs of all these industries are then combined to determine the aggregate GSP.

Most factors that impact the national economy also impact the New York economy. The changes in some of these factors may have only a small impact on the New York economy while others will have a significant impact. For example, interruptions in oil supplies from the Middle East may result in increased domestic drilling, resulting in job and revenue growth in states such as Texas or Alaska. However, in New York the impact on oil prices will affect the level of the New York consumer's discretionary income, impacting consumption within the State. With New York City's position as the financial capital, events that impact the financial markets have a significant impact on the New York economy.



A stark contrast between the effects on the State and the nation can be seen in 2013, when New York was still dealing with the negative effects of Super Storm Sandy damage. Despite the volatility from the debt ceiling impasse and emerging market concerns, the stock market still showed significant growth, however this growth was not enough to offset the negative effects of the storm damage and real GSP decreased by 0.3 percent as compared to a 1.7 percent growth in real GDP.

Economic growth improved in 2014, due in large part to strong growth in personal income, with economic growth in New York increasing by a rate of 1.7 percent in 2014. This growth was less than the 2.6 percent growth in real GDP, due to slower growth in the financial markets and employment growing at less than the national rate.

This growth continued into 2015, with real GSP increasing by a rate of 2.0 percent. This growth is still slower than national economic growth, which increased by a rate of 2.9 percent. This can partially be explained by the weakness in the financial sector.

Growth continued in 2016, increasing by a rate of 0.4 percent, due to strong wage growth, continued employment and housing growth. Growth at the national level had been hindered by declining inventories and weak exports.

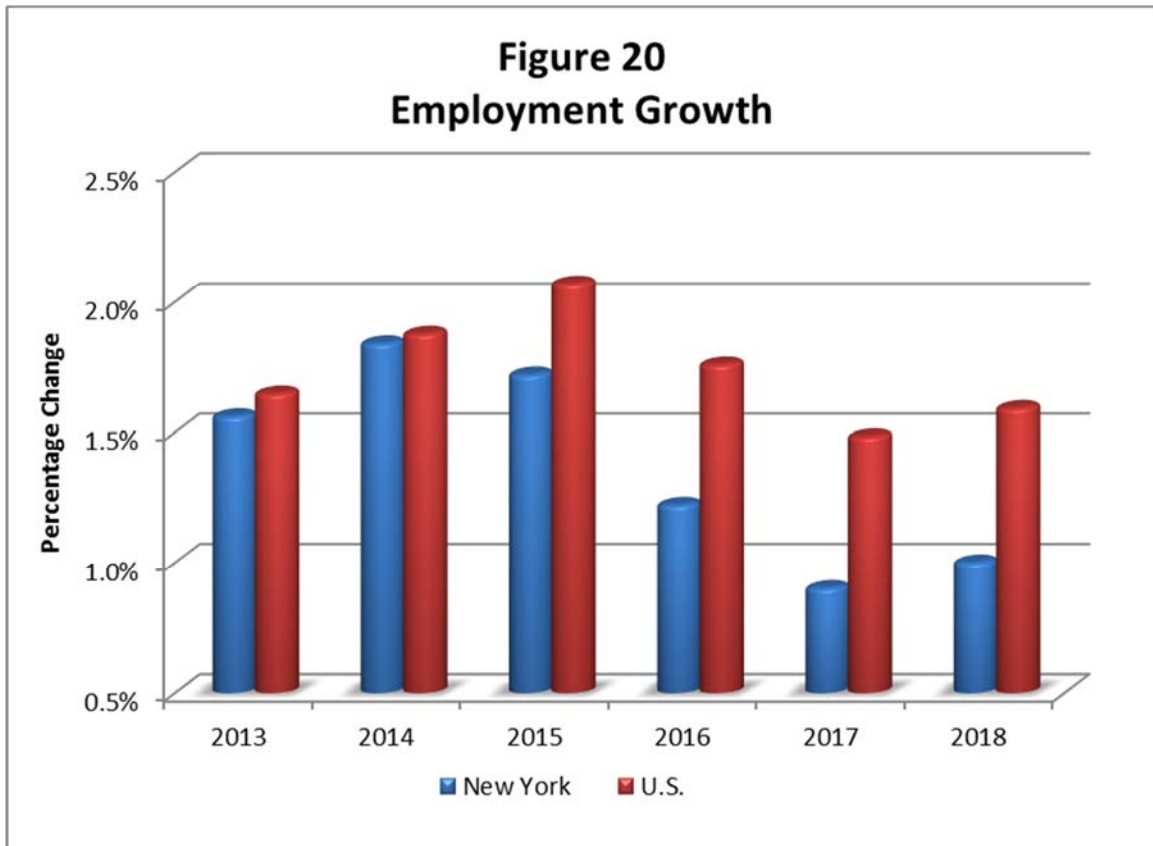
In 2017, the growth of the national economy once again outpaced New York, 2.3 percent to 1.6 percent, respectively. It is projected that growth will accelerate in 2018, with New York growth projected to grow 2.2 percent, while national growth is projected to grow 2.7 percent.

LABOR MARKET

In 2013, national and New York's job growth continued at approximately the same pace, with national growth slightly outpacing New York. This trend is partially explained by the fact that during the last recession, New York experienced a shorter period of job loss as compared to the Nation and also regained jobs faster.

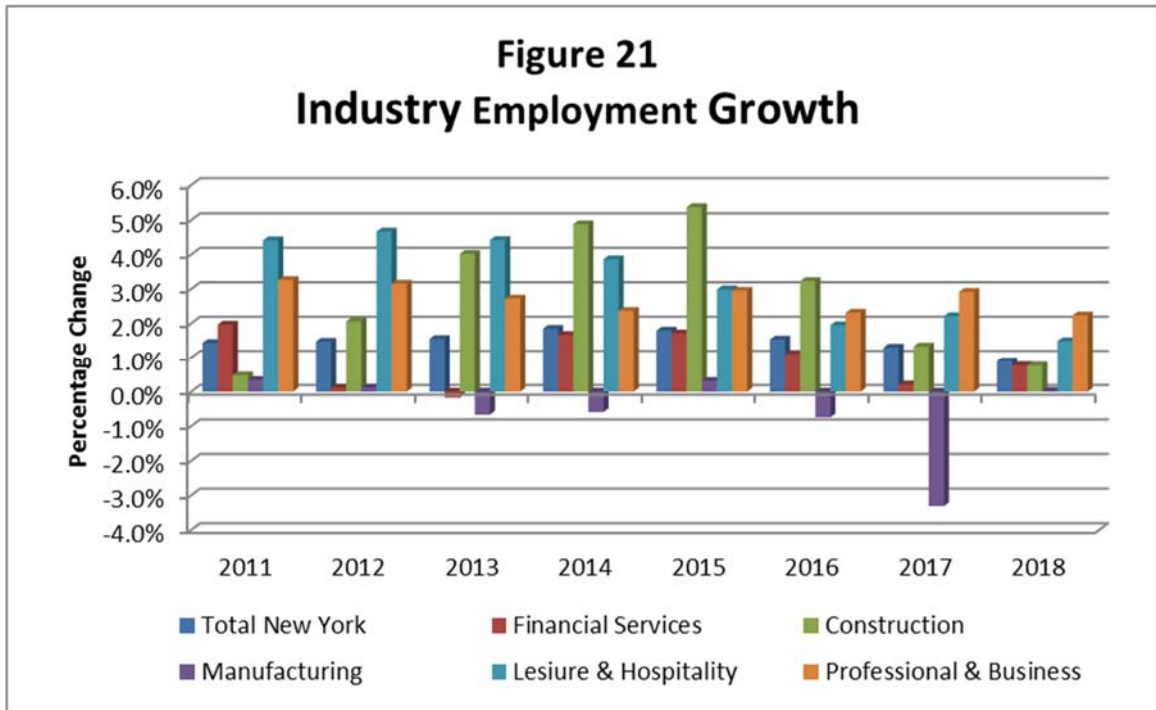
In 2014 and 2015, national job growth continued to outpace job growth in New York. National employment grew at a rate of 1.9 percent and while New York employment increased by a rate of 1.8 percent in 2014. In 2015 national employment increased by a rate

of 2.1 percent, while New York’s employment increased by a rate of 1.7 percent, slightly weaker growth than in 2014. This gap between national and New York job growth grew larger in 2016, with national employment growing by a rate of 1.8 percent and New York employment growing by a rate of 1.2 percent.



This same trend continued in 2017, with national job growth outpacing New York job growth, 1.5 percent to 0.9 percent. In 2018, job growth is projected to remain flat in New York and be flat at the national level, with projected job growth of 1.0 percent in New York and 1.6 percent nationally. However, the size of the labor force increased at a faster rate nationally, which could mean workers are less discouraged at the national level and more willing to join the workforce than they are in New York or there is simply fewer workers in New York. New York’s population has been relatively stagnant over the last few years,

which will make it very difficult for New York to keep pace with the nation. Over the last year, New York’s population grew by 0.1 percent compared the Nation’s growth of 0.7 percent.



As a result of the economic downturn in 2008, many Wall Street jobs were lost and even though the profits of the Wall Street firms increased significantly in 2012, this did not translate into a significant increase in jobs. With the continued volatility in the financial markets, employment in the financial services industry remained flat.

With volatility in the bond market sector and restrained growth in profits, the financial services industry lost jobs in 2013, decreasing employment by 0.2 percent. This was

reversed in 2014 when job growth increased by 1.7 percent and grew again in 2015 by 1.7 percent.

The financial services industry is continuing its slow employment gains since the financial crisis, with employment increasing by 0.2 percent in 2017 and a projected increase of 0.8 percent in 2018. Employment in financial firms may never return to the levels prior to the financial crisis as the industry has become more efficient and are relying more on the automation of services.

The other industry that was significantly impacted by the economic downturn was the construction industry. After the housing market recovered in 2011, the robust growth in multi-family housing starts resulted in annual gains in construction jobs through 2016. Growth in this industry continue into 2017, with a growth rate pf 1.3 percent. Growth is projected to continue in 2018, albeit at a slightly lower growth rate, projected of 0.8 percent. This is the result of the fact that a large number of multi-family housing projects which began construction in 2015 are nearing completion.

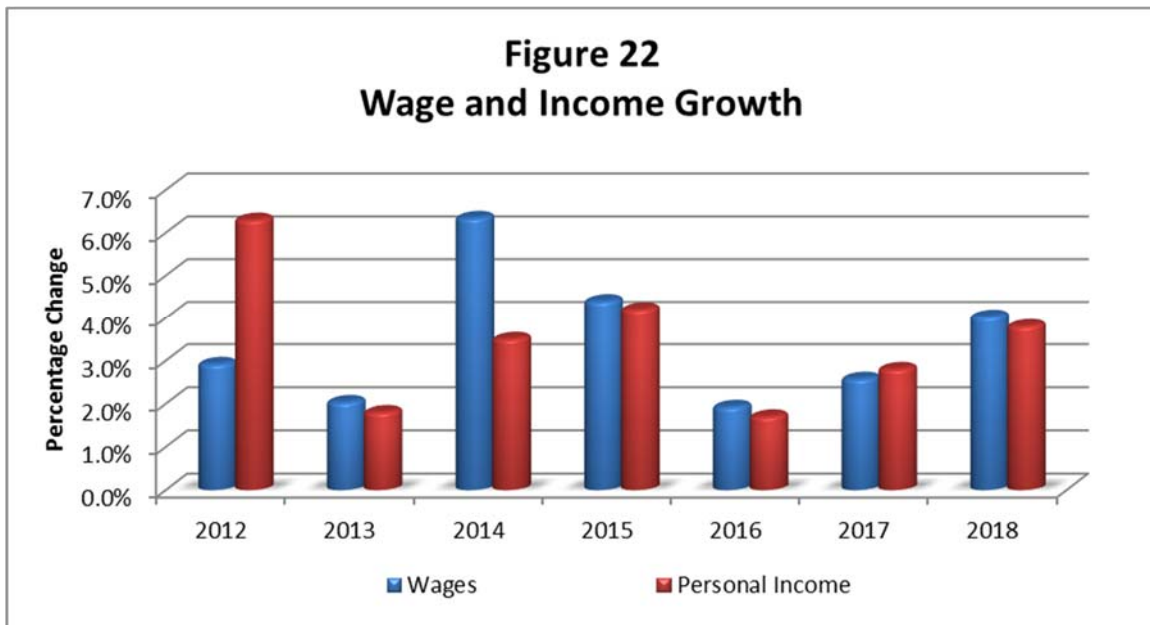
Employment in the manufacturing sector is not only influenced by the demand for goods domestically but, the demand for goods globally. The strength of the global economy as well as the value of the dollar as compared to other currencies impacts the manufacturing sector.

Similar to the construction industry, manufacturing employment suffered significant declines at the end of the recession. With the housing market still depressed and credit markets tight, there was little demand for durable goods. In addition, with little job growth, consumers had limited discretionary spending.

Even as the economy has strengthen, manufacturing employment in New York has not, declining for three out of the last five years. Even with stronger economic growth, especially at the national level, manufacturing employment decreased by 3.3 percent in 2017, the largest annual decline since 2010. The outlook is better in 2018, however manufacturing employment is only projected to remain flat.

Leisure and hospitality has been experiencing solid and continuing growth over the last few years, increasing employment by 3.0 percent in 2015. Growth in this industry slowed in 2016, increasing 2.0 percent before increasing by 2.2 percent in 2017. Growth is projected to slow to 1.5 percent in 2018.

WAGES AND INCOME



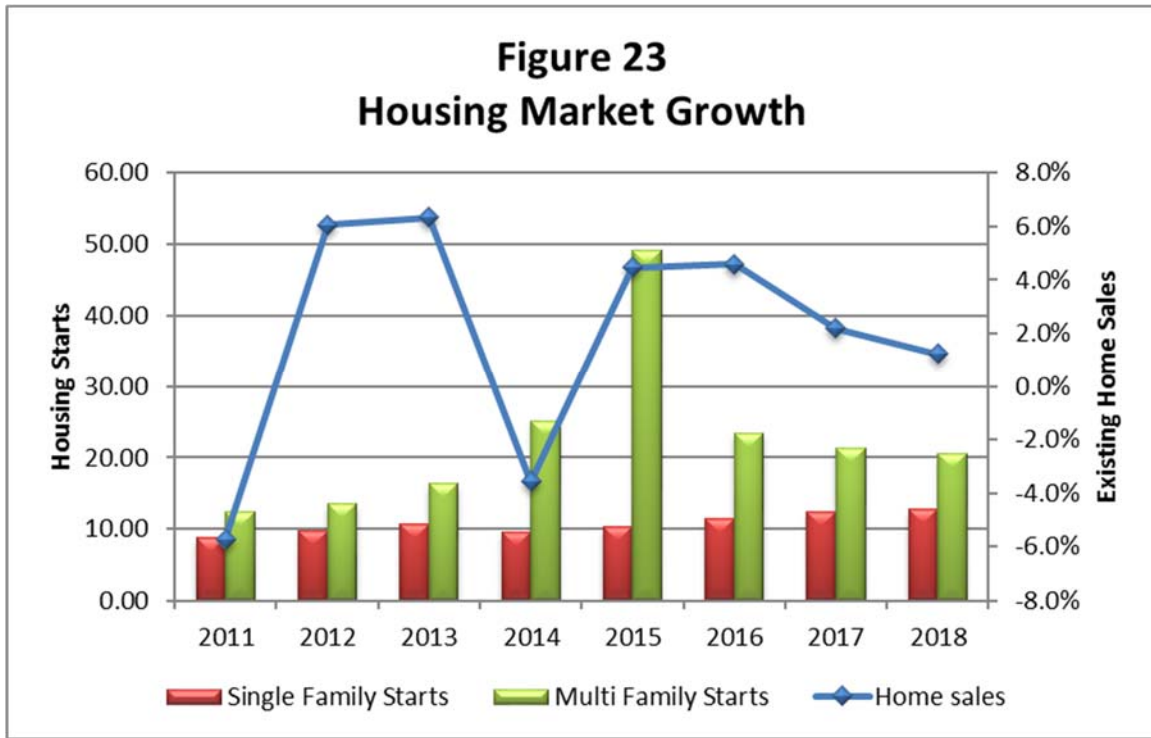
Prior to 2011, the payment of year-end bonuses by the financial services industry played an important role in New York’s wage and income growth. Due to the timing of the payment of Wall Street bonuses, usually paid in the first quarter of the succeeding year, wage growth in New York was influenced by the performance of the industry in the previous year. Due to the public and political backlash over the payment of large bonuses during the financial market crisis and the subsequent bailout by the Federal government, there was a change in the method by which bonuses were paid. A larger percentage of bonus compensation is being paid with stock options by which the recipient must hold the stock for a specified number of years to exercise the options. As a result, wage growth was negatively impacted by these changes in 2011, increasing by 3.8 percent, slower than the 4.3 percent growth in wages from the prior year. However, this change in bonus payments also had the positive impact of reducing wage and income volatility.

Due to the spin-up of dividend income and capital gains realizations into 2012, wage and personal income growth slowed in 2013, increasing by 2.0 percent and 1.8 percent, respectively, from a wage growth of 2.9 percent and a personal income growth of 6.3 percent in 2012.

Although employment growth was only 1.8 percent, both wage growth and personal income growth increased at a faster rate in 2014 as compared to 2013. This was the result of the one year impact of the spin-up in bonus payments and capital gains realizations resulting from anticipated federal tax law changes as well as growth in proprietors' income. The growth rate of both wages, 4.4 percent, and personal income, 4.2 percent, returned to a more moderate rate in 2015.

Growth in personal income tends to coincide closely with wage growth unless there is a shock that influences non-wage income. Personal income grew at a rate of 2.8 percent in 2017 compared to the wage growth of 2.6 percent. Growth in personal income is projected to be 3.8 percent in 2018 and wages are projected to grow by 4.0 percent.

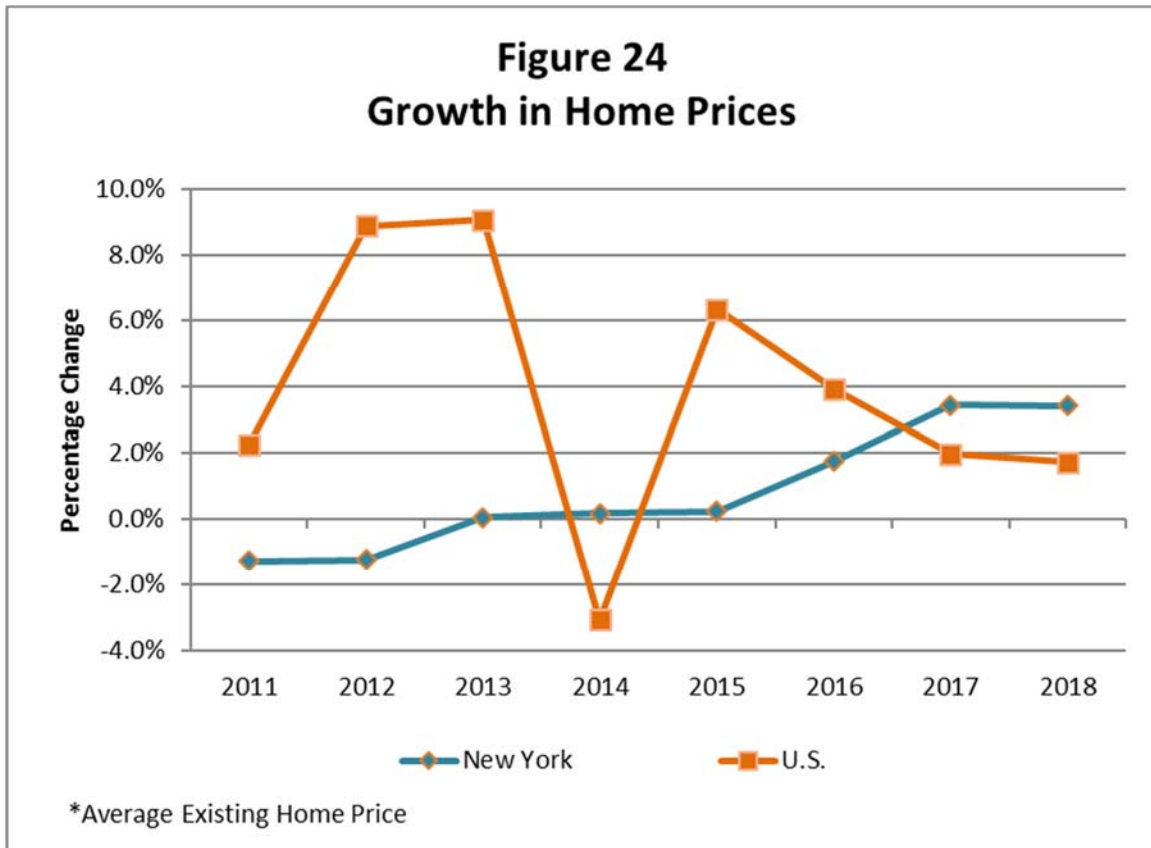
HOUSING MARKET



After the 2008 economic downturn, demand for housing increased, but that demand was focused primarily in the rental market. Despite low mortgage rates, New York residents opted to rent rather than buy.

Developers rushed to break ground in New York City in 2015 for multi-family starts in order to reap the benefits of the 421-a tax exemption program. Growth in 2016 reverted to 2014 levels, with nearly 23,500 starts. Multi-family stars further declined in 2017, with 22,400 starts, and is projected to remain at a similar level, with 20,500 new starts in 2018.

The improving economy in 2012 allowed growth in both existing home sales and single family housing starts in New York. The overall growth in single family homes sales has increased steadily over the past few years and nearly 13,000 starts are projected for 2018.



In 2012 and 2013, while national home prices were experiencing strong growth, home prices in New York declined 1.2 percent in 2012 and were essentially flat in 2013, growing 0.1 percent. This trend has continued through 2016, with home prices increasing modestly each year, for a high of 1.7 percent in 2016. This trend lagged significantly behind the growth rates for the nation as a whole during these years, with a high of 6.3 percent in 2015. However, during the housing bubble, New York home prices did not over

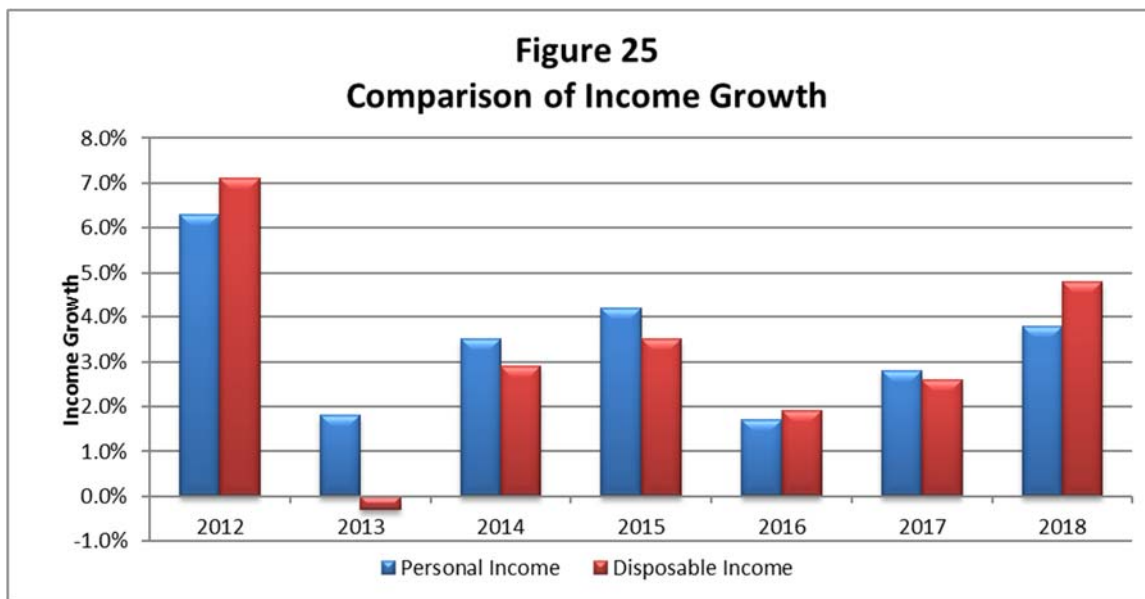
appreciate like in other parts of the nation. As a result, after the bubble burst, home prices in New York did not have as steep a decline as homes in other parts of the nation and have stayed relatively stable.

Growth in New York's home prices picked up in 2017, increasing by a rate of 3.4 percent, and are projected to increase at the same rate in 2018.

CONSUMPTION

Consumption, as a component of the Gross Domestic Product, is comprised of the consumption of goods as well as services, including housing, health care, and utilities. While not a perfect proxy for consumption at the national level, the change in the amount of retail sales in New York reflects how the changes in the economy have impacted the consumer's spending behavior.

Similar to consumers at the national level, over the last few years the New York consumer was realizing fluctuations in his disposable income due to fiscal policy actions of the federal government. In addition, the fluctuations were also the result of fiscal policy actions of the state government as well.

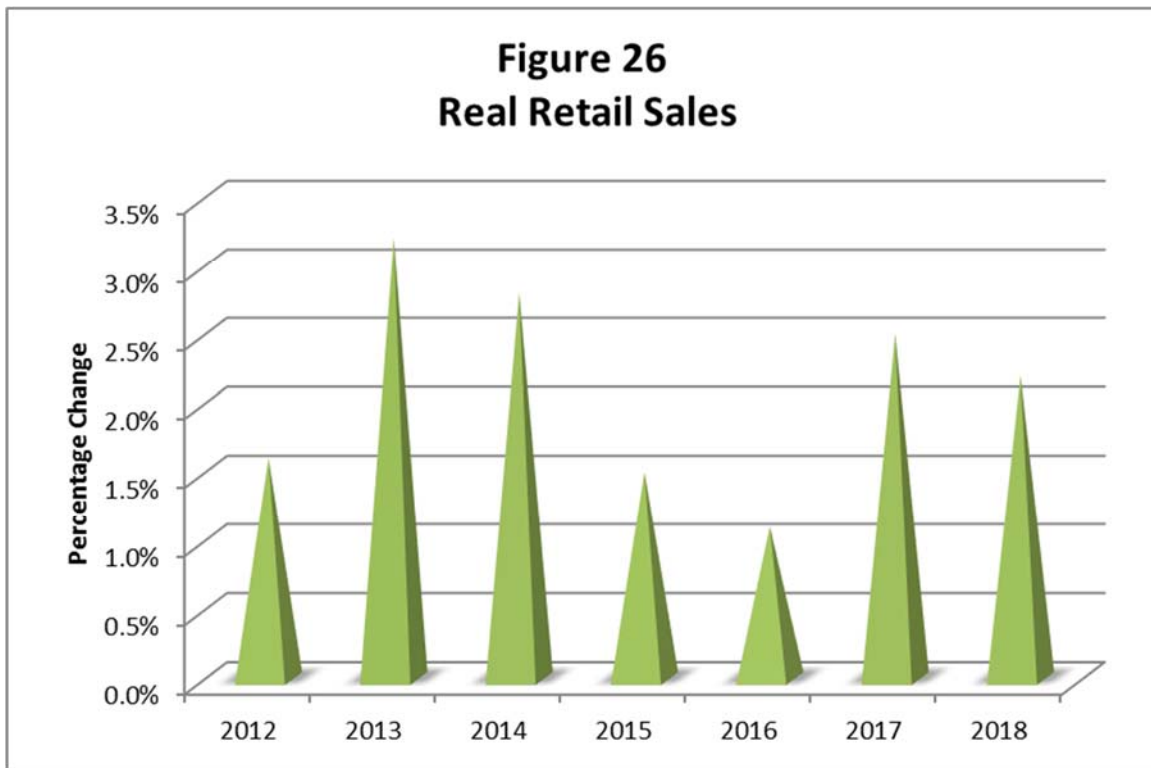


As shown in Figure 25, in 2013, disposable income growth lagged behind personal income growth due to the expiration of the temporary payroll tax reduction at the end of 2012. The expiration of this tax reduction not only impacted New York disposable income, but the entire nation. However, New York personal incomes were able to grow at a faster pace in both 2012 and 2013 compared to the nation due to the New York middle income personal income tax rates enacted at the end of 2011, which took effect in 2012.

As the price of oil has declined, consumers are spending less on gasoline resulting in bolstered disposable income growth in 2014, growing at a rate of 2.9 percent.

Personal income and disposable income growth continued in 2015 at a rate of 4.2 percent and 3.5 percent, respectively, due to continued wage growth. This growth continued in 2016, albeit at a slower pace of 1.7 percent for personal income and 1.9 percent for

disposable income. Personal income is increased at a faster rate in 2017, growing by 2.8 percent, caused in part by the stock market rebound. Disposable income grew at a rate of 2.6 percent. In 2018, it is projected that personal income will increase at 3.8 percent and disposable income will increase at 4.8 percent, in part as a result of tax cuts at the Federal level.



The changes in personal income and disposable income have an impact on consumer's spending behavior. While not a perfect proxy for consumption at the national level, the change in the amount of retail sales in New York reflects consumer's spending behavior.

The significant slowdown in wages and personal income in 2012 contributed to slow growth in retail sales. With the slowdown in the global economy and the appreciation of the dollar, tourism also became a drag on retail sales. As a result, the growth in retail sales

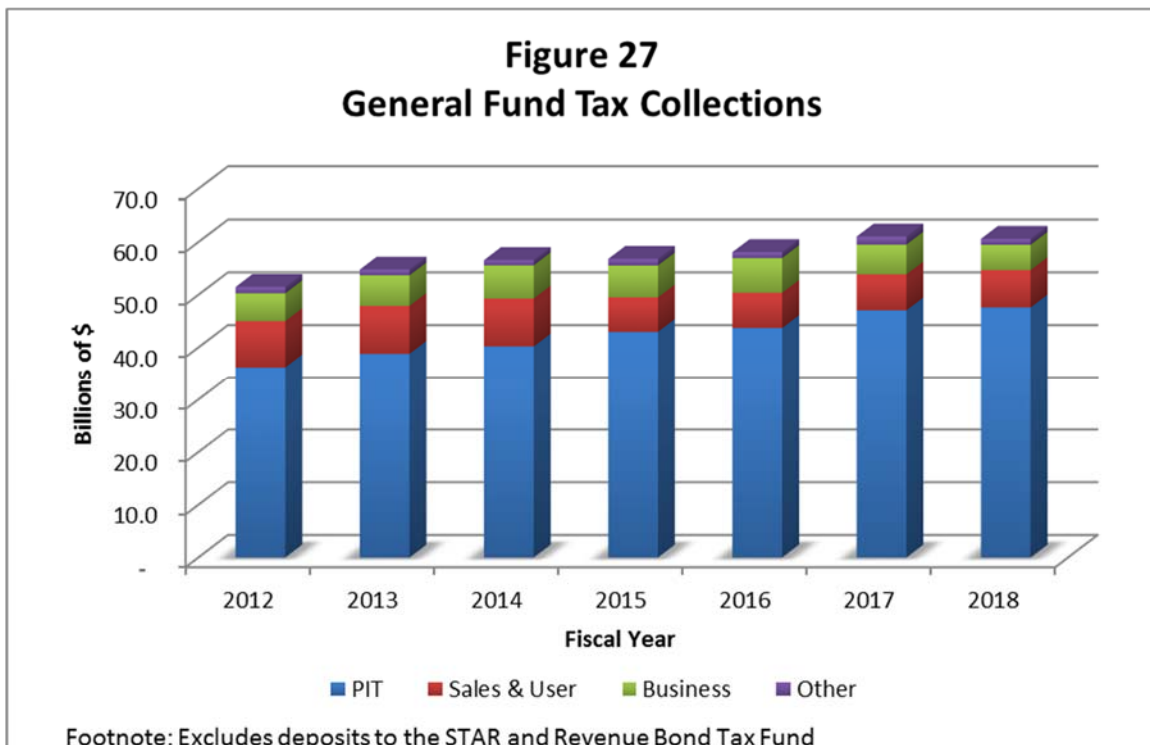
slowed to 1.6 percent. However, in 2013, even with the impact of the expiration of the payroll tax reduction and the imposition of the new Medicare taxes and disposable income growth declining, retail sales grew by 3.2 percent.

With strong income in 2014 as well as stronger economic growth, retail sales grew by 2.8 percent. In 2015, retail sales were weaker than consumption growth at the national level increasing by 1.5 percent compared to growth at the national level of 3.6 percent. While consumers were saving money from the low gasoline prices, it was not translating into increased retail sales.

Similar to consumption growth at the national level, in 2016 low oil prices, low interest rates, and rising disposable incomes have contributed to growing retail sales, albeit slower than consumption growth at the national level, with retail sales growing 1.1 percent. This difference is partially due to the slower employment growth in New York compared to the national level. This same trend continued into 2017 with New York retail sales trailing behind the growth in consumption at the national level, growing at a rate of 2.5 percent compared to a rate of 2.7 percent nationally. It is projected that this gap will widen in 2018, with a 2.2 percent increase in retail sales compared to a national growth of consumption of 2.9 percent.

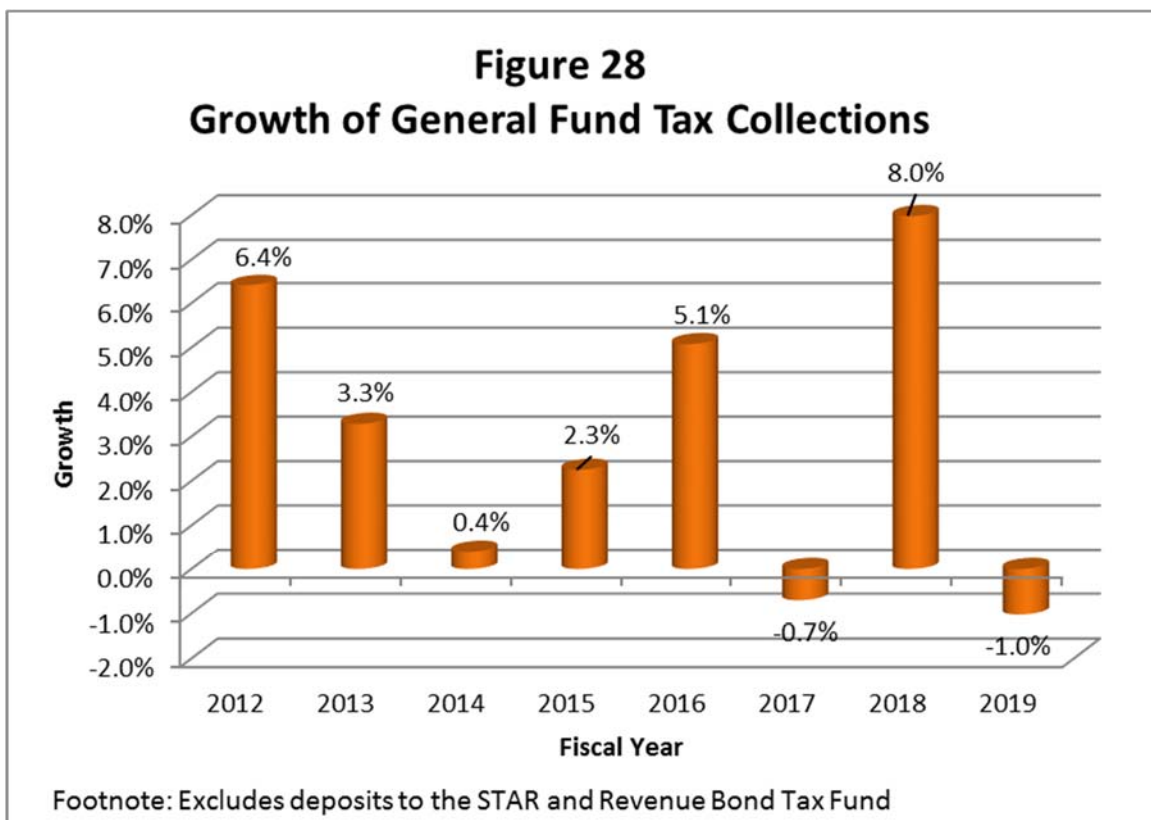
Revenue Outlook

The New York State Senate Finance Committee generates its revenue estimates using IHS Global Insight’s forecasts of national and state economic growth. The economic data is utilized in the New York State Tax Revenue and Economy Model (NYSTREM) – an econometric model developed and operated by IHS Global Insight – to generate the Committee’s independent revenue estimates. As summarized in the Appendix of this report, NYSTREM is designed to capture historical and the most up to date forecast information on the US economy, the New York State economy, and New York State tax revenues and use that information to generate a forecast for each State tax revenue stream.



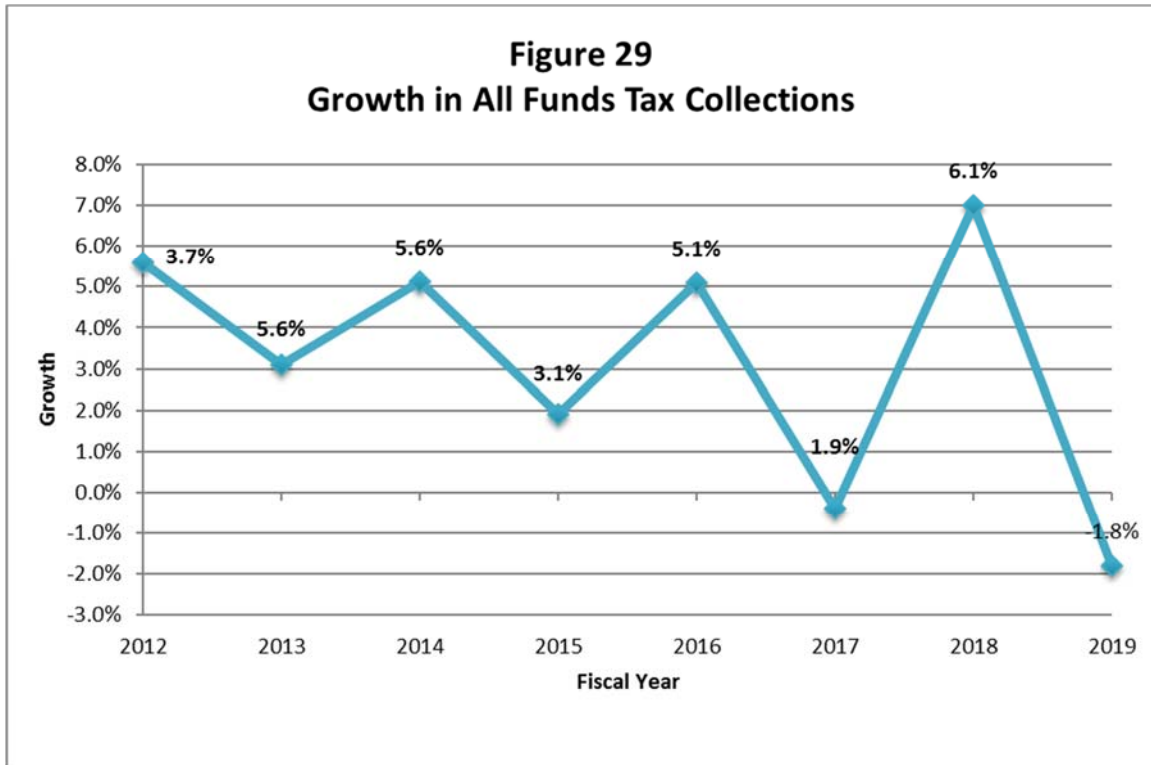
Using the NYSTREM model, the Senate Finance Committee estimates gross General Fund tax collections in FY 2018, excluding the deposits to the STAR and Revenue Bond Tax

Fund will increase by 8.1 percent to \$65.5 billion. All Funds collections will increase by 7.0 percent to \$79.6 billion. This increase reflects continued projected growth in the economy and strong growth in January receipts in personal income tax withholds compared to the prior year, as well as growth in sales and use taxes as a result of increased consumer spending bolstered by a strong holiday season. This growth was partially offset by slightly weaker corporate franchise tax receipts.



In FY 2019, the Senate Finance Committee projects that General Fund tax collections, excluding deposits to the STAR and Revenue Bond Tax Fund, will decrease by 0.9 percent to \$64.9 billion. All Funds collections will decrease by 1.8 percent to \$78.2 billion. This decrease reflects continued projected growth in the economy and growth in consumer spending, offset by a decline in personal income tax as a result of a one time spin-up of

taxpayers making prepayments on their taxes as a result of Federal changes to the Internal Revenue Code.



Personal Income Tax

Personal income tax collections account for over half of all New York tax collections and over two thirds of General Fund tax collections (net of reserves). The personal income tax is imposed on all types of income a person may receive (e.g. wages, interest income, dividends, and capital gains). In addition, the personal income tax is imposed on the income of New York's small businesses, such as sole proprietorships, partnerships, and limited liability companies. This income is subsequently offset by certain deductions as enumerated in either the Internal Revenue Code or the New York State Tax Law. For FY 2018, total General Fund personal income tax collections, net of \$15.5 billion in reserve

transactions, are estimated to increase by 8.8 percent to \$51.8 billion. This increase reflects substantial growth in withholding in the first ten months of the fiscal year.

In FY 2019, total personal income tax collections, net of \$27.4 billion in deposits to the reserve funds, are projected to decline 3.4 percent to \$50 billion. This decrease is a result of a one time spin up as a result of Federal tax changes and an Executive proposal to double the set aside for the RBTF, offset by continued wage and personal income growth.

PIT Components

Withholding and estimated payments are methods by which the taxpayer can equalize personal income tax payments over the course of the tax year as opposed to being liable for one lump sum payment. When a person receives income, primarily wages, the appropriate tax is withheld and remitted to the State at the time the income is received. Withholding collections in the current fiscal year are estimated to increase by 7 percent to \$40.1 billion, resulting from the projected increase in employment and wage growth and strong January receipts.

Withholding collections in the fourth quarter of the fiscal year historically have accounted for over thirty percent of total withholding for the year, as a result of the payment of performance bonuses by the financial services industry in the previous calendar year. However, the compensation structure of financial services employees has changed since

the public backlash over bonuses paid to financial companies that had received government support through the TARP. Many businesses in the industry have changed the method by which bonus compensation is paid by either: paying bonuses in the form of stock options where the recipient must hold the stock for a specified number of years to exercise the options; or incorporating into wages what they would have paid their employees in bonuses.

Bonus payments have grown roughly 10 percent from FY 2017 to the current fiscal year. In addition to bonus payments, increased wages resulted in the continued growth in collections.

Another method by which the State collects the personal income tax throughout the tax year is through estimated payments. These payments are made when a taxpayer does not pay the income tax through withholding, such as a self-employed individual, and/or has a significant amount of non-wage income not subject to withholding but subject to the personal income tax. These payments are made quarterly throughout the fiscal year. These collections are the most volatile portion of the personal income tax due to the fact that a taxpayer must “forecast” their tax liability for the year.

Estimated tax payments are also made when a taxpayer requests an extension for the submission of their annual return. Upon the request of the extension, the taxpayer

estimates what their final tax liability will be for the previous tax year and remits the estimated tax, net of any withholding or previous estimated tax payments.

The most common form of income that is paid through estimated tax payments is capital gains, which are incurred through the sale of an asset. Most people associate capital gains with the stock market. However, as a result of the significant growth in the housing market, the real estate market had been a major contributor to capital gains realizations during the economic expansion.

Another contributor to the strength or weakness of estimated payment growth is proprietor's income. This type of income includes all the self-employed businesses who earn their money through their business profits and not through the traditional withholding of wages.

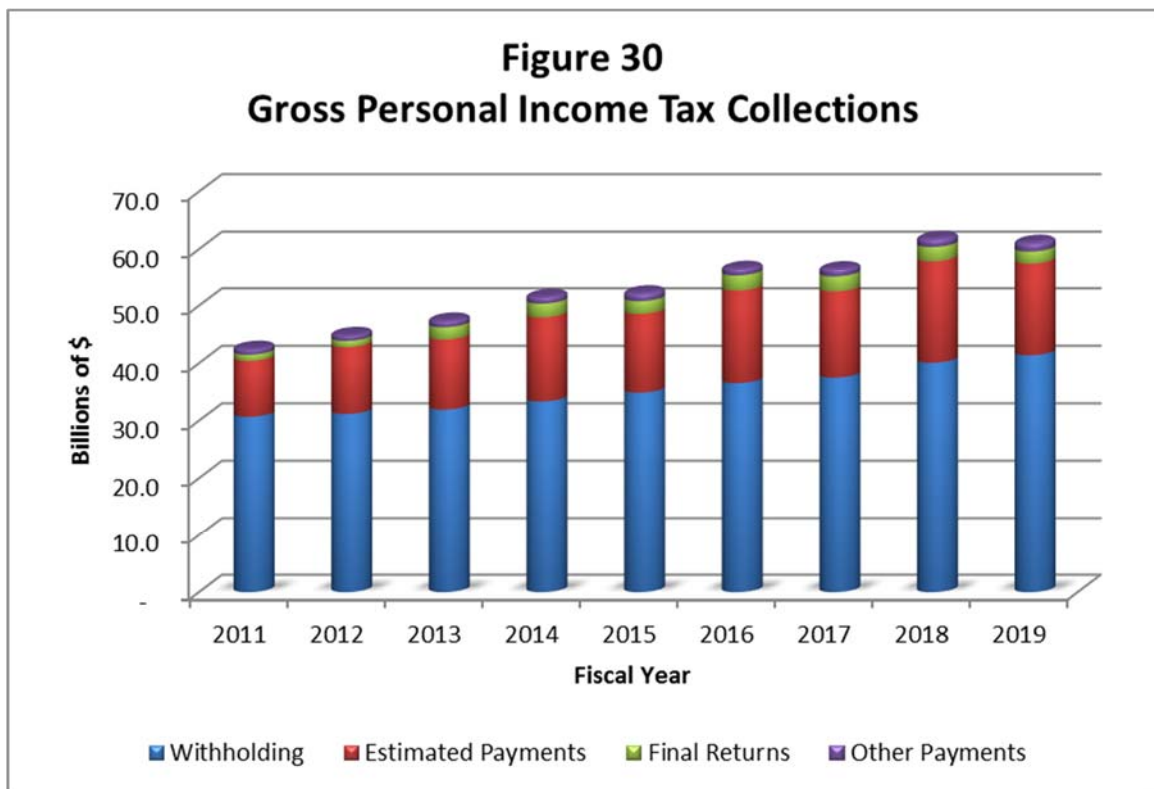
Estimated tax payments in the current fiscal year are estimated to increase by 18.8 percent to \$17.8 billion. This reflects changes in taxpayer behavior resulting from Federal tax changes.

In FY 2019, estimated payments are projected to decrease by 9.6 percent, to \$16.1 billion. This decrease reflects the revenue shift from FY 2019 into FY 2018 as a result of changes in taxpayer behavior influenced by the Federal tax changes.

The personal income tax is also collected through annual returns taxpayers must file. The annual return is essentially a reconciliation of a taxpayer's taxable income (gross income less deductions) and taxes paid through withholding or estimated payments throughout the preceding calendar year. As such, additional tax liability due or refunds are considered the "settlement" of a taxpayer's personal income tax. Payments made through the filing of annual returns are estimated to decrease 4.2 percent in FY 2018. Since final return payments are based on a taxpayer's income for the previous calendar year, this year-to-year decrease is primarily due to the settlements of 2016 returns. In FY 2019, collections from final returns are projected to decrease by 17.2 percent, to \$2.1 billion. This is a result of taxpayer behavior in 2017.

The amount of refunds to be paid to taxpayers is estimated to be 12.8 percent higher in FY 2018 than in the prior year. The decrease refunds is primarily due to the lower amount of current year refunds paid in the fourth quarter of the current fiscal year. The amount of refunds paid in the final quarter of the fiscal year is constrained in order to maintain cash flow between fiscal years. Due to the advent of electronic filing, there have been a larger amount of refunds being claimed in the January through March period. In order to ensure that taxpayers receive their refunds in a timely manner, the amount of refunds to be issued was capped at \$1.75 billion in FY 2018. In the current fiscal year, the amount of refunds increased \$1.2 billion, to \$10.1 billion. For FY 2019, refunds are projected to increase by 10.2 percent, to \$11.1 billion.

Lastly, personal income tax collections are composed of assessments imposed upon taxpayers as a result of the audit process and filing fees imposed on limited liability companies. Assessments consist of any overdue taxes and the interest and penalties imposed upon such liability. Other collections are estimated to decline 0.4 percent to 1.43 billion in FY 2018. In FY 2019, other payments are projected to increase by 9.5 percent, to \$1.56 billion.

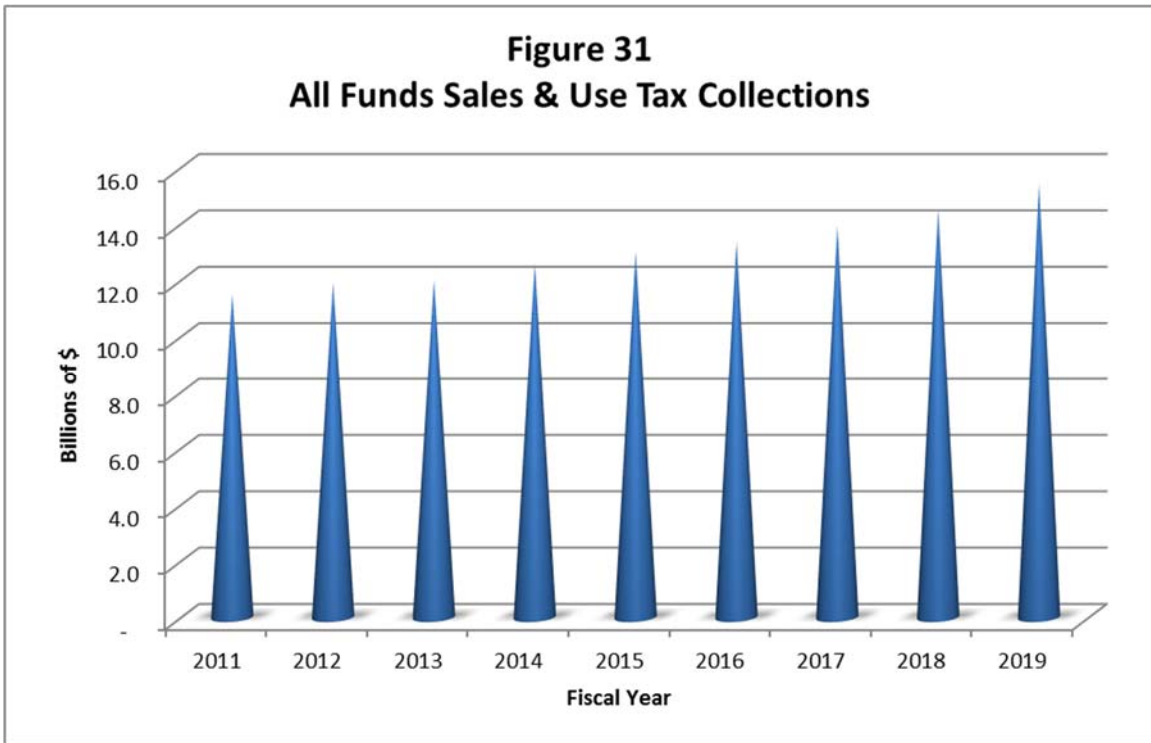


A portion of income tax collections are deposited to a special revenue fund and a debt service fund. The STAR reserve is a special revenue fund that receives a portion of personal income tax collections to reimburse school districts for the reduction in their property tax collections as a result of the STAR program.

The Revenue Bond Tax Fund (RBTF) is a debt service fund into which twenty-five percent of personal income tax receipts (net of refunds and the STAR deposit) are deposited. This fund is used to pay the debt service on the State's PIT revenue bonds. Any funds in excess of the required debt service payments are transferred back to the General Fund. Deposits to the RBTF are estimated to increase by 8.8 percent in FY 2018, reflecting the projected growth in personal income tax collections during the year. Deposits into the RBTF are projected to increase 93.2 percent FY 2019. This increase is due to proposed Executive legislation that would double the rate at which funds are deposited into the RBTF.

User Taxes and Fees

User taxes, also known as consumption taxes, are what their name implies - taxes on the use or consumption of different items in the State. These taxes consist of the sales and use tax, the auto rental tax, the cigarette tax, the motor fuel tax, alcoholic beverage taxes, the highway use tax, the MTA taxicab surcharge, and the medical marijuana excise tax. Some of these taxes are only deposited to the General Fund; some are deposited only to Special Revenue Funds; some are partially deposited into Debt Service Funds; while others are deposited to a combination of funds.

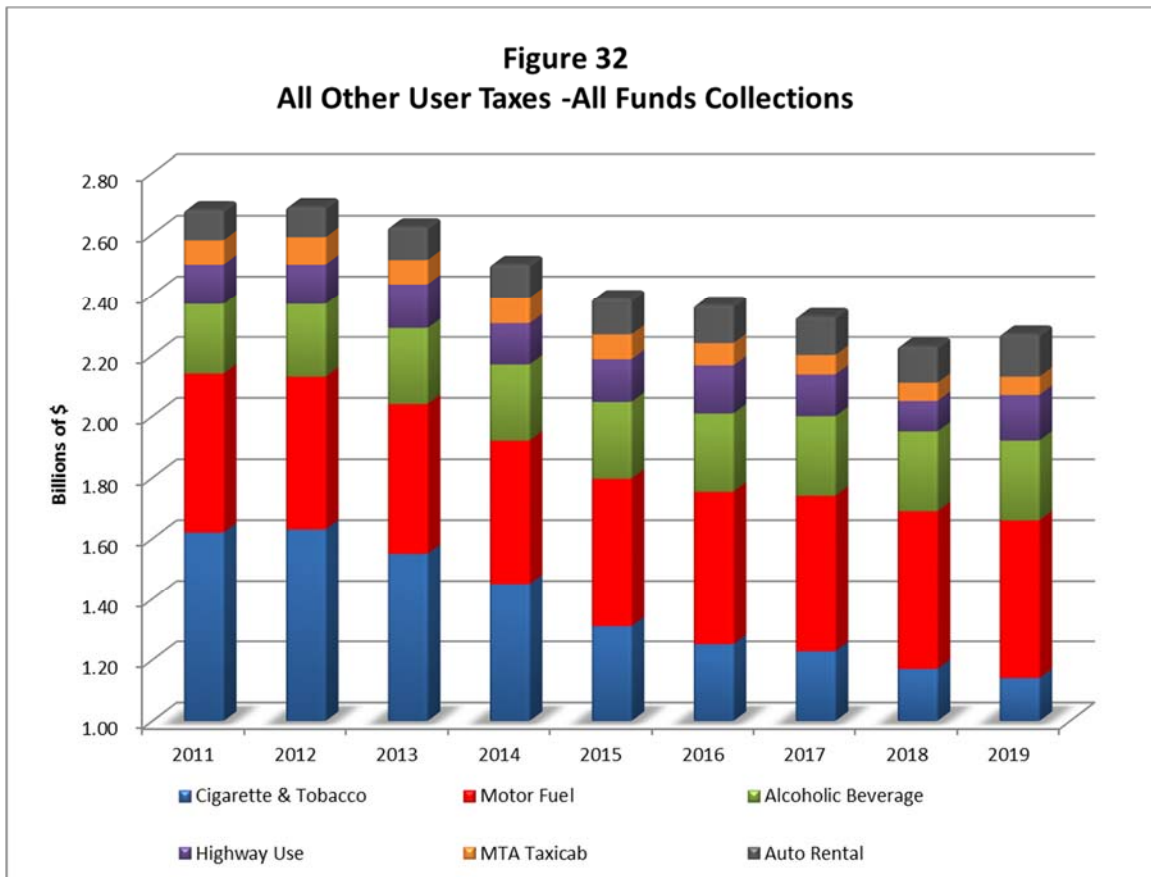


Sales and use tax collections comprise a large portion of the tax collections in this category. Receipts from this tax are deposited into the General Fund, a Special Revenue fund (the Metropolitan Transportation Operating Account), and two Debt Service Funds (the Local Government Assistance Tax Fund and Sales Tax Revenue Bond Tax Fund). In FY 2018, General Fund receipts are estimated to increase by 4.8 percent to \$6.8 billion.

On an All Funds basis, sales and use tax collections are estimated to increase by 4.8 percent to \$14.5 billion in FY 2018. The increase in collections reflects growth in consumption as well as income growth.

In FY 2019, General Fund sales and use tax receipts are projected to increase by 6 percent to \$7.2 billion. All Funds sales and use tax receipts are projected to increase by 5.9 percent

to \$15.4 billion. This increase in collections reflects the continued increase in consumption and income growth projected for 2018.



Receipts from the cigarette tax are deposited to the General Fund and the HCRA funds while receipts from the tobacco tax are deposited solely to the General Fund. General Fund collections for cigarette and tobacco taxes in FY 2018 are estimated to decrease by 6.1 percent to \$338 million. All Funds collections for FY 2018 are estimated to decrease by 5.3 percent to \$1.17 billion.

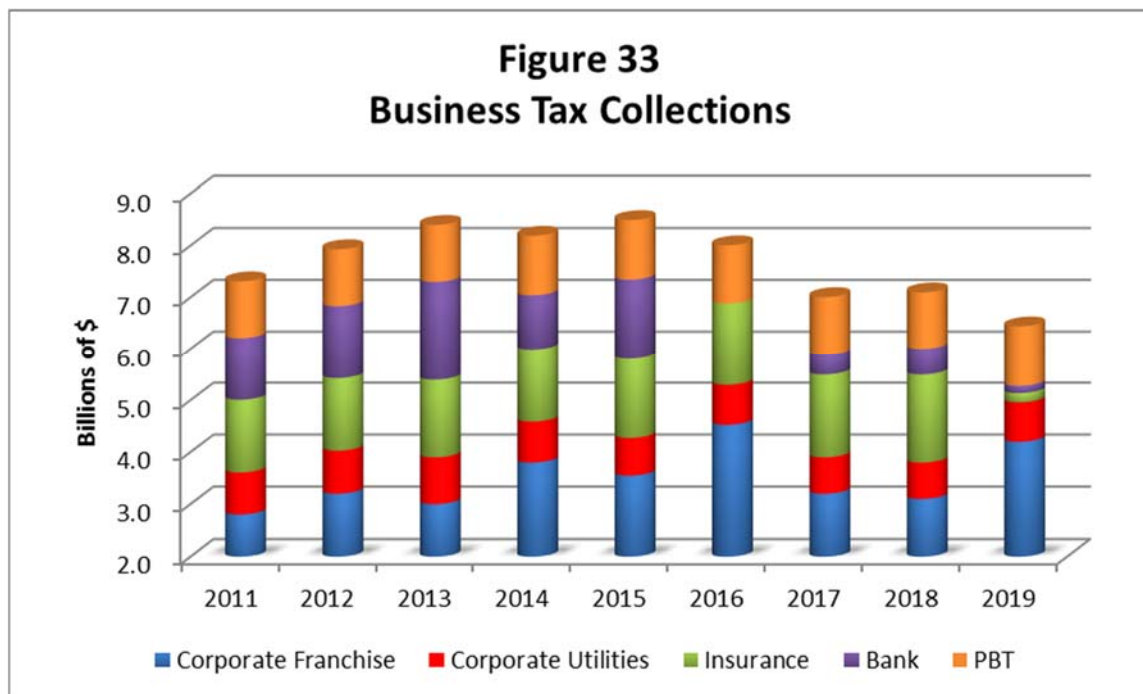
In FY 2019, General Fund cigarette and tobacco tax collections are projected to increase by 1.7 percent to \$344 million. All Funds cigarette and tobacco tax collections are

projected to decrease by 2.2 percent to \$1.14 billion in FY 2019, reflecting the continued decline in taxable consumption.

The only other user tax that is deposited to the General Fund is the alcoholic beverage tax, which is estimated to increase by 1.1 percent to \$260.7 million in FY 2018. In FY 2019, these tax collections are projected to increase by 1.5 percent to \$264.5 million.

All Funds collections of the remaining user taxes are estimated to decrease by 6.3 percent to \$795.6 million in FY 2018. For FY 2019, collections from these other taxes are projected to increase by 7.8 percent, to \$857.4 million.

Business Taxes



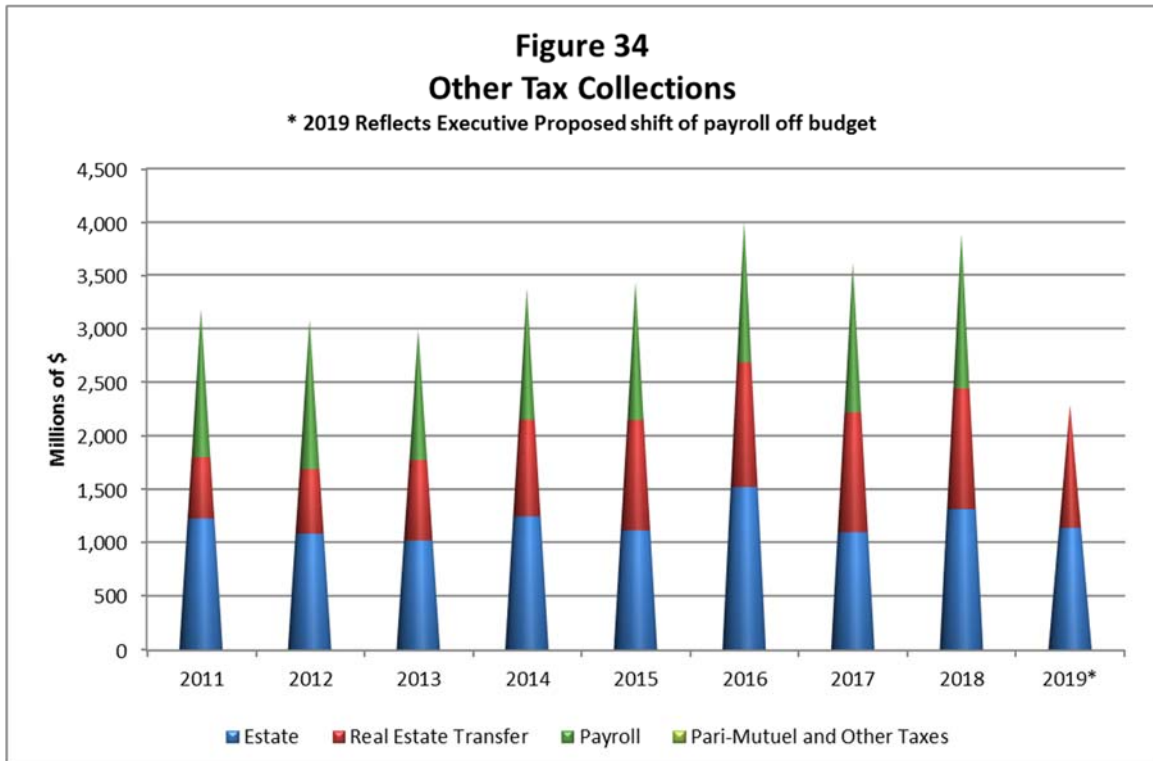
Business taxes in New York are imposed on various aspects of a business' income. The corporate franchise tax is imposed on a business' net income; the corporate utility tax is imposed on the gross receipts of the business; and the insurance tax is imposed on premiums. The petroleum business tax is imposed on the gross receipts from the sale of various petroleum products by the business. However, any increase/decrease in liability for the petroleum business tax is pegged to an inflation index.

General Fund business tax collections are estimated to increase by 4.5 percent to \$4.98 billion in FY 2018. On an All Funds basis, business taxes are estimated to increase by 3.1 percent to \$7.19 billion.

General Fund business tax collections are estimated to increase by 19.5 percent to \$5.9 billion in FY 2019. This increase is attributable to strong growth in corporate profits and large tax cuts at the Federal level. On an All Funds basis, business taxes are estimated to increase by 12.8 percent to \$8.1 billion, due to the factors stated above.

Other Taxes

Other taxes consist of the estate tax, the real estate transfer tax, the pari-mutuel tax, and the boxing and wrestling exhibitions tax. The real estate transfer tax is deposited solely to special revenue fund while the remainders of the taxes are deposited solely to the General Fund.



General Fund receipts of these taxes are estimated to increase by 20 percent to \$1.33 billion in FY 2018. This increase in receipts is due to an increase in the number of super-large estates. The FY 2015 Enacted Budget reformed the Estate Tax by phasing in higher exclusion amounts so that by 2019 the State exclusion amount will equal the Federal exclusion amount that was in place when the reform was enacted. In FY 2019, General Fund receipts are projected to decrease by 13.8 percent to \$1.15 billion. This results from the decrease in the number of super large estates.

All Funds collections of other taxes are estimated to increase by 10 percent to \$2.46 billion in FY 2018 and are projected to decrease by 6.8 percent to \$2.29 billion in FY 2019. The decrease in the current fiscal year is attributable to weak real estate transfer tax receipts.

The decrease in other tax collections in FY 2019 is due to the projected decline in estate tax receipts and real estate transfer tax receipts.

The FY 2019 Executive Budget proposes moving the MTA payroll tax off budget and funneling the funds directly to the MTA. Prior to this proposal, the State collected the tax and transferred it to the MTA. This shift will result in roughly \$1.5 billion being taken off budget.

APPENDIX

THE NEW YORK STATE TAX REVENUE AND ECONOMY MODEL

Technical Characteristics

This report represents a continuation of the long-standing relationship between the Senate Finance Committee and IHS Global Insight. Prior to 1995, IHS Global Insight (formerly WEFA) produced both the economic and revenue forecasts and issued a final report to the Senate Finance Committee. Under a relationship now in its twenty-third year, IHS Global Insight continues to produce the economic and tax revenue forecasts using the New York State Tax and Revenue Model (NYSTREM) and serves in an advisory capacity to the Senate Finance Committee in the development of revenue forecasts.

The New York State Tax Revenue and Economy Model (NYSTREM) was developed for the New York State Senate by IHS Global Insight to provide forecasts of quarterly tax revenues, by tax category, on a timely basis with the greatest accuracy possible. The model captures the latest historical and forecast information of the U.S. economy, the New York State economy, and New York State tax revenues.

The model and forecasting procedures have the following characteristics and considerations:

- the model is based on economic theory and tax revenue accounting relationships;

-
- tax variables are first seasonally adjusted to obtain consistency with other seasonally adjusted national and New York State data in modeling and forecasting processes, and are transformed back into non-seasonally adjusted variables to reflect the seasonality of tax collections;
 - the New York State economy part of the model belongs to the system of IHS Global Insight's Quarterly State Econometric Model. This system is composed of 51 state and D.C. models, which is further linked to IHS Global Insight's national social and economic forecasting system;
 - all expertise of the IHS Global Insight Regional Economics Group is embedded in the modeling and forecasting processes;
 - the Senate Finance Committee has access to the latest historical data and IHS Global Insight's forecast of the U. S. economy each month; and
 - NYSTREM is implemented in EVIEWS, IHS's, state-of-the-art, econometric, PC-based software, providing the New York Senate Finance Committee with the ability to carry out simulations of the model as needed.

Equations in the model were estimated with the most appropriate methods that econometrics theory suggests based on the availability and characteristics of the data. Because state tax revenue is determined by the state, as well as the national economy, many U.S. and New York State economic and social variables must be used to provide an

explanation of New York State tax revenue. Therefore, besides forecasting New York State's tax revenue, NYSTREM also forecasts the State's following variables:

- 2-digit manufacturing (26 components) and 1-digit non-manufacturing employment (29 components);
- 13 components of real income;
- 15 components of nominal income;
- 25 components of population by age;
- 1 component of net migration by age;
- 8 components of household by age and sex;
- 2 components of retail sales;
- housing starts, sales and prices;
- passenger motor vehicle registration; and
- total retail sales.

IHS Global Insight needs to process hundreds of endogenous and exogenous data series for estimating equations in the model and producing the forecasts.