



The Economic Outlook and Revenue Forecast through Fiscal Year 2022

Prepared by the Virginia Department of Taxation
for Review by the
Governor's Advisory Council on Revenue Estimates

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Introduction

The Joint Advisory Board of Economists (JABE) met in October as part of the regular fall forecasting process to consider three economic forecasts: the IHS Markit September standard forecast, the IHS Markit September alternative pessimistic forecast, and Moody's Analytics September standard forecast. The consensus of the Board was that the IHS Markit September standard forecast was a slightly over-optimistic outlook for Virginia. A standard minus forecast, which incorporated JABE's recommendation for lower employment growth, was adopted.

The purpose of this meeting is to review the most current economic forecasts to determine the most likely path for the Virginia economy over the next biennium, and which of the resulting revenue forecasts seems appropriate. This forecast will serve as the basis for the budget to be released by the Governor in December.

Section 1 of this book contains a review of the national economic performance during fiscal year 2019. Summaries of IHS Markit October standard and alternative pessimistic national outlooks are presented.

Section 2 contains a review of Virginia's economic performance during fiscal year 2019. This is followed by a summary of the IHS Markit October standard and alternative pessimistic economic scenarios for Virginia developed by the Department of Taxation.

Section 3 contains a review of Virginia's general fund revenue collections during fiscal year 2019. This is followed by a summary of the October standard and alternative pessimistic forecasts.

Section 4 discusses nongeneral fund revenue and forecasts.

Historical and forecast economic data are contained in Appendix A. Appendix B is a history of general fund revenue collections. Appendix C contains detailed econometric output for major sources.

SECTION 1
THE U.S. ECONOMY

Section 1 The U.S. Economy

Introduction

This section begins with a review of fiscal year 2019, comparing actual U.S. economic growth to the official forecast for the year. The official forecast for fiscal year 2019 was based on IHS Markit's October 2018 U.S. standard outlook as approved by the Joint Advisory Board of Economists (JABE) and the Governor's Advisory Council on Revenue Estimates (GACRE). Following the review of fiscal year 2019, the IHS Markit October standard and pessimistic alternative scenarios are summarized.

Tabular data are presented throughout this section. More detailed tabular data are presented in the appendices. Appendix A-1 shows quarterly historical data for major forecast variables from fiscal year 2017 through fiscal year 2022. Appendix A-2 shows quarterly data for the three forecasts through fiscal year 2022. Appendix A-3 displays annual historical and forecast data from fiscal year 2000 through fiscal year 2022. Appendix A-4 displays regional employment data from fiscal year 2000 through fiscal year 2022.

Review of Fiscal Year 2019

At the time of IHS Markit's October 2018 forecast, the economy continued to improve. Most indicators pointed to solid underlying fundamentals suggesting the economy would continue its moderate expansion.

Following is a summary of key assumptions included in the October 2018 standard forecast and how those assumptions fared over the fiscal year. Table 1.1 on the next page compares the official forecast and actual results for fiscal year 2019.

- Real GDP rose 2.6 percent for the fiscal year, trailing the forecast of 3.0 percent growth.
- Total personal income rose 5.1 percent in fiscal year 2019, 0.7 percentage point ahead of the forecast. Wages and salaries grew 4.9 percent, 0.3 percentage point above the forecast of 4.6 percent.

Table 1.1 - Fiscal Year 2019 U.S. Forecast Performance (% Change)

	<u>Forecast</u>	<u>Actual</u>	<u>Actual Minus Forecast</u>
<u>Output, Income, and Spending (% of Total)</u>			
Real GDP	3.0	2.6	(0.4)
Total Personal Income	4.4	5.1	0.7
Wages and Salaries (50%)	4.6	4.9	0.3
Average Wage	3.0	3.1	0.1
Real Consumer Spending	2.9	2.8	(0.1)
<u>Employment and Labor Markets (% of Total)</u>			
Total Nonagricultural Employment	1.6	1.7	0.1
Construction (5%)	3.6	4.1	0.5
Manufacturing (9%)	1.8	1.9	0.1
Trade, Transportation, and Utilities (19%)	1.0	0.9	(0.1)
Information (2%)	0.2	0.1	(0.1)
Financial Activities (6%)	1.2	1.3	0.1
Professional and Business Services (14%)	3.2	2.5	(0.7)
Education and Health Services (16%)	2.0	2.2	0.2
Leisure and Hospitality (11%)	1.4	2.2	0.8
Other Services (4%)	1.2	1.4	0.2
Government (15%)	0.1	0.5	0.4
Unemployment Rate (%)	3.7	3.8	0.1
<u>Interest Rates (% of Total)</u>			
3-Month Treasury Bills	2.4	2.3	(0.1)
30-Year Treasury Bonds	3.3	3.0	(0.3)
<u>Prices (% of Total)</u>			
CPI	2.6	2.1	(0.5)
GDP Deflator	2.4	2.1	(0.3)

The Official forecast is IHS Markit's October 2018 U.S. standard forecast.

- Real consumer spending rose 2.8 percent in fiscal year 2019, close to the forecast of 2.9 percent.
- Total nonagricultural employment grew 1.7 percent, slightly ahead of the forecast of 1.6 percent. Most sectors finished the year ahead of expectations. The construction sector grew by 4.1 percent, half a percentage point ahead of the forecast. The only sector significantly below forecast was professional and business services which grew 2.5 percent compared with the forecast of 3.2 percent.

- Price increases were less than expected. Growth in both the CPI and the GDP deflator increased 2.1 percent for the year, and were below their respective forecasts.
- IHS Markit expected the Federal Reserve Bank would raise the target federal funds rate in December 2018, with the upper band of the target rate followed by three rate hikes in 2019 and one in 2020, bringing the upper end of the target rate to 3.5 percent. The target rate range is currently 1.5 to 1.75 percent.

Recent Developments in the U.S. Economy

Recent national indicators suggest the economy continues to grow, albeit at a slower pace. According to the initial estimate, real GDP grew at an annualized rate of 1.9 percent in the third quarter of 2019, down from 2.0 percent in the second quarter.

The labor market expanded in October, with payroll employment growing by 128,000 jobs, above expectations. There were also upward revisions to previous months. In a separate report, the unemployment rate increased from 3.5 to 3.6 percent as more people entered the labor force. Initial claims for unemployment rose by 5,000 to 218,000 in the week ending October 26, while the four-week moving average slipped by 500 to 214,750. The level of jobless is fluctuating around historically low levels.

The Conference Board's index of leading indicators fell 0.1 percent in September, following a 0.2 percent decline in August, suggesting a weakened outlook for the economy. The Conference Board's index of consumer confidence fell from 126.3 to 125.9 in October, as an increase in the present situation component was offset by a decline in the expectations component. Given its recent volatility, the drop is not necessarily a signal that the economy is weakening.

The Institute of Supply Management index rose from 47.8 to 48.3 in October. The modest increase follows six consecutive monthly declines. Although the readings below 50 indicate the manufacturing sector is contracting, the index remains well above the recession threshold of 42.9.

The CPI was unchanged in September following a 0.1 percent increase in August and stands 1.7 percent above September 2018. Core inflation (excluding food and energy prices) rose 0.1 percent and stands 2.4 percent above a year ago. At its October meeting, the Federal Reserve lowered the federal funds rate target by 25 basis points to the range of 1.5 to 1.75 percent, the third rate cut this year.

The IHS Markit U.S. Standard Forecast for Fiscal Years 2020-2022

Tables 1.2 and 1.3 at the end of this section compare the official October 2018 forecast with two other forecasts: the IHS Markit October 2019 standard and pessimistic alternative forecasts.

U.S. Economy

In the October standard forecast, GDP growth is somewhat lower than the official forecast in fiscal year 2020, but stronger in fiscal years 2021-2022. IHS Markit believes that slowing global growth, less of a boost to domestic spending from rising stock prices, the effects of recent tariffs, slowing inventory accumulation, and the approach to capacity constraints will be a drag on growth. They assign a 55 percent probability to the standard scenario.

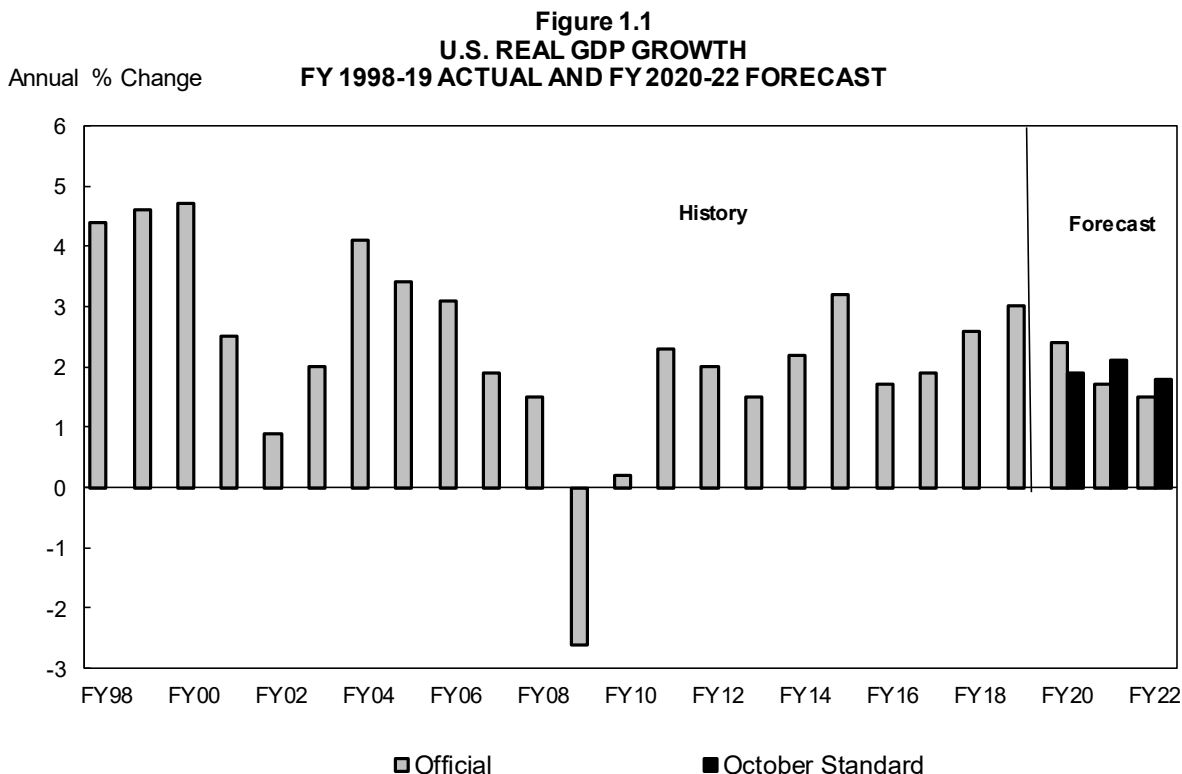
IHS expects real GDP growth of 1.9 percent in fiscal year 2020, 2.1 percent in 2021 and 1.8 percent in fiscal year 2022. Figure 1.1 on the following page depicts GDP growth.

Similarly, the outlook for the job market in the October standard forecast is also slower than the official forecast in fiscal year 2020, but somewhat stronger in fiscal years 2021 and 2022. Payroll employment is expected to grow 1.2 percent in fiscal year 2020, then slow to 0.8 percent in fiscal year 2021, and 0.7 percent in fiscal year 2022. The October standard forecast expects the unemployment rate to be close to the official forecast, 3.6 percent in fiscal year 2020, 3.5 percent in fiscal year 2021, and 3.7 percent in fiscal year 2022.

Total personal income is expected to rise by 4.5 percent in fiscal year 2020, 0.4 percentage point below the official forecast. Income then decreases at a slower rate than the official forecast through 2022. The October forecast for the largest component of personal income, wages and salaries, is higher than the official over the forecast horizon. IHS Markit expects wages and salaries to rise 5.2 percent in fiscal year 2020, 4.8 percent in fiscal year 2021, and 4.6 percent in fiscal year 2022.

Real consumer spending is expected to grow 2.8 percent in fiscal year 2020, higher than the official forecast of 2.6 percent. Growth falls to 2.6 percent in fiscal year 2021, and 2.5 percent in fiscal year 2022.

Despite tight labor markets and inflation rising to slightly above its target, the Fed is focused on downside risks and is expected to cut the fed funds target range once more in December, but IHS expects a 100 basis-point reversal through 2023.



Alternative U.S. Forecast

IHS Markit Pessimistic Alternative Scenario

In the pessimistic scenario, a broad loss of confidence and growing aversion to risk leads to declining investment and consumer spending along with a decline in the real estate market finally ends the expansion with a three-quarter recession starting in the third quarter of 2020. In this scenario, IHS Markit expects that GDP growth slows to 1.6 percent in 2020, then contracts 1.1 percent in 2021. Peak to trough real GDP declines 1.7 percent. IHS Markit assigns a 35 percent probability to this scenario.

On a fiscal year basis, real GDP increases by 1.6 percent in fiscal year 2020, then declines by 1.1 percent in 2021, before bouncing back to 2.1 percent in fiscal year 2022. Total personal income increases by 4.2 percent in fiscal year 2020 then 1.6 and 3.0 percent in fiscal years 2021-2022.

Growth in wages and salaries is close to the standard forecast in fiscal year 2020, but substantially below the standard in fiscal years 2021 and 2022. Wages and salaries grow by 4.9 percent in fiscal year 2020, 2.6 percent in fiscal year 2021, and 2.4 percent in 2022.

U.S. Economy

In the pessimistic scenario, employment growth drops to 1.1 percent in fiscal year 2020, then declines by about half a percentage point each year in fiscal years 2021 and 2022. The unemployment rate is well above the standard forecast over the forecast horizon, rising to 5.7 percent by fiscal year 2022, two full percentage points above the standard outlook.

Table 1.2 - Fiscal Years 2017-2022 Official and October Forecasts
U.S. Economic Forecasts - Income and Other Indicators (% Change)

		<u>FY17</u>	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>
<u>Output, Income, and Spending (% of Total)</u>							
Real GDP	Official (Oct '18)	1.9	2.6	3.0	2.4	1.7	1.5
	Oct Standard	2.0	2.8	2.6	1.9	2.1	1.8
	Oct Pessimistic			2.6	1.6	(1.1)	2.1
Total Personal Income	Official (Oct '18)	3.4	4.5	4.4	4.9	4.5	4.3
	Oct Standard	3.5	5.4	5.1	4.5	4.3	4.4
	Oct Pessimistic			5.1	4.2	1.6	3.0
Wages and Salaries (50%)	Official (Oct '18)	3.7	4.8	4.6	4.8	4.6	4.4
	Oct Standard	3.6	5.3	4.9	5.2	4.8	4.6
	Oct Pessimistic			4.9	4.9	2.6	2.4
Average Wage	Official (Oct '18)	1.9	3.2	3.0	3.5	3.9	4.1
	Oct Standard	1.9	3.7	3.1	4.0	4.0	3.9
	Oct Pessimistic			3.1	3.8	3.4	3.0
Real Consumer Spending	Official (Oct '18)	2.6	2.5	2.9	2.6	2.3	2.0
	Oct Standard	2.6	2.8	2.8	2.8	2.6	2.5
	Oct Pessimistic			2.8	2.6	1.2	1.5
<u>Interest Rates (%)</u>							
3-Month Treasury Bills	Official (Oct '18)	0.6	1.4	2.4	3.0	3.2	3.2
	Oct Standard	0.6	1.4	2.3	1.7	1.6	2.0
	Oct Pessimistic			2.3	1.6	0.3	0.2
30-Year Treasury Bonds	Official (Oct '18)	2.8	2.9	3.3	3.7	3.8	3.8
	Oct Standard	2.8	2.9	3.0	2.3	2.9	3.3
	Oct Pessimistic			3.0	2.1	1.9	2.6
<u>Prices (% of Total)</u>							
CPI	Official (Oct '18)	1.9	2.2	2.6	2.4	2.4	2.4
	Oct Standard	1.9	2.2	2.1	2.2	1.8	2.2
	Oct Pessimistic			2.1	2.2	1.8	2.0
GDP Deflator	Official (Oct '18)	1.6	2.1	2.4	2.5	2.5	2.5
	Oct Standard	1.5	2.2	2.1	2.2	2.4	2.4
	Oct Pessimistic			2.1	2.2	2.4	1.8

The Official forecast is IHS Markit's October 2018 U.S. standard forecast.

The Oct Standard forecast is IHS Markit's October 2019 U.S. standard forecast.

The Oct Pessimistic forecast is IHS Markit's October 2019 U.S. pessimistic alternative scenario.

U.S. Economy

Table 1.3 - Fiscal Years 2017-2022 Official and October Forecasts
U.S. Economic Forecasts - Employment and Labor Markets (% Change)

		<u>FY17</u>	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>
<u>Employment and Labor Markets (% of Total)</u>							
Total Nonagricultural Employment	Official (Oct '18)	1.7	1.5	1.6	1.3	0.7	0.3
	Oct Standard	1.7	1.5	1.7	1.2	0.8	0.7
	Oct Pessimistic			1.7	1.1	(0.7)	(0.6)
Construction (5%)	Official (Oct '18)	3.6	3.5	3.6	3.4	3.8	2.6
	Oct Standard	3.6	4.0	4.1	1.4	(0.2)	0.9
	Oct Pessimistic			4.1	4.1	(4.8)	(2.4)
Manufacturing (9%)	Official (Oct '18)	0.2	1.5	1.8	0.2	(0.7)	(0.9)
	Oct Standard	0.1	1.5	1.9	0.3	(2.0)	(0.5)
	Oct Pessimistic			1.9	0.4	(2.3)	(4.3)
Trade, Transportation, and Utilities (19%)	Official (Oct '18)	1.2	0.8	1.0	0.2	(0.6)	(0.7)
	Oct Standard	1.2	0.7	0.9	0.1	(0.3)	(0.5)
	Oct Pessimistic			0.9	(0.1)	(1.9)	(1.5)
Financial Activities (6%)	Official (Oct '18)	2.1	1.7	1.2	1.8	0.6	(0.2)
	Oct Standard	2.1	1.6	1.3	1.5	0.9	0.4
	Oct Pessimistic			1.3	1.7	1.7	(0.9)
Professional and Business Services (14%)	Official (Oct '18)	2.0	2.4	3.2	5.0	2.3	1.1
	Oct Standard	1.9	2.1	2.5	2.4	4.2	2.8
	Oct Pessimistic			2.5	1.5	(3.5)	0.2
Education and Health Services (16%)	Official (Oct '18)	2.7	2.1	2.0	0.8	0.2	0.5
	Oct Standard	2.7	2.1	2.2	2.1	0.9	0.9
	Oct Pessimistic			2.2	2.3	1.3	1.6
Leisure and Hospitality (11%)	Official (Oct '18)	2.9	2.1	1.4	0.2	2.0	0.8
	Oct Standard	2.9	2.1	2.2	1.4	1.4	1.0
	Oct Pessimistic			2.2	1.5	2.2	(0.4)
Government (15%)	Official (Oct '18)	0.9	0.1	0.1	0.9	0.4	0.6
	Oct Standard	0.9	0.4	0.5	1.0	0.3	0.6
	Oct Pessimistic			0.5	1.0	0.3	0.6
Unemployment Rate (%)	Official (Oct '18)	4.7	4.1	3.7	3.5	3.7	4.0
	Oct Standard	4.7	4.1	3.8	3.6	3.5	3.7
	Oct Pessimistic			3.8	3.6	4.8	5.7

The Official forecast is IHS Markit's October 2018 U.S. standard forecast.

The Oct Standard forecast is IHS Markit's October 2019 U.S. standard forecast.

The Oct Pessimistic forecast is IHS Markit's October 2019 U.S. pessimistic alternative scenario.

SECTION 2
THE VIRGINIA ECONOMY

Section 2 The Virginia Economy

Introduction

This section begins with a review of fiscal year 2019, comparing actual economic growth in Virginia to the official forecast for the year. The official forecast for Virginia was based on IHS Markit's October 2018 U.S. standard forecast with modifications from both the JABE and the GACRE at their fall meetings. Following the review of fiscal year 2019, the October standard and pessimistic alternative forecasts are summarized.

Tabular data are presented throughout this section. More detailed tabular data are presented in Appendix A. Table A.1 shows quarterly national and Virginia historical data for major forecast variables from fiscal year 2017 through fiscal year 2019. Table A.2 shows quarterly national and Virginia data for the three forecasts through fiscal year 2022. Table A.3 displays national and Virginia annual historical and forecast data from fiscal year 2000 through fiscal year 2022. Table A.4 displays annual regional historical and forecast employment data from fiscal year 2000 through fiscal year 2022.

The state and regional employment data used in the forecast are the result of a methodology that uses unemployment insurance tax records (ES-202) data to fine tune the current employment statistics (CES) survey data. To ensure that the most current Virginia employment data are used in the forecast, ES-202 data through the fourth quarter of calendar year 2018 have been incorporated into the CES employment data series. The revised employment series is then seasonally adjusted. This process yields a projection of the annual benchmark revisions that the Virginia Employment Commission will release early next calendar year. The table below compares the base CES employment data series with the series incorporating ES-202 data.

<u>FY19</u>	<u>CES</u>	<u>ES202</u>
Q1	1.2	1.5
Q2	0.8	1.1
Q3	0.9	1.2
Q4	0.7	0.9
Annual	0.9	1.2

Review of Fiscal Year 2019

Overview

In the official forecast for fiscal year 2019, employment and personal income in Virginia were expected to grow close to the pace achieved in fiscal year 2018. Table 2.1 compares the official forecast and actual results for fiscal year 2019.

Table 2.1 - Fiscal Year 2019 Virginia Forecast Performance

	<u>Forecast</u>	<u>Actual</u>	<u>Actual Minus Forecast</u>
<u>Income (% Change)</u>			
Total Personal Income	4.1	4.9	0.8
Wages and Salaries (51%)	4.3	4.4	0.1
Average Wage	2.5	3.2	0.7
Dividends, Interest, and Rent (21%)	3.8	5.4	1.6
Supplements to Wages and Salaries (12%)	3.1	4.3	1.2
Proprietor's Income (6%)	2.5	4.6	2.1
Net Transfer Payments (6%)	4.3	9.9	5.6
<u>Employment and Labor Markets (% Change)</u>			
Total Nonagricultural Employment	1.7	1.2	(0.5)
Construction and Mining (5%)	2.2	2.0	(0.2)
Manufacturing (6%)	1.8	3.1	1.3
Trade, Transportation, and Utilities (16%)	1.9	(0.6)	(2.5)
Information (2%)	5.0	(4.0)	(9.0)
Financial Activities (5%)	1.7	0.1	(1.6)
Professional and Business Services (19%)	2.6	1.7	(0.9)
Education and Health Services (14%)	2.4	3.0	0.6
Leisure and Hospitality (10%)	2.1	1.4	(0.7)
Other Services (5%)	0.4	1.4	1.0
Government (18%)	(0.1)	0.7	0.8
Unemployment Rate (%)	3.0	2.9	(0.1)

The forecast data are based on the October 2018 IHS Markit U.S. standard forecast and the corresponding Virginia state forecast developed as recommended by JABE and GACRE members.

Following is a review of key assumptions included in the October 2018 official forecast compared with the actual outcome for the year.

Income

Total personal income increased 4.9 percent, which was 0.8 percentage points above the forecast. Proprietor's income grew 4.6 percent in fiscal year 2019, which was 2.1 percentage points above the forecast; and net transfer payments, which increased by

9.9 percent, were 5.6 percentage points above the forecast. Also, supplements to wages and salaries finished 1.2 percentage points ahead of the forecast. Wages and salaries, which accounted for 51 percent of total personal income in fiscal year 2019, grew 4.4 percent or 0.1 percentage points above the forecast. Dividends, interest, and rental income, which made up 21 percent of total personal income in fiscal year 2019, grew 5.4 percent, above the forecasted 3.8 percent pace.

Employment

Payroll employment growth was below expectations in fiscal year 2019. In the official forecast, total nonagricultural employment was projected to increase 1.7 percent, with the average annual employment level rising by 68,400 jobs. Actual job gains were 47,700, an increase of 1.2 percent. Lower-than-expected gains for construction, information, trade, financial activities, professional and business services, and leisure and hospitality were offset by higher-than-expected gains in the manufacturing, education and health services, and government sectors. Overall, four out of ten major employment sectors reached or surpassed the official forecast in fiscal year 2019.

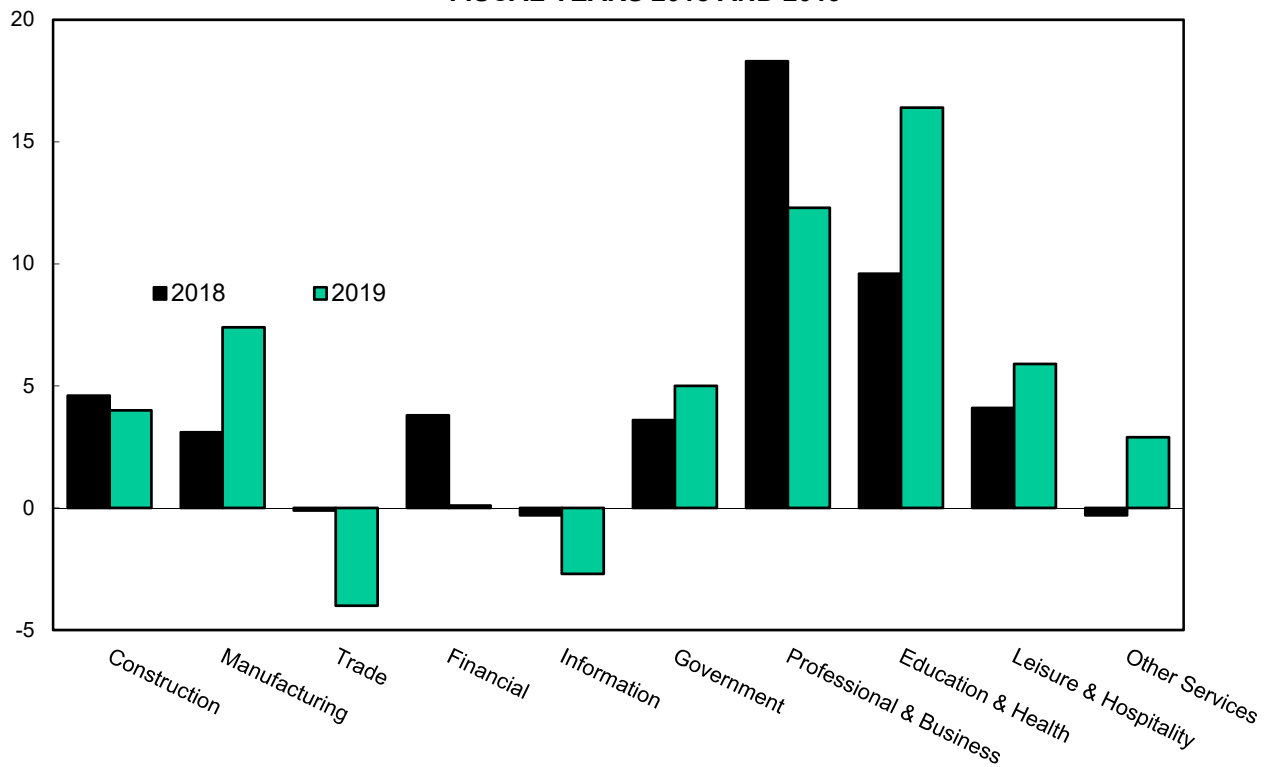
In terms of the number of jobs, the largest variance was concentrated in trade, transportation and utilities which under-performed the forecast by 16,400 jobs. The largest private sectors - professional and business services; education and health services; and leisure and hospitality were very close to forecast. Government added 5,000 jobs, instead of losing the predicted 900 jobs. Relative to fiscal year 2018, most sectors posted job gains, but trade and information posted job losses. Figure 2.1 on the following page displays fiscal year 2018 job gains and losses by sector compared with fiscal year 2019.

Tables 2.4 and 2.5 provide an overview of regional employment in Virginia. On a regional basis, Northern Virginia performed better than expected by 5,300 jobs, while all other regions under-performed the forecast. In Northern Virginia, which represents 37 percent of all jobs in the state, total employment rose by 26,900 jobs, above the predicted amount of 21,200. The professional and business services sector added 11,400 new jobs in fiscal year 2019, up from the 10,000 gain in fiscal year 2018. Education and health services added 4,800 jobs close to the gain in fiscal year 2018. State and local government added 4,800 jobs, while the federal government gained 600 jobs.

Employment in the Norfolk-Virginia Beach-Newport News MSA (20 percent of state employment) was below expectations in fiscal year 2019, rising by 0.4 percent compared with the forecast of 2.0 percent growth. The region gained 3,300 jobs in fiscal year 2019, compared with 11,100 in 2018. Most sectors were close to the forecast, however trade and local government were well below the forecast.

Employment in the Richmond-Petersburg MSA (17 percent of state employment) was below expectations growing by 1.3 percent in fiscal year 2019, below the forecast of 1.6 percent. The region gained 8,700 jobs in fiscal year 2019, compared with 7,900 in 2018. Employment in construction, financial activities, and local government posted the strongest gains.

Figure 2.1
VIRGINIA JOB GAINS/LOSSES BY SECTOR
FISCAL YEARS 2018 AND 2019



Outside of the three major metro areas, the remainder of the state (26 percent of state employment) increased by 8,800 jobs in fiscal year 2019, following a gain of 3,500 in fiscal year 2018. Manufacturing and education and health services posted the strongest gains, while construction, information, financial activities, professional and business services, and local government lost jobs.

Recent Developments in the Virginia Economy

In Virginia, payroll employment rose 0.6 percent in September from September of last year. Northern Virginia posted growth of 1.0 percent, Hampton Roads grew by 0.6 percent, and Richmond-Petersburg rose 0.8 percent. The seasonally adjusted unemployment rate decreased to 2.7 percent in September, which is 0.1 percentage point below a year ago.

The Virginia Leading Index advanced 0.1 percent in August after rising 0.1 percent in July. Future employment and initial claims improved in August while auto registrations declined; the U.S. leading index was unchanged. The indexes for Roanoke, Northern Virginia, and Bristol were unchanged, while the indexes for Hampton Roads, Richmond, Lynchburg, Charlottesville, Harrisonburg, Staunton, Blacksburg, and Winchester increased.

The October Standard Forecast for Fiscal Years 2020 through 2022

This section compares the official forecast, the IHS Markit's October 2018 forecast with the October standard forecast. Tables 2.2 and 2.3 compare the official forecast with IHS Markit's October 2019 standard forecast and the pessimistic alternative scenario. Tables 2.4 and 2.5 show the October 2019 standard forecast and the pessimistic alternative scenario for regional employment. All four tables appear at the end of the section.

In the official forecast, economic growth in the Commonwealth was projected to accelerate in fiscal year 2020 relative to fiscal year 2019, then slow in fiscal years 2021 and 2022. The October standard forecast has personal income and wage and salary income growing at about a 4.0 to 4.5 percent pace over the forecasted horizon, while employment is forecast to increase 1.0 percent in fiscal year 2020 – slower than the 1.2 percent increase in fiscal year 2019. Federal government spending is expected to grow 3.2 percent in calendar years 2019 and 2020 before flattening in calendar 2021 and contracting in calendar year 2022. Figure 2.2 on the next page compares employment growth in Virginia with that of the nation, while Figure 2.3 provides the same comparison for personal income.

As shown in Figure 2.4, according to the October standard forecast, total nonagricultural employment is expected to increase 1.0 percent (41,900 jobs) in fiscal year 2020, below the official forecast of 1.1 percent growth. The professional and business services sector and the education and health services sector are expected to be the main drivers over the forecast horizon. Overall, employment is expected to increase 0.6 percent in fiscal year 2021 and 0.4 percent in fiscal year 2022 as the national economy slows.

In the October standard forecast, total personal income is expected to grow close to a half of percentage point below the official forecast over the forecast horizon. Growth of 4.4 percent is expected in fiscal year 2020, then growth between 4.2 and 4.1 percent in fiscal years 2021 to 2022. Income from wages and salaries is expected to grow 4.2 percent in fiscal year 2020 and 4.6 percent in fiscal year 2021, 0.6 percentage points above the official forecast. Growth of dividends, interest, and rental income is expected to increase 4.5 percent in fiscal year 2020, and then accelerate in fiscal year 2021.

The outlook for proprietor's income in the October standard forecast predicts a 0.5 percent increase in fiscal year 2020 and then declining 1.3 percent in fiscal year 2021. Net transfer payments are expected to increase 6.3 percent in fiscal year 2020, and then increase 4.5 percent and 7.3 percent in fiscal years 2021 and 2022, respectively. Figures 2.5 and 2.6 on the following page chart the annual percent change in personal income and wages and salaries, comparing the official forecast with the October standard forecast.

Figure 2.2
U.S. AND VIRGINIA EMPLOYMENT GROWTH
HISTORY AND FORECAST - FISCAL YEARS 1996-2022

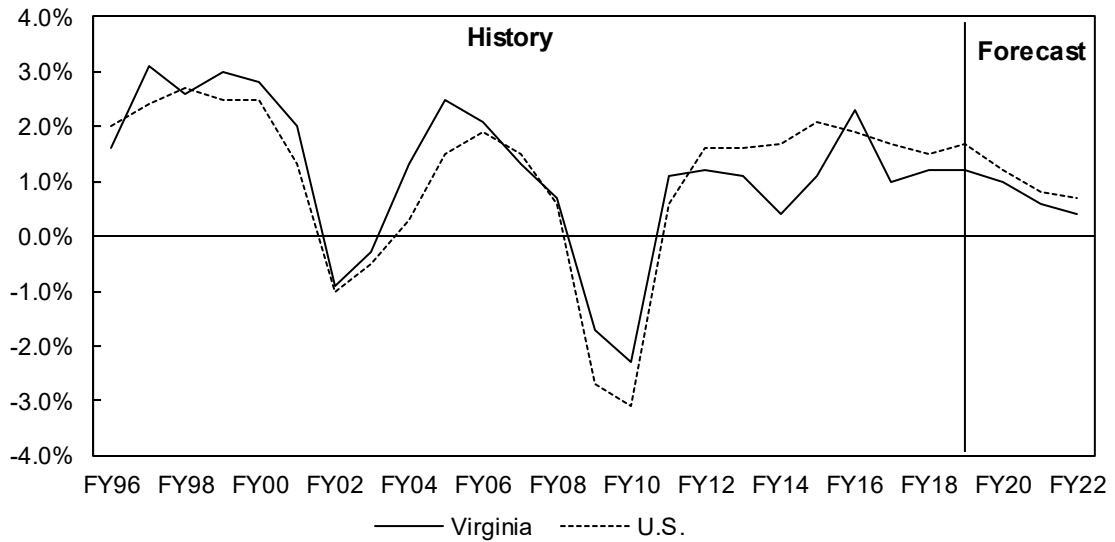


Figure 2.3
U.S. AND VIRGINIA PERSONAL INCOME GROWTH
HISTORY AND FORECAST - FISCAL YEARS 1996-2022

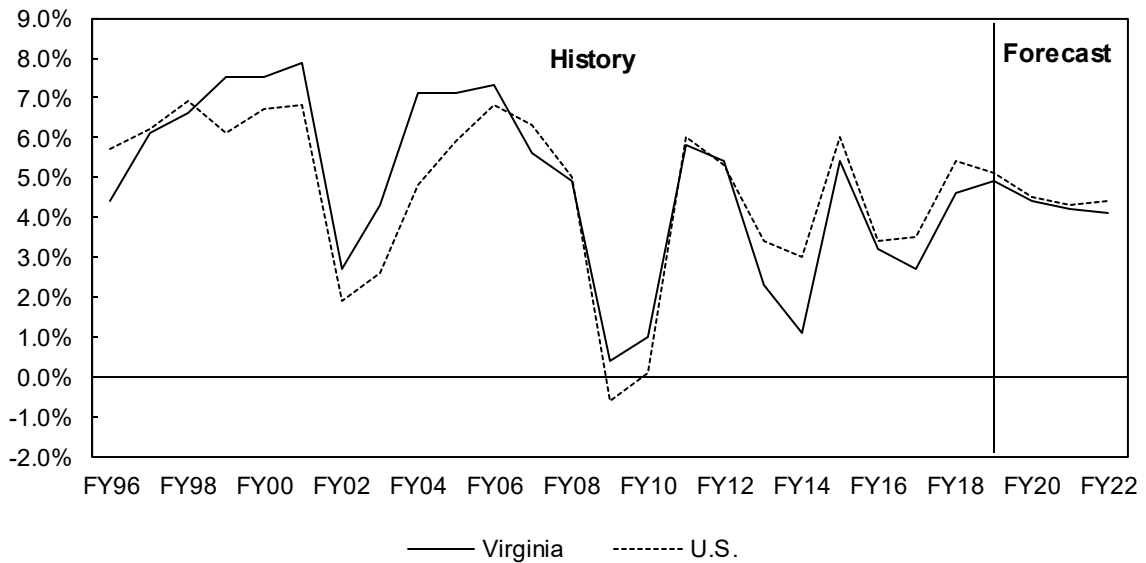
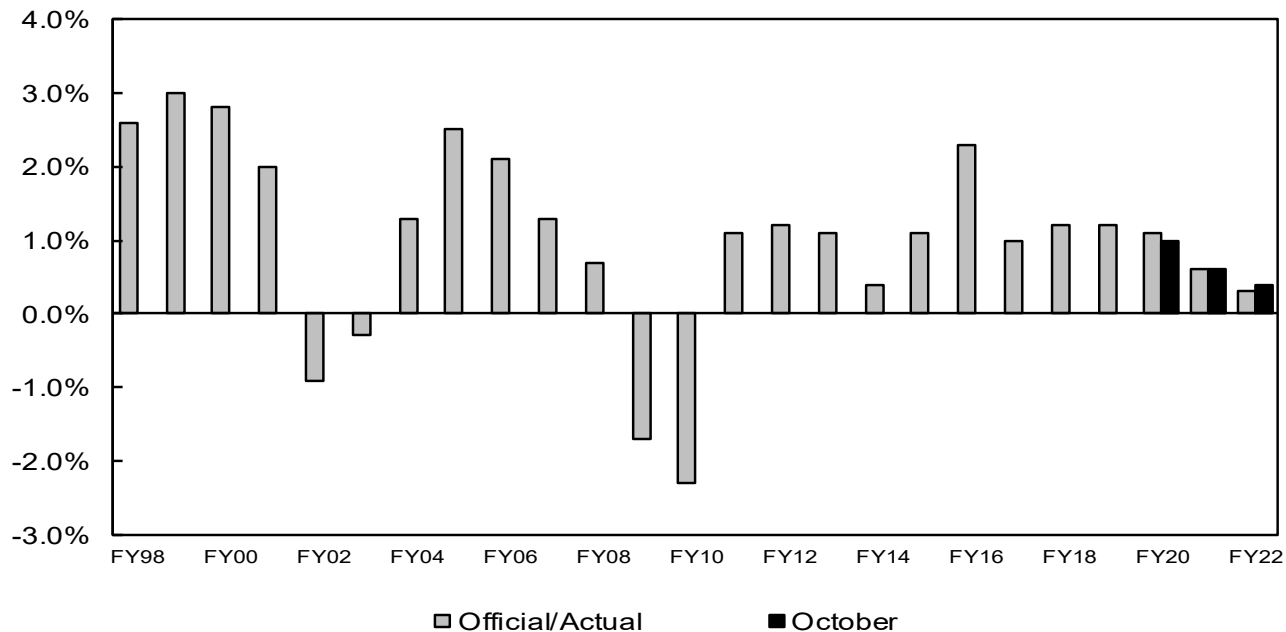


Figure 2.4
VIRGINIA EMPLOYMENT GROWTH
FY 1998-19 ACTUAL AND FY 2020-22 FORECAST



IHS Markit's Pessimistic Alternative Scenario

In the Virginia pessimistic alternative forecast, economic growth significantly slows, as a broad loss in confidence and growing aversion to risk leads to a drop in a wide range of investment and consumer spending categories. Employment growth is 0.9 percent in fiscal year 2020, declines 0.9 percent in fiscal year 2021, then it declines 1.0 percent in 2022. Total personal income grows 2.1 percent in fiscal year 2021 and 1.8 percent in fiscal year 2022, compared with 4.2 percent and 4.1 percent in the October standard forecast. Wages and salaries grow 2.5 percent and 1.8 percent in fiscal years 2021-22. These growth rates are between 2.1 and 2.2 percentage points below the October standard forecast.

Figure 2.5
VIRGINIA PERSONAL INCOME GROWTH
FY 1998-19 ACTUAL AND FY 2020-22 FORECAST

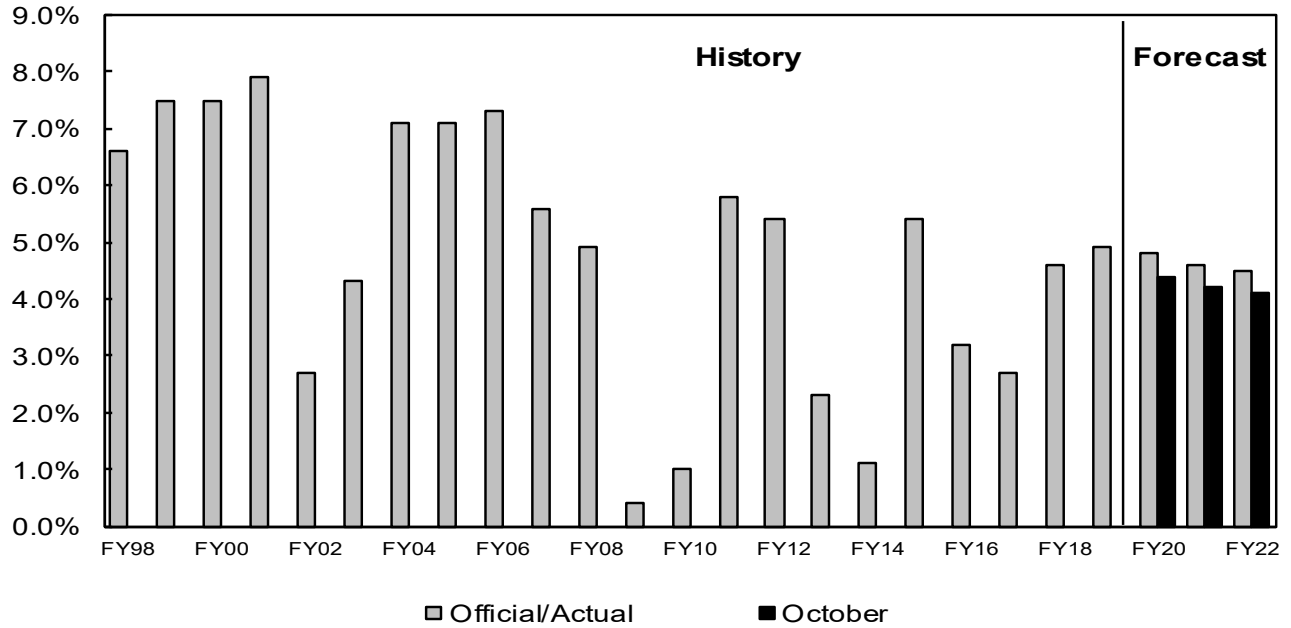


Figure 2.6
VIRGINIA WAGES AND SALARIES GROWTH
FY 1998-19 ACTUAL AND FY 2020-22 FORECAST

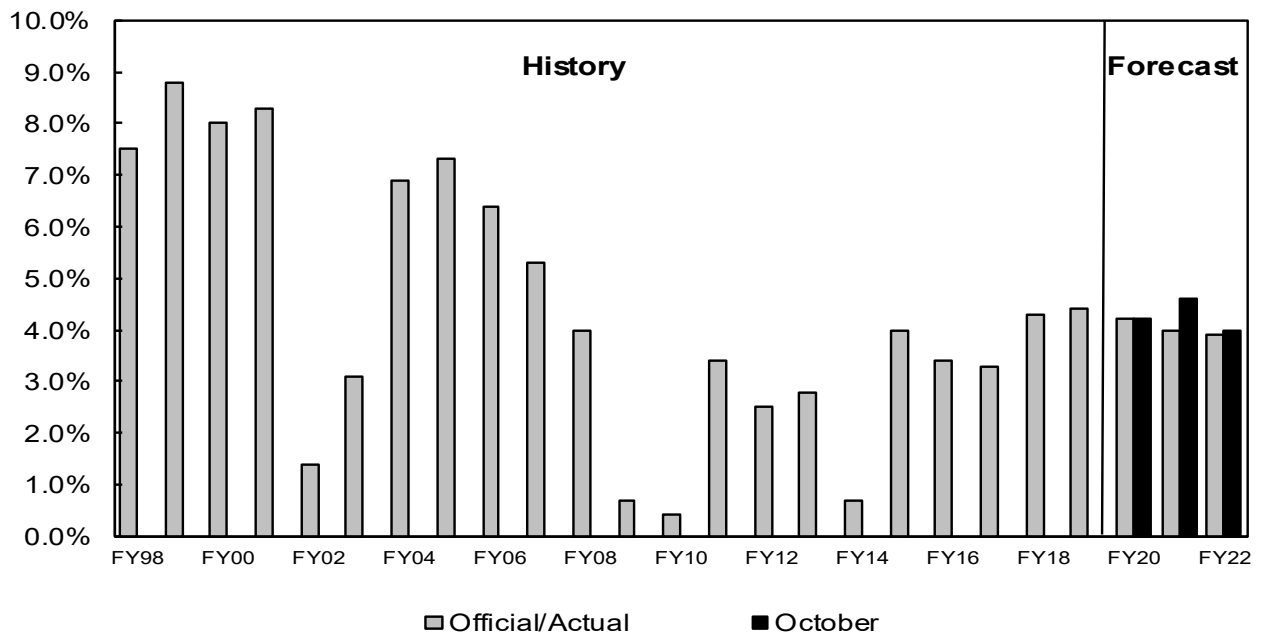


Table 2.2 - Fiscal Years 2017-2022 Official and October Forecasts
Virginia Economic Forecasts - Employment and Labor Markets

		<u>FY17</u>	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>
<u>Employment and Labor Markets (% Change)</u>							
Total Nonagricultural Employment	Official (Oct '18)	1.0	1.4	1.7	1.1	0.6	0.3
	Oct Standard	1.0	1.2	1.2	1.0	0.6	0.4
	Oct Pessimistic			1.2	0.9	(0.9)	(1.0)
Construction and Mining (5%)	Official (Oct '18)	1.5	3.3	2.2	3.9	4.5	3.2
	Oct Standard	1.7	2.3	2.0	(0.1)	0.1	1.0
	Oct Pessimistic			2.0	(0.5)	(5.1)	(2.7)
Manufacturing (6%)	Official (Oct '18)	(0.1)	1.3	1.8	0.3	(0.9)	(1.3)
	Oct Standard	(0.1)	1.3	3.1	1.5	(2.3)	(0.4)
	Oct Pessimistic			3.1	1.7	(2.8)	(4.9)
Trade, Transportation, and Utilities (17%)	Official (Oct '18)	0.3	0.5	1.9	0.1	(0.8)	(0.8)
	Oct Standard	0.3	(0.0)	(0.6)	0.1	(0.5)	(0.8)
	Oct Pessimistic			(0.6)	(0.2)	(2.1)	(2.5)
Financial Activities (5%)	Official (Oct '18)	1.9	2.5	1.7	1.9	0.8	0.1
	Oct Standard	1.8	1.9	0.1	0.6	1.3	0.4
	Oct Pessimistic			0.1	0.9	2.3	(1.3)
Professional and Business Services (18%)	Official (Oct '18)	1.6	2.3	2.6	3.7	1.8	1.3
	Oct Standard	1.6	2.5	1.7	2.3	2.8	2.1
	Oct Pessimistic			1.7	1.6	(3.3)	(0.4)
Education and Health Services (13%)	Official (Oct '18)	1.3	1.9	2.4	0.8	0.4	0.9
	Oct Standard	1.2	1.8	3.0	2.7	1.4	0.7
	Oct Pessimistic			3.0	2.8	1.8	1.5
Leisure and Hospitality (10%)	Official (Oct '18)	1.9	1.8	2.1	0.2	1.7	0.8
	Oct Standard	1.9	1.0	1.4	0.9	0.9	1.2
	Oct Pessimistic			1.4	0.9	1.7	(0.1)
Government (19%)	Official (Oct '18)	0.5	(0.1)	(0.1)	0.4	(0.1)	(0.3)
	Oct Standard	0.4	0.5	0.7	0.2	(0.0)	(0.2)
	Oct Pessimistic			0.7	0.2	0.1	(0.1)
Unemployment Rate (%)	Official (Oct '18)	4.0	3.5	3.0	2.9	3.0	3.2
	Oct Standard	4.0	3.3	2.9	3.1	3.2	3.3
	Oct Pessimistic			2.9	3.1	4.1	4.7

The Official forecast is based on IHS Markit October 2018 U.S. standard forecast and as recommended by JABE and GACRE.

The Oct Standard forecast is IHS Markit October 2019 U.S. standard forecast.

The Oct Pessimistic forecast is IHS Markit October 2019 U.S. pessimistic alternative scenario.

Virginia Economy

Table 2.3 - Fiscal Years 2017-2022 Official and October Forecasts
Virginia Economic Forecasts - Income

		<u>FY17</u>	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>
<u>Income (% Change)</u>							
Total Personal Income	Official (Oct '18)	2.8	4.1	4.1	4.8	4.6	4.5
	Oct Standard	2.7	4.6	4.9	4.4	4.2	4.1
	Oct Pessimistic			4.9	4.2	2.1	1.8
Wages and Salaries (51%)	Official (Oct '18)	3.3	4.0	4.3	4.2	4.0	3.9
	Oct Standard	3.3	4.3	4.4	4.2	4.6	4.0
	Oct Pessimistic			4.4	4.0	2.5	1.8
Average Wage	Official (Oct '18)	2.3	2.5	2.5	3.0	3.4	3.6
	Oct Standard	2.3	3.1	3.2	3.1	3.9	3.6
	Oct Pessimistic			3.2	3.0	3.5	2.8
Dividends, Interest, and Rent (21%)	Official (Oct '18)	3.1	4.4	3.8	6.8	5.8	5.4
	Oct Standard	3.6	6.2	5.4	4.5	5.1	3.4
	Oct Pessimistic			5.4	4.4	0.8	(0.6)
Supplements to Wages and Salaries (12%)	Official (Oct '18)	0.6	3.9	3.1	4.6	4.8	4.7
	Oct Standard	0.3	4.6	4.3	3.3	2.8	4.8
	Oct Pessimistic			4.3	3.0	0.6	2.4
Proprietor's Income (6%)	Official (Oct '18)	(0.9)	4.6	2.5	(2.5)	(4.0)	(3.3)
	Oct Standard	(1.8)	2.3	4.6	0.5	(1.3)	1.1
	Oct Pessimistic			4.6	0.2	(8.0)	12.3
Net Transfer Payments (6%)	Official (Oct '18)	4.6	5.3	4.3	9.8	12.0	11.1
	Oct Standard	3.8	6.1	9.9	6.3	4.5	7.3
	Oct Pessimistic			9.9	6.8	13.3	(0.1)

The Official forecast is based on IHS Markit October 2018 U.S. standard forecast and as recommended by JABE and GACRE.

The Oct Standard forecast is IHS Markit October 2019 U.S. standard forecast.

The Oct Pessimistic forecast is IHS Markit October 2019 U.S. pessimistic alternative scenario.

Table 2.4 - Fiscal Years 2017-2022 October Standard Forecast
Virginia Economic Forecast - Regional Employment

		<u>FY17</u>	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>
<u>Region by Sector (% Change)</u>							
Northern Virginia (37%) *	Total Nonagricultural Employment	1.6	1.6	1.8	0.9	0.7	0.5
	Construction and Mining (5%) **	2.4	2.9	3.6	0.4	0.1	1.1
	Trade, Transportation, and Utilities (14%)	0.6	0.6	(0.8)	(0.1)	(0.7)	(0.9)
	Financial Activities (5%)	4.4	3.3	0.4	0.7	1.3	0.4
	Professional and Business Services (28%)	1.9	2.5	2.8	2.2	2.0	1.6
	Education and Health Services (12%)	2.8	3.0	2.8	2.3	1.7	0.9
	Leisure and Hospitality (10%)	2.0	1.0	2.9	0.4	0.2	1.3
	Government (16%)	0.7	0.8	2.3	0.4	(0.2)	(0.4)
Hampton Roads (20%)	Total Nonagricultural Employment	0.9	1.4	0.4	1.5	0.7	0.3
	Construction and Mining (5%)	2.0	2.0	1.2	2.4	0.0	0.7
	Trade, Transportation, and Utilities (16%)	1.1	(0.8)	(2.9)	1.9	(0.5)	(0.7)
	Financial Activities (5%)	0.0	1.9	(0.1)	2.9	1.1	0.4
	Professional and Business Services (15%)	1.9	4.9	2.6	3.1	3.1	2.0
	Education and Health Services (15%)	0.9	1.8	2.0	1.9	1.2	0.6
	Leisure and Hospitality (12%)	1.7	1.3	0.5	1.4	1.1	0.9
	Government (20%)	0.2	0.2	(1.1)	(1.5)	0.5	(0.1)
Richmond (17%)	Total Nonagricultural Employment	1.1	1.2	1.3	1.0	0.9	0.5
	Construction and Mining (6%)	1.9	3.7	3.3	1.7	0.1	0.9
	Trade, Transportation, and Utilities (18%)	(0.3)	1.4	0.0	(1.6)	(0.4)	(0.8)
	Financial Activities (8%)	0.7	1.7	3.3	1.0	1.3	0.5
	Professional and Business Services (17%)	1.6	1.4	0.8	2.0	3.0	2.7
	Education and Health Services (15%)	1.3	1.3	2.0	2.7	1.6	0.8
	Leisure and Hospitality (10%)	2.8	1.7	0.4	0.3	1.7	1.4
	Government (17%)	0.5	0.0	1.8	1.6	0.2	(0.3)
Balance (26%)	Total Nonagricultural Employment	0.2	0.3	0.8	1.0	0.3	0.3
	Construction and Mining (5%)	0.5	0.6	(0.9)	(4.0)	0.1	1.1
	Trade, Transportation, and Utilities (18%)	(0.3)	(1.0)	0.7	0.2	(0.5)	(0.6)
	Financial Activities (4%)	0.3	(0.7)	(4.3)	(2.5)	1.7	0.6
	Professional and Business Services (10%)	0.2	1.5	(2.4)	2.1	5.3	3.3
	Education and Health Services (16%)	(0.2)	0.9	4.7	3.6	1.0	0.5
	Leisure and Hospitality (10%)	1.5	0.4	0.9	1.7	1.2	1.0
	Government (20%)	0.3	0.7	(0.3)	0.5	(0.3)	0.0

The October Standard forecast from the Department of Taxation is based on IHS Markit October 2018 U.S. standard forecast.

* Represents the percentage share of Virginia in fiscal year 2019.

** Represents the percentage share of total employment within the region in fiscal year 2019.

Virginia Economy

Table 2.5 - Fiscal Years 2017-2022 October Pessimistic Scenario
Virginia Economic Forecast - Regional Employment

		<u>FY17</u>	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>
<u>Region by Sector (% Change)</u>							
Northern Virginia (37%) *	Total Nonagricultural Employment	1.6	1.6	1.8	0.7	(1.1)	(1.2)
	Construction and Mining (5%) **	2.4	2.9	3.6	(0.0)	(5.7)	(3.0)
	Trade, Transportation, and Utilities (14%)	0.6	0.6	(0.8)	(0.5)	(2.4)	(3.2)
	Financial Activities (5%)	4.4	3.3	0.4	1.0	2.2	(1.2)
	Professional and Business Services (28%)	1.9	2.5	2.8	1.7	(2.9)	(0.9)
	Education and Health Services (12%)	2.8	3.0	2.8	2.5	2.2	1.8
	Leisure and Hospitality (10%)	2.0	1.0	2.9	0.4	1.1	(0.1)
	Government (16%)	0.7	0.8	2.3	0.4	(0.1)	(0.3)
Hampton Roads (20%)	Total Nonagricultural Employment	0.9	1.4	0.4	1.4	(0.6)	(0.8)
	Construction and Mining (5%)	2.0	2.0	1.2	2.0	(4.7)	(2.7)
	Trade, Transportation, and Utilities (16%)	1.1	(0.8)	(2.9)	1.5	(2.0)	(2.5)
	Financial Activities (5%)	0.0	1.9	(0.1)	3.2	1.9	(1.0)
	Professional and Business Services (15%)	1.9	4.9	2.6	2.3	(3.9)	(0.4)
	Education and Health Services (15%)	0.9	1.8	2.0	2.0	1.6	1.3
	Leisure and Hospitality (12%)	1.7	1.3	0.5	1.4	1.7	(0.1)
	Government (20%)	0.2	0.2	(1.1)	(1.5)	0.6	(0.0)
Richmond (17%)	Total Nonagricultural Employment	1.1	1.2	1.3	0.8	(0.9)	(0.6)
	Construction and Mining (6%)	1.9	3.7	3.3	1.4	(4.4)	(2.3)
	Trade, Transportation, and Utilities (18%)	(0.3)	1.4	0.0	(1.9)	(2.6)	(2.3)
	Financial Activities (8%)	0.7	1.7	3.3	1.4	2.3	(1.2)
	Professional and Business Services (17%)	1.6	1.4	0.8	1.2	(4.5)	0.2
	Education and Health Services (15%)	1.3	1.3	2.0	2.9	2.0	1.7
	Leisure and Hospitality (10%)	2.8	1.7	0.4	0.3	2.6	(0.1)
	Government (17%)	0.5	0.0	1.8	1.6	0.3	(0.1)
Balance (26%)	Total Nonagricultural Employment	0.2	0.3	0.8	0.9	(0.9)	(1.1)
	Construction and Mining (5%)	0.5	0.6	(0.9)	(4.3)	(5.0)	(2.6)
	Trade, Transportation, and Utilities (18%)	(0.3)	(1.0)	0.7	(0.0)	(1.5)	(1.6)
	Financial Activities (4%)	0.3	(0.7)	(4.3)	(2.1)	3.0	(1.7)
	Professional and Business Services (10%)	0.2	1.5	(2.4)	1.1	(3.1)	1.2
	Education and Health Services (16%)	(0.2)	0.9	4.7	3.7	1.3	1.0
	Leisure and Hospitality (10%)	1.5	0.4	0.9	1.7	1.9	(0.1)
	Government (20%)	0.3	0.7	(0.3)	0.5	(0.3)	0.1

The October Pessimistic scenario from the Department of Taxation is based on IHS Markit October 2018 U.S. pessimistic alternative scenario.

* Represents the percentage share of Virginia in fiscal year 2019.

** Represents the percentage share of total employment within the region in fiscal year 2019.

SECTION 3
GENERAL FUND REVENUES

Section 3 General Fund Revenues

Fiscal Year 2019 in Review

In fiscal year 2019, total general fund revenues rose 7.2 percent to \$21,307.5 million, with a surplus of \$778.8 million – a 3.8 percent variance from forecast. Collections of individual nonwithholding taxes and lower than expected refunds drove the surplus, while most other major revenue sources came in below their respective forecasts.

Table 3.1 on the next page compares actual revenues for fiscal year 2019 with the official forecast. The official revenue forecast was based on the October 2018 IHS Markit standard U.S. forecast, the corresponding Virginia economic forecast developed by the Department of Taxation with recommendations from GACRE, and includes actions of the 2019 General Assembly – Chapter 854.

Individual nonwithholding receipts were \$557.6 million ahead of the forecast (16.3 percent variance); and refunds were \$273.3 million lower than expected, contributing to the surplus. Payroll withholding fell 26.1 million short of the forecast (-0.2 percent variance). In total, net individual income tax receipts were \$804.9 million above forecast. In addition, recordation tax collections exceeded the forecast by \$17.9 million (4.8) percent variance. The other major sources ended the year below expectations. Collections in corporate income taxes were \$68.8 million short of the estimate, a variance of -6.8 percent. Sales tax receipts missed its forecast by \$10.7 million, a -0.3 percent variance. Collections of taxes on insurance premiums were \$13.3 million short of the forecast, a -3.4 percent variance.

Collectively, the five major sources ended the year \$729.9 million above the forecast (3.7 percent variance). Collections of miscellaneous taxes and other revenues were \$788.8 million in fiscal year 2019, exceeding the annual forecast by \$48.9 million (6.6 percent variance).

Table 3.2 provides an evolutionary perspective of the fiscal year 2019 forecasts used by the Governor and General Assembly, in terms of their variance from actual collections. The variances for total revenues ranged from 6.0 percent in the December 2017 introduced forecast to 1.2 percent in the December 2018 introduced forecast.

General Fund Revenues

Table 3.1
Fiscal Year 2019 General Fund Collections: Actual and Official Forecast
(Dollars in Millions)

	Fiscal Year 2018		Fiscal Year 2019						
	Actual	% Growth	Official Forecast	Actual	Forecast Variance		% Growth Over FY 18		
					Dollars	Percent	Official	Actual	
MAJOR TAX SOURCES									
Corporate Income	\$ 861.9	4.2 %	\$ 1,012.2	\$ 943.4	\$ (68.8)	(6.8) %	17.4 %	9.5 %	
Individual Income Tax									
Gross	16,013.4	7.4	16,433.1	16,964.7	531.6	3.2	2.6	5.9	
Withholding	12,540.5	5.4	13,013.9	12,987.8	(26.1)	(0.2)	3.8	3.6	
Nonwithholding	3,472.9	15.1	3,419.2	3,976.8	557.6	16.3	(1.5)	14.5	
Refunds	<u>(1,907.6)</u>	<u>2.5</u>	<u>(2,011.5)</u>	<u>(1,738.2)</u>	<u>273.3</u>	<u>(13.6)</u>	<u>5.4</u>	<u>(8.9)</u>	
Net	14,105.8	8.1	14,421.6	15,226.5	804.9	5.6	2.2	7.9	
Insurance Company Premiums	337.9	(0.9)	395.3	382.0	(13.3)	(3.4)	17.0	13.0	
State Sales & Use Tax	3,461.8	3.1	3,591.1	3,580.4	(10.7)	(0.3)	3.7	3.4	
Wills, Suits, Deeds, & Contract Fees	<u>394.9</u>	<u>0.1</u>	<u>368.6</u>	<u>386.5</u>	<u>17.9</u>	<u>4.8</u>	<u>(6.7)</u>	<u>(2.1)</u>	
Total Major Tax Sources	\$ 19,162.3	6.6 %	\$ 19,788.8	\$ 20,518.7	\$ 729.9	3.7 %	3.3 %	7.1 %	
MISCELLANEOUS TAXES AND OTHER REVENUES									
Alcoholic Beverage State Tax	\$ 191.0	5.7 %	\$ 199.1	\$ 200.1	\$ 1.0	0.5 %	4.3 %	4.8 %	
Bank Franchise Tax	24.0	8.7	24.0	29.7	5.7	23.7	0.2	24.0	
Beer & Beverage Excise Tax	40.9	(2.0)	40.9	40.7	(0.2)	(0.6)	0.1	(0.5)	
Corporate Franchise & Charter Fees	53.6	0.5	53.7	58.2	4.5	8.5	0.1	8.6	
Excess & Other Fees from Officers	(7.7)	3.5	(7.6)	(6.9)	0.7	(9.7)	0.8	10.3	
Estate & Gifts	0.9	na	0.0	0.2	0.2	n/a	n/a	n/a	
Institutional Revenues	2.8	22.1	2.6	2.7	0.1	3.6	(5.7)	(2.3)	
Interest & Rents	61.7	10.3	68.8	87.3	18.5	26.9	11.4	41.4	
Licenses & Permits	4.0	(3.7)	4.1	3.9	(0.2)	(3.8)	2.3	(1.5)	
Miscellaneous Taxes and Penalties	229.2	(3.4)	232.0	245.9	13.9	6.0	1.2	7.3	
Other Miscellaneous Revenues	19.4	(35.4)	23.6	28.1	4.5	19.0	21.4	44.4	
Public Service GR / Consumption Tax	<u>98.7</u>	<u>3.8</u>	<u>98.7</u>	<u>98.9</u>	<u>0.2</u>	<u>0.2</u>	<u>0.0</u>	<u>0.2</u>	
Total Misc. Taxes and Other Revenues	\$ 718.5	(0.6) %	\$ 739.9	\$ 788.8	\$ 48.9	6.6 %	3.0 %	9.8 %	
TOTAL GF REVENUES	\$ 19,880.8	6.3 %	\$ 20,528.7	\$ 21,307.5	\$ 778.8	3.8 %	3.3 %	7.2 %	
TRANSFERS									
A.B.C. Profits	\$ 109.5	(0.9) %	\$ 115.6	\$ 130.7	\$ 15.1	13.0 %	5.6 %	19.4 %	
Sales Tax (0.25%)	376.6	2.9	389.9	392.6	2.7	0.7	3.5	4.2	
Transfers Per Appropriations Act	<u>142.2</u>	<u>(19.6)</u>	<u>133.6</u>	<u>134.7</u>	<u>1.1</u>	<u>0.8</u>	<u>(6.0)</u>	<u>(5.3)</u>	
Total Transfers	\$ 628.3	(3.8) %	\$ 639.1	\$ 658.0	\$ 18.9	3.0 %	1.7 %	4.7 %	
TOTAL GENERAL FUND	\$ 20,509.0	6.0 %	\$ 21,167.8	\$ 21,965.5	\$ 797.7	3.8 %	3.2 %	7.1 %	

The Official forecast is based on the October 2018 IHS Markit US Standard outlook and the corresponding Virginia economic outlook developed by the Department of Taxation with recommendations from GACRE. It includes actions of the 2019 General Assembly - Chapter 854.

Table 3.2
Actual Collections Over (Under) the Forecast
 Percent Variance

	May 3 2019 Official		December 18 2018 Introduced		June 7 2018 Official		December 18 2017 Introduced	
Major Tax Sources (96%)								
Corporate Income (4%)	(6.8)	%	3.6	%	3.4	%	3.4	%
Individual Income (71%)	5.6		1.2		7.4		7.9	
Insurance Company Premiums (2%)	(3.4)		(3.4)		1.4		1.4	
State Sales & Use Tax (17%)	(0.3)		(0.3)		0.9		0.9	
Wills, Suits, Deeds & Contracts (2%)	4.8		4.8		(5.1)		(5.1)	
Total Major Tax Sources	3.7	%	1.0	%	5.6	%	6.0	%
Miscellaneous Taxes & Other Revenues (4%)	6.6	%	6.6	%	5.6	%	6.1	%
Total Revenues	3.8	%	1.2	%	5.6	%	6.0	%

Numbers in parentheses indicate collections as a percentage of total general fund revenues. These may not add to 100 percent due to rounding.

The May 3, 2019 official forecast is based on the October 2018 IHS Markit U.S. standard outlook and the corresponding Virginia economic outlook developed by the Department of Taxation with recommendations from GACRE. It includes actions of the 2019 General Assembly - Chapter 854.

The December 18, 2018 forecast is based on the October 2018 IHS Markit U.S. standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE and GACRE and the Governor's proposed tax policies affecting revenues.

The June 7, 2018 official forecast is based on the October 2017 IHS Markit U.S. standard outlook and the corresponding Virginia economic outlook developed by the Department of Taxation with recommendations from GACRE. It includes actions of the 2018 General Assembly - Chapters 1 and 2.

The December 18, 2017 forecast is based on the October 2017 IHS Markit U.S. standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE and GACRE and contains the same policy assumptions in Chapter 836.

Individual Income Taxes

Most of the surplus in fiscal year 2019 was attributable to individual income taxes. Collections of net individual income taxes (71 percent of total revenues) rose 7.9 percent in fiscal year 2019, well above the annual forecast of 2.2 percent growth. Receipts of \$15,226.5 million were \$804.9 million ahead of the official estimate, a variance of 5.6 percent from the forecast. Nonwithholding receipts accounted for bulk of the surplus, and refunds were somewhat lower than forecast, thus having a positive effect on growth, while payroll withholding taxes were \$26.1 million less than forecast.

Withholding: In fiscal year 2019, withholding receipts (61 percent of total revenues) increased 3.6 percent, trailing the forecast growth rate of 3.8 percent. Collections of \$12,987.8 million were \$26.1 million below the forecast, a variance of 0.2 percent. Although

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collections fell short of the annual estimate, the 3.6 percent growth in receipts was broad-based among large businesses and professional and business services.

Nonwithholding: Collections of individual nonwithholding (19 percent of total revenues) rose 14.5 percent in fiscal year 2019, well ahead of the annual forecast of a 1.5 percent decline. Receipts of \$3,976.8 million were \$557.6 million above the annual estimate. These payments are historically tied to non-wage income sources – mainly the financial markets -- and are extremely volatile. This year, the large surplus was due to capital gains realizations and the timing of payments related to federal tax changes. Also, the annual estimate included reducing the forecasted collections by \$213.0 million for the nonwithholding collar. The nonwithholding collar is the 10-year average of nonwithholding payments as a percent of total revenues (16.5%), limited to 1 percent of general fund revenues.

Refunds: Individual income tax refunds totaled \$1,738.2 million in fiscal year 2019, \$273.3 million less than expected. The amount of refunds issued fell 8.9 percent over last year, compared with the forecast of 5.4 percent growth. During the fiscal year 2019 filing season, which began in February, the Department of Taxation issued 2.4 million refunds, about 139,000 fewer than last year. Part of the decline in refunds is due to the effects of the federal Tax Cuts and Jobs Act.

Sales Taxes

Collections of sales and use taxes (17 percent of total revenues) were \$3,580.4 million in fiscal year 2019, \$10.7 million below the forecast. Collections rose 3.4 percent for the year, close to the forecast of 3.7 percent growth.

Corporate Income Taxes

Corporate income tax collections (4 percent of total revenues), historically the most volatile revenue source, fell short of the forecast. Collections of \$943.4 million were \$68.8 million below expectations. The fiscal year growth of 9.5 percent trailed the forecast of 17.4 percent.

Wills, Suits, Deeds, and Contract Fees

Wills, Suits, Deeds, and Contract Fees (2 percent of total revenues), of which the primary component is the recordation tax, exceeded the forecast in fiscal year 2019. Collections in this source were \$17.9 million more than expected, a variance of 4.8 percent. Collections finished the year at \$386.5 million, a decline of 2.1 percent from fiscal year 2018 but well above the official forecast of a 6.7 percent decrease.

Insurance Premiums Taxes

Another major source to see a shortfall, collections of taxes on the premiums of insurance companies (2 percent of total revenues) were \$382.0 million in fiscal year 2019 –

\$13.3 million below the annual estimate. The increase of 13.0 percent trailed the annual estimate of 17.0 percent growth.

Miscellaneous Taxes and Other Revenues

Collectively, minor revenue sources finished the fiscal year \$48.9 million ahead of the annual forecast. Collections of \$788.8 million were 9.8 percent above fiscal year 2018, compared with the forecast of 3.0 percent growth.

The Revised General Fund Revenue Forecasts for Fiscal Years 2020-2022

This section presents two revised general fund revenue forecasts: the November standard and alternative pessimistic forecasts. The standard forecast is based on the IHS Markit October 2019 standard economic outlook and the corresponding state forecast developed by TAX with recommendations of the JABE. The basis for the alternative forecast is the IHS Markit alternative pessimistic economic scenario. These updated forecasts are compared with the official forecast based on the IHS Markit October 2018 standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation, and reflects actions of the 2019 General Assembly, Chapter 854.

November Standard General Fund Revenue Forecast

Table 3.3 at the end of this section provides a comparison of the official revenue forecast with the November standard general fund forecast. This forecast includes policy adjustments contained in Chapter 854, including revenues from the legislation dealing with the Tax Conformity and Jobs Act (TCJA) allocated to the Taxpayer Relief Fund over the forecast horizon.

In the November standard forecast, total general fund revenues have been lowered by \$91.7 million in fiscal year 2020. The decrease from the official forecast comes mainly from downward revisions to individual income and corporate taxes which are partially offset by upward revisions to individual refunds, sales and use taxes, and recordation taxes. Revenues are now expected to grow by 0.7 percent in fiscal year 2020, compared with a 1.2 percent increase in the official forecast. Revenues are expected to grow by 5.5 percent in fiscal year 2021 and 3.6 percent in fiscal year 2022. Over the fiscal year 2021-2022 biennium, general fund revenues are expected to total \$46,126.1 million.

Net Individual Income Taxes

The outlook for net individual income taxes in fiscal year 2020 has been revised downward from the official forecast by \$162.1 million for an annual decline of 0.8 percent. Collections in this source are predicted to increase 6.9 percent in fiscal year 2021 and 4.1 percent in fiscal year 2022.

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Withholding

The withholding revenue model is based on a direct relationship with wages and salaries (51 percent of total personal income) and net transfer payments (6 percent of total personal income) in Virginia. The historical data series in the withholding revenue model has been shortened to eliminate the strong growth due to high levels of defense spending prior to 2006.

Withholding in the November standard forecast has been decreased by \$14.0 million in fiscal year 2020 for growth of 4.1 percent versus the 4.2 percent in the official forecast. Withholding collections are projected to increase by 4.4 percent in fiscal year 2021 and 4.0 percent in fiscal year 2022.

Nonwithholding

The revenue model for nonwithholding considers estimated and final payments independently. Estimated payments are modeled as a function of total proprietor's income, dividends, interest, and rental income, and the S&P 500 index, while final payments are driven solely by growth in the S&P 500 index.

The forecast for nonwithholding reduces expected collections by \$286.6 million in fiscal year 2020 from the official forecast, lowering growth from a 3.5 percent decrease to a 10.7 percent decrease. The forecast predicts growth of 15.2 percent in fiscal year 2021 and 4.4 percent in fiscal year 2022. This includes a collar of 16.14 percent of total that is limited to one percent of total revenue in all three years.

Refunds

The forecast methodology for individual refunds relies on the revised outlook for withholding and nonwithholding, comparing taxable year individual income tax with taxable year refunds for the first and second half of a taxable year. Historical data are adjusted for the land preservation tax credit and the low-income credit. Future values of these credits are estimated and these amounts are added to the base refund forecast.

In the November standard revenue forecast, individual refunds are projected to grow 13.7 percent in fiscal year 2020 compared with the official forecast of a 21.7 percent increase. The forecast reduces refunds by \$138.5 million in fiscal year 2020. Land preservation credits are projected to be \$83.7 million each year. The outlook for low income credits is \$152.2 million in fiscal year 2020, increasing by about \$4.0 million a year over the forecast horizon.

Sales

The sales tax revenue model is based on a direct relationship with total personal income in Virginia. The November standard forecast increases sales tax collections by \$65.0 million in fiscal year 2020 for growth of 6.0 percent, compared with 4.2 percent in the

official forecast. Most of the increase is Wayfair-related collections of use taxes on internet sales. Growth in this source is expected to be 2.6 percent in fiscal year 2021 and 1.6 percent in fiscal year 2022.

Corporate

The corporate revenue model considers gross payments and refunds separately. Gross payments are modeled as a function of Virginia specific pre-tax corporate profits and the S&P 500 index. The November standard forecast reduces corporate income tax collections by \$66.3 million from the official forecast in fiscal year 2020, an increase of 2.2 percent compared with the official rate of a 9.3 percent increase. Collections are expected to rise by 5.7 percent in fiscal year 2021 and 11.1 percent in fiscal year 2022.

Wills, Suits, Deeds, and Contracts (Recordation)

The revenue model for wills, suits, deeds and contracts is based on mortgage originations, mortgage refinancing and home prices in Virginia, along with the yield on 30-year treasury bonds. The outlook for recordation taxes drives the other components of this source. The November standard forecast for this source is a 6.8 percent increase in fiscal year 2020, an upward revision of \$44.2 million. The estimate assumes collections will decline 6.0 percent in fiscal year 2021 and 8.0 percent in fiscal year 2022.

Insurance

In the November standard forecast, insurance premiums growth is lowered from 7.4 percent to 7.1 percent in fiscal year 2020. The model calls for growth of 2.7 percent in fiscal year 2021 and 4.0 percent in fiscal year 2022.

Miscellaneous Taxes and Other Revenues

Collectively, minor revenue sources have been revised upward by \$28.7 million in fiscal year 2020 for a decrease of 0.7 percent compared with a 4.3 percent decrease in the official forecast. The forecast expects collections of minor sources to fall 0.4 percent in fiscal year 2021 and remain flat in fiscal year 2022.

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Table 3.3
The Official to November Standard General Fund Forecast for Fiscal Year 2020
(Dollars in Millions)

November 25, 2019

	Fiscal Year 2020					2018-2020 Biennium		
	Official Forecast	November Forecast	Change	% Growth Over FY 19		Official Forecast	November Forecast	Change
				Official	November			
MAJOR TAX SOURCES								
Corporate Income	\$ 1,030.8	\$ 964.5	\$ (66.3)	9.3 %	2.2 %	\$ 1,974.2	\$ 1,907.9	\$ (66.3)
Individual Income Tax:								
Gross	17,377.6	17,077.0	(300.6)	2.4	0.7	34,342.3	34,041.7	(300.6)
Withholding	13,539.7	13,525.7	(14.0)	4.2	4.1	26,527.5	26,513.5	(14.0)
Nonwithholding	3,837.9	3,551.3	(286.6)	(3.5)	(10.7)	7,814.7	7,528.1	(286.6)
Refunds	<u>(2,115.1)</u>	<u>(1,976.6)</u>	<u>138.5</u>	<u>21.7</u>	<u>13.7</u>	<u>(3,853.3)</u>	<u>(3,714.8)</u>	<u>138.5</u>
Net	15,262.5	15,100.4	(162.1)	0.2	(0.8)	30,489.0	30,326.9	(162.1)
Insurance Company Premiums	410.3	409.1	(1.2)	7.4	7.1	792.3	791.1	(1.2)
State Sales & Use Tax	3,729.5	3,794.5	65.0	4.2	6.0	7,309.9	7,374.9	65.0
Wills, Suits, Deeds, & Contract Fees	<u>368.6</u>	<u>412.8</u>	<u>44.2</u>	<u>(4.6)</u>	<u>6.8</u>	<u>755.1</u>	<u>799.3</u>	<u>44.2</u>
Total Major Tax Sources	\$ 20,801.7	\$ 20,681.3	\$ (120.4)	1.4 %	0.8 %	\$ 41,320.4	\$ 41,200.0	\$ (120.4)
MISCELLANEOUS TAXES AND OTHER REVENUES								
Alcoholic Beverage State Tax	\$ 207.5	\$ 211.0	\$ 3.5	3.7 %	5.4 %	\$ 407.6	\$ 411.1	\$ 3.5
Bank Franchise Tax	24.0	22.0	(2.0)	(19.2)	(25.9)	53.7	51.7	(2.0)
Beer & Beverage Excise Tax	40.9	40.7	(0.2)	0.6	0.1	81.6	81.4	(0.2)
Corporate Franchise & Charter Fees	53.7	52.3	(1.4)	(7.8)	(10.2)	111.9	110.5	(1.4)
Excess & Other Fees from Officers	(7.6)	(7.5)	0.1	(10.7)	(9.2)	(14.5)	(14.4)	0.1
Estate & Gifts	0.0	0.0	0.0	n/a	n/a	0.2	0.2	n/a
Institutional Revenues	2.6	2.6	0.0	(3.5)	(3.5)	5.3	5.3	0.0
Interest & Rents	74.8	99.1	24.3	(14.3)	13.5	162.1	186.4	24.3
Licenses & Permits	4.1	4.0	(0.1)	4.0	1.4	8.0	7.9	(0.1)
Miscellaneous Taxes and Penalties	232.7	236.8	4.1	(5.4)	(3.7)	478.6	482.7	4.1
Other Miscellaneous Revenues	23.6	23.8	0.2	(16.0)	(15.2)	51.7	51.9	0.2
Public Service GR / Consumption Tax	<u>98.7</u>	<u>98.9</u>	<u>0.2</u>	<u>(0.2)</u>	<u>0.0</u>	<u>197.6</u>	<u>197.8</u>	<u>0.2</u>
Total Misc. Taxes and Other Revenues	\$ 755.0	\$ 783.7	\$ 28.7	(4.3) %	(0.7) %	\$ 1,543.8	\$ 1,572.5	\$ 28.7
TOTAL GF REVENUES	\$ 21,556.7	\$ 21,465.0	\$ (91.7)	1.2 %	0.7 %	\$ 42,864.2	\$ 42,772.5	\$ (91.7)
TRANSFERS								
A.B.C. Profits	\$ 120.1	\$ 121.6	\$ 1.5	(8.1) %	(7.0) %	\$ 250.8	\$ 252.3	\$ 1.5
Sales Tax (0.375%)	409.3	416.1	6.8	4.3	6.0	801.9	808.7	6.8
Transfers Per Appropriations Act	<u>106.4</u>	<u>106.4</u>	<u>0.0</u>	<u>(21.0)</u>	<u>(21.0)</u>	<u>241.1</u>	<u>241.1</u>	<u>0.0</u>
Total Transfers	\$ 635.8	\$ 644.1	\$ 8.3	(3.4) %	(2.1) %	\$ 1,293.8	\$ 1,302.1	\$ 8.3
TOTAL GENERAL FUND	\$ 22,192.5	\$ 22,109.1	\$ (83.4)	1.0 %	0.7 %	\$ 44,158.0	\$ 44,074.6	\$ (83.4)

The November forecast is based on the October 2019 IHS Markit Standard Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE.

The Official forecast is based on the October 2018 IHS Markit Standard Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations of GACRE. It includes actions of the 2019 General Assembly Session, Chapter 854.

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Table 3.3
The November Standard General Fund Forecast for Fiscal Years 2020-22
(Dollars in Millions)

November 25, 2019

	Fiscal Year 2021		Fiscal Year 2022		2020-2022 Biennium	
	November Forecast	% Growth Over FY 20	November Forecast	% Growth Over FY 21	November Forecast	% Growth Over 18-20
MAJOR TAX SOURCES						
Corporate Income	\$ 1,019.2	5.7 %	\$ 1,132.6	11.1 %	\$ 2,151.8	12.8 %
Individual Income Tax:						
Gross	18,209.3	6.6	18,949.7	4.1	37,159.0	9.2
Withholding	14,118.0	4.4	14,676.4	4.0	28,794.4	8.6
Nonwithholding	4,091.3	15.2	4,273.3	4.4	8,364.6	11.1
Refunds	<u>(2,059.9)</u>	4.2	<u>(2,137.4)</u>	<u>3.8</u>	<u>(4,197.3)</u>	<u>13.0</u>
Net	16,149.4	6.9	16,812.3	4.1	32,961.7	8.7
Insurance Company Premiums	420.1	2.7	437.1	4.0	857.2	8.4
State Sales & Use Tax	3,893.0	2.6	3,955.6	1.6	7,848.6	6.4
Wills, Suits, Deeds, & Contract Fees	<u>388.1</u>	<u>(6.0)</u>	<u>357.0</u>	<u>(8.0)</u>	<u>745.1</u>	<u>(6.8)</u>
Total Major Tax Sources	\$ 21,869.8	5.7 %	\$ 22,694.6	3.8 %	\$ 44,564.4	8.2 %
MISCELLANEOUS TAXES AND OTHER REVENUES						
Alcoholic Beverage State Tax	\$ 219.7	4.1 %	\$ 228.8	4.1 %	\$ 448.5	9.1 %
Bank Franchise Tax	22.0	0.0	22.0	0.0	44.0	(14.9)
Beer & Beverage Excise Tax	40.7	0.0	40.7	0.0	81.4	0.0
Corporate Franchise & Charter Fees	52.3	0.0	52.3	0.0	104.6	(5.4)
Excess & Other Fees from Officers	(7.5)	0.0	(7.5)	0.0	(15.0)	4.4
Estate & Gifts	0.0	n/a	0.0	n/a	0.0	n/a
Institutional Revenues	2.6	0.0	2.6	0.0	5.2	(1.8)
Interest & Rents	87.7	(11.5)	78.6	(10.4)	166.3	(10.8)
Licenses & Permits	4.0	0.0	4.0	0.0	8.0	0.7
Miscellaneous Taxes and Penalties	236.7	(0.0)	236.6	(0.0)	473.3	(1.9)
Other Miscellaneous Revenues	23.8	0.0	23.8	0.0	47.6	(8.3)
Public Service GR / Consumption Tax	<u>98.9</u>	<u>0.0</u>	<u>98.9</u>	<u>0.0</u>	<u>197.8</u>	<u>0.0</u>
Total Misc. Taxes and Other Revenues	\$ 780.9	(0.4) %	\$ 780.8	(0.0) %	\$ 1,561.7	(0.7) %
TOTAL GF REVENUES	\$ 22,650.7	5.5 %	\$ 23,475.4	3.6 %	\$ 46,126.1	7.8 %
TRANSFERS						
A.B.C. Profits	\$ 121.8	0.2 %	\$ 125.2	2.8 %	\$ 247.0	(2.1) %
Sales Tax (0.375%)	426.9	2.6	433.7	1.6	860.6	6.4
Transfers Per Appropriations Act	<u>115.0</u>	<u>8.1</u>	<u>115.0</u>	<u>0.0</u>	<u>230.0</u>	<u>(4.6)</u>
Total Transfers	\$ 663.7	3.0 %	\$ 673.9	1.5 %	\$ 1,337.6	2.7 %
TOTAL GENERAL FUND	\$ 23,314.4	5.5 %	\$ 24,149.3	3.6 %	\$ 47,463.7	7.7 %

The November forecast is based on the October 2019 IHS Markit Standard Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE.

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The November Pessimistic Alternative Forecast for Fiscal Years 2020 - 2022

Table 3.4 at the end of this section compares the official forecast and the November alternative pessimistic general fund forecast. The November alternative scenario reduces the official forecast by \$105.7 million in fiscal year 2020, as growth drops from 1.2 percent to 0.7 percent. The pessimistic forecast expects total revenue growth of 3.0 percent in fiscal year 2021, compared with the standard outlook of 5.5 percent. In fiscal year 2022, growth is expected to drop to 0.4 percent compared the standard outlook of 3.6 percent.

Individual Income Taxes

In the November alternative forecast, the outlook for net individual income taxes has been revised downward from the official forecast in fiscal year 2020 by \$155.1 million for a 0.8 percent decline compared with the official forecast of 0.2 percent growth. Growth of 4.2 percent is predicted for fiscal year 2021 and a 0.2 per decline in fiscal year 2022.

Withholding

Withholding in the November alternative forecast essentially unchanged in fiscal year 2020. Under this scenario, withholding collections are revised downward by \$26.4 million resulting in growth of 4.0 percent, compared with 4.2 percent in the official forecast. Growth is expected to be 3.0 percent in fiscal year 2021, compared with the standard forecast of 4.4, and 2.0 percent in fiscal year 2022 compared with the standard forecast of 4.0 percent.

Nonwithholding

The revenue model for nonwithholding considers estimated and final payments independently. Estimated payments are modeled as a function of total proprietor's income, dividends, interest, and rental income, and the S&P 500 index, while final payments are driven solely by growth in the S&P 500 index.

The November alternative forecast for nonwithholding lowers expected collections by \$290.6 million from the current official forecast in fiscal year 2020 for a decline of 10.8 percent. The forecast predicts growth of 8.5 percent in fiscal year 2021 and a 5.8 percent decline in fiscal year 2022.

Refunds

The forecast methodology for individual refunds relies on the revised outlook for withholding and nonwithholding, comparing taxable year individual income tax with taxable year refunds for the first and second half of a taxable year. Historical data are adjusted for the land preservation tax credit and the low-income credit. Future values of these credits are estimated and these amounts are added to the base refund forecast.

In the alternative forecast, individual refunds are decreased (adding more to general fund revenue) by \$161.9 million in fiscal year 2020. Refunds then increase by 3.9 percent

each year in fiscal years 2021 and 2022. Land preservation credits are projected to be \$83.7 million each year. The outlook for low income credits is \$152.2 million in fiscal year 2020, increasing by about \$4.0 million a year over the forecast horizon.

Sales

The sales tax revenue model is based on a direct relationship with total personal income in Virginia. The November alternative forecast for sales tax collections increases the official forecast by \$63.3 million in fiscal year 2020, for growth of 5.9 percent compared with the official forecast of 4.2 percent growth. The increase is attributed to the increase in collections of use taxes on internet sales. Growth then slows to 1.2 percent in fiscal year 2021 and 0.2 percent in fiscal year 2022.

Corporate

The corporate revenue model considers gross payments and refunds separately. Gross payments are modeled as a function of Virginia specific pre-tax corporate profits and the S&P 500 index. The November pessimistic forecast reduces corporate collections by \$70.8 million from the official forecast in fiscal year 2020, for growth of 1.8 percent for the year compared with the official forecast of 9.3 percent. Collections are expected to rise by 1.9 percent in fiscal year 2021 and 14.1 percent in fiscal year 2022.

Wills, Suits, Deeds, and Contracts (Recordation)

The revenue model for wills, suits, deeds and contracts is based on mortgage originations, mortgage refinancing activity and home prices in Virginia, along with the yield on 30-year treasury bonds. The outlook for recordation taxes drives the other components of this source. The November alternative forecast calls for a 3.0 percent increase in fiscal year 2020, an upward revision of \$29.4 million, compared with a decline of 4.6 percent in the official forecast. The estimate assumes declines of 14.6 percent in fiscal year 2021 and 14.7 percent in fiscal year 2022.

Insurance

The November alternative forecast for taxes on the premiums of insurance companies is for growth of 7.1 percent in fiscal year 2020, less than the current forecast of 7.4 percent. The model calls for 2.7 percent growth in fiscal year 2021 and 4.0 percent in fiscal year 2022.

Miscellaneous Taxes and Other Revenues

Collectively, minor revenue sources have been raised by \$28.7 million in fiscal year 2020 for a decline of 0.7 percent compared with a 4.3 percent decrease in the official forecast. Collections in these sources are predicted to fall by 0.4 percent in fiscal year 2021 and remain flat in fiscal year 2022.

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Table 3.4
The Official to November Pessimistic General Fund Forecast for Fiscal Year 2020
(Dollars in Millions)

November 25, 2019

	Fiscal Year 2020					2018-2020 Biennium		
	Official Forecast	Nov Pess Forecast	Change	% Growth Over FY 19		Official Forecast	Nov Pess Forecast	Change
				Official	Nov Pess			
MAJOR TAX SOURCES								
Corporate Income	\$ 1,030.8	\$ 960.0	\$ (70.8)	9.3 %	1.8 %	\$ 1,974.2	\$ 1,903.4	\$ (70.8)
Individual Income Tax:								
Gross	17,377.6	17,060.6	(317.0)	2.4	0.6	34,342.3	34,025.3	(317.0)
Withholding	13,539.7	13,513.3	(26.4)	4.2	4.0	26,527.5	26,501.1	(26.4)
Nonwithholding	3,837.9	3,547.3	(290.6)	(3.5)	(10.8)	7,814.7	7,524.1	(290.6)
Refunds	<u>(2,115.1)</u>	<u>(1,953.2)</u>	<u>161.9</u>	<u>21.7</u>	<u>12.4</u>	<u>(3,853.3)</u>	<u>(3,691.4)</u>	<u>161.9</u>
Net	15,262.5	15,107.4	(155.1)	0.2	(0.8)	30,489.0	30,333.9	(155.1)
Insurance Company Premiums	410.3	409.1	(1.2)	7.4	7.1	792.3	791.1	(1.2)
State Sales & Use Tax	3,729.5	3,792.8	63.3	4.2	5.9	7,309.9	7,373.2	63.3
Wills, Suits, Deeds, & Contract Fees	<u>368.6</u>	<u>398.0</u>	<u>29.4</u>	<u>(4.6)</u>	<u>3.0</u>	<u>755.1</u>	<u>784.5</u>	<u>29.4</u>
Total Major Tax Sources	\$ 20,801.7	\$ 20,667.3	\$ (134.4)	1.4 %	0.7 %	\$ 41,320.4	\$ 41,186.0	\$ (134.4)
MISCELLANEOUS TAXES AND OTHER REVENUES								
Alcoholic Beverage State Tax	\$ 207.5	\$ 211.0	\$ 3.5	3.7 %	5.4 %	\$ 407.6	\$ 411.1	\$ 3.5
Bank Franchise Tax	24.0	22.0	(2.0)	(19.2)	(25.9)	53.7	51.7	(2.0)
Beer & Beverage Excise Tax	40.9	40.7	(0.2)	0.6	0.1	81.6	81.4	(0.2)
Corporate Franchise & Charter Fees	53.7	52.3	(1.4)	(7.8)	(10.2)	111.9	110.5	(1.4)
Excess & Other Fees from Officers	(7.6)	(7.5)	0.1	(10.7)	(9.2)	(14.5)	(14.4)	0.1
Estate & Gifts	0.0	0.0	0.0	n/a	n/a	0.2	0.2	n/a
Institutional Revenues	2.6	2.6	0.0	(3.5)	(3.5)	5.3	5.3	0.0
Interest & Rents	74.8	99.1	24.3	(14.3)	13.5	162.1	186.4	24.3
Licenses & Permits	4.1	4.0	(0.1)	4.0	1.4	8.0	7.9	(0.1)
Miscellaneous Taxes and Penalties	232.7	236.8	4.1	(5.4)	(3.7)	478.6	482.7	4.1
Other Miscellaneous Revenues	23.6	23.8	0.2	(16.0)	(15.2)	51.7	51.9	0.2
Public Service GR / Consumption Tax	<u>98.7</u>	<u>98.9</u>	<u>0.2</u>	<u>(0.2)</u>	<u>0.0</u>	<u>197.6</u>	<u>197.8</u>	<u>0.2</u>
Total Misc. Taxes and Other Revenues	\$ 755.0	\$ 783.7	\$ 28.7	(4.3) %	(0.7) %	\$ 1,543.8	\$ 1,572.5	\$ 28.7
TOTAL GF REVENUES	\$ 21,556.7	\$ 21,451.0	\$ (105.7)	1.2 %	0.7 %	\$ 42,864.2	\$ 42,758.5	\$ (105.7)
TRANSFERS								
A.B.C. Profits	\$ 120.1	\$ 121.6	\$ 1.5	(8.1) %	(7.0) %	\$ 250.8	\$ 252.3	\$ 1.5
Sales Tax (0.375%)	409.3	416.1	6.8	4.3	6.0	801.9	808.7	6.8
Transfers Per Appropriations Act	<u>106.4</u>	<u>106.4</u>	<u>0.0</u>	<u>(21.0)</u>	<u>(21.0)</u>	<u>241.1</u>	<u>241.1</u>	<u>0.0</u>
Total Transfers	\$ 635.8	\$ 644.1	\$ 8.3	(3.4) %	(2.1) %	\$ 1,293.8	\$ 1,302.1	\$ 8.3
TOTAL GENERAL FUND	\$ 22,192.5	\$ 22,095.1	\$ (97.4)	1.0 %	0.6 %	\$ 44,158.0	\$ 44,060.6	\$ (97.4)

The November Pessimistic forecast is based on the October 2019 IHS Markit Pessimistic Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE.

The Official forecast is based on the October 2018 IHS Markit Standard Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations of GACRE. It includes actions of the 2019 General Assembly Session, Chapter 854.

General Fund Revenues

Table 3.4
The November Pessimistic General Fund Forecast for Fiscal Years 2020-22
(Dollars in Millions)

November 25, 2019

	Fiscal Year 2021		Fiscal Year 2022		2020-2022 Biennium	
	Nov Pess Forecast	% Growth Over FY 20	Nov Pess Forecast	% Growth Over FY 21	Nov Pess Forecast	% Growth Over 18-20
MAJOR TAX SOURCES						
Corporate Income	\$ 978.5	1.9 %	\$ 1,116.4	14.1 %	\$ 2,094.9	10.1 %
Individual Income Tax:						
Gross	17,771.2	4.2	17,819.6	0.3	35,590.8	4.6
Withholding	13,923.9	3.0	14,197.0	2.0	28,120.9	6.1
Nonwithholding	3,847.3	8.5	3,622.6	(5.8)	7,469.9	(0.7)
Refunds	<u>(2,029.1)</u>	3.9	<u>(2,107.9)</u>	3.9	<u>(4,137.0)</u>	12.1
Net	15,742.1	4.2	15,711.7	(0.2)	31,453.8	3.7
Insurance Company Premiums	420.1	2.7	437.1	4.0	857.2	8.4
State Sales & Use Tax	3,838.9	1.2	3,845.8	0.2	7,684.7	4.2
Wills, Suits, Deeds, & Contract Fees	<u>340.0</u>	<u>(14.6)</u>	<u>290.0</u>	<u>(14.7)</u>	<u>630.0</u>	<u>(19.7)</u>
Total Major Tax Sources	\$ 21,319.6	3.2 %	\$ 21,401.0	0.4 %	\$ 42,720.6	3.7 %
MISCELLANEOUS TAXES AND OTHER REVENUES						
Alcoholic Beverage State Tax	\$ 219.7	4.1 %	\$ 228.8	4.1 %	\$ 448.5	9.1 %
Bank Franchise Tax	22.0	0.0	22.0	0.0	44.0	(14.9)
Beer & Beverage Excise Tax	40.7	0.0	40.7	0.0	81.4	0.0
Corporate Franchise & Charter Fees	52.3	0.0	52.3	0.0	104.6	(5.4)
Excess & Other Fees from Officers	(7.5)	0.0	(7.5)	0.0	(15.0)	4.4
Estate & Gifts	0.0	n/a	0.0	n/a	0.0	n/a
Institutional Revenues	2.6	0.0	2.6	0.0	5.2	(1.8)
Interest & Rents	87.7	(11.5)	78.6	(10.4)	166.3	(10.8)
Licenses & Permits	4.0	0.0	4.0	0.0	8.0	0.7
Miscellaneous Taxes and Penalties	236.7	(0.0)	236.6	(0.0)	473.3	(1.9)
Other Miscellaneous Revenues	23.8	0.0	23.8	0.0	47.6	(8.3)
Public Service GR / Consumption Tax	<u>98.9</u>	<u>0.0</u>	<u>98.9</u>	<u>0.0</u>	<u>197.8</u>	<u>0.0</u>
Total Misc. Taxes and Other Revenues	\$ 780.9	(0.4) %	\$ 780.8	(0.0) %	\$ 1,561.7	(0.7) %
TOTAL GF REVENUES	\$ 22,100.5	3.0 %	\$ 22,181.8	0.4 %	\$ 44,282.3	3.6 %
TRANSFERS						
A.B.C. Profits	\$ 121.8	0.2 %	\$ 125.2	2.8 %	\$ 247.0	(2.1) %
Sales Tax (0.375%)	426.9	2.6	433.7	1.6	860.6	6.4
Transfers Per Appropriations Act	<u>115.0</u>	<u>8.1</u>	<u>115.0</u>	<u>0.0</u>	<u>230.0</u>	<u>(4.6)</u>
Total Transfers	\$ 663.7	3.0 %	\$ 673.9	1.5 %	\$ 1,337.6	2.7 %
TOTAL GENERAL FUND	\$ 22,764.2	3.0 %	\$ 22,855.7	0.4 %	\$ 45,619.9	3.5 %

The November Pessimistic forecast is based on the October 2019 IHS Markit Pessimistic Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE.

General Fund Revenues

Legislative Changes Affecting the Forecast

Table 3.5 below lists the legislative and policy changes that affect the revenue forecast for fiscal years 2020-2022.

Table 3.5
Summary of Recent Legislation Affecting General Fund Revenues
(Millions of Dollars)

	FY20	FY21	FY22
CORPORATE INCOME TAX			
2018 Allow Metallurgical Coal Credits -- HB665/SB378, 2018	0.0	0.0	(6.5)
Increase Existing R&D Expenses Tax Credit Cap -- HB884/SB58, 2016	(1.0)	(1.0)	(1.0)
New Large R&D Tax Credit -- HB884/SB58, 2016	(20.0)	(20.0)	(20.0)
Port tax credit -- SB 1652, 2019	(0.5)		
Conformity to TCJA (Business Provisions) -- HB2529/SB1372, 2019	149.5	181.8	256.6
Conformity to TCJA (International Provisions) -- HB2529/SB1372, 2019	5.4	5.5	5.8
INDIVIDUAL INCOME TAX			
Land Preservation Tax Credit (Total Cost)	83.7	83.7	83.7
Extend Cap on Land Preservation -- Chapter 2, 2018	(6.6)	0.0	0.0
ABLE Act Contribution Deduction -- HB30, 2016	(2.3)	(3.1)	(3.6)
2018 Federal Tax Conformity -- HB154/SB230, 2018	0.7	1.4	0.9
Notification of payroll system breaches -- Chapter 2, 2018	1.1	1.1	1.1
Ind. Inc. Tax Audit Positions -- Chapter 2, 2018	4.0	4.0	4.0
Conformity to TCJA (Business Provisions) -- HB2529/SB1372, 2019	(35.0)	(0.3)	43.8
Conformity to TCJA (International Provisions) -- HB2529/SB1372, 2019	47.3		
Senate Amendment - Pease Limitation	107.5	73.3	76.1
Conformity to TCJA (Individual Provisions) -- HB2529/SB1372, 2019	443.8	466.7	492.5
Increase Standard Deduction -- HB2529/SB1372, 2019	(359.7)	(235.7)	(236.9)
Deconform to SALT Limitation -- HB2529/SB1372, 2019	(55.6)	(41.7)	(46.7)
Allow a Subtraction for up to 20% disallowed net interest (affects corporate and individual taxpayers) -- HB2529/SB1372, 2019	(18.0)	(18.7)	(19.7)
Allow a GILTI subtraction (affects corporate taxpayers) -- HB2529/SB1372, 2019	(5.4)	(5.5)	(5.8)
STATE SALES AND USE TAX			
ATV Sales Tax Increase -- C. 840, SB249; C. 838, HB 1441, 2018	0.2	0.2	0.2
AST Move Threshold to \$10 million from \$4 million Chapter 854	(27.2)		
Personal Hygiene exemption - HB2540, 2019	(1.6)	(1.6)	(1.6)
Wayfair internet sales (unrestricted amount) -- Chapter 854, 2019	55.3	62.4	62.4
Wayfair internet sales (restricted K-12 amount) -- Chapter 854, 2019	27.2	30.7	30.7
Wayfair internet sales (unrestricted amount) -- Updated November 2019	51.7	51.7	51.7
Wayfair internet sales (restricted K-12 amount) -- Updated November 2019	25.4	25.4	25.4
INSURANCE COMPANY PREMIUMS			
Historic Rehab Tax Credit (\$5 mil) -- HB2460/SB1034, 2017 and Chapter 2, 2018	13.0	13.0	13.0
OTHER REVENUE			
DNA Testing Fee -- HB1249, 2018	0.1	0.1	0.1

SECTION 4
NON-GENERAL FUND REVENUES

Section 4 Non-General Fund Revenues

Transportation Revenues

Most state taxes and fees used to finance the state's transportation programs are deposited into two funds: the Highway Maintenance and Operating Fund (HMOF) and the Transportation Trust Fund (TTF). The HMOF, which finances maintenance and operating costs, consists of traditional highway user taxes and fees. The TTF, which finances construction costs, consists of dedicated portions of highway user taxes and fees, as well as a portion of state sales and recordation taxes, interest earnings, and several miscellaneous sources. Within the TTF, which was created by a special session of the General Assembly in 1986, is the Priority Transportation Fund (PTF). This fund, which was created during the 2000 legislative session, consists of insurance premiums, interest payments, and a portion of the motor fuels tax.

Revenues used for the Commonwealth's transportation program are derived from the following taxes and fees:

- Motor Fuels and Road Use Taxes,
- A 4.15 percent Vehicle Sales and Use Tax,
- Licensing fees,
- 0.60 cent State Retail Sales and Use Tax,
- 0.3 percent State Retail Sales and Use tax,
- 3.0 cents of the State Recordation Tax,
- One-third of State Insurance Premiums Tax,
- International Registration Plan Fees,
- Interest Earnings, and
- Other miscellaneous taxes and fees.

In addition, federal, local, and toll revenues are also used to finance transportation programs. These revenue sources, however, do not determine the fiscal capacity of the state's transportation program and, therefore, are not addressed here. Instead, the discussion focuses on revenues from state sources.

NON-GENERAL FUND REVENUES

Fiscal Year 2019 in Review

Table 4.1 compares actual collections in fiscal year 2017 to the official forecast for the Commonwealth Transportation Fund (CTF). Total transportation revenues totaled over \$3.5 billion, an increase of \$98.2 million over last year. Revenue collections grew by 2.8 percent, ahead of the official forecast of 1.2 percent growth, resulting in a forecast variance of 1.6 percent.

Table 4.1
Actual Collections Compared to the Official Forecast for Fiscal Year 2019
(Millions of Dollars)

Revenue Sources	FY2018 Actual	FY2019 Actual	FY2019 Forecast	Percent Change 2018-2019		Forecast Variance	
				Actual	Forecast	Amount	Percent
Motor Fuels Tax	843.5	844.7	891.5	0.1	5.7	(46.8)	(5.2)
Road Use Tax	11.6	9.8	12.1	(15.5)	4.3	(2.3)	(19.0)
Vehicle Sales Tax	943.6	978.6	916.1	3.7	(2.9)	62.5	6.8
Vehicle Licenses	258.8	266.1	258.6	2.8	(0.1)	7.5	2.9
State Sales Tax	1,043.8	1,087.8	1,073.6	4.2	2.9	14.2	1.3
Recordation Tax	47.8	47.1	43.6	(1.5)	(8.8)	3.5	8.0
Insurance Premiums Tax	168.0	168.7	168.7	0.4	0.4	0.0	0.0
Int'l Registration Plan	69.2	72.6	67.6	4.9	(2.3)	5.0	7.4
Interest Earnings	8.9	16.4	3.8	84.3	(57.3)	12.6	331.6
Rental Tax	40.2	42.4	42.1	5.5	4.7	0.3	0.7
Aviation Fuels Tax	2.0	2.0	1.9	0.0	(5.0)	0.1	5.3
Miscellaneous	19.6	19.0	17.9	(3.1)	(8.7)	1.1	6.1
TOTAL	\$3,457.0	\$3,555.2	\$3,497.5	2.8	1.2	57.7	1.6

As required by Section 33.1-23.03:8A(2) of the Code of Virginia, all revenues that exceed the official forecast are deposited into the Priority Transportation Fund.

Revenues from motor fuels taxes (24 percent of the CTF in fiscal year 2019) fell short the forecast by \$46.8 million in fiscal year 2019. Motor fuels tax collections increased by 0.1 percent in fiscal year 2019.

Gasoline consumption had been on a declining trend since reaching its peak consumption year in 2003. The fuel-economy of both cars and trucks has increased even faster than mandated by federal regulations as manufacturers have responded to demands from customers. As a result, the average vehicle being driven on U.S. highways is becoming

steadily more fuel efficient as older cars and light trucks are retired and replaced by newer models.

The market for diesel fuel is different than the market for gasoline. Most diesel fuel is purchased and consumed by motor carriers, and reflects movement of freight through the state rather than commuter passenger travel. Motor carriers are sensitive to prices and are likely to purchase fuel in a state that has lower fuel tax rates. Motor carriers respond to the general economy more than passenger traffic: they tend to travel more miles when the economy is in an expansion and less when the economy is in a recession.

Revenues from the motor vehicle sales and use tax (28 percent of the CTF in fiscal year 2019) increased by 3.7 percent in fiscal year 2019. New car sales were up 0.6 percent and used car sales increased by 0.4 percent in fiscal year 2019 as price increases drove growth in motor vehicle sales tax collections.

Revenues from the transportation share of the state retail sales tax (30 percent of the CTF in fiscal year 2019) increased by 4.2 percent.

Motor vehicle license fees (7 percent of the CTF in fiscal year 2019) increased by 2.8 percent in fiscal year 2019.

Collectively, all other taxes and revenues (11 percent of the CTF in fiscal year 2019) increased by 2.9 percent in fiscal year 2019.

Outlook for Key Tax Base Variables

Motor Fuel Consumption

Table 4.2 on the next page shows that gasoline consumption increased by 0.2 percent and diesel fuel consumption grew by 4.0 percent in fiscal year 2019.

The recent improvement in the economic outlook and the sharp decline in motor fuels prices is expected to provide a short-term boost to motor fuels consumption. The implication of the data on real crude oil and gasoline prices is that the underlying fundamentals are strong for growth in U.S. gasoline consumption. In addition to low real prices, U.S. economic growth the last two years has been the strongest in the last decade. The flat-lining of U.S. gasoline consumption the last two years suggests other factors are offsetting the positive impact provided by low real gasoline prices and strong economic growth. There is no conclusive single answer but a variety of factors have been suggested: i) increasing Federal CAFE fuel efficiency standards, ii) the explosion in the growth of ride-sharing such as Uber and Lyft, iii) the impact of social media, especially on young drivers, and iv) growth in the use of electrical vehicles. Regardless of the correct explanation, it may be the case that the flat-lining of U.S. gasoline consumption in 2017 and 2018 is an early warning sign of a long-term systemic decline in gasoline demand that is just beginning. The

NON-GENERAL FUND REVENUES

latest long-term projections of U.S. gasoline consumption from EIA are for a slowdown starting in 2020. By 2030, the EIA baseline projection of gasoline consumption is only 116.9 billion gallons, a decline of 26.1 billion gallons or 18.2 percent from the current projection of consumption in 2019.

The expected future decline in gasoline consumption is attributable in large part to some powerful secular changes in U.S. culture and demographics:

- As the aging population leaves the workforce, the employment-population ratio has contracted.
- There is growing trend toward a portable workplace and the ability to work from home.
- Social media have provided powerful alternatives to face-to-face interaction requiring transportation (Internet apps, games, the ubiquitous mobile phone for talk and texting).
- There has been a general trend in young adults to drive less (related to points two and three above).
- The US is experiencing accelerating urban population growth, which reduces the per-capita dependence on gasoline.

Table 4.2
Motor Fuel Consumption, History and Forecast, Fiscal Years 2019 - 2022
(Percent Growth)

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Taxable Gallons - Gasoline				
Official	0.2	1.2	0.8	0.5
Standard		0.4	0.5	0.3
Alternative		(0.1)	(1.5)	(1.1)
Taxable Gallons - Diesel				
Official	4.0	1.4	(0.5)	(1.4)
Standard		1.2	(0.3)	(1.0)
Alternative		0.8	(4.2)	(4.6)

Vehicle Sales

New car sales increased by 0.6 percent and used car sales grew by 0.4 percent in fiscal year 2019.

Table 4.3 on the following page shows the official and November 2019 forecast for new and used vehicles. The discussion of the vehicle sales outlook is divided into two sections: new taxable titles and used taxable titles.

**Table 4.3
Virginia Vehicle Market, History and Forecast, Fiscal Years 2019 - 2022
(Percent Growth)**

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
New Taxable Titles				
Official	0.6	(1.6)	(1.2)	3.1
Standard		(1.2)	(1.1)	3.1
Alternative		(2.7)	(7.4)	1.5
Used Taxable Titles				
Official	0.4	2.5	(0.9)	(0.6)
Standard		(0.2)	(0.1)	(0.3)
Alternative		1.0	(4.4)	(2.7)

New Taxable Titles: In fiscal year 2019, close to 380,000 new vehicles were titled in Virginia, a slight increase of 2,200 units from fiscal year 2018.

The November forecast expects a slight decline from the above-trend level of the past few years as new vehicle sales have peaked for this cycle. Sales will remain solid as conditions are supported by a tight job market, an increase in residential investment, stronger wage growth, and solid consumer confidence. Some headwinds are expected to constrain new vehicle sales including rising interest rates, increases in new vehicle prices, and tighter lending standards.

Used Taxable Titles: About 1.2 million used cars were sold in Virginia in fiscal year 2019, an increase of 0.4 percent. Used car sales generally follow a sales pattern similar to new car sales. As used car prices begin to moderate, sales of these vehicles should increase as lower prices relative to new cars make used vehicles more attractive to buyers.

NON-GENERAL FUND REVENUES

November 2019 Standard Commonwealth Transportation Fund Forecast

Table 4.4 on the following pages presents a comparison of the November 2019 standard forecast and the official forecast. In the Virginia standard forecast, economic growth continues to improve.

Chapter 854 (2019) provides new revenue sources for improvements to the Commonwealth's interstate roadways. While much of the new revenue is earmarked for Interstate 81 and Northern Virginia (and included in separate regional revenue forecasts), some funds are directed to the interstate systems outside these regions and are included in the Commonwealth Transportation Fund (CTF). Over the next three fiscal years, a total of \$233.7 million attributable to Chapter 854 is included in the CTF.

In fiscal year 2014, Chapter 766 (2013) delivered a considerable influx of new revenues into the Commonwealth Transportation Fund:

- The bill eliminated the \$0.175 per gallon tax on motor fuels, and replaced it with a percentage-based tax of 5.1 percent for gasoline and 6 percent for diesel fuel.
- The bill raised the state sales and use tax across the Commonwealth from 4 percent to 4.3 percent and designated the increased revenues to the Commonwealth Transportation Fund.
- The bill increased the share of existing general sales and use tax revenues used for transportation from 0.50 percent to 0.60 percent.
- The bill amended the tax on the sale of motor vehicles (the "titling tax"). Previously, the titling tax was 3 percent. A new rate of 4.15 percent was phased in over four years.

The November forecast shows an increase of \$96.5 million, \$107.4 million, and \$111.9 million in fiscal years 2020 through 2022, respectively.

NON-GENERAL FUND REVENUES

Table 4.4
The Official and November Commonwealth Transportation Fund Forecast for Fiscal Year 2020
(Dollars in Millions)

November 1, 2019

	Fiscal Year 2019		Fiscal Year 2020				
	Actual	% Growth	Official Forecast	November Forecast	Change	% Growth over FY 19	
						Official	November
Highway Maintenance & Operating Fund							
Motor Fuels Tax	\$ 685.3	0.3 %	\$ 729.7	\$ 715.1	\$ (14.6)	6.5 %	4.3 %
Road Tax	1.3	(63.9)	3.2	3.2	0.0	146.2	146.2
Motor Vehicle Sales And Use Tax	735.0	3.4	692.2	743.5	51.3	(5.8)	1.2
Motor Vehicle License Fees	243.6	2.7	239.0	246.2	7.2	(1.9)	1.1
Retail Sales and Use Tax	301.4	3.0	312.7	319.6	6.9	3.7	6.0
International Registration Plan	72.6	4.9	65.0	70.8	5.8	(10.5)	(2.5)
Miscellaneous	19.0	(3.1)	17.9	17.9	0.0	(5.8)	(5.8)
Total State Taxes and Fees	\$ 2,058.2	2.1 %	\$ 2,059.7	\$ 2,116.3	\$ 56.6	0.1 %	2.8 %
Transportation Trust Fund							
Motor Fuels Tax	\$ 159.6	(0.3) %	\$ 173.3	\$ 169.8	\$ (3.5)	8.6 %	6.4 %
Insurance Premiums Tax (1/3)	168.6	0.4	188.0	183.6	(4.4)	11.5	8.9
Road Tax	8.5	6.3	25.9	21.6	(4.3)	204.7	154.1
Motor Vehicle Sales And Use Tax	243.4	4.6	229.1	245.3	16.2	(5.9)	0.8
Motor Vehicle License Fees	22.5	4.2	58.9	53.0	(5.9)	161.8	135.6
Retail Sales and Use Tax	786.4	4.7	802.8	833.5	30.7	2.1	6.0
Recordation Tax	47.1	(1.5)	43.6	48.8	5.2	(7.4)	3.6
Interest Earnings	16.4	84.3	4.0	9.8	5.8	(75.6)	(40.2)
Rental Tax	42.5	5.7	43.5	43.6	0.1	2.4	2.6
Aviation Fuels Tax	2.0	0.0	2.0	2.0	0.0	0.0	0.0
Total State Taxes and Fees	\$ 1,497.0	3.9 %	\$ 1,571.1	\$ 1,611.0	\$ 39.9	4.9 %	7.6 %
Total HMOF And TTF							
Motor Fuels Tax	\$ 844.9	0.2 %	\$ 903.0	\$ 884.9	\$ (18.1)	6.9 %	4.7 %
Insurance Premiums Tax (1/3)	168.6	0.4	188.0	183.6	(4.4)	11.5	8.9
Road Tax	9.8	(15.5)	29.1	24.8	(4.3)	196.9	153.1
Motor Vehicle Sales and Use Tax	978.4	3.7	921.3	988.8	67.5	(5.8)	1.1
Motor Vehicle License Fees	266.1	2.8	297.9	299.2	1.3	12.0	12.4
International Registration Plan	72.6	4.9	65.0	70.8	5.8	(10.5)	(2.5)
Retail Sales and Use Tax	1,087.8	4.2	1,115.5	1,153.1	37.6	2.5	6.0
Recordation Tax (3 cents)	47.8	(1.5)	43.6	48.8	5.2	(8.8)	2.1
Interest Earnings	8.9	84.3	4.0	9.8	5.8	(55.1)	10.1
Rental Tax	40.2	5.7	43.5	43.6	0.1	8.2	8.5
Aviation Fuels Tax	2.0	0.0	2.0	2.0	0.0	0.0	0.0
Miscellaneous	19.6	(3.1)	17.9	17.9	0.0	(8.7)	(8.7)
Total State Taxes and Fees	\$ 3,555.2	2.8 %	\$ 3,630.8	\$ 3,727.3	\$ 96.5	2.1 %	4.8 %
Transfers per the Appropriations Act							
Retail Sales Tax - AST (TTF)	0.0	n/a	0.0	0.0	0.0	n/a	n/a
Total Transfers	\$ 0.0	n/a	\$ 0.0	\$ 0.0	\$ 0.0	n/a	n/a %
Total Transportation Fund	\$ 3,555.2	2.8	\$ 3,630.8	\$ 3,727.3	\$ 96.5	2.1 %	4.8 %

The Official forecast is based on the October 2018 Global Insight Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation and includes actions of the 2019 General Assembly.

The November forecast is based on the October 2019 Global Insight Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation.

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Table 4.4
The Official and November Commonwealth Transportation Fund Forecast for Fiscal Year 2021
(Dollars in Millions)

November 1, 2019

	Fiscal Year 2021				
	Official	November	Change	% Growth over FY 20	
	Forecast	Forecast		Official	November
Highway Maintenance & Operating Fund					
Motor Fuels Tax	\$ 733.3	\$ 717.1	\$ (16.2)	0.5 %	0.3 %
Road Tax	2.7	2.7	0.0	(15.6)	(15.6)
Motor Vehicle Sales And Use Tax	696.3	748.6	52.3	0.6	0.7
Motor Vehicle License Fees	239.3	247.8	8.5	0.1	0.6
Retail Sales and Use Tax	322.2	327.8	5.6	3.0	2.6
International Registration Plan	65.7	73.7	8.0	1.1	4.1
Miscellaneous	17.9	17.9	0.0	0.0	0.0
Total State Taxes and Fees (HMOF)	\$ 2,077.4	\$ 2,135.6	\$ 58.2	0.9 %	0.9 %
Transportation Trust Fund					
Motor Fuels Tax	\$ 174.1	\$ 170.3	\$ (3.8)	0.5 %	0.3 %
Insurance Premiums Tax (1/3)	199.4	197.6	(1.8)	6.1	7.6
Road Tax	51.2	51.2	0.0	97.7	137.0
Motor Vehicle Sales And Use Tax	230.3	247.0	16.7	0.5	0.7
Motor Vehicle License Fees	58.9	60.1	1.2	0.0	13.4
Retail Sales and Use Tax	827.2	855.2	28.0	3.0	2.6
Recordation Tax	43.6	45.3	1.7	0.0	(7.2)
Interest Earnings	4.0	12.0	8.0	0.0	22.4
Rental Tax	44.2	43.3	(0.9)	1.6	(0.7)
Aviation Fuels Tax	1.9	2.0	0.1	(5.0)	0.0
Total State Taxes and Fees (TTF)	\$ 1,634.8	\$ 1,684.0	\$ 49.2	4.1 %	4.5 %
Total HMOF And TTF					
Motor Fuels Tax	\$ 907.4	\$ 887.4	\$ (20.0)	0.5 %	0.3 %
Insurance Premiums Tax (1/3)	199.4	197.6	(1.8)	6.1	7.6
Road Tax	53.9	53.9	0.0	85.2	117.3
Motor Vehicle Sales and Use Tax	926.6	995.6	69.0	0.6	0.7
Motor Vehicle License Fees	298.2	307.9	9.7	0.1	2.9
International Registration Plan	65.7	73.7	8.0	1.1	4.1
Retail Sales and Use Tax	1,149.4	1,183.0	33.6	3.0	2.6
Recordation Tax (3 cents)	43.6	45.3	1.7	0.0	(7.2)
Interest Earnings	4.0	12.0	8.0	0.0	22.4
Rental Tax	44.2	43.3	(0.9)	1.6	(0.7)
Aviation Fuels Tax	1.9	2.0	0.1	(5.0)	0.0
Miscellaneous	17.9	17.9	0.0	0.0	0.0
Total State Taxes and Fees	\$ 3,712.2	\$ 3,819.6	\$ 107.4	2.2 %	2.5 %
Transfers per the Appropriations Act					
Retail Sales Tax - AST (TTF)	0.0	0.0	0.0	n/a	n/a
Total Transfers	\$ 0.0	\$ 0.0	\$ 0.0	n/a %	n/a %
Total Transportation Fund	\$ 3,712.2	\$ 3,819.6	\$ 107.4	2.2 %	2.5 %

The Official forecast is based on the October 2018 Global Insight Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation and includes actions of the 2019 General Assembly.

The November forecast is based on the October 2019 Global Insight Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation.

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Table 4.4
The Official and November Commonwealth Transportation Fund Forecast for Fiscal Year 2022
(Dollars in Millions)

November 1, 2019

	Fiscal Year 2022				
	Official Forecast	November Forecast	Change	% Growth over FY 21	
				Official	November
Highway Maintenance & Operating Fund					
Motor Fuels Tax	\$ 733.7	\$ 717.2	\$ (16.5)	0.1 %	0.0 %
Road Tax	2.7	2.7	0.0	0.0	(0.0)
Motor Vehicle Sales And Use Tax	713.5	766.5	53.0	2.5	2.4
Motor Vehicle License Fees	239.2	249.7	10.5	(0.0)	0.8
Retail Sales and Use Tax	329.7	333.1	3.4	(100.0)	1.6
International Registration Plan	66.1	73.6	7.5	0.6	(0.1)
Miscellaneous	17.9	17.9	0.0	0.0	0.0
Total State Taxes and Fees (HMOF)	\$ 2,102.8	\$ 2,160.7	\$ 57.9	1.2 %	1.2 %
Transportation Trust Fund					
Motor Fuels Tax	\$ 207.6	\$ 203.5	\$ (4.1)	19.2 %	19.5 %
Insurance Premiums Tax (1/3)	199.8	205.9	6.1	0.2	4.2
Road Tax	50.5	50.5	0.0	(1.4)	(1.4)
Motor Vehicle Sales And Use Tax	235.8	252.7	16.9	2.4	2.3
Motor Vehicle License Fees	58.9	60.3	1.4	0.0	0.3
Retail Sales and Use Tax	846.4	869.0	22.6	2.3	1.6
Recordation Tax	43.6	42.2	(1.4)	0.0	(6.8)
Interest Earnings	4.0	16.7	12.7	0.0	39.2
Rental Tax	44.2	42.9	(1.3)	0.0	(0.9)
Aviation Fuels Tax	2.0	2.0	0.0	5.3	0.0
Total State Taxes and Fees (TTF)	\$ 1,692.8	\$ 1,745.7	\$ 52.9	3.5 %	3.7 %
Total HMOF And TTF					
Motor Fuels Tax	\$ 941.3	\$ 920.7	\$ (20.6)	3.7 %	3.8 %
Insurance Premiums Tax (1/3)	199.8	205.9	6.1	0.2	4.2
Road Tax	53.2	53.2	0.0	(1.3)	(1.3)
Motor Vehicle Sales and Use Tax	949.3	1,019.2	69.9	2.4	2.4
Motor Vehicle License Fees	298.1	310.0	11.9	(0.0)	0.7
International Registration Plan	66.1	73.6	7.5	0.6	(0.1)
Retail Sales and Use Tax	1,176.1	1,202.1	26.0	2.3	1.6
Recordation Tax (3 cents)	43.6	42.2	(1.4)	0.0	(6.8)
Interest Earnings	4.0	16.7	12.7	0.0	39.2
Rental Tax	44.2	42.9	(1.3)	0.0	(0.9)
Aviation Fuels Tax	2.0	2.0	0.0	5.3	0.0
Miscellaneous	17.9	17.9	0.0	0.0	0.0
Total State Taxes and Fees	\$ 3,795.6	\$ 3,906.4	\$ 110.8	2.2 %	2.3 %
Transfers per the Appropriations Act					
Retail Sales Tax - AST (TTF)	0.0	0.0	0.0	n/a	n/a
Total Transfers	\$ 0.0	\$ 0.0	\$ 0.0	n/a %	n/a %
Total Transportation Fund	\$ 3,795.6	\$ 3,906.4	\$ 110.8	2.2 %	2.3 %

The Official forecast is based on the October 2018 Global Insight Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation and includes actions of the 2019 General Assembly.

The November forecast is based on the October 2019 Global Insight Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation.

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The Alternative Forecast

Table 4.5 on the following pages compares the official and November alternative Commonwealth Transportation Fund forecasts. Under the alternative forecast, total transportation fund revenues are reduced by a total of \$283.4 million over the next three fiscal years as compared to the November standard forecast..

This forecast is based on IHS Markit October 2019 alternative forecast and the corresponding Virginia state forecast.

NON-GENERAL FUND REVENUES

Table 4.5
The Official and November Commonwealth Transportation Fund Alternative Forecast for Fiscal Year 2020
(Dollars in Millions)

November 1, 2019

	Fiscal Year 2019		Fiscal Year 2020				
	Actual	% Growth	Official Forecast	November Forecast	Change	% Growth over FY 19	
						Official	November
Highway Maintenance & Operating Fund							
Motor Fuels Tax	\$ 685.3	0.3 %	\$ 729.7	\$ 711.6	\$ (18.1)	6.5 %	3.8 %
Road Tax	1.3	(63.9)	3.2	3.2	0.0	146.2	146.2
Motor Vehicle Sales And Use Tax	735.0	3.4	692.2	741.9	49.7	(5.8)	0.9
Motor Vehicle License Fees	243.6	2.7	239.0	246.2	7.2	(1.9)	1.1
Retail Sales and Use Tax	301.4	3.0	312.7	319.5	6.8	3.7	6.0
International Registration Plan	72.6	4.9	65.0	70.8	5.8	(10.5)	(2.5)
Miscellaneous	19.0	(3.1)	17.9	17.9	0.0	(5.8)	(5.8)
Total State Taxes and Fees	\$ 2,058.2	2.1 %	\$ 2,059.7	\$ 2,111.1	\$ 51.4	0.1 %	2.6 %
Transportation Trust Fund							
Motor Fuels Tax	\$ 159.6	(0.3) %	\$ 173.3	\$ 169.0	\$ (4.3)	8.6 %	5.9 %
Insurance Premiums Tax (1/3)	168.6	0.4	188.0	183.6	(4.4)	11.5	8.9
Road Tax	8.5	6.3	25.9	21.6	(4.3)	204.7	154.1
Motor Vehicle Sales And Use Tax	243.4	4.6	229.1	244.8	15.7	(5.9)	0.6
Motor Vehicle License Fees	22.5	4.2	58.9	53.0	(5.9)	161.8	135.6
Retail Sales and Use Tax	786.4	4.7	802.8	832.5	29.7	2.1	5.9
Recordation Tax	47.1	(1.5)	43.6	48.8	5.2	(7.4)	3.6
Interest Earnings	16.4	84.3	4.0	9.8	5.8	(75.6)	(40.2)
Rental Tax	42.5	5.7	43.5	43.6	0.1	2.4	2.6
Aviation Fuels Tax	2.0	0.0	2.0	2.0	0.0	0.0	0.0
Total State Taxes and Fees	\$ 1,497.0	3.9 %	\$ 1,571.1	\$ 1,608.7	\$ 37.6	4.9 %	7.5 %
Total HMOF And TTF							
Motor Fuels Tax	\$ 844.9	0.2 %	\$ 903.0	\$ 880.6	\$ (22.4)	6.9 %	4.2 %
Insurance Premiums Tax (1/3)	168.6	0.4	188.0	183.6	(4.4)	11.5	8.9
Road Tax	9.8	(15.5)	29.1	24.8	(4.3)	196.9	153.1
Motor Vehicle Sales and Use Tax	978.4	3.7	921.3	986.7	65.4	(5.8)	0.8
Motor Vehicle License Fees	266.1	2.8	297.9	299.2	1.3	12.0	12.4
International Registration Plan	72.6	4.9	65.0	70.8	5.8	(10.5)	(2.5)
Retail Sales and Use Tax	1,087.8	4.2	1,115.5	1,152.0	36.5	2.5	5.9
Recordation Tax (3 cents)	47.8	(1.5)	43.6	48.8	5.2	(8.8)	2.1
Interest Earnings	8.9	84.3	4.0	9.8	5.8	(55.1)	10.1
Rental Tax	40.2	5.7	43.5	43.6	0.1	8.2	8.5
Aviation Fuels Tax	2.0	0.0	2.0	2.0	0.0	0.0	0.0
Miscellaneous	19.6	(3.1)	17.9	17.9	0.0	(8.7)	(8.7)
Total State Taxes and Fees	\$ 3,555.2	2.8 %	\$ 3,630.8	\$ 3,719.8	\$ 89.0	2.1 %	4.6 %
Transfers per the Appropriations Act							
Retail Sales Tax - AST (TTF)	0.0	n/a	0.0	0.0	0.0	n/a	n/a
Total Transfers	\$ 0.0	n/a	\$ 0.0	\$ 0.0	\$ 0.0	n/a	n/a %
Total Transportation Fund	\$ 3,555.2	2.8	\$ 3,630.8	\$ 3,719.8	\$ 89.0	2.1 %	4.6 %

The Official forecast is based on the October 2018 Global Insight Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation and includes actions of the 2019 General Assembly.

The November forecast is based on the October 2019 Global Insight Alternative outlook and the corresponding Virginia state forecast developed by the Department of Taxation.

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Table 4.5
The Official and November Commonwealth Transportation Fund Alternative Forecast for Fiscal Year 2021
(Dollars in Millions)

November 1, 2019

	Fiscal Year 2021				
	Official	November	Change	% Growth over FY 20	
	Forecast	Forecast		Official	November
Highway Maintenance & Operating Fund					
Motor Fuels Tax	\$ 733.3	\$ 695.8	\$ (37.5)	0.5 %	(2.2) %
Road Tax	2.7	2.7	0.0	(15.6)	(15.6)
Motor Vehicle Sales And Use Tax	696.3	707.4	11.1	0.6	(4.7)
Motor Vehicle License Fees	239.3	247.8	8.5	0.1	0.6
Retail Sales and Use Tax	322.2	322.8	0.6	3.0	1.0
International Registration Plan	65.7	73.7	8.0	1.1	4.1
Miscellaneous	17.9	17.9	0.0	0.0	0.0
Total State Taxes and Fees (HMOF)	\$ 2,077.4	\$ 2,068.1	\$ (9.3)	0.9 %	(2.0) %
Transportation Trust Fund					
Motor Fuels Tax	\$ 174.1	\$ 165.2	\$ (8.9)	0.5 %	(2.2) %
Insurance Premiums Tax (1/3)	199.4	197.6	(1.8)	6.1	7.6
Road Tax	51.2	51.2	0.0	97.7	137.0
Motor Vehicle Sales And Use Tax	230.3	233.9	3.6	0.5	(4.5)
Motor Vehicle License Fees	58.9	60.1	1.2	0.0	13.4
Retail Sales and Use Tax	827.2	841.9	14.7	3.0	1.1
Recordation Tax	43.6	45.3	1.7	0.0	(7.2)
Interest Earnings	4.0	12.0	8.0	0.0	22.4
Rental Tax	44.2	43.3	(0.9)	1.6	(0.7)
Aviation Fuels Tax	1.9	2.0	0.1	(5.0)	0.0
Total State Taxes and Fees (TTF)	\$ 1,634.8	\$ 1,652.5	\$ 17.7	4.1 %	2.7 %
Total HMOF And TTF					
Motor Fuels Tax	\$ 907.4	\$ 861.0	\$ (46.4)	0.5 %	(2.2) %
Insurance Premiums Tax (1/3)	199.4	197.6	(1.8)	6.1	7.6
Road Tax	53.9	53.9	0.0	85.2	117.3
Motor Vehicle Sales and Use Tax	926.6	941.3	14.7	0.6	(4.6)
Motor Vehicle License Fees	298.2	307.9	9.7	0.1	2.9
International Registration Plan	65.7	73.7	8.0	1.1	4.1
Retail Sales and Use Tax	1,149.4	1,164.7	15.3	3.0	1.1
Recordation Tax (3 cents)	43.6	45.3	1.7	0.0	(7.2)
Interest Earnings	4.0	12.0	8.0	0.0	22.4
Rental Tax	44.2	43.3	(0.9)	1.6	(0.7)
Aviation Fuels Tax	1.9	2.0	0.1	(5.0)	0.0
Miscellaneous	17.9	17.9	0.0	0.0	0.0
Total State Taxes and Fees	\$ 3,712.2	\$ 3,720.6	\$ 8.4	2.2 %	0.0 %
Transfers per the Appropriations Act					
Retail Sales Tax - AST (TTF)	0.0	0.0	0.0	n/a	n/a
Total Transfers	\$ 0.0	\$ 0.0	\$ 0.0	n/a %	n/a %
Total Transportation Fund	\$ 3,712.2	\$ 3,720.6	\$ 8.4	2.2 %	0.0 %

The Official forecast is based on the October 2018 Global Insight Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation and includes actions of the 2019 General Assembly.
The November forecast is based on the October 2019 Global Insight Alternative outlook and the corresponding Virginia state forecast developed by the Department of Taxation.

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Table 4.5
The Official and November Commonwealth Transportation Fund Alternative Forecast for Fiscal Year 2022
(Dollars in Millions)

November 1, 2019

	Fiscal Year 2022				
	Official Forecast	November Forecast	Change	% Growth over FY 21	
				Official	November
Highway Maintenance & Operating Fund					
Motor Fuels Tax	\$ 733.7	\$ 682.1	\$ (51.6)	0.1 %	(2.0) %
Road Tax	2.7	2.7	0.0	0.0	(0.0)
Motor Vehicle Sales And Use Tax	713.5	709.9	(3.6)	2.5	0.4
Motor Vehicle License Fees	239.2	249.7	10.5	(0.0)	0.8
Retail Sales and Use Tax	329.7	326.0	(3.7)	(100.0)	1.0
International Registration Plan	66.1	73.6	7.5	0.6	(0.1)
Miscellaneous	17.9	17.9	0.0	0.0	0.0
Total State Taxes and Fees (HMOF)	\$ 2,102.8	\$ 2,061.9	\$ (40.9)	1.2 %	(0.3) %
Transportation Trust Fund					
Motor Fuels Tax	\$ 207.6	\$ 162.0	\$ (45.6)	19.2 %	(1.9) %
Insurance Premiums Tax (1/3)	199.8	205.9	6.1	0.2	4.2
Road Tax	50.5	50.5	0.0	(1.4)	(1.4)
Motor Vehicle Sales And Use Tax	235.8	234.7	(1.1)	2.4	0.3
Motor Vehicle License Fees	58.9	60.3	1.4	0.0	0.3
Retail Sales and Use Tax	846.4	850.4	4.0	2.3	1.0
Recordation Tax	43.6	42.2	(1.4)	0.0	(6.8)
Interest Earnings	4.0	16.7	12.7	0.0	39.2
Rental Tax	44.2	42.9	(1.3)	0.0	(0.9)
Aviation Fuels Tax	2.0	2.0	0.0	5.3	0.0
Total State Taxes and Fees (TTF)	\$ 1,692.8	\$ 1,667.6	\$ (25.2)	3.5 %	0.9 %
Total HMOF And TTF					
Motor Fuels Tax	\$ 941.3	\$ 844.1	\$ (97.2)	3.7 %	(2.0) %
Insurance Premiums Tax (1/3)	199.8	205.9	6.1	0.2	4.2
Road Tax	53.2	53.2	0.0	(1.3)	(1.3)
Motor Vehicle Sales and Use Tax	949.3	944.6	(4.7)	2.4	0.4
Motor Vehicle License Fees	298.1	310.0	11.9	(0.0)	0.7
International Registration Plan	66.1	73.6	7.5	0.6	(0.1)
Retail Sales and Use Tax	1,176.1	1,176.4	0.3	2.3	1.0
Recordation Tax (3 cents)	43.6	42.2	(1.4)	0.0	(6.8)
Interest Earnings	4.0	16.7	12.7	0.0	39.2
Rental Tax	44.2	42.9	(1.3)	0.0	(0.9)
Aviation Fuels Tax	2.0	2.0	0.0	5.3	0.0
Miscellaneous	17.9	17.9	0.0	0.0	0.0
Total State Taxes and Fees	\$ 3,795.6	\$ 3,729.5	\$ (66.1)	2.2 %	0.2 %
Transfers per the Appropriations Act					
Retail Sales Tax - AST (TTF)	0.0	0.0	0.0	n/a	n/a
Total Transfers	\$ 0.0	\$ 0.0	\$ 0.0	n/a %	n/a %
Total Transportation Fund	\$ 3,795.6	\$ 3,729.5	\$ (66.1)	2.2 %	0.2 %

The Official forecast is based on the October 2018 Global Insight Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation and includes actions of the 2019 General Assembly.

The November forecast is based on the October 2019 Global Insight Alternative outlook and the corresponding Virginia state forecast developed by the Department of Taxation.

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ABC Revenues and Profits Fiscal Year 2019

In fiscal year 2019, ABC's total revenue, excluding state tax receipts, was \$902.7 million. Gross sales of alcoholic beverages in the retail stores accounted for 97.5 percent of this income. The remaining 2.5 percent of income was generated largely through the Authority's regulatory and licensing activities. ABC's revenues, costs, and profits for fiscal years 2016 through 2019 are exhibited in Table 4.6.

Table 4.6
ALCOHOLIC BEVERAGE CONTROL AUTHORITY COMPONENTS
OF THE ENTERPRISE FUND - REVENUES, EXPENSES, DISBURSEMENTS
FISCAL YEARS 2016 - 2019
(Millions of Dollars)

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Total Revenue*	771.9	807.6	844.9	902.7
Cost of Goods & Total Operating Expenses	606.6	637.0	664.7	701.9
Net ABC Profit **	165.2	172.9	180.8	201.5
Transfer to the General Fund:				
Reimbursement for Appropriations as provided by the Acts of the Assembly	68.0	69.4	69.9	69.9
Net Profits for Distribution	96.9	101.7	109.3	126.7

*These revenue figures exclude state excise tax receipts collected for alcoholic beverages and the general sales tax collections.

** Net ABC Profit does not include the impact of GASB 75 - Accounting and Financial Reporting for Postemployment Benefits Other Than Pension, these calculations are currently in progress.

Table 4.7 on the following page displays fiscal year 2018 and fiscal year 2019 total store sales, net ABC profits for distribution, and state excise tax collected. Comparisons of ABC's performance in fiscal year 2018, estimated performance for fiscal year 2019, and actual results in fiscal year 2019, are also included in Table 4.7, which shows an increase in 2019 sales compared with 2018, an increase in net ABC profits for distribution, and an increase in state excise tax collected.

Table 4.7
ALCOHOLIC BEVERAGE CONTROL AUTHORITY
A COMPARISON OF FISCAL YEAR 2018 RESULTS
TO FISCAL YEAR 2019 ESTIMATED AND ACTUAL RESULTS
(Millions of Dollars)

	FY18 <u>Actual</u>	FY19 <u>Estimate</u>	FY19 <u>Actual</u>	Variance		Versus FY18 v FY19	
				<u>Amount</u>	<u>Percent</u>	<u>Estimate</u>	<u>Actual</u>
Total Store Sales*	983.4	1,031.0	1,054.3	23.3	0.0	47.6	70.9
Net ABC Profit for Distribution	109.3	112.9	126.7	13.8	0.1	3.6	17.4
State Tax Revenue**	189.4	199.1	203.5	4.4	0.0	9.7	14.1

*These figures include state excise tax receipts collected on alcoholic beverages and exclude the general sales tax collected at ABC stores.

**State Tax Revenue does not include \$9.1m wine liter tax transferred to MHMRSAS.

Sunday Sales - In fiscal year 2019 Sunday sales grew to \$79.4 million, up \$5.5 million, a 7.4% increase. This can be attributed to having 52 Sundays in fiscal year 2019, up from 51 in fiscal year 2018.

New Stores - During fiscal year 2019, Virginia ABC opened seven new stores across the state, generating \$7.8 million in sales. ABC also oversaw five store modernizations, three store expansions and four store relocations to improved market areas, enhancing customer service and accessibility.

Days of the Week - During fiscal year 2019, sales from Fridays totaled \$254.6 million, which was up by \$11.7 million despite having 52 Fridays in both fiscal year 2018 and 2019. Friday sales accounted for 24.1 percent of total sales.

Marketing & Merchandising – During fiscal year 2019, Virginia ABC continued to expand its consumer engagement initiatives to increase sales. Efforts included the most extensive promotional holiday campaign in Virginia ABC history with two Virginia ABC “firsts” – the first ever statewide media campaign and the first ever use of TV in the campaign to educate Virginia residents about the upcoming holiday promotions. The results were outstanding. Sales increased over the previous year generating \$7.5 million in incremental revenue, which paid out the incremental media investment several times over. The spring of 2019 saw the first ever Cyber MOM-Day and Cyber DAD-Day promotions to coincide with Mother’s Day and Father’s Day gift giving. These promotions brought greater attention and awareness to Virginia ABC’s e-commerce capabilities. These one-day offers (20% off all online purchases of \$100 or more) exceeded expectations. Cyber MOM-Day produced

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nearly 4,000 online orders for \$664,000 in sales and Cyber DAD-Day produced nearly 5,600 online orders for almost \$1,000,000 in sales.

Industry – The industry for alcoholic beverages (beer, wine, distilled spirits, ready-to-drink flavored alcoholic beverages, and cider) experienced a slight reduction (-0.3%) in volume in calendar year 2018 at the national level. However, the category of distilled spirits grew by 2.6% during the same time period while the beer category experience a reduction in volume. A national trend is developing that shows distilled spirits gaining market share in the overall alcoholic beverage industry.

Table 4.8
Alcoholic Beverage Control Authority Components
of the Enterprise Fund - Revenues, Expenses, and Disbursements
Fiscal Years 2016-2019 (\$ millions)

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Total Revenue*	771.9	807.6	844.9	902.7
Cost of Goods & Total Operating Expenses	606.6	637.0	664.2	701.4
Net ABC Profit	165.2	172.9	181.2	202.0
Transfer to the General Fund:				
Reimbursement for Appropriations as provided by the Acts of the Assembly	68.0	69.4	69.9	69.9
Net Profits for Distribution	96.9	101.7	109.3	126.7

*These revenue figures exclude receipts collected under the state tax on alcoholic beverages and the general sales tax.

Distribution of ABC Profits and ABC State Tax Revenues

During fiscal year 2019, ABC contributed \$201.5 million of net profits to the Commonwealth, and collected \$254.0 million of taxes on store sales, wine, and beer and an additional \$48.8 million of general sales tax totaling \$504.3 million.

Along with the net ABC profits, Table 4.8 displays appropriation transfers required by the Acts of the Assembly and net profits remaining after appropriation transfers that are

transferred to the General Fund for distribution. The appropriation transfers as provided by the Acts of the Assembly totaled \$69.9 million in 2019 and the net ABC profits for distribution increased from \$109.3 million to \$126.7 million. The increase in profits over the prior year was primarily driven by increased sales. The increase in sales was primarily driven by the marketing program mentioned above and strong holiday sales, attributable to a long holiday season, with Thanksgiving falling as early as it could in November.

Net ABC profits are deposited in the General Fund, except for certain appropriation transfers designated by the General Assembly including those to recover alcohol-related program costs. The Department of Behavioral Health and Developmental Services program for the treatment of alcoholics received \$65.4 million in 2019. This appropriation is charged against net ABC profits before profits are transferred to the General Fund. The remaining ABC profits are transferred into the General Fund as ABC profits.

In any given time period, amounts transferred to the General Fund will not correspond to net ABC profit earned, due to a 50 day interval before the profits are transferred to the Fund. In addition, ABC is required by statute to calculate profits on an accrual basis of accounting while transfers are made on a cash basis.

ABC Revenues and Profit Forecast for 2020-2022

Comparisons of ABC's performance in fiscal year 2018, estimated performance for fiscal year 2019, and actual performance in fiscal year 2019, are included in table 4.9 on the following page. Fiscal Year 2019 compared to 2018 shows an increase in sales, an increase in net ABC profits for distribution, and an increase in state tax revenue. Table 4.9 contains fiscal year 2019 results for store sales, profits for distribution and state tax revenues along with the 2020 through 2022 forecasts. Profit forecasts in Table 4.9 are net of any transfers mandated by the Appropriation Act.

ABC's profit forecast is a factor of two elements: sales performance and trends in expenses. In fiscal year 2020, ABC expects sales to continue to grow in both the retail and mixed beverage licensee (restaurant) segments. Sales growth projections are lower than the previous year due to the utilization of long-term forecasting and the higher than expected growth of fiscal year 2019. Diminishing returns from marketing initiatives are another contributing factor to a lower growth rate in fiscal year 2020. Sales from ABC's retail outlets continue to increase year over year. Uncontrollable factors such as holiday season sales and licensee sales have the potential to significantly impact the accuracy of ABC's sales forecast. Currently, ABC is experiencing growth in both retail and restaurant sales.

On the expense side, ABC is faced with mandated salary and benefit costs, energy inflation, automatic rent escalation, telecommunication and technology costs and growth in credit card discount fees that are all very difficult to influence in the short run. For fiscal year 2020 there are significant increases in amortization and ongoing support of new financial management, licensing and point-of-sale systems (\$2.5 million), new building project (\$1.3 million), VITA fees (\$1.0 million) and the statewide salary increase (\$4.1 million).

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Table 4.9
Forecast of ABC Store Sales, ABC State Tax on Alcohol,
and Net Profits for Distribution
(\$ millions)

	<u>Actual</u>	<u>Forecast</u>		
	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Total ABC Store Sales: (1)	1,054.3	1,106.8	1,156.6	1,208.7
Adjusted Net Profits for Distribution: (2) (3) (5)	126.7	121.6	121.8	125.2
ABC State Tax Revenues:(1)				
Spirits	174.1	181.0	189.1	197.6
Wine (4)	29.4	30.0	30.6	31.2
Total Tax Revenue:	203.5	211.0	219.7	228.8

(1) Excludes the general sales tax and lottery sales

(2) Does not include appropriation transfers mandated by Virginia Acts of Assembly

(3) ABC develops forecasts on an accrual basis. The transfer of profits occurs on a cash basis. Variances often occur at year end when ABC has to transfer estimated profits on June 30th.

(4) Wine figure excludes statutory transfers

(5) GASB Statement No. 87 will be implemented in 2021, which will impact profits for distribution

Personnel costs account for 57% of ABC non-merchandise expenditures, 17% are for continuous charges such as rent and utilities, 21% are for contractual services such as credit cards fees, shipping product to stores and telecommunications, and 5% are for miscellaneous expenses such as supplies and materials, equipment and depreciation. In fiscal years 2020 through 2022, increases in expenditures are exacerbated by the need to make significant ongoing infrastructure improvements in order to improve our information technology infrastructure. Currently, several of the ABC's systems are dated and have reached their end-of-life, needing to be upgraded to maintain viability and to keep up with ABC's growing needs. Upgrading the outdated systems also addresses an Auditor of Public Accounts audit point, ensuring that ABC complies with state and industry security standards. Relocation to a new central office building, along with relocation of the ABC's warehouse, are also included in these ongoing infrastructure improvements. Changes in salary and benefit cost rates, as well as mandated Appropriations Act transfers, can also significantly impact the accuracy of ABC's expense forecasts. Additionally, implementation of GASB Statement No. 87 will have an impact on profit in fiscal year 2021 and beyond.

Virginia Lottery

Each fiscal year, the Lottery makes periodic transfers of net income (revenues from sales plus other income, minus expenses) to the Lottery Proceeds Fund, in accordance with the schedule included in the Appropriations Act. Expenses are comprised of prizes to players, commissions to retailers, ticket printing and distribution, contractual fees for gaming system operations, and administrative operating costs. The primary drivers of the net income transferred are sales of lottery products and prizes paid to players.

Actual Results - Fiscal Year 2019

The Virginia Lottery transferred \$632.4 million to the Lottery Proceeds Fund during fiscal year 2019. The Lottery also transferred \$2.5 million for debt set-off to the Department of Taxation and \$6.5 million from unclaimed prizes to the Literary Fund.

Sales for fiscal year 2019 were \$2.294 billion, an increase of \$153.7 million (+7.2 percent) from fiscal year 2018. Net income was \$649.7 million, \$43.5 million (+7.2 percent) more than fiscal year 2018, due to strong sales.

Total transfers to the Lottery Proceeds Fund during fiscal year 2019 were as follows: \$9.6 million in residual profits from fiscal year 2018, and \$622.8 in estimated profits from fiscal year 2019. The \$26.9 million of residual fiscal year 2019 profits, transferred in August 2019 after the 2019 fiscal year results were certified by the Auditor of Public Accounts, will be included in the total fiscal year 2020 transfers.

Forecast Overview - Fiscal Years 2020 through 2022

The Virginia Lottery developed its sales and revenue forecasts based upon a variety of baseline assumptions, including:

- the economic outlook as endorsed by the Joint Advisory Board of Economists, in particular with respect to long-term interest rates and U.S. Treasury-issued bond yields;
- continued traditional lottery gaming competition from neighboring jurisdictions, as well as the increased competition from internet lottery sales and casino-style gaming in nearby jurisdictions including Maryland, Washington, D.C., North Carolina, West Virginia, Kentucky and Delaware;
- no legislatively-mandated change in the overall compensation rate paid to retailers offering Lottery products, or other constraints on Lottery expenses including prizes;
- no additional legislatively mandated limitation on the administrative spending for the Lottery, other than the current statutory 10 percent spending cap in place since the Lottery's inception;
- no new constraints on the Lottery's sales and marketing efforts, including the ability to advertise products, establish prizes paid to players, and offer licensed property and other lottery games of chance that appeal to consumers; and

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- no expansion of internet gaming in Virginia, and no change to the continued presence of gray “games of skill” machines in retail establishments throughout the Commonwealth.

For fiscal year 2020, the Lottery is projecting sales of \$2.147 billion and net income (turnover to the Lottery Proceeds Fund) of \$586.6 million. Prize expense is estimated to be \$1.318 billion, or 61.4 percent of sales; retailer compensation is forecast to be \$120.7 million, or 5.6 percent of sales. This forecast takes into account current trends and simulation models for jackpot progressions and sales, and statistically expected prize expense rates. The total estimated \$586.6 million (\$586,581,352) net income, plus the residual \$26.9 million of fiscal year19 profits that will be transferred during fiscal year20, brings the total expected transfers to the Lottery Proceeds Fund for fiscal year2020 to \$613.4 million (\$613,449,864). This is a decrease of \$15,380,637 from the figure in Chapter 2 for fiscal year2020.

For fiscal years 2021 and 2022, the Lottery expects that sales will grow, creating revenue for the Lottery Proceeds Fund of \$616.2 million (\$616,156,022) in fiscal year21, and \$622.3 million (\$622,317,582) in fiscal year22, for a total \$1.238 billion for the biennium.

Sales Projections for Fiscal Years 2020 through 2022

For each fiscal year forecast, the Lottery total forecast is the sum of sales forecasts developed by the Lottery for each of its products. The methodology for each estimate is dependent upon the nature of the product. The data used in our models include such factors as: experiences of other U.S. and Canadian lotteries, variability of prize percentage, economic variables such as predicted interest rates, seasonal factors, promotions, product life cycle, and the Lottery’s future plans for each of the products.

Scratch Games

Scratch games account for about 55 percent of total lottery sales. Sales of scratch games are expected to sustain its total product share over the forecast period, as players continue to support the variety of games offered in Virginia. The key to the maintenance and growth of scratch sales over the forecast horizon will be actively managing our comprehensive portfolio of games at various price points and prize levels, as well as continuing to maintain and expand our retail distribution network and improve the use of technology for our 5,300 retail partners across Virginia.

The Jackpot-Style Games: Mega Millions, Powerball, Bank a Million, and Cash 4 Life

About 10 percent of the Lottery’s sales come from jackpot-style games - those games offering top prizes in the millions of dollars. The Lottery currently offers four such games - Mega Millions, Powerball, Bank a Million and Cash 4 Life. “Luck of the draw” plays a major role in the sales performance of Mega Millions and Powerball. Drawings of random numbers determine whether the jackpot prize is won or whether it “rolls” and continues to

grow. High jackpots increase levels of play. Conversely, high frequency of jackpot winners means less jackpot growth and lower sales. Since drawings of random numbers determine the frequency of jackpot wins, which is a large determinant of sales levels for these games, there is inherently a large degree of uncertainty in any forecast for these large jackpot games.

Another key determinant of sales levels for these games is the prevailing interest rate. The Lottery would invest the prize pool for a jackpot prize in U.S. Treasury Bonds to create the necessary annuity income stream. At a given level of sales and resulting cash pool, the higher the yield of the bonds, the higher an annuity jackpot prize may be advertised. Higher advertised jackpots lead to higher sales. Thus in periods of high interest rates, jackpots grow relatively quickly and sales are stable. In periods of low interest rates, jackpots grow slowly and sales decline. Current bond yields continue to be very low.

Bank a Million and Cash 4 Life, the other jackpot-style games currently offered in Virginia, offer a fixed prize to players without regard to the number of winners resulting from any single drawing. Player awareness of these types of games, and frequent game refreshes, are key to these products' success. These games also pose a short-term profitability risk because of the large fixed prizes available for each drawing.

Efforts to expand multi-state jackpot game offerings among all U.S. Lottery states led to the 2010 breakthrough agreement between the two major consortia – Mega Millions and Powerball. Those efforts were intended to strengthen both the current games and potentially lead to further collaborative game offerings. Because there are so many states involved in these types of national agreements, these types of initiatives have experienced delays and setbacks over the years. There are no significant changes expected for these national games within the forecast horizon.

Daily Games

The Lottery's other drawing games – those games sold through the network of Lottery computer terminals and where winners are determined by a random drawing – collectively referred to as “daily games,” are Pick 3, Pick 4 and Cash 5. Daily games comprise about a third of total Lottery sales. Each of these products operates on approximately the same profit margin. Some play is expected to continue to shift from Pick 3 to Pick 4 over time. Cash 5 is expected to continue to exhibit stable sales, an unusual phenomenon and contrary to the experiences of other U.S. lotteries that have seen their Cash 5 sales decline more significantly.

Other Products

Since fiscal year 2007, the Lottery has offered additional products to players. These other offerings now include the limited-time offering of raffle tickets, a line of “print and play” style games, and digital e-Games available for purchase by registered players while on-premise at a licensed retailer location. Raffle style games offer a fixed number of tickets for

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sale, and each ticket has an equal chance to win predetermined prizes. Print and play style games are printed at retailer terminals, and offer an instant-win experience for consumers. These other products comprise about 5 percent of total lottery sales.

Net Income for Fiscal Years 2020 through 2022

The Lottery is forecasting net income of \$586.6 million for fiscal year 2020, \$616.2 million for fiscal year 2021, and \$622.3 million for fiscal year 2022. The Lottery's largest expense, prizes to players, is expected to increase over this period as players continue to buy more of the higher price point scratch games, which pay a higher portion of sales back in prizes. Retailers should continue to earn commissions and incentives equal to about 5.6 percent of sales. Operating expenses are projected to remain low, less than 6 percent of total sales – about half of the 10 percent statutory maximum.

Table 4.10
Forecast of Lottery Sales and Transfers to the Lottery Proceeds Fund
(in \$ millions)

	Fiscal Year 20	Fiscal Year 21	Fiscal Year 22
Sales	2,146.9	2,283.4	2,306.2
- Prize Expense	1,318.0	1,414.1	1,428.2
- Retailer Compensation	120.7	128.4	129.7
- Operating Expenses	123.1	126.2	127.5
+ Other Income	1.5	1.5	1.5
Net Income	586.6	616.2	622.3
Other Transfers	26.9	-	-
Total Available	613.5	616.2	622.3

Ongoing Risks to the Forecast

There are always a number of ongoing risks associated with the Virginia Lottery's forecast that could significantly affect the Lottery's transfer to the Lottery Proceeds Fund. The first is luck. Since the basis of many of the Lottery's products is a random drawing, in the relatively short period of one year, a wide range of outcomes can occur. If the Lottery experiences unusually high payouts in its daily games in any given year, sales may be higher than projected, but income lower simply due to players winning more money. Luck is also a primary driver of sales for Mega Millions and Powerball. If jackpots are won with more frequency than expected, then sales will be lower than expected, due to small jackpots. A long period without a jackpot win can generate much higher sales due to the growth of the jackpot; this was the case in January 2016 when the Powerball jackpot grew to a world

record \$1.6 billion, and again in fiscal year 2019 with Mega Millions setting a record of \$1,5 billion. This type of sales activity is never anticipated as part of a forecast of expected results, and can have longer-term negative impacts on game sales.

A second risk is competition from other gaming opportunities available to consumers. Many state lotteries, including North Carolina, Kentucky and Georgia, have initiated internet-based product offerings not available in Virginia. With the December 2011 Department of Justice ruling that helped clarify the legality of internet gaming, many states are progressing toward offering internet gaming that would provide Virginia consumers a more readily available outlet for their gaming dollars. This continued expansion will also change consumer expectations and demands for how they are able to buy Lottery products. Virginia has a statutory restriction that allows only subscription-based internet Lottery sales. A legislative study of internet gaming was conducted in 2015, and there is continued interest among players to legalize additional internet lottery sales to meet digital player expectations.

Increased competition from casino offerings in Maryland (which began in 2010), and historical horse racing venues in Virginia, may have an increasingly negative impact on traditional lottery product sales in Virginia. The increase in competition for gaming dollars along the heavily populated northern Virginia border is in addition to the well-established competition from video lottery and table games offerings in West Virginia. Expanded gaming options in West Virginia and Delaware are also aggressively advertised in Virginia markets. And the legalization of historic horse wagering in Virginia, and the potential for Tribal gaming, will provide in-state gaming options in competition with the Lottery games. But the most pervasive and impactful competition has quickly escalated in calendar year 2019, with the rapid expansion and deployment of gray “games of skill” machines in nearly a third of licensed lottery retail outlets. These unregulated and untaxed machines provide players with another readily-available choice for spending their gaming dollars. Our updated forecasts show annual profit impacts of over \$40 million as a result of expanding competition.

Finally, the 2018 Supreme Court ruling that repealed the Professional Amateur Sports Protection Act (PASPA) has made legalized sports betting a reality in several states, as nearby as West Virginia, New Jersey, Pennsylvania and Delaware, with impending plans in the District of Columbia.

The current estimates of sales and profits also presume that the Lottery’s appropriation authority is sufficient to support its operations for activities including investments in technology, sales equipment necessary for the expansion of the Lottery retailer network, advertising, and contractual commitments to vendor partners that are primarily based on percentage of sales agreements. Estimates also do not anticipate any change in the distribution of lottery profits, or any change in the prize allocations or prize types available to players.

APPENDIX A

ECONOMIC DATA

TABLE A.1 - QUARTERLY NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	History											
	2016.3	2016.4	2017.1	2017.2	2017.3	2017.4	2018.1	2018.2	2018.3	2018.4	2019.1	2019.2
Real Gross Domestic Product, Billions \$, SAAR	17,735.1	17,824.2	17,925.3	18,021.0	18,163.6	18,322.5	18,438.3	18,598.1	18,732.7	18,783.5	18,927.3	19,021.9
Annualized % Change	2.2	2.0	2.3	2.2	3.2	3.5	2.6	3.5	2.9	1.1	3.1	2.0
% Change from Prior Year's Quarter	1.6	2.0	2.1	2.2	2.4	2.8	2.9	3.2	3.1	2.5	2.7	2.3
Real Consumer Spending, Billions \$, SAAR	12,289.1	12,365.3	12,438.9	12,512.9	12,586.3	12,729.7	12,782.9	12,909.2	13,019.8	13,066.3	13,103.3	13,250.0
Annualized % Change	2.6	2.5	2.4	2.4	2.4	4.6	1.7	4.0	3.5	1.4	1.1	4.6
% Change from Prior Year's Quarter	2.6	2.8	2.6	2.5	2.4	2.9	2.8	3.2	3.4	2.6	2.5	2.6
U.S. Personal Income, Billions \$, SAAR	16,175.5	16,342.6	16,604.1	16,749.6	16,930.4	17,231.2	17,540.3	17,725.0	17,928.5	18,082.8	18,355.4	18,599.6
Annualized % Change	3.7	4.2	6.6	3.6	4.4	7.3	7.4	4.3	4.7	3.5	6.2	5.4
% Change from Prior Year's Quarter	2.2	2.9	4.2	4.5	4.7	5.4	5.6	5.8	5.9	4.9	4.6	4.9
Virginia Personal Income, Millions \$, SAAR	451,875.1	457,068.4	461,892.6	464,751.4	469,581.0	476,484.3	485,066.7	489,161.1	495,351.6	499,671.3	506,002.0	513,068.7
Annualized % Change	3.2	4.7	4.3	2.5	4.2	6.0	7.4	3.4	5.2	3.5	5.2	5.7
% Change from Prior Year's Quarter	1.3	2.4	3.5	3.7	3.9	4.2	5.0	5.3	5.5	4.9	4.3	4.9
Virginia Wages and Salaries, Millions \$, SAAR	231,300.5	234,887.2	237,230.8	238,930.8	241,492.1	244,026.8	248,304.7	249,365.7	252,634.0	254,028.5	258,315.1	261,658.3
Annualized % Change	4.3	6.3	4.1	2.9	4.4	4.3	7.2	1.7	5.3	2.2	6.9	5.3
% Change from Prior Year's Quarter	1.6	3.0	4.2	4.4	4.4	3.9	4.7	4.4	4.6	4.1	4.0	4.9
Virginia Dividends, Interest, and Rent, Millions \$, SAAR	93,655.4	94,527.7	96,271.3	96,967.5	97,622.2	100,257.2	102,627.6	104,443.5	105,989.4	106,982.6	106,094.2	107,756.4
Annualized % Change	3.2	3.8	7.6	2.9	2.7	11.2	9.8	7.3	6.1	3.8	(3.3)	6.4
% Change from Prior Year's Quarter	2.1	3.5	4.5	4.4	4.2	6.1	6.6	7.7	8.6	6.7	3.4	3.2
Virginia Total Proprietor's Income, Millions \$, SAAR	26,760.6	26,908.3	26,931.5	26,840.9	26,930.3	27,384.9	27,693.5	27,915.8	28,260.3	28,723.9	28,867.9	29,162.3
Annualized % Change	2.6	2.2	0.3	(1.3)	1.3	6.9	4.6	3.3	5.0	6.7	2.0	4.1
% Change from Prior Year's Quarter	(5.1)	(3.8)	0.9	0.9	0.6	1.8	2.8	4.0	4.9	4.9	4.2	4.5

SAAR: Seasonally Adjusted at Annual Rates
SA: Seasonally Adjusted

TABLE A.1 - QUARTERLY NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	History											
	2016.3	2016.4	2017.1	2017.2	2017.3	2017.4	2018.1	2018.2	2018.3	2018.4	2019.1	2019.2
Total U.S. Employment, Millions, SA	144.7	145.2	145.8	146.3	146.9	147.4	148.0	148.7	149.4	150.1	150.7	151.1
Annualized % Change	2.0	1.5	1.6	1.4	1.5	1.5	1.8	1.9	1.8	1.7	1.7	1.2
% Change from Prior Year's Quarter	1.8	1.7	1.7	1.6	1.5	1.5	1.5	1.6	1.7	1.8	1.8	1.6
Virginia Total Nonag. Employment, Thousands, SA	3,918.1	3,931.1	3,945.1	3,949.2	3,958.3	3,971.3	3,994.9	4,004.6	4,018.6	4,015.7	4,043.0	4,042.4
Annualized % Change	1.0	1.3	1.4	0.4	0.9	1.3	2.4	1.0	1.4	(0.3)	2.8	(0.1)
% Change from Prior Year's Quarter	1.1	0.8	1.1	1.0	1.0	1.0	1.3	1.4	1.5	1.1	1.2	0.9
CPI, All Urban, 1982-1984=1.0, SA	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6
Annualized % Change	1.9	2.6	2.8	0.4	2.2	3.1	3.2	2.1	2.0	1.5	0.9	2.9
% Change from Prior Year's Quarter	1.2	1.8	2.5	1.9	2.0	2.1	2.2	2.7	2.6	2.2	1.6	1.8
Refiner's Acquisition Cost of Oil, \$ per Barrel	42.9	46.5	50.0	47.7	48.4	56.7	61.9	67.2	69.1	59.6	57.0	63.6
Quarterly Change	0.7	3.6	3.4	(2.2)	0.7	8.2	5.3	5.3	1.9	(9.5)	(2.6)	6.6
Change from Prior Year's Quarter	(4.7)	5.9	19.2	5.5	5.5	10.1	12.0	19.5	20.7	3.0	(4.9)	(3.6)
Before-Tax Corporate Profits, Billions \$, SAAR	2,119.3	2,156.3	2,187.9	2,168.9	2,204.6	1,970.4	2,043.9	2,076.4	2,087.1	2,046.5	2,015.5	2,084.9
Annualized % Change	(2.6)	7.2	6.0	(3.4)	6.8	(36.2)	15.8	6.5	2.1	(7.6)	(5.9)	14.5
% Change from Prior Year's Quarter	(0.6)	7.8	6.2	1.7	4.0	(8.6)	(6.6)	(4.3)	(5.3)	3.9	(1.4)	0.4
S&P 500 Stock Market Index, Level	2,161.4	2,184.9	2,323.9	2,396.2	2,467.7	2,605.0	2,732.6	2,703.2	2,851.0	2,692.0	2,722.1	2,882.9
Annualized % Change	17.7	4.4	28.0	13.0	12.5	24.2	21.1	(4.2)	23.7	(20.5)	4.5	25.8
% Change from Prior Year's Quarter	6.7	6.4	19.3	15.5	14.2	19.2	17.6	12.8	15.5	3.3	(0.4)	6.6
30-Year Treasury Bonds, Level	2.3	2.8	3.0	2.9	2.8	2.8	3.0	3.1	3.1	3.3	3.0	2.8
Quarterly Change	(0.3)	0.5	0.2	(0.1)	(0.1)	(0.0)	0.2	0.1	(0.0)	0.2	(0.3)	(0.2)
Change from Prior Year's Quarter	(0.7)	(0.1)	0.3	0.3	0.5	(0.0)	(0.0)	0.2	0.2	0.4	(0.0)	(0.3)

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.2 - QUARTERLY NATIONAL AND VIRGINIA ECONOMIC VARIABLE:

	October Standard Forecast											
	2019.3	2019.4	2020.1	2020.2	2020.3	2020.4	2021.1	2021.2	2021.3	2021.4	2022.1	2022.2
Real Gross Domestic Product, Billions \$, SAAR	19,096.8	19,186.5	19,270.4	19,378.2	19,485.8	19,590.0	19,683.7	19,773.0	19,852.8	19,945.7	20,036.0	20,120.3
Annualized % Change	1.6	1.9	1.8	2.3	2.2	2.2	1.9	1.8	1.6	1.9	1.8	1.7
% Change from Prior Year's Quarter	1.9	2.1	1.8	1.9	2.0	2.1	2.1	2.0	1.9	1.8	1.8	1.8
Real Consumer Spending, Billions \$, SAAR	13,339.9	13,435.0	13,515.2	13,600.5	13,688.8	13,778.3	13,868.6	13,956.4	14,041.5	14,127.9	14,212.2	14,292.6
Annualized % Change	2.7	2.9	2.4	2.5	2.6	2.6	2.6	2.6	2.5	2.5	2.4	2.3
% Change from Prior Year's Quarter	2.5	2.8	3.1	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.4
U.S. Personal Income, Billions \$, SAAR	18,763.6	18,963.6	19,156.3	19,350.1	19,553.3	19,757.3	19,987.7	20,201.5	20,408.0	20,623.4	20,861.6	21,081.7
Annualized % Change	3.6	4.3	4.1	4.1	4.3	4.2	4.7	4.3	4.2	4.3	4.7	4.3
% Change from Prior Year's Quarter	4.7	4.9	4.4	4.0	4.2	4.2	4.3	4.4	4.4	4.4	4.4	4.4
Virginia Personal Income, Millions \$, SAAR	516,982.3	523,175.4	529,081.9	533,548.6	541,026.3	544,935.0	550,256.6	554,991.7	560,470.8	566,893.2	573,503.1	579,343.1
Annualized % Change	3.1	4.9	4.6	3.4	5.7	2.9	4.0	3.5	4.0	4.7	4.7	4.1
% Change from Prior Year's Quarter	4.4	4.7	4.6	4.0	4.7	4.2	4.0	4.0	3.6	4.0	4.2	4.4
Virginia Wages and Salaries, Millions \$, SAAR	261,901.4	266,194.9	269,798.3	271,657.2	275,271.7	278,231.0	281,246.5	284,013.3	286,906.2	289,599.7	292,307.8	294,932.1
Annualized % Change	0.4	6.7	5.5	2.8	5.4	4.4	4.4	4.0	4.1	3.8	3.8	3.6
% Change from Prior Year's Quarter	3.7	4.8	4.4	3.8	5.1	4.5	4.2	4.5	4.2	4.1	3.9	3.8
Virginia Dividends, Interest, and Rent, Millions \$, SAAR	109,343.3	111,277.6	112,088.1	113,310.2	116,411.7	117,719.0	117,322.9	117,288.0	118,837.5	120,620.4	121,868.0	123,127.8
Annualized % Change	6.0	7.3	2.9	4.4	11.4	4.6	(1.3)	(0.1)	5.4	6.1	4.2	4.2
% Change from Prior Year's Quarter	3.2	4.0	5.6	5.2	6.5	5.8	4.7	3.5	2.1	2.5	3.9	5.0
Virginia Total Proprietor's Income, Millions \$, SAAR	29,303.1	29,248.3	28,680.2	28,313.3	28,394.4	28,475.4	28,556.5	28,637.5	28,718.6	28,799.7	28,880.7	28,961.8
Annualized % Change	1.9	(0.7)	(7.5)	(5.0)	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
% Change from Prior Year's Quarter	3.7	1.8	(0.7)	(2.9)	(3.1)	(2.6)	(0.4)	1.1	1.1	1.1	1.1	1.1

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.2 - QUARTERLY NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	October Standard Forecast											
	2019.3	2019.4	2020.1	2020.2	2020.3	2020.4	2021.1	2021.2	2021.3	2021.4	2022.1	2022.2
Total U.S. Employment, Millions, SA	151.5	151.9	152.3	152.8	152.9	153.1	153.4	153.8	154.0	154.2	154.4	154.6
Annualized % Change	1.2	1.0	0.9	1.5	0.2	0.6	0.8	0.8	0.6	0.6	0.5	0.5
% Change from Prior Year's Quarter	1.4	1.2	1.1	1.1	0.9	0.8	0.8	0.6	0.7	0.7	0.6	0.6
Virginia Total Nonag. Employment, Thousands, SA	4,057.4	4,067.0	4,075.7	4,087.3	4,089.6	4,092.8	4,101.0	4,107.1	4,110.7	4,113.9	4,116.6	4,118.1
Annualized % Change	1.5	0.9	0.9	1.2	0.2	0.3	0.8	0.6	0.4	0.3	0.3	0.2
% Change from Prior Year's Quarter	1.0	1.3	0.8	1.1	0.8	0.6	0.6	0.5	0.5	0.5	0.4	0.3
CPI, All Urban, 1982-1984=1.0, SA	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.7
Annualized % Change	1.9	3.0	2.4	1.3	2.0	1.2	1.7	2.6	2.1	1.6	3.0	3.0
% Change from Prior Year's Quarter	1.8	2.2	2.6	2.1	2.2	1.7	1.5	1.9	1.9	2.0	2.3	2.4
Refiner's Acquisition Cost of Oil, \$ per Barrel	55.4	62.2	62.5	58.2	57.5	53.9	52.3	54.7	54.6	52.3	56.1	59.3
Quarterly Change	(8.2)	6.8	0.2	(4.3)	(0.7)	(3.6)	(1.5)	2.3	(0.0)	(2.3)	3.8	3.2
Change from Prior Year's Quarter	(13.6)	2.6	5.4	(5.4)	2.0	(8.3)	(10.1)	(3.5)	(2.8)	(1.6)	3.8	4.7
Before-Tax Corporate Profits, Billions \$, SAAR	2,079.7	2,112.3	2,107.7	2,107.0	2,143.0	2,165.8	2,187.4	2,220.5	2,238.9	2,258.9	2,296.0	2,328.4
Annualized % Change	(1.0)	6.4	(0.9)	(0.1)	7.0	4.3	4.0	6.2	3.4	3.6	6.7	5.8
% Change from Prior Year's Quarter	(0.4)	3.2	4.6	1.1	3.0	2.5	3.8	5.4	4.5	4.3	5.0	4.9
S&P 500 Stock Market Index, Level	2,957.6	2,991.9	3,006.9	3,004.5	3,003.8	3,005.6	3,008.1	3,016.8	3,030.8	3,047.2	3,065.7	3,084.6
Annualized % Change	10.8	4.7	2.0	(0.3)	(0.1)	0.2	0.3	1.2	1.9	2.2	2.5	2.5
% Change from Prior Year's Quarter	3.7	11.1	10.5	4.2	1.6	0.5	0.0	0.4	0.9	1.4	1.9	2.2
30-Year Treasury Bonds, Level	2.3	2.1	2.3	2.5	2.7	2.8	3.0	3.1	3.2	3.3	3.4	3.5
Quarterly Change	(0.5)	(0.1)	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Change from Prior Year's Quarter	(0.8)	(1.1)	(0.7)	(0.3)	0.4	0.7	0.6	0.6	0.5	0.5	0.4	0.4

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.2 - QUARTERLY NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	Pessimistic Alternative Scenario											
	2019.3	2019.4	2020.1	2020.2	2020.3	2020.4	2021.1	2021.2	2021.3	2021.4	2022.1	2022.2
Real Gross Domestic Product, Billions \$, SAAR	19,097.0	19,165.0	19,213.1	19,216.4	19,057.8	18,924.2	18,852.6	18,987.9	19,142.7	19,286.4	19,433.8	19,543.9
Annualized % Change	1.6	1.4	1.0	0.1	(3.3)	(2.8)	(1.5)	2.9	3.3	3.0	3.1	2.3
% Change from Prior Year's Quarter	1.9	2.0	1.5	1.0	(0.2)	(1.3)	(1.9)	(1.2)	0.4	1.9	3.1	2.9
Real Consumer Spending, Billions \$, SAAR	13,339.9	13,429.2	13,484.6	13,541.6	13,581.4	13,597.5	13,617.7	13,645.4	13,704.4	13,774.8	13,844.4	13,908.2
Annualized % Change	2.7	2.7	1.7	1.7	1.2	0.5	0.6	0.8	1.7	2.1	2.0	1.9
% Change from Prior Year's Quarter	2.5	2.8	2.9	2.2	1.8	1.3	1.0	0.8	0.9	1.3	1.7	1.9
U.S. Personal Income, Billions \$, SAAR	18,763.6	18,949.7	19,112.2	19,240.8	19,283.2	19,277.0	19,296.4	19,389.4	19,538.6	19,746.7	20,010.5	20,242.9
Annualized % Change	3.6	4.0	3.5	2.7	0.9	(0.1)	0.4	1.9	3.1	4.3	5.5	4.7
% Change from Prior Year's Quarter	4.7	4.8	4.1	3.4	2.8	1.7	1.0	0.8	1.3	2.4	3.7	4.4
Virginia Personal Income, Millions \$, SAAR	516,977.6	522,933.5	528,133.4	531,478.9	536,559.0	535,963.7	535,783.4	535,527.6	537,351.6	542,277.9	548,542.8	554,204.1
Annualized % Change	3.1	4.7	4.0	2.6	3.9	(0.4)	(0.1)	(0.2)	1.4	3.7	4.7	4.2
% Change from Prior Year's Quarter	4.4	4.7	4.4	3.6	3.8	2.5	1.4	0.8	0.1	1.2	2.4	3.5
Virginia Wages and Salaries, Millions \$, SAAR	261,902.3	266,005.8	269,149.4	270,328.8	272,576.9	273,351.0	273,864.0	274,672.1	275,760.3	277,394.4	279,558.5	281,825.2
Annualized % Change	0.4	6.4	4.8	1.8	3.4	1.1	0.8	1.2	1.6	2.4	3.2	3.3
% Change from Prior Year's Quarter	3.7	4.7	4.2	3.3	4.1	2.8	1.8	1.6	1.2	1.5	2.1	2.6
Virginia Dividends, Interest, and Rent, Millions \$, SAAR	109,342.4	111,289.5	112,025.0	112,859.6	114,935.2	114,233.2	111,278.0	108,799.1	109,041.1	110,748.0	112,502.0	114,155.9
Annualized % Change	6.0	7.3	2.7	3.0	7.6	(2.4)	(10.0)	(8.6)	0.9	6.4	6.5	6.0
% Change from Prior Year's Quarter	3.2	4.0	5.6	4.7	5.1	2.6	(0.7)	(3.6)	(5.1)	(3.1)	1.1	4.9
Virginia Total Proprietor's Income, Millions \$, SAAR	29,302.6	29,251.6	28,786.1	27,933.4	26,574.2	25,938.0	25,979.2	27,566.1	28,965.8	29,694.2	30,133.2	30,303.8
Annualized % Change	1.9	(0.7)	(6.2)	(11.3)	(18.1)	(9.2)	0.6	26.8	21.9	10.4	6.0	2.3
% Change from Prior Year's Quarter	3.7	1.8	(0.3)	(4.2)	(9.3)	(11.3)	(9.8)	(1.3)	9.0	14.5	16.0	9.9

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.2 - QUARTERLY NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	Pessimistic Alternative Scenario											
	2019.3	2019.4	2020.1	2020.2	2020.3	2020.4	2021.1	2021.2	2021.3	2021.4	2022.1	2022.2
Total U.S. Employment, Millions, SA	151.5	151.9	152.1	152.4	152.0	151.2	150.5	149.9	149.6	149.7	150.1	150.5
Annualized % Change	1.2	1.0	0.5	0.8	(1.2)	(1.9)	(2.0)	(1.5)	(0.9)	0.4	1.0	1.2
% Change from Prior Year's Quarter	1.4	1.2	1.0	0.9	0.3	(0.4)	(1.1)	(1.6)	(1.6)	(1.0)	(0.2)	0.4
Virginia Total Nonag. Employment, Thousands, SA	4,056.9	4,066.0	4,071.1	4,075.1	4,063.0	4,040.2	4,018.3	3,999.8	3,985.2	3,985.6	3,992.7	4,001.1
Annualized % Change	1.4	0.9	0.5	0.4	(1.2)	(2.2)	(2.1)	(1.8)	(1.5)	0.0	0.7	0.8
% Change from Prior Year's Quarter	1.0	1.3	0.7	0.8	0.1	(0.6)	(1.3)	(1.8)	(1.9)	(1.4)	(0.6)	0.0
CPI, All Urban, 1982-1984=1.0, SA	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.7
Annualized % Change	1.9	3.0	2.4	1.3	2.1	1.3	1.5	2.3	1.9	1.4	2.8	2.9
% Change from Prior Year's Quarter	1.8	2.2	2.5	2.1	2.2	1.7	1.5	1.8	1.7	1.8	2.1	2.2
Refiner's Acquisition Cost of Oil, \$ per Barrel	58.2	65.1	65.2	60.9	60.2	56.7	55.1	57.4	57.4	55.1	58.9	62.1
Quarterly Change	(5.4)	6.8	0.2	(4.3)	(0.7)	(3.6)	(1.6)	2.3	(0.0)	(2.3)	3.8	3.2
Change from Prior Year's Quarter	(10.8)	5.5	8.2	(2.7)	2.0	(8.4)	(10.1)	(3.5)	(2.8)	(1.6)	3.8	4.7
Before-Tax Corporate Profits, Billions \$, SAAR	2,080.3	2,099.3	2,088.0	2,034.0	1,934.3	1,864.2	1,846.8	1,957.0	2,051.2	2,109.0	2,168.0	2,197.8
Annualized % Change	(0.9)	3.7	(2.1)	(9.9)	(18.2)	(13.7)	(3.7)	26.1	20.7	11.7	11.7	5.6
% Change from Prior Year's Quarter	(0.3)	2.6	3.6	(2.4)	(7.0)	(11.2)	(11.6)	(3.8)	6.0	13.1	17.4	12.3
S&P 500 Stock Market Index, Level	2,959.3	2,991.9	3,006.1	2,970.6	2,871.0	2,765.3	2,674.9	2,597.2	2,615.5	2,675.0	2,715.7	2,761.7
Annualized % Change	11.0	4.5	1.9	(4.6)	(12.7)	(13.9)	(12.5)	(11.1)	2.9	9.4	6.2	6.9
% Change from Prior Year's Quarter	3.8	11.1	10.4	3.0	(3.0)	(7.6)	(11.0)	(12.6)	(8.9)	(3.3)	1.5	6.3
30-Year Treasury Bonds, Level	2.3	2.1	2.1	2.0	2.0	1.9	1.8	2.0	2.3	2.6	2.8	2.9
Quarterly Change	(0.5)	(0.2)	(0.0)	(0.1)	(0.0)	(0.1)	(0.0)	0.2	0.3	0.2	0.2	0.2
Change from Prior Year's Quarter	(0.8)	(1.2)	(0.9)	(0.8)	(0.3)	(0.2)	(0.2)	0.0	0.4	0.7	0.9	0.9

SAAR: Seasonally Adjusted at Annual Rates
 SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	History											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Real Gross Domestic Product, Billions \$, SAAR	13,131.0 4.1	13,262.1 1.0	13,493.1 1.7	13,879.1 2.9	14,406.4 3.8	14,912.5 3.5	15,338.3 2.9	15,626.0 1.9	15,604.7 (0.1)	15,208.8 (2.5)	15,598.8 2.6	15,840.7 1.6
Fiscal Year % Change	12,906.2 4.8	13,240.4 2.6	13,350.2 0.8	13,620.7 2.0	14,170.3 4.0	14,671.6 3.5	15,152.1 3.3	15,484.7 2.1	15,713.1 1.6	15,321.3 (2.5)	15,379.4 0.4	15,740.1 2.3
Real Consumer Spending, Billions \$, SAAR	8,643.4 5.1	8,861.1 2.5	9,088.7 2.6	9,377.5 3.2	9,729.3 3.8	10,075.9 3.6	10,384.5 3.1	10,615.3 2.2	10,592.8 (0.2)	10,460.0 (1.3)	10,643.0 1.7	10,843.8 1.9
Fiscal Year % Change	8,446.5 5.3	8,766.3 3.8	8,972.8 2.4	9,206.7 2.6	9,561.1 3.8	9,907.8 3.6	10,237.7 3.3	10,513.6 2.7	10,655.3 1.3	10,485.6 (1.6)	10,524.4 0.4	10,765.2 2.3
U.S. Personal Income, Billions \$, SAAR	8,652.6 8.1	9,005.6 4.1	9,159.0 1.7	9,487.5 3.6	10,035.1 5.8	10,598.2 5.6	11,381.7 7.4	12,007.8 5.5	12,442.2 3.6	12,059.1 (3.1)	12,551.6 4.1	13,326.8 6.2
Fiscal Year % Change	8,321.3 6.7	8,889.7 6.8	9,057.9 1.9	9,290.5 2.6	9,737.2 4.8	10,313.1 5.9	11,015.7 6.8	11,706.7 6.3	12,293.8 5.0	12,221.0 (0.6)	12,233.0 0.1	12,965.8 6.0
Virginia Personal Income, Millions \$, SAAR	232,033.6 8.4	244,410.7 5.3	251,068.3 2.7	266,236.5 6.0	285,300.6 7.2	305,046.9 6.9	326,087.1 6.9	343,153.1 5.2	355,931.4 3.7	349,712.1 (1.7)	365,041.4 4.4	387,003.9 6.0
Fiscal Year % Change	222,556.5 7.5	240,244.1 7.9	246,668.8 2.7	257,355.7 4.3	275,566.0 7.1	295,195.2 7.1	316,784.0 7.3	334,580.7 5.6	350,874.3 4.9	352,329.4 0.4	355,744.6 1.0	376,229.2 5.8
Virginia Wages and Salaries, Millions \$, SAAR	132,384.5 9.4	138,736.6 4.8	140,653.9 1.4	147,673.6 5.0	158,766.2 7.5	169,084.5 6.5	178,943.9 5.8	188,715.7 5.5	193,712.8 2.6	191,515.0 (1.1)	196,438.8 2.6	202,093.4 2.9
Fiscal Year % Change	126,397.9 8.0	136,939.0 8.3	138,904.8 1.4	143,167.4 3.1	153,070.7 6.9	164,268.0 7.3	174,730.6 6.4	183,994.3 5.3	191,305.2 4.0	192,561.0 0.7	193,289.7 0.4	199,878.5 3.4
Virginia Dividends, Interest, and Rent, Millions \$, SAAR	47,612.3 9.0	48,696.2 2.3	48,565.7 (0.3)	51,439.6 5.9	53,507.3 4.0	58,160.2 8.7	65,427.4 12.5	71,049.3 8.6	73,110.7 2.9	66,534.1 (9.0)	66,415.3 (0.2)	73,723.1 11.0
Fiscal Year % Change	45,381.2 4.9	48,810.7 7.6	48,424.3 (0.8)	49,789.8 2.8	52,337.8 5.1	55,482.4 6.0	61,969.1 11.7	68,240.2 10.1	72,653.1 6.5	70,493.2 (3.0)	65,256.9 (7.4)	69,766.2 6.9
Virginia Total Proprietor's Income, Millions \$, SAAR	15,794.0 18.7	17,726.4 12.2	18,350.6 3.5	19,099.7 4.1	21,785.4 14.1	22,832.5 4.8	24,154.5 5.8	22,177.1 (8.2)	19,905.0 (10.2)	16,828.6 (15.5)	22,314.4 32.6	24,758.2 11.0
Fiscal Year % Change	14,469.4 14.5	16,832.7 16.3	18,142.6 7.8	18,590.1 2.5	20,473.8 10.1	22,206.2 8.5	23,807.3 7.2	23,248.1 (2.3)	21,147.9 (9.0)	17,866.1 (15.5)	19,579.5 9.6	23,359.4 19.3

SAAR: Seasonally Adjusted at Annual Rates
SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	History										October Standard Forecast		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
Real Gross Domestic Product, Billions \$, SAAR	16,197.0	16,495.4	16,912.0	17,403.8	17,688.9	18,108.1	18,638.2	19,058.1	19,431.1	19,813.8	20,155.3		
% Change	2.2	1.8	2.5	2.9	1.6	2.4	2.9	2.3	2.0	2.0	1.7		
Fiscal Year	16,038.3	16,311.5	16,663.3	17,218.3	17,532.1	17,876.4	18,380.6	18,866.4	19,233.0	19,633.1	19,988.7		
% Change	1.9	1.7	2.2	3.3	1.8	2.0	2.8	2.6	1.9	2.1	1.8		
Real Consumer Spending, Billions \$, SAAR	11,006.8	11,166.9	11,497.4	11,921.2	12,247.5	12,566.9	12,944.5	13,282.1	13,645.7	13,998.6	14,330.0		
% Change	1.5	1.5	3.0	3.7	2.7	2.6	3.0	2.6	2.7	2.6	2.4		
Fiscal Year	10,928.7	11,075.2	11,292.7	11,732.0	12,085.6	12,401.5	12,752.0	13,109.9	13,472.7	13,823.1	14,168.6		
% Change	1.5	1.3	2.0	3.9	3.0	2.6	2.8	2.8	2.8	2.6	2.5		
U.S. Personal Income, Billions \$, SAAR	14,010.1	14,181.1	14,991.7	15,717.8	16,121.2	16,878.8	17,819.2	18,670.6	19,454.2	20,305.1	21,190.8		
% Change	5.1	1.2	5.7	4.8	2.6	4.7	5.6	4.8	4.2	4.4	4.4		
Fiscal Year	13,653.5	14,111.1	14,529.6	15,400.1	15,918.5	16,467.9	17,356.7	18,241.6	19,058.4	19,875.0	20,743.7		
% Change	5.3	3.4	3.0	6.0	3.4	3.5	5.4	5.1	4.5	4.3	4.4		
Virginia Personal Income, Millions \$, SAAR	405,863.9	403,199.1	421,874.5	442,331.4	450,870.2	468,177.3	492,312.7	514,807.1	537,148.0	558,153.1	582,731.5		
% Change	4.9	(0.7)	4.6	4.8	1.9	3.8	5.2	4.6	4.3	3.9	4.4		
Fiscal Year	396,552.0	405,848.7	410,470.5	432,784.6	446,749.0	458,896.9	480,073.3	503,523.4	525,697.1	547,802.4	570,052.6		
% Change	5.4	2.3	1.1	5.4	3.2	2.7	4.6	4.9	4.4	4.2	4.1		
Virginia Wages and Salaries, Millions \$, SAAR	208,182.2	210,447.7	215,898.3	225,582.8	230,690.8	240,420.1	251,083.2	262,017.4	273,739.5	285,441.4	296,212.1		
% Change	3.0	1.1	2.6	4.5	2.3	4.2	4.4	4.4	4.5	4.3	3.8		
Fiscal Year	204,801.6	210,485.7	212,041.0	220,496.7	228,036.2	235,587.3	245,797.3	256,659.0	267,387.9	279,690.6	290,936.4		
% Change	2.5	2.8	0.7	4.0	3.4	3.3	4.3	4.4	4.2	4.6	4.0		
Virginia Dividends, Interest, and Rent, Millions \$, SAAR	81,834.1	79,235.7	86,208.5	90,683.9	93,300.6	97,779.5	105,010.8	108,617.9	114,882.2	118,517.2	124,211.1		
% Change	11.0	(3.2)	8.8	5.2	2.9	4.8	7.4	3.4	5.8	3.2	4.8		
Fiscal Year	78,010.8	80,724.9	82,271.1	88,889.8	92,007.0	95,355.5	101,237.6	106,705.7	111,504.8	117,185.4	121,113.4		
% Change	11.8	3.5	1.9	8.0	3.5	3.6	6.2	5.4	4.5	5.1	3.4		
Virginia Total Proprietor's Income, Millions \$, SAAR	28,688.7	26,519.8	27,664.4	27,958.4	26,735.5	27,021.9	28,148.4	29,145.4	28,465.8	28,678.1	29,002.3		
% Change	15.9	(7.6)	4.3	1.1	(4.4)	1.1	4.2	3.5	(2.3)	0.7	1.1		
Fiscal Year	27,018.0	27,685.5	26,947.8	27,936.9	27,359.4	26,860.3	27,481.1	28,753.6	28,886.2	28,516.0	28,840.2		
% Change	15.7	2.5	(2.7)	3.7	(2.1)	(1.8)	2.3	4.6	0.5	(1.3)	1.1		

SAAR: Seasonally Adjusted at Annual Rates
 SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	Pessimistic Alternative Scenario			
	2019	2020	2021	2022
Real Gross Domestic Product, Billions \$, SAAR	19,052.8	19,102.9	19,067.4	19,590.7
Calendar Year				
% Change	2.2	0.3	(0.2)	2.7
Fiscal Year	18,866.4	19,172.9	18,955.6	19,351.7
% Change	2.6	1.6	(1.1)	2.1
Real Consumer Spending, Billions \$, SAAR	13,280.6	13,551.2	13,685.6	13,946.7
Calendar Year				
% Change	2.6	2.0	1.0	1.9
Fiscal Year	13,109.9	13,448.8	13,610.5	13,807.9
% Change	2.8	2.6	1.2	1.5
U.S. Personal Income, Billions \$, SAAR	18,667.1	19,228.3	19,492.8	20,342.1
Calendar Year				
% Change	4.8	3.0	1.4	4.4
Fiscal Year	18,241.6	19,016.6	19,311.5	19,884.7
% Change	5.1	4.2	1.6	3.0
Virginia Personal Income, Millions \$, SAAR	514,745.5	533,033.7	537,735.1	557,255.2
Calendar Year				
% Change	4.6	3.6	0.9	3.6
Fiscal Year	503,523.4	524,880.8	535,958.4	545,594.1
% Change	4.9	4.2	2.1	1.8
Virginia Wages and Salaries, Millions \$, SAAR	261,970.4	271,351.5	275,422.7	283,012.8
Calendar Year				
% Change	4.3	3.6	1.5	2.8
Fiscal Year	256,659.0	266,846.6	273,616.0	278,634.6
% Change	4.4	4.0	2.5	1.8
Virginia Dividends, Interest, and Rent, Millions \$, SAAR	108,620.6	113,513.3	109,966.6	115,108.1
Calendar Year				
% Change	3.4	4.5	(3.1)	4.7
Fiscal Year	106,705.7	111,379.1	112,311.4	111,611.8
% Change	5.4	4.4	0.8	(0.6)
Virginia Total Proprietor's Income, Millions \$, SAAR	29,146.1	27,307.9	28,051.3	30,372.5
Calendar Year				
% Change	3.5	(6.3)	2.7	8.3
Fiscal Year	28,753.6	28,818.4	26,514.4	29,774.2
% Change	4.6	0.2	(8.0)	12.3

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	History											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total U.S. Employment, Millions, SA	132.0	132.1	130.7	130.3	131.8	134.0	136.5	138.0	137.2	131.3	130.4	131.9
% Change	2.2	0.0	(1.1)	(0.2)	1.1	1.7	1.8	1.1	(0.5)	(4.3)	(0.7)	1.2
Fiscal Year	130.8	132.5	131.2	130.5	130.8	132.8	135.4	137.3	138.1	134.4	130.2	131.0
% Change	2.5	1.3	(1.0)	(0.5)	0.3	1.5	1.9	1.5	0.6	(2.7)	(3.1)	0.6
Virginia Total Nonag. Employment, Thousands, SA	3,519.5	3,522.7	3,499.8	3,502.3	3,587.4	3,666.6	3,732.1	3,770.9	3,772.2	3,651.8	3,646.0	3,692.8
% Change	3.1	0.1	(0.6)	0.1	2.4	2.2	1.8	1.0	0.0	(3.2)	(0.2)	1.3
Fiscal Year	3,466.3	3,537.3	3,505.9	3,494.8	3,539.8	3,628.3	3,706.1	3,753.0	3,779.1	3,716.1	3,631.8	3,671.4
% Change	2.8	2.0	(0.9)	(0.3)	1.3	2.5	2.1	1.3	0.7	(1.7)	(2.3)	1.1
CPI, All Urban, 1982-1984=1.0, SA	1.7	1.8	1.8	1.8	1.9	2.0	2.0	2.1	2.2	2.1	2.2	2.2
% Change	3.4	2.8	1.6	2.3	2.7	3.4	3.2	2.9	3.8	(0.3)	1.6	3.1
Fiscal Year	1.7	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.2
% Change	2.9	3.4	1.8	2.2	2.2	3.0	3.8	2.6	3.7	1.4	1.0	2.0
Refiner's Acquisition Cost of Oil, \$ per Barrel	28.2	23.0	24.0	28.6	36.9	50.3	60.1	68.0	94.3	59.2	76.7	101.8
% Change	10.8	(5.3)	1.1	4.6	8.3	13.4	9.8	7.9	26.3	(35.1)	17.5	25.1
Fiscal Year	24.2	27.2	21.4	27.6	30.8	42.6	58.1	59.1	90.9	66.5	72.7	89.4
% Change	11.7	3.0	(5.8)	6.2	3.2	11.8	15.5	1.0	31.8	(24.4)	6.2	16.7
Before-Tax Corporate Profits, Billions \$, SAAR	746.6	689.0	788.5	970.1	1,257.7	1,665.2	1,844.2	1,751.9	1,379.3	1,467.5	1,834.0	1,818.2
% Change	(2.5)	(7.7)	14.4	23.0	29.6	32.4	10.7	(5.0)	(21.3)	6.4	25.0	(0.9)
Fiscal Year	771.2	726.4	684.9	890.1	1,114.5	1,458.2	1,776.7	1,817.1	1,644.6	1,249.9	1,706.1	1,833.3
% Change	4.4	(5.8)	(5.7)	30.0	25.2	30.8	21.8	2.3	(9.5)	(24.0)	36.5	7.5
S&P 500 Stock Market Index, Level	1,426.8	1,192.1	995.6	963.7	1,130.6	1,207.1	1,310.7	1,476.7	1,220.9	946.7	1,139.3	1,268.9
% Change	7.6	(16.4)	(16.5)	(3.2)	17.3	6.8	8.6	12.7	(17.3)	(22.5)	20.3	11.4
Fiscal Year	1,395.4	1,337.4	1,114.9	895.1	1,078.3	1,160.0	1,254.9	1,399.9	1,426.7	965.8	1,085.6	1,230.5
% Change	16.4	(4.2)	(16.6)	(19.7)	20.5	7.6	8.2	11.6	1.9	(32.3)	12.4	13.4
30-Year Treasury Bonds, Level	5.9	5.5	5.4	5.1	5.1	4.6	4.9	4.8	4.3	4.1	4.3	3.9
% Change	0.1	(0.4)	(0.1)	(0.4)	0.1	(0.6)	0.3	(0.0)	(0.6)	(0.2)	0.2	(0.3)
Fiscal Year	6.1	5.7	5.5	5.0	5.2	4.8	4.7	4.9	4.6	3.9	4.4	4.2
% Change	0.7	(0.5)	(0.1)	(0.5)	0.2	(0.4)	(0.1)	0.2	(0.2)	(0.7)	0.5	(0.2)

SAAR: Seasonally Adjusted at Annual Rates
SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	History										October Standard Forecast		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
Total U.S. Employment, Millions, SA	134.2	136.4	138.9	141.8	144.3	146.6	149.1	151.3	152.8	153.9	154.7		
% Change	1.7	1.6	1.9	2.1	1.8	1.6	1.7	1.5	1.0	0.7	0.5		
Fiscal Year	133.1	135.2	137.6	140.4	143.1	145.5	147.8	150.3	152.1	153.3	154.3		
% Change	1.6	1.6	1.7	2.1	1.9	1.7	1.5	1.7	1.2	0.8	0.7		
Virginia Total Nonag. Employment, Thousands, SA	3,735.8	3,762.3	3,783.3	3,858.9	3,914.6	3,956.0	4,008.4	4,052.5	4,086.3	4,108.2	4,117.8		
% Change	1.2	0.7	0.6	2.0	1.4	1.1	1.3	1.1	0.8	0.5	0.2		
Fiscal Year	3,714.5	3,753.6	3,768.6	3,810.6	3,896.7	3,935.9	3,982.3	4,029.9	4,071.9	4,097.6	4,114.8		
% Change	1.2	1.1	0.4	1.1	2.3	1.0	1.2	1.2	1.0	0.6	0.4		
CPI, All Urban, 1982-1984=1.0, SA	2.3	2.3	2.4	2.4	2.4	2.5	2.5	2.6	2.6	2.7	2.7		
% Change	2.1	1.5	1.6	0.1	1.3	2.1	2.4	1.9	2.1	1.8	2.5		
Fiscal Year	2.3	2.3	2.3	2.4	2.4	2.4	2.5	2.5	2.6	2.6	2.7		
% Change	2.9	1.7	1.6	0.7	0.7	1.9	2.2	2.1	2.2	1.8	2.2		
Refiner's Acquisition Cost of Oil, \$ per Barrel	101.0	100.5	92.2	48.4	40.6	50.7	64.5	59.6	58.0	53.5	59.5		
Change	(0.8)	(0.5)	(8.2)	(43.8)	(7.8)	10.1	13.8	(4.9)	(1.6)	(4.5)	6.0		
Fiscal Year	103.6	98.8	100.0	68.9	40.3	46.8	58.6	62.3	59.6	54.6	55.6		
Change	14.2	(4.7)	1.2	(31.1)	(28.6)	6.5	11.8	3.8	(2.8)	(5.0)	1.0		
Before-Tax Corporate Profits, Billions \$, SAAR	2,156.1	2,151.5	2,264.5	2,136.9	2,117.4	2,133.0	2,063.5	2,073.1	2,130.9	2,226.4	2,336.2		
% Change	18.6	(0.2)	5.2	(5.6)	(0.9)	0.7	(3.3)	0.5	2.8	4.5	4.9		
Fiscal Year	2,011.3	2,132.6	2,206.6	2,252.8	2,081.5	2,158.1	2,073.8	2,058.5	2,101.7	2,179.2	2,280.6		
% Change	9.7	6.0	3.5	2.1	(7.6)	3.7	(3.9)	(0.7)	2.1	3.7	4.7		
S&P 500 Stock Market Index, Level	1,379.6	1,642.5	1,930.7	2,061.2	2,092.4	2,448.2	2,744.7	2,888.6	3,005.2	3,025.7	3,095.6		
% Change	8.7	19.1	17.5	6.8	1.5	17.0	12.1	5.2	4.0	0.7	2.3		
Fiscal Year	1,287.9	1,486.2	1,795.1	2,038.4	2,025.7	2,266.6	2,627.1	2,787.0	2,990.2	3,008.6	3,057.1		
% Change	4.7	15.4	20.8	13.6	(0.6)	11.9	15.9	6.1	7.3	0.6	1.6		
30-Year Treasury Bonds, Level	2.9	3.4	3.3	2.8	2.6	2.9	3.1	2.6	2.6	3.1	3.5		
Change	(1.0)	0.5	(0.1)	(0.5)	(0.2)	0.3	0.2	(0.6)	0.0	0.6	0.4		
Fiscal Year	3.2	3.0	3.7	2.9	2.8	2.8	2.9	3.0	2.3	2.9	3.3		
Change	(1.0)	(0.2)	0.7	(0.7)	(0.1)	(0.0)	0.2	0.1	(0.7)	0.6	0.5		

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	Pessimistic Alternative Scenario			
	2019	2020	2021	2022
Total U.S. Employment, Millions, SA	151.3	151.9	149.9	150.7
Calendar Year % Change	1.5	0.4	(1.3)	0.5
Fiscal Year	150.3	152.0	150.9	150.0
% Change	1.7	1.1	(0.7)	(0.6)
Virginia Total Nonag. Employment, Thousands, SA	4,052.1	4,062.3	3,997.2	4,004.8
Calendar Year % Change	1.1	0.3	(1.6)	0.2
Fiscal Year	4,029.9	4,067.3	4,030.3	3,991.1
% Change	1.2	0.9	(0.9)	(1.0)
CPI, All Urban, 1982-1984=1.0, SA	2.6	2.6	2.7	2.7
Calendar Year % Change	1.9	2.2	1.7	2.4
Fiscal Year	2.5	2.6	2.6	2.7
% Change	2.1	2.2	1.8	2.0
Refiner's Acquisition Cost of Oil, \$ per Barrel	61.0	60.8	56.3	62.3
Calendar Year Change	(3.5)	(0.2)	(4.5)	6.0
Fiscal Year	62.3	62.4	57.4	58.4
Change	3.8	0.0	(5.0)	1.0
Before-Tax Corporate Profits, Billions \$, SAAR	2,070.0	1,980.1	1,991.0	2,210.0
Calendar Year % Change	0.3	(4.3)	0.5	11.0
Fiscal Year	2,058.5	2,075.4	1,900.6	2,131.5
% Change	(0.7)	0.8	(8.4)	12.2
S&P 500 Stock Market Index, Level	2,889.0	2,903.3	2,640.7	2,778.9
Calendar Year % Change	5.3	0.5	(9.0)	5.2
Fiscal Year	2,787.0	2,981.9	2,727.1	2,692.0
% Change	6.1	7.0	(8.5)	(1.3)
30-Year Treasury Bonds, Level	2.5	2.0	2.2	3.0
Calendar Year Change	(0.6)	(0.6)	0.2	0.8
Fiscal Year	3.0	2.1	1.9	2.6
Change	0.1	(0.9)	(0.2)	0.7

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

Virginia		History											
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Construction and Mining Thousands, SA	Calendar Year	221.6	228.4	224.9	227.6	241.1	254.2	260.0	250.7	234.1	200.6	193.4	189.5
	% Change	5.3	3.1	(1.5)	1.2	5.9	5.4	2.3	(3.6)	(6.6)	(14.3)	(3.6)	(2.0)
	Fiscal Year	215.2	226.3	226.7	224.1	234.5	247.7	260.0	255.9	243.6	216.9	194.2	192.1
	% Change	3.3	5.2	0.2	(1.1)	4.7	4.9	(1.6)	(4.8)	(10.9)	(10.5)	(1.1)	
Manufacturing Thousands, SA	Calendar Year	363.9	341.5	320.3	305.2	298.9	296.0	288.3	278.0	265.0	239.5	230.6	231.1
	% Change	(0.9)	(6.2)	(6.2)	(4.7)	(2.1)	(1.0)	(2.6)	(3.6)	(4.7)	(9.6)	(3.7)	0.2
	Fiscal Year	367.0	354.8	328.6	314.0	299.5	298.2	292.9	283.1	271.8	252.7	233.3	230.1
	% Change	(1.1)	(3.3)	(7.4)	(4.4)	(4.6)	(0.4)	(1.8)	(3.4)	(4.0)	(7.0)	(7.7)	(1.3)
Trade, Transportation, and Utilities Thousands, SA	Calendar Year	650.1	644.3	636.0	634.7	646.0	656.7	662.5	667.6	658.7	623.9	620.7	628.2
	% Change	2.2	(0.9)	(1.3)	(0.2)	1.8	1.7	0.9	0.8	(1.3)	(5.3)	(0.5)	1.2
	Fiscal Year	643.5	650.1	638.9	633.6	640.8	651.1	660.8	665.0	665.8	641.5	618.5	625.0
	% Change	2.5	1.0	(1.7)	(0.8)	1.1	1.6	1.5	0.6	0.1	(3.7)	(3.6)	1.1
Financial Activities Thousands, SA	Calendar Year	178.9	179.9	182.2	186.5	189.0	192.5	194.8	193.6	188.6	179.9	179.1	182.5
	% Change	3.2	0.6	1.2	2.4	1.4	1.8	1.2	(0.6)	(2.6)	(4.6)	(0.5)	1.9
	Fiscal Year	175.7	180.3	180.7	184.2	187.6	190.8	194.0	195.1	191.1	184.5	178.1	180.6
	% Change	3.3	2.6	0.2	1.9	1.8	1.7	1.7	0.6	(2.1)	(3.4)	(3.5)	1.4
Professional and Business Services Thousands, SA	Calendar Year	568.1	559.7	547.2	549.5	578.7	606.2	628.7	646.5	657.3	640.3	650.5	667.7
	% Change	5.5	(1.5)	(2.2)	0.4	5.3	4.8	3.7	2.8	1.7	(2.6)	1.6	2.6
	Fiscal Year	552.9	569.4	552.2	545.4	561.6	593.8	618.8	637.8	653.5	650.0	641.5	660.2
	% Change	5.4	3.0	(3.0)	(1.2)	3.0	5.7	4.2	3.1	2.5	(0.5)	(1.3)	2.9
Education and Health Services Thousands, SA	Calendar Year	335.1	350.4	366.8	374.3	384.9	396.4	411.1	428.2	447.8	455.9	463.1	469.7
	% Change	2.1	4.6	4.7	2.0	2.8	3.0	3.7	4.2	4.6	1.8	1.6	1.4
	Fiscal Year	331.1	342.4	358.8	371.4	379.3	390.0	403.7	418.7	439.6	452.6	458.0	467.7
	% Change	2.3	3.4	4.8	3.5	2.1	2.8	3.5	3.7	5.0	3.0	1.2	2.1
Leisure and Hospitality Thousands, SA	Calendar Year	297.1	301.2	303.9	308.5	320.1	329.4	338.8	345.3	349.3	341.6	341.3	349.2
	% Change	3.5	1.4	0.9	1.5	3.8	2.9	2.8	1.9	1.2	(2.2)	(0.1)	2.3
	Fiscal Year	291.9	300.1	301.3	305.9	314.3	325.1	334.4	342.4	348.6	345.0	339.5	345.5
	% Change	2.4	2.8	0.4	1.5	2.8	3.4	2.9	2.4	1.8	(1.0)	(1.6)	1.8
Government Thousands, SA	Calendar Year	624.9	629.7	635.4	638.0	650.9	661.4	674.7	684.9	695.1	703.0	706.6	713.2
	% Change	2.4	0.8	0.9	0.4	2.0	1.6	2.0	1.5	1.5	1.1	0.5	0.9
	Fiscal Year	618.7	627.1	633.0	636.0	644.3	656.1	668.3	680.1	688.7	700.3	705.9	709.2
	% Change	2.3	1.4	0.9	0.5	1.3	1.8	1.9	1.3	1.7	0.8	0.5	

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

Virginia		History										October Standard Forecast		
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
Construction and Mining Thousands, SA	Calendar Year	187.5	186.9	187.9	193.8	196.1	201.5	205.4	207.9	206.9	208.2	210.4		
	% Change	(1.0)	(0.3)	0.5	3.1	1.2	2.7	1.9	1.2	(0.5)	0.6	1.1		
	Fiscal Year	188.4	187.2	186.8	190.2	195.4	198.8	203.4	207.3	207.1	207.3	209.3		
	% Change	(2.0)	(0.6)	(0.2)	1.8	2.7	1.7	2.3	2.0	(0.1)	0.1	1.0		
Manufacturing Thousands, SA	Calendar Year	231.7	231.2	232.3	234.1	233.2	234.9	240.2	247.6	245.4	241.3	240.9		
	% Change	0.2	(0.2)	0.5	0.8	(0.4)	0.8	2.2	3.1	(0.9)	(1.7)	(0.1)		
	Fiscal Year	231.6	231.5	231.6	232.9	234.0	233.8	237.0	244.3	248.0	242.2	241.2		
	% Change	0.7	(0.1)	0.0	0.6	0.5	(0.1)	1.3	3.1	1.5	(2.3)	(0.4)		
Trade, Transportation, and Utilities Thousands, SA	Calendar Year	633.0	634.6	640.9	652.8	660.7	661.5	659.2	658.8	655.1	651.9	646.7		
	% Change	0.8	0.3	1.0	1.9	1.2	0.1	(0.3)	(0.1)	(0.6)	(0.5)	(0.8)		
	Fiscal Year	630.9	633.2	637.8	644.9	659.4	661.3	661.2	657.1	657.9	654.3	649.3		
	% Change	0.9	0.4	0.7	1.1	2.3	0.3	(0.0)	(0.6)	0.1	(0.5)	(0.8)		
Financial Activities Thousands, SA	Calendar Year	188.3	192.5	194.0	197.7	201.0	205.1	207.3	207.1	209.6	211.6	211.8		
	% Change	3.1	2.2	0.8	1.9	1.7	2.0	1.1	(0.1)	1.2	0.9	0.1		
	Fiscal Year	185.3	190.9	193.2	195.7	199.3	203.0	206.8	206.9	208.1	210.9	211.9		
	% Change	2.6	3.0	1.2	1.3	1.9	1.8	1.9	0.1	0.6	1.3	0.4		
Professional and Business Services Thousands, SA	Calendar Year	678.6	681.4	682.2	702.4	715.4	730.1	748.3	760.8	781.0	802.0	812.6		
	% Change	1.6	0.4	0.1	3.0	1.9	2.1	2.5	1.7	2.7	2.7	1.3		
	Fiscal Year	673.5	682.5	679.6	689.5	711.0	722.3	740.6	753.4	770.5	791.9	808.5		
	% Change	2.0	1.3	(0.4)	1.5	3.1	1.6	2.5	1.7	2.3	2.8	2.1		
Education and Health Services Thousands, SA	Calendar Year	480.4	491.5	497.7	513.9	525.7	532.6	548.1	561.8	574.1	580.0	583.1		
	% Change	2.3	2.3	1.3	3.2	2.3	1.3	2.9	2.5	2.2	1.0	0.5		
	Fiscal Year	473.6	487.3	494.3	503.7	522.5	528.8	538.5	554.9	569.7	577.5	581.5		
	% Change	1.3	2.9	1.4	1.9	3.7	1.2	1.8	3.0	2.7	1.4	0.7		
Leisure and Hospitality Thousands, SA	Calendar Year	358.9	366.1	371.3	386.0	399.2	404.6	407.9	416.1	418.6	422.0	427.0		
	% Change	2.8	2.0	1.4	4.0	3.4	1.3	0.8	2.0	0.6	0.8	1.2		
	Fiscal Year	354.2	362.8	368.7	376.4	394.8	402.5	406.6	412.4	416.2	419.9	424.8		
	% Change	2.5	2.4	1.6	2.1	4.9	1.9	1.0	1.4	0.9	0.9	1.2		
Government Thousands, SA	Calendar Year	713.4	712.4	710.5	711.4	714.4	716.7	722.5	723.8	727.5	724.7	723.3		
	% Change	0.0	(0.1)	(0.3)	0.1	0.4	0.3	0.8	0.2	0.5	(0.4)	(0.2)		
	Fiscal Year	714.4	713.4	710.2	711.0	712.6	715.7	719.3	724.3	725.7	725.6	724.2		
	% Change	0.7	(0.1)	(0.5)	0.1	0.2	0.4	0.5	0.7	0.2	(0.0)	(0.2)		

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

Virginia		Pessimistic Alternative Scenario			
		2019	2020	2021	2022
Construction and Mining Thousands, SA	Calendar Year	207.8	202.3	191.4	192.4
	% Change	1.2	(2.7)	(5.4)	0.5
	Fiscal Year	207.3	206.4	195.9	190.6
	% Change	2.0	(0.5)	(5.1)	(2.7)
Manufacturing Thousands, SA	Calendar Year	247.6	247.3	233.3	231.2
	% Change	3.1	(0.1)	(5.7)	(0.9)
	Fiscal Year	244.3	248.5	241.6	229.7
	% Change	3.1	1.7	(2.8)	(4.9)
Trade, Transportation, and Utilities Thousands, SA	Calendar Year	658.0	650.2	630.5	625.2
	% Change	(0.2)	(1.2)	(3.0)	(0.8)
	Fiscal Year	657.1	655.6	641.8	626.1
	% Change	(0.6)	(0.2)	(2.1)	(2.5)
Financial Activities Thousands, SA	Calendar Year	207.4	211.3	213.1	209.6
	% Change	0.0	1.9	0.9	(1.7)
	Fiscal Year	206.9	208.8	213.7	211.0
	% Change	0.1	0.9	2.3	(1.3)
Professional and Business Services Thousands, SA	Calendar Year	759.8	759.8	729.9	754.2
	% Change	1.5	(0.0)	(3.9)	3.3
	Fiscal Year	753.4	765.7	740.3	737.6
	% Change	1.7	1.6	(3.3)	(0.4)
Education and Health Services Thousands, SA	Calendar Year	562.4	574.5	587.1	588.1
	% Change	2.6	2.2	2.2	0.2
	Fiscal Year	554.9	570.6	580.8	589.3
	% Change	3.0	2.8	1.8	1.5
Leisure and Hospitality Thousands, SA	Calendar Year	416.0	420.6	422.9	424.1
	% Change	2.0	1.1	0.6	0.3
	Fiscal Year	412.4	416.4	423.4	422.9
	% Change	1.4	0.9	1.7	(0.1)
Government Thousands, SA	Calendar Year	723.8	727.7	725.7	724.8
	% Change	0.2	0.5	(0.3)	(0.1)
	Fiscal Year	724.3	725.8	726.2	725.5
	% Change	0.7	0.2	0.1	(0.1)

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.4 - ANNUAL VIRGINIA REGIONAL EMPLOYMENT

Northern Virginia	History												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Total Nonagricultural Employment Thousands, SA	Calendar Year	1,159.2	1,176.5	1,165.3	1,180.4	1,233.8	1,278.8	1,309.6	1,325.6	1,328.8	1,305.8	1,317.5	1,344.7
	% Change	6.3	1.5	(1.0)	1.3	4.5	3.6	2.4	1.2	0.2	(1.7)	0.9	2.1
	Fiscal Year	1,125.7	1,176.8	1,169.5	1,166.0	1,207.0	1,256.7	1,298.6	1,318.8	1,329.2	1,316.6	1,307.0	1,332.1
	% Change	6.3	4.5	(0.6)	(0.3)	3.5	4.1	1.6	0.8	(0.9)	(0.7)	1.9	
Construction and Mining Thousands, SA	Calendar Year	74.7	79.9	79.4	79.8	87.1	94.0	96.7	89.0	80.7	70.1	68.2	67.8
	% Change	10.1	7.0	(0.6)	0.4	9.1	8.0	2.8	(7.9)	(9.3)	(13.2)	(2.6)	(0.6)
	Fiscal Year	71.2	77.9	79.8	78.4	83.7	90.4	97.1	93.2	84.9	74.9	68.2	68.2
	% Change	8.8	9.3	2.5	(1.8)	6.7	8.1	(4.1)	(8.8)	(11.8)	(9.0)	(0.0)	
Trade, Transportation, and Utilities Thousands, SA	Calendar Year	199.8	201.1	200.0	200.5	207.6	213.7	212.0	212.7	210.7	200.6	200.4	204.4
	% Change	3.3	0.6	(0.6)	0.3	3.6	2.9	(0.8)	0.3	(0.9)	(4.8)	(0.1)	2.0
	Fiscal Year	197.1	201.3	200.1	199.7	203.7	211.7	213.1	212.2	212.6	205.4	199.2	202.8
	% Change	4.4	2.2	(0.6)	(0.2)	2.0	3.9	(0.4)	0.2	(3.4)	(3.0)	1.8	
Financial Activities Thousands, SA	Calendar Year	62.7	63.3	65.4	66.3	67.4	69.5	70.4	69.4	66.9	64.5	64.8	65.5
	% Change	3.3	1.0	3.4	1.4	1.6	3.1	1.3	(1.4)	(3.6)	(3.6)	0.5	1.1
	Fiscal Year	61.7	63.0	64.2	65.9	66.7	68.4	70.3	70.3	68.0	65.5	64.4	65.3
	% Change	3.0	2.0	2.0	2.6	1.2	2.6	2.8	(0.0)	(3.2)	(1.7)	1.4	
Professional and Business Services Thousands, SA	Calendar Year	286.2	287.3	278.0	284.4	307.7	324.2	338.1	348.8	356.5	356.5	364.9	375.3
	% Change	8.6	0.4	(3.2)	2.3	8.2	5.4	4.3	3.2	2.2	0.0	2.4	2.8
	Fiscal Year	275.3	290.6	282.0	278.0	295.6	316.9	331.7	343.9	353.1	356.7	359.2	370.6
	% Change	9.4	5.6	(3.0)	(1.4)	6.3	7.2	4.7	3.7	2.7	1.0	0.7	3.2
Education and Health Services Thousands, SA	Calendar Year	95.9	101.2	105.2	107.4	110.3	115.6	119.1	122.9	127.3	131.7	135.8	141.4
	% Change	6.9	5.4	3.9	2.1	2.7	4.9	3.0	3.2	3.5	3.5	3.1	4.1
	Fiscal Year	92.7	98.5	103.4	106.7	108.3	113.1	117.3	121.1	125.0	129.3	134.0	138.5
	% Change	6.1	6.3	5.0	3.1	1.5	4.5	3.7	3.3	3.4	3.6	3.4	
Leisure and Hospitality Thousands, SA	Calendar Year	97.1	99.0	101.2	103.8	108.8	111.6	113.2	115.9	118.7	116.0	116.8	121.3
	% Change	6.3	2.0	2.2	2.5	4.8	2.6	1.4	2.4	2.4	(2.3)	0.7	3.8
	Fiscal Year	94.2	98.4	99.8	102.3	106.4	110.6	112.3	114.4	117.9	117.3	115.6	119.3
	% Change	4.8	4.4	1.5	2.5	4.0	4.0	1.8	3.0	(0.4)	(1.4)	3.2	
Government Thousands, SA	Calendar Year	176.8	180.1	184.6	191.2	198.2	203.5	209.8	215.1	218.9	224.1	228.9	231.1
	% Change	3.1	1.9	2.5	3.5	3.7	2.6	3.1	2.5	1.8	2.4	2.1	0.9
	Fiscal Year	174.9	178.1	182.5	187.1	195.2	200.6	207.1	212.5	216.8	221.6	227.0	229.6
	% Change	3.3	1.8	2.4	2.5	4.3	2.8	2.6	2.0	2.2	2.4	1.1	

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.4 - ANNUAL VIRGINIA REGIONAL EMPLOYMENT

Northern Virginia		History										October Standard Forecast		
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
Total Nonagricultural Employment Thousands, SA	Calendar Year	1,369.7	1,379.1	1,380.0	1,409.3	1,438.1	1,460.0	1,488.9	1,509.1	1,519.2	1,529.9	1,534.0		
	% Change	1.9	0.7	0.1	2.1	2.0	1.5	2.0	1.4	0.7	0.7	0.3		
	Fiscal Year	1,357.3	1,378.3	1,377.2	1,399.6	1,426.9	1,450.0	1,473.8	1,500.7	1,513.9	1,525.0	1,532.7		
	% Change	1.9	1.5	(0.1)	0.9	2.7	1.6	1.8	0.9	0.7	0.5			
Construction and Mining Thousands, SA	Calendar Year	68.2	68.9	68.8	69.5	71.7	73.7	76.2	77.9	77.6	78.2	79.1		
	% Change	0.6	0.9	(0.1)	0.9	3.2	2.7	3.4	2.2	(0.3)	0.7	1.2		
	Fiscal Year	68.2	68.5	69.0	68.6	70.9	72.7	74.8	77.4	77.7	77.8	78.7		
	% Change	0.0	0.4	0.8	(0.6)	3.4	2.4	2.9	3.6	0.4	0.1	1.1		
Trade, Transportation, and Utilities Thousands, SA	Calendar Year	206.4	207.5	208.9	212.3	214.4	216.2	216.2	215.4	213.8	212.5	210.4		
	% Change	1.0	0.5	0.7	1.7	1.0	0.8	0.0	(0.4)	(0.7)	(0.6)	(1.0)		
	Fiscal Year	205.4	207.0	208.0	210.0	214.1	215.4	216.7	215.1	214.9	213.4	211.4		
	% Change	1.3	0.8	0.5	1.0	2.0	0.6	0.6	(0.8)	(0.1)	(0.7)	(0.9)		
Financial Activities Thousands, SA	Calendar Year	66.9	68.6	68.6	70.3	73.4	76.4	77.8	78.0	78.9	79.6	79.7		
	% Change	2.2	2.5	0.0	2.5	4.3	4.1	1.8	0.2	1.2	0.9	0.1		
	Fiscal Year	66.0	68.0	68.6	69.2	71.9	75.0	77.5	77.8	78.3	79.3	79.7		
	% Change	1.1	3.0	0.9	0.9	3.8	4.4	3.3	0.4	0.7	1.3	0.4		
Professional and Business Services Thousands, SA	Calendar Year	383.6	381.2	376.3	384.9	393.4	400.4	413.1	423.2	431.1	440.3	444.6		
	% Change	2.2	(0.6)	(1.3)	2.3	2.2	1.8	3.2	2.5	1.9	2.1	1.0		
	Fiscal Year	380.3	384.3	377.2	379.3	389.6	396.8	406.8	418.3	427.3	435.9	442.9		
	% Change	2.6	1.1	(1.8)	0.6	2.7	1.9	2.5	2.8	2.2	2.0	1.6		
Education and Health Services Thousands, SA	Calendar Year	145.5	147.9	149.9	155.6	161.2	165.6	172.1	174.3	178.8	181.1	182.3		
	% Change	2.9	1.7	1.3	3.8	3.6	2.7	3.9	1.3	2.6	1.3	0.7		
	Fiscal Year	143.2	147.4	148.6	152.0	159.0	163.5	168.4	173.2	177.1	180.1	181.7		
	% Change	3.3	3.0	0.8	2.3	4.6	2.8	3.0	2.8	2.3	1.7	0.9		
Leisure and Hospitality Thousands, SA	Calendar Year	126.2	130.1	132.7	139.6	145.1	146.9	148.8	153.5	152.6	153.7	155.7		
	% Change	4.1	3.1	2.0	5.2	4.0	1.2	1.3	3.1	(0.6)	0.7	1.3		
	Fiscal Year	123.7	128.2	131.4	135.1	143.3	146.2	147.7	151.9	152.5	152.8	154.8		
	% Change	3.6	3.7	2.5	2.8	6.1	2.0	1.0	2.9	0.4	0.2	1.3		
Government Thousands, SA	Calendar Year	233.6	234.6	233.2	234.5	235.4	237.1	241.0	244.3	244.9	243.6	242.6		
	% Change	1.1	0.4	(0.6)	0.5	0.4	0.7	1.7	1.3	0.3	(0.5)	(0.4)		
	Fiscal Year	232.2	235.1	233.3	233.8	234.9	236.5	238.2	243.6	244.6	244.2	243.2		
	% Change	1.2	1.2	(0.8)	0.2	0.5	0.7	0.8	2.3	0.4	(0.2)	(0.4)		

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.4 - ANNUAL VIRGINIA REGIONAL EMPLOYMENT

	Pessimistic Alternative Scenario			
	2019	2020	2021	2022
Northern Virginia				
Total Nonagricultural Employment Thousands, SA	1,508.9 1.3 1,500.7 1.8	1,508.6 (0.0) 1,511.9 0.7	1,481.9 (1.8) 1,495.8 (1.1)	1,483.7 0.1 1,478.4 (1.2)
Calendar Year % Change				
Fiscal Year % Change				
Construction and Mining Thousands, SA	77.8 2.2 77.4 3.6	75.7 (2.8) 73.0 (0.0)	71.1 (6.0) 70.8 (5.7)	71.6 0.6 70.8 (3.0)
Calendar Year % Change				
Fiscal Year % Change				
Trade, Transportation, and Utilities Thousands, SA	215.0 (0.6) 215.1 (0.8)	212.0 (1.4) 214.0 (0.5)	204.0 (3.7) 208.8 (2.4)	201.7 (1.1) 202.1 (3.2)
Calendar Year % Change				
Fiscal Year % Change				
Financial Activities Thousands, SA	78.1 0.3 77.8 0.4	79.5 1.8 78.6 1.0	80.2 0.9 80.3 2.2	78.9 (1.6) 79.4 (1.2)
Calendar Year % Change				
Fiscal Year % Change				
Professional and Business Services Thousands, SA	422.9 2.4 418.3 2.8	422.0 (0.2) 425.4 1.7	407.5 (3.5) 413.1 (2.9)	416.1 2.1 409.4 (0.9)
Calendar Year % Change				
Fiscal Year % Change				
Education and Health Services Thousands, SA	174.6 1.5 173.2 2.8	179.0 2.5 177.5 2.5	183.9 2.8 181.4 2.2	184.3 0.2 184.8 1.8
Calendar Year % Change				
Fiscal Year % Change				
Leisure and Hospitality Thousands, SA	153.5 3.1 151.9 2.9	153.4 (0.1) 152.5 0.4	154.0 0.4 154.2 1.1	154.5 0.3 154.1 (0.1)
Calendar Year % Change				
Fiscal Year % Change				
Government Thousands, SA	244.3 1.3 243.6 2.3	245.0 0.3 244.6 0.4	244.0 (0.4) 244.5 (0.1)	243.1 (0.4) 243.7 (0.3)
Calendar Year % Change				
Fiscal Year % Change				

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.4 - ANNUAL VIRGINIA REGIONAL EMPLOYMENT

Hampton Roads		History											
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Nonagricultural Employment Thousands, SA	Calendar Year	720.3	730.5	733.9	737.7	749.9	761.0	767.4	775.5	767.2	742.2	737.1	740.1
	% Change	1.9	1.4	0.5	0.5	1.7	1.5	0.8	1.1	(1.1)	(3.3)	(0.7)	0.4
	Fiscal Year	714.4	725.0	733.2	735.4	742.9	756.0	765.0	771.5	773.4	755.2	737.3	737.9
	% Change	1.9	1.5	1.1	0.3	1.0	1.8	1.2	0.8	0.2	(2.4)	(2.4)	0.1
Construction and Mining Thousands, SA	Calendar Year	43.9	45.9	44.6	47.1	48.7	49.9	49.8	48.4	45.2	38.4	36.9	35.1
	% Change	2.4	4.4	(2.8)	5.6	3.4	2.5	(0.2)	(2.7)	(6.5)	(15.2)	(3.9)	(4.7)
	Fiscal Year	43.3	45.0	45.3	45.2	48.2	49.4	50.2	49.1	47.1	41.8	37.2	36.2
	% Change	1.1	4.1	0.7	(0.4)	6.8	2.4	1.6	(2.2)	(4.1)	(11.2)	(11.1)	(2.6)
Trade, Transportation, and Utilities Thousands, SA	Calendar Year	137.1	138.4	138.5	135.2	138.4	140.2	141.2	142.4	137.8	128.6	127.9	127.6
	% Change	1.7	1.0	0.0	(2.4)	2.3	1.3	0.7	0.9	(3.3)	(6.6)	(0.6)	(0.2)
	Fiscal Year	135.8	138.1	138.4	137.1	136.3	139.3	141.0	141.8	140.9	132.8	127.7	128.0
	% Change	1.6	1.7	0.2	(0.9)	(0.6)	2.2	1.2	0.6	(0.6)	(5.7)	(3.9)	0.2
Financial Activities Thousands, SA	Calendar Year	36.5	36.7	36.8	37.6	39.7	39.9	40.7	41.5	40.2	37.5	36.4	36.8
	% Change	1.2	0.6	0.2	2.2	5.6	0.7	1.9	2.1	(3.3)	(6.7)	(2.8)	1.1
	Fiscal Year	36.1	36.7	36.7	37.1	38.6	39.8	40.2	41.4	41.0	39.0	36.6	36.6
	% Change	2.0	1.8	(0.1)	1.1	4.2	3.1	0.9	3.0	(0.9)	(6.2)	(6.2)	0.2
Professional and Business Services Thousands, SA	Calendar Year	98.9	103.0	104.7	104.3	100.2	101.4	101.7	102.6	104.7	99.5	97.9	98.6
	% Change	0.9	4.1	1.7	(0.4)	(3.9)	1.2	0.3	0.9	2.0	(5.0)	(1.6)	0.7
	Fiscal Year	99.3	100.1	104.7	104.4	102.0	101.1	101.5	101.9	104.0	102.6	98.0	98.1
	% Change	3.9	0.8	4.6	(0.3)	(2.3)	(0.9)	0.4	0.5	2.0	(1.3)	(4.5)	0.1
Education and Health Services Thousands, SA	Calendar Year	73.4	74.8	77.5	78.8	82.8	85.6	88.0	90.6	91.7	93.7	94.7	98.0
	% Change	2.6	1.9	3.7	1.6	5.0	3.4	2.8	3.0	1.2	2.2	1.1	3.4
	Fiscal Year	72.4	74.1	76.2	78.1	80.9	84.0	86.9	89.3	91.2	92.8	94.1	96.4
	% Change	2.6	2.4	2.8	2.6	3.6	3.8	3.5	2.7	2.2	1.7	1.4	2.4
Leisure and Hospitality Thousands, SA	Calendar Year	74.2	76.2	76.5	76.5	79.0	82.0	84.6	85.9	85.9	83.3	83.4	83.3
	% Change	1.7	2.7	0.4	(0.0)	3.2	3.8	3.2	1.6	(0.1)	(3.0)	0.1	(0.0)
	Fiscal Year	73.4	75.4	76.1	76.7	77.4	80.6	83.4	85.2	86.5	84.2	83.0	83.5
	% Change	0.7	2.7	1.0	0.8	0.9	4.1	3.6	2.2	1.5	(2.8)	(1.3)	0.5
Government Thousands, SA	Calendar Year	146.0	147.7	149.6	149.5	151.5	151.7	153.1	155.6	158.1	159.9	161.6	162.5
	% Change	1.1	1.1	1.3	(0.0)	1.3	0.1	1.0	1.6	1.6	1.1	1.1	0.6
	Fiscal Year	145.3	146.7	148.9	149.6	150.4	151.6	152.2	154.3	156.8	159.4	161.0	161.4
	% Change	0.4	1.0	1.5	0.5	0.5	0.8	1.4	1.6	1.7	1.0	0.3	

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.4 - ANNUAL VIRGINIA REGIONAL EMPLOYMENT

	History										October Standard Forecast		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
Hampton Roads													
Total Nonagricultural Employment Thousands, SA	746.8 0.9 743.2 0.7	756.4 1.3 752.3 1.2	758.2 0.2 757.4 0.7	766.7 1.1 760.7 0.4	772.5 0.7 770.6 1.3	782.7 1.3 777.4 0.9	790.8 1.0 788.6 1.4	798.2 0.9 791.9 0.4	807.4 1.2 803.9 1.5	811.2 0.5 809.8 0.7	812.7 0.2 812.3 0.3		
Construction and Mining Thousands, SA	34.5 (1.6) 34.5 (4.5)	34.7 0.5 34.7 0.4	34.5 (0.7) 34.5 (0.6)	36.0 4.4 35.0 1.6	36.3 0.9 36.3 3.6	37.5 3.4 37.0 2.0	37.8 0.8 37.7 2.0	38.9 3.0 38.2 1.2	39.1 0.4 39.1 2.4	39.2 0.4 39.1 0.0	39.5 0.7 39.4 0.7		
Trade, Transportation, and Utilities Thousands, SA	127.1 (0.3) 127.3 (0.6)	127.8 0.5 127.1 (0.1)	128.8 0.8 128.3 0.9	130.9 1.6 129.9 1.2	133.1 1.7 132.0 1.7	133.5 0.3 133.5 1.1	130.5 (2.2) 132.5 (0.8)	129.8 (0.5) 128.7 (2.9)	130.6 0.6 131.1 1.9	130.0 (0.5) 130.4 (0.5)	129.0 (0.7) 129.5 (0.7)		
Financial Activities Thousands, SA	37.4 1.7 37.1 1.1	37.8 1.0 37.8 1.9	37.8 (0.2) 37.8 0.0	38.0 0.5 38.0 0.5	37.8 (0.6) 37.8 (0.5)	38.0 0.5 37.8 0.0	38.5 1.4 38.5 1.9	39.1 1.6 38.5 (0.1)	39.8 1.8 39.6 2.9	40.1 0.8 40.0 1.1	40.1 0.1 40.1 0.4		
Professional and Business Services Thousands, SA	99.7 1.2 99.2 1.1	102.5 2.8 101.5 2.3	104.4 1.8 103.2 1.7	105.0 0.6 104.6 1.3	104.4 (0.6) 104.6 (0.0)	109.0 4.4 106.6 1.9	113.8 4.4 111.8 4.9	116.3 2.2 114.7 2.6	120.2 3.4 118.3 3.1	123.3 2.6 122.0 3.1	125.1 1.5 124.4 2.0		
Education and Health Services Thousands, SA	100.4 2.5 99.0 2.8	104.2 3.8 102.4 3.4	105.3 1.1 105.0 2.5	108.6 3.2 106.4 1.3	110.8 2.0 110.3 3.7	112.0 1.1 111.3 0.9	114.8 2.5 113.3 1.8	116.3 1.3 115.5 2.0	118.5 1.9 117.7 1.9	119.6 0.9 119.1 1.2	120.1 0.5 119.9 0.6		
Leisure and Hospitality Thousands, SA	84.0 0.8 83.6 0.2	85.3 1.6 84.6 1.1	85.6 0.3 85.6 1.3	87.8 2.6 85.9 0.3	91.0 3.7 90.1 4.8	92.4 1.5 91.6 1.7	92.4 (0.0) 92.8 1.3	94.4 2.2 93.2 0.5	95.2 0.9 94.5 1.4	95.9 0.7 95.6 1.1	96.8 0.9 96.4 0.9		
Government Thousands, SA	162.8 0.1 163.2 1.1	161.7 (0.7) 162.2 (0.6)	159.9 (1.1) 160.8 (0.9)	159.7 (0.1) 159.7 (0.7)	160.0 0.2 159.8 0.1	160.2 0.1 160.1 0.2	159.6 (0.3) 160.4 0.2	157.0 (1.6) 158.7 (1.1)	157.1 0.0 156.3 (1.5)	157.1 (0.0) 157.1 0.5	156.8 (0.2) 157.0 (0.1)		

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.4 - ANNUAL VIRGINIA REGIONAL EMPLOYMENT

	Pessimistic Alternative Scenario			
	2019	2020	2021	2022
Hampton Roads				
Total Nonagricultural Employment Thousands, SA	798.1 0.9 791.9 0.4	802.9 0.6 803.0 1.4	792.3 (1.3) 797.8 (0.6)	793.9 0.2 791.6 (0.8)
Calendar Year % Change				
Fiscal Year % Change				
Construction and Mining Thousands, SA	38.9 3.0 38.2 1.2	38.3 (1.7) 39.0 2.0	36.3 (5.1) 37.2 (4.7)	36.4 0.2 36.1 (2.7)
Calendar Year % Change				
Fiscal Year % Change				
Trade, Transportation, and Utilities Thousands, SA	129.6 (0.7) 128.7 (2.9)	129.7 0.0 130.7 1.5	125.8 (3.0) 128.0 (2.0)	124.6 (0.9) 124.8 (2.5)
Calendar Year % Change				
Fiscal Year % Change				
Financial Activities Thousands, SA	39.1 1.7 38.5 (0.1)	40.0 2.3 39.7 3.2	40.3 0.7 40.4 1.9	39.8 (1.4) 40.0 (1.0)
Calendar Year % Change				
Fiscal Year % Change				
Professional and Business Services Thousands, SA	116.1 2.1 114.7 2.6	116.5 0.3 117.4 2.3	110.8 (4.8) 112.8 (3.9)	115.4 4.2 112.4 (0.4)
Calendar Year % Change				
Fiscal Year % Change				
Education and Health Services Thousands, SA	116.4 1.4 115.5 2.0	118.6 1.8 117.8 2.0	120.9 2.0 119.7 1.6	121.1 0.1 121.3 1.3
Calendar Year % Change				
Fiscal Year % Change				
Leisure and Hospitality Thousands, SA	94.4 2.1 93.2 0.5	95.6 1.3 94.5 1.4	96.1 0.5 96.2 1.7	96.3 0.2 96.1 (0.1)
Calendar Year % Change				
Fiscal Year % Change				
Government Thousands, SA	157.0 (1.6) 158.7 (1.1)	157.2 0.1 156.3 (1.5)	157.2 0.0 157.2 0.6	157.1 (0.1) 157.2 (0.0)
Calendar Year % Change				
Fiscal Year % Change				

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.4 - ANNUAL VIRGINIA REGIONAL EMPLOYMENT

Richmond		History											
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Nonagricultural Employment Thousands, SA	Calendar Year	578.9	580.3	578.2	578.7	593.8	605.9	615.1	622.6	619.9	595.2	591.6	600.1
	% Change	2.4	0.2	(0.4)	0.1	2.6	2.0	1.5	1.2	(0.4)	(4.0)	(0.6)	1.4
	Fiscal Year	572.4	581.6	578.7	576.8	586.1	600.7	609.6	620.6	622.3	609.5	590.1	594.6
	% Change	2.6	1.6	(0.5)	(0.3)	1.6	2.5	1.5	1.8	0.3	(3.2)	0.8	
Construction and Mining Thousands, SA	Calendar Year	38.8	39.2	39.1	39.2	40.7	43.1	44.1	45.0	41.4	34.6	32.4	31.8
	% Change	5.1	1.0	(0.2)	0.1	3.9	6.0	2.2	2.1	(8.0)	(16.3)	(6.3)	(2.0)
	Fiscal Year	37.7	39.3	39.0	39.1	39.6	42.2	43.8	44.5	43.9	37.9	32.9	32.2
	% Change	3.6	4.2	(1.0)	0.3	1.3	6.5	3.8	1.8	(1.5)	(13.3)	(13.3)	(2.3)
Trade, Transportation, and Utilities Thousands, SA	Calendar Year	110.6	109.9	109.6	109.5	110.3	110.3	112.5	115.1	114.0	108.1	107.3	109.3
	% Change	2.5	(0.7)	(0.2)	(0.2)	0.7	0.0	2.1	2.3	(0.9)	(5.1)	(0.8)	1.8
	Fiscal Year	109.6	110.7	109.4	109.5	110.3	109.7	111.5	113.8	114.9	111.6	107.0	108.1
	% Change	3.0	1.0	(1.2)	0.1	0.7	(0.5)	1.6	2.1	1.0	(4.2)	(4.2)	1.1
Financial Activities Thousands, SA	Calendar Year	44.9	46.8	46.5	46.2	46.7	46.5	46.3	45.6	43.9	42.6	42.2	43.6
	% Change	3.3	4.3	(0.8)	(0.6)	1.1	(0.4)	(0.3)	(1.7)	(3.6)	(2.9)	(1.1)	3.3
	Fiscal Year	44.3	45.9	47.1	45.9	46.7	46.5	46.5	46.0	44.7	43.4	42.2	42.5
	% Change	6.1	3.6	2.6	(2.6)	1.8	(0.3)	(0.1)	(1.1)	(2.7)	(3.0)	(2.8)	0.8
Professional and Business Services Thousands, SA	Calendar Year	91.5	89.2	87.4	83.5	87.7	92.5	95.1	98.4	98.9	92.2	92.5	96.3
	% Change	3.8	(2.5)	(2.1)	(4.4)	5.1	5.4	2.8	3.4	0.5	(6.7)	0.3	4.0
	Fiscal Year	89.4	91.2	88.1	84.8	85.1	90.5	93.7	97.2	99.3	95.7	91.2	94.8
	% Change	1.1	2.0	(3.4)	(3.7)	0.3	6.4	3.5	3.7	2.2	(3.7)	(4.7)	4.0
Education and Health Services Thousands, SA	Calendar Year	51.7	53.9	56.7	60.6	65.1	68.5	71.3	73.9	80.4	82.9	84.5	86.1
	% Change	(0.1)	4.3	5.2	6.9	7.4	5.3	4.1	3.7	8.8	3.1	1.9	1.8
	Fiscal Year	51.8	52.4	55.3	58.6	62.9	66.7	69.8	72.3	77.5	81.9	84.1	84.7
	% Change	2.5	1.1	5.5	6.0	7.3	6.1	4.6	3.6	7.1	5.7	2.7	0.8
Leisure and Hospitality Thousands, SA	Calendar Year	43.9	44.8	44.2	45.7	48.0	49.0	51.1	51.9	52.3	51.4	51.0	53.0
	% Change	2.4	2.2	(1.5)	3.5	5.1	2.0	4.4	1.5	0.8	(1.8)	(0.8)	4.0
	Fiscal Year	43.6	44.4	44.5	44.6	47.0	48.4	50.0	51.7	52.3	51.9	50.8	51.7
	% Change	2.1	1.9	0.2	0.3	5.3	3.0	3.3	3.4	1.1	(0.8)	(2.1)	1.7
Government Thousands, SA	Calendar Year	105.6	107.0	108.3	109.4	110.4	111.4	111.4	110.3	109.0	110.3	111.1	110.7
	% Change	2.5	1.4	1.2	1.1	0.9	1.0	(0.1)	(0.9)	(1.2)	1.2	0.7	(0.3)
	Fiscal Year	104.2	106.4	107.8	109.0	109.5	111.7	110.8	111.8	108.6	110.1	110.8	110.6
	% Change	2.4	2.2	1.3	1.1	0.5	2.0	0.9	(2.9)	1.4	0.6	(0.1)	

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.4 - ANNUAL VIRGINIA REGIONAL EMPLOYMENT

Richmond		History										October Standard Forecast		
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
Total Nonagricultural Employment Thousands, SA	Calendar Year	612.1	621.7	632.2	650.1	662.3	669.9	678.8	685.4	692.8	697.3	699.1		
	% Change	2.0	1.6	1.7	2.8	1.9	1.1	1.3	1.0	1.1	0.7	0.3		
	Fiscal Year	606.0	617.2	627.0	639.1	658.8	666.1	674.0	682.7	689.2	695.1	698.6		
	% Change	1.9	1.8	1.6	1.9	3.1	1.1	1.2	1.3	1.0	0.9	0.5		
Construction and Mining Thousands, SA	Calendar Year	32.6	33.2	33.9	36.2	36.9	38.0	39.4	40.6	40.7	40.9	41.3		
	% Change	2.4	1.9	2.0	6.9	2.0	2.9	3.7	3.0	0.2	0.6	1.0		
	Fiscal Year	32.1	33.0	33.2	35.0	36.7	37.4	38.8	40.0	40.7	40.8	41.1		
	% Change	(0.3)	3.1	0.6	5.4	4.7	1.9	3.7	3.3	1.7	0.1	0.9		
Trade, Transportation, and Utilities Thousands, SA	Calendar Year	111.9	114.3	117.4	119.8	121.7	122.0	123.3	122.2	120.7	120.2	119.1		
	% Change	2.4	2.2	2.7	2.0	1.7	0.2	1.1	(0.9)	(1.2)	(0.4)	(0.9)		
	Fiscal Year	110.3	113.3	116.2	117.9	121.7	121.3	123.0	123.0	121.1	120.6	119.7		
	% Change	2.1	2.7	2.6	1.5	3.2	(0.3)	1.4	0.0	(1.6)	(0.4)	(0.8)		
Financial Activities Thousands, SA	Calendar Year	45.7	46.9	47.7	49.1	48.7	49.4	50.8	52.1	52.5	53.0	53.1		
	% Change	5.0	2.6	1.6	2.9	(0.7)	1.5	2.7	2.5	0.9	0.9	0.1		
	Fiscal Year	44.8	46.4	47.4	48.4	48.8	49.1	50.0	51.6	52.2	52.9	53.1		
	% Change	5.3	3.6	2.1	2.2	0.8	0.7	1.7	3.3	1.0	1.3	0.5		
Professional and Business Services Thousands, SA	Calendar Year	98.8	100.3	102.5	109.4	112.8	114.7	116.0	117.2	120.6	124.3	126.4		
	% Change	2.6	1.6	2.2	6.7	3.2	1.6	1.1	1.0	2.9	3.0	1.7		
	Fiscal Year	97.3	99.6	101.4	105.1	112.1	113.9	115.5	116.4	118.8	122.3	125.6		
	% Change	2.6	2.3	1.8	3.7	6.7	1.6	1.4	0.8	2.0	3.0	2.7		
Education and Health Services Thousands, SA	Calendar Year	88.7	91.0	93.3	95.6	97.1	98.5	100.6	102.1	104.8	106.0	106.6		
	% Change	3.1	2.6	2.5	2.5	1.6	1.4	2.2	1.5	2.6	1.2	0.6		
	Fiscal Year	87.4	90.0	92.3	94.3	96.7	97.9	99.1	101.1	103.8	105.5	106.3		
	% Change	3.2	3.0	2.6	2.1	2.6	1.3	1.3	2.0	2.7	1.6	0.8		
Leisure and Hospitality Thousands, SA	Calendar Year	55.5	57.1	58.0	60.9	63.4	64.9	65.6	65.6	66.6	67.3	68.3		
	% Change	4.6	2.9	1.6	5.0	4.1	2.4	1.1	(0.0)	1.5	1.1	1.4		
	Fiscal Year	54.6	56.3	57.6	59.0	62.5	64.3	65.4	65.7	65.9	66.9	67.9		
	% Change	5.5	3.2	2.3	2.5	5.9	2.8	1.7	0.4	0.3	1.7	1.4		
Government Thousands, SA	Calendar Year	110.2	109.5	109.8	109.5	110.6	110.6	111.7	113.4	115.0	114.6	114.2		
	% Change	(0.5)	(0.7)	0.3	(0.3)	1.0	0.0	0.9	1.5	1.4	(0.3)	(0.3)		
	Fiscal Year	110.8	109.7	109.3	109.8	110.1	110.6	110.7	112.7	114.5	114.7	114.4		
	% Change	0.1	(1.0)	(0.3)	0.4	0.3	0.5	1.8	1.6	0.2	(0.3)			

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.4 - ANNUAL VIRGINIA REGIONAL EMPLOYMENT

	Pessimistic Alternative Scenario			
	2019	2020	2021	2022
Richmond				
Total Nonagricultural Employment Thousands, SA	685.4	687.7	678.1	680.4
Calendar Year	1.0	0.3	(1.4)	0.3
% Change	682.7	688.3	682.2	678.2
Fiscal Year	1.3	0.8	(0.9)	(0.6)
% Change				
Construction and Mining Thousands, SA	40.6	39.9	38.0	38.2
Calendar Year	3.0	(1.7)	(4.6)	0.5
% Change	40.0	40.6	38.8	37.9
Fiscal Year	3.3	1.4	(4.4)	(2.3)
% Change				
Trade, Transportation, and Utilities Thousands, SA	122.1	119.4	115.5	114.4
Calendar Year	(1.0)	(2.2)	(3.3)	(1.0)
% Change	123.0	120.7	117.5	114.8
Fiscal Year	0.0	(1.9)	(2.6)	(2.3)
% Change				
Financial Activities Thousands, SA	52.1	52.9	53.4	52.5
Calendar Year	2.7	1.5	0.9	(1.6)
% Change	51.6	52.3	53.5	52.9
Fiscal Year	3.3	1.4	2.3	(1.2)
% Change				
Professional and Business Services Thousands, SA	117.0	116.6	110.8	116.0
Calendar Year	0.9	(0.4)	(4.9)	4.7
% Change	116.4	117.8	112.5	112.7
Fiscal Year	0.8	1.2	(4.5)	0.2
% Change				
Education and Health Services Thousands, SA	102.2	104.8	107.5	107.7
Calendar Year	1.6	2.6	2.5	0.2
% Change	101.1	104.0	106.2	107.9
Fiscal Year	2.0	2.9	2.0	1.7
% Change				
Leisure and Hospitality Thousands, SA	65.6	67.0	67.5	67.7
Calendar Year	(0.1)	2.1	0.8	0.3
% Change	65.7	65.9	67.6	67.5
Fiscal Year	0.4	0.3	2.6	(0.1)
% Change				
Government Thousands, SA	113.4	115.0	114.8	114.5
Calendar Year	1.5	1.4	(0.2)	(0.2)
% Change	112.7	114.5	114.8	114.7
Fiscal Year	1.8	1.6	0.3	(0.1)
% Change				

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

**APPENDIX B
GENERAL FUND DATA**

TABLE B.1 - QUARTERLY GENERAL FUND REVENUES
(Millions of Dollars)

	2005.3	2005.4	2006.1	2006.2	2006.3	2006.4	2007.1	2007.2	2007.3	2007.4	2008.1	2008.2	2008.3	2008.4	2009.1
Withholding Annual % Change	1,897.2 7.3	1,996.5 4.8	2,131.5 7.0	2,028.5 9.8	1,970.4 3.9	2,110.3 5.7	2,292.5 7.6	2,192.2 8.1	2,062.9 4.7	2,244.9 6.4	2,411.8 5.2	2,213.9 1.0	2,175.8 5.5	2,384.3 6.2	2,306.6 (4.4)
Nonwithholding Annual % Change	349.0 21.8	225.7 7.5	483.9 16.6	1,435.1 23.5	356.4 2.1	264.8 17.3	512.5 5.9	1,648.3 14.9	394.1 10.6	260.1 (1.8)	556.6 8.6	1,650.4 0.1	406.5 3.1	243.3 (6.5)	458.8 (17.6)
Gross Individual Income Tax Annual % Change	2,246.3 9.3	2,222.2 5.0	2,615.5 8.7	3,463.6 15.1	2,326.8 3.6	2,375.2 6.9	2,805.0 7.2	3,840.4 10.9	2,457.0 5.6	2,505.1 5.5	2,968.4 5.8	3,864.3 0.6	2,582.2 5.1	2,627.6 4.9	2,765.4 (6.8)
Individual Refunds Annual % Change	50.5 (42.5)	62.5 (22.9)	638.4 8.6	531.2 11.3	110.2 118.3	109.8 75.6	740.4 16.0	599.5 12.9	83.6 (24.1)	143.9 31.1	811.3 9.6	641.1 6.9	127.2 52.0	141.3 (1.8)	873.2 7.6
Net Individual Income Tax Annual % Change	2,195.8 11.6	2,159.7 6.2	1,977.0 8.7	2,932.4 15.8	2,216.7 1.0	2,265.4 4.9	2,064.6 4.4	3,240.9 10.5	2,373.3 7.1	2,361.2 4.2	2,157.2 4.5	3,223.2 (0.5)	2,455.0 3.4	2,486.3 5.3	1,892.2 (12.3)
Sales and Use Tax Annual % Change	579.3 10.5	728.6 0.2	758.5 3.1	746.3 (22.2)	762.3 31.6	746.9 2.5	774.8 2.1	765.1 2.5	785.8 3.1	798.2 6.9	723.3 (6.6)	768.3 0.4	769.9 (2.0)	729.2 (8.6)	708.8 (2.0)
Corporate Income Tax Annual % Change	214.7 76.0	256.1 105.1	116.0 29.0	280.3 0.2	256.9 19.7	186.6 (27.2)	118.7 2.3	317.4 13.2	217.7 (15.2)	115.4 (38.1)	138.7 16.9	336.0 5.8	191.4 (12.1)	71.9 (37.7)	71.1 (48.7)
Wills, Suits, Deeds, Contracts Annual % Change	202.8 78.3	170.1 13.0	149.7 5.5	172.1 (9.3)	150.8 (25.7)	143.6 (15.6)	133.9 (10.5)	154.7 (10.1)	130.7 (13.3)	112.6 (21.6)	98.6 (26.4)	114.5 (26.0)	90.3 (30.9)	66.2 (41.2)	68.4 (30.6)
Insurance Premiums Annual % Change	84.1 (4.4)	72.1 4.4	36.3 (5.2)	181.3 1.7	87.9 4.5	61.4 (14.8)	38.0 4.7	197.6 9.0	101.7 15.8	61.5 0.1	32.1 (15.7)	201.5 2.0	0.0 (100.0)	75.6 22.9	(20.2) (163.0)
Interest Income Annual % Change	44.7 65.0	26.0 17.7	39.6 66.4	6.1 (43.9)	91.7 105.0	42.9 64.7	53.8 35.7	(12.4) (303.9)	105.5 15.1	66.2 54.4	37.5 (30.3)	(19.9) 60.5	74.6 (29.3)	25.4 (61.7)	23.3 (37.8)
Alcoholic Beverage Sales Annual % Change	13.5 7.4	36.4 4.7	40.6 6.5	62.4 5.8	14.3 5.5	38.0 4.2	42.1 3.6	67.5 8.2	13.8 (3.4)	39.6 4.5	45.5 8.0	70.0 3.6	12.8 (7.2)	41.5 4.7	47.1 3.5
All Other Revenues Annual % Change	110.9 (28.6)	111.7 (8.9)	148.8 25.7	180.2 1.3	127.2 14.7	111.1 (0.5)	128.6 (13.6)	176.9 (1.8)	113.6 (10.7)	144.0 29.6	147.2 14.4	152.6 (13.8)	85.8 (24.5)	102.9 (28.5)	103.4 (29.8)
Total General Fund Revenues Annual % Change	3,445.8 14.5	3,560.8 8.4	3,266.7 8.7	4,561.0 4.0	3,707.7 7.6	3,595.9 1.0	3,354.5 2.7	4,907.7 7.6	3,842.1 3.6	3,698.7 2.9	3,380.0 0.8	4,846.1 (1.3)	3,679.9 (4.2)	3,599.0 (2.7)	2,894.2 (14.4)

TABLE B.1 - QUARTERLY GENERAL FUND REVENUES
(Millions of Dollars)

	2009 2	2009 3	2009 4	2010 1	2010 2	2010 3	2010 4	2011 1	2011 2	2011 3	2011 4	2012 1	2012 2	2012 3	2012 4
Withholding	2,271.5	2,125.0	2,328.6	2,416.4	2,306.1	2,219.1	2,459.9	2,538.5	2,417.6	2,308.0	2,510.9	2,640.7	2,580.0	2,292.0	2,606.4
Annual % Change	2.6	(2.3)	(2.3)	4.8	1.5	4.4	5.6	5.1	4.8	4.0	2.1	4.0	6.7	(0.7)	3.8
Nonwithholding	1,201.8	311.3	217.8	373.0	1,004.6	292.9	204.6	435.7	1,245.4	348.0	222.8	468.9	1,318.3	362.4	201.3
Annual % Change	(27.2)	(23.4)	(10.5)	(18.7)	(16.4)	(5.9)	(6.0)	16.8	24.0	18.8	8.9	7.6	5.9	4.1	(9.6)
Gross Individual Income Tax	3,473.3	2,436.3	2,546.4	2,789.4	3,310.7	2,512.0	2,664.5	2,974.2	3,663.0	2,655.9	2,733.7	3,109.6	3,898.3	2,654.4	2,807.7
Annual % Change	(10.1)	(5.6)	(3.1)	0.9	(4.7)	3.1	4.6	6.6	10.6	5.7	2.6	4.6	6.4	(0.1)	2.7
Individual Refunds	825.8	150.8	182.3	947.1	714.4	123.1	160.9	888.2	697.1	105.7	132.1	862.9	684.1	98.2	108.9
Annual % Change	28.8	18.6	29.1	8.5	(13.5)	(18.4)	(11.8)	(6.2)	(2.4)	(14.1)	(17.9)	(2.9)	(1.9)	(7.1)	(17.6)
Net Individual Income Tax	2,647.5	2,285.5	2,364.1	1,842.3	2,596.4	2,388.9	2,503.6	2,086.1	2,965.8	2,550.2	2,601.6	2,246.7	3,214.2	2,556.2	2,698.9
Annual % Change	(17.9)	(6.9)	(4.9)	(2.6)	(1.9)	4.5	5.9	13.2	14.2	6.8	3.9	7.7	8.4	0.2	3.7
Sales and Use Tax	695.4	724.7	724.0	674.5	959.4	577.9	746.3	719.7	968.5	620.4	772.0	768.1	961.0	684.7	777.1
Annual % Change	(9.5)	(5.9)	(0.7)	(4.8)	38.0	(20.3)	3.1	6.7	0.9	7.3	3.5	6.7	(0.8)	10.4	0.7
Corporate Income Tax	313.6	176.3	175.6	56.8	397.8	177.6	160.5	127.8	356.4	191.3	134.4	162.4	371.8	168.8	197.9
Annual % Change	(6.7)	(7.9)	144.4	(20.2)	26.8	0.7	(8.6)	125.1	(10.4)	7.7	(16.3)	27.1	4.3	(11.8)	47.2
Wills, Suits, Deeds, Contracts	89.3	80.5	74.6	60.1	75.0	75.7	77.7	63.3	74.7	78.9	79.8	73.5	89.8	90.7	92.2
Annual % Change	(22.0)	(10.9)	12.8	(12.2)	(16.0)	(5.9)	4.1	5.4	(0.4)	4.2	2.8	16.1	20.2	14.9	15.5
Insurance Premiums	199.6	0.0	75.1	(20.3)	207.1	0.0	80.5	(9.4)	210.4	0.0	56.4	(15.2)	211.7	0.0	79.9
Annual % Change	(0.9)	NA	(0.6)	0.4	3.7	NA	7.2	(53.7)	1.6	NA	(29.9)	62.4	0.6	NA	41.7
Interest Income	(19.0)	40.3	26.4	33.3	(5.7)	25.7	21.6	23.8	10.0	29.5	17.0	19.9	10.8	26.9	15.1
Annual % Change	(4.2)	(45.9)	3.9	42.8	(70.0)	(36.2)	(18.0)	(28.5)	(274.5)	14.5	(21.5)	(16.2)	8.0	(8.9)	(10.9)
Alcoholic Beverage Sales	71.8	12.3	42.2	47.5	73.0	12.8	43.2	48.7	74.3	13.8	45.0	50.6	77.0	15.7	46.1
Annual % Change	2.7	(4.0)	1.7	1.0	1.7	3.9	2.2	2.5	1.7	7.9	4.2	4.0	3.6	13.7	2.6
All Other Revenues	143.7	87.4	71.8	97.5	164.1	89.4	81.1	105.7	151.9	89.1	77.2	107.3	140.3	76.6	88.2
Annual % Change	(5.8)	1.9	(30.2)	(5.7)	14.2	2.4	12.9	8.4	(7.4)	(0.3)	(4.9)	1.6	(7.7)	(14.0)	14.3
Total General Fund Revenues	4,142.0	3,407.0	3,553.9	2,791.6	4,467.0	3,348.1	3,714.5	3,165.6	4,812.0	3,573.2	3,783.4	3,413.4	5,076.6	3,619.5	3,995.5
Annual % Change	(14.5)	(7.4)	(1.3)	(3.5)	7.8	(1.7)	4.5	13.4	7.7	6.7	1.9	7.8	5.5	1.3	5.6

TABLE B.1 - QUARTERLY GENERAL FUND REVENUES
(Millions of Dollars)

	2013.1	2013.2	2013.3	2013.4	2014.1	2014.2	2014.3	2014.4	2015.1	2015.2	2015.3	2015.4	2016.1	2016.2	2016.3
Withholding	2,761.1	2,591.9	2,403.1	2,659.9	2,803.7	2,617.5	2,554.4	2,820.0	2,875.3	2,794.7	2,666.5	2,829.2	3,029.1	2,781.5	2,777.0
Annual % Change	4.6	0.5	4.8	2.1	1.5	1.0	6.3	6.0	2.6	6.8	4.4	0.3	5.3	(0.5)	4.1
Nonwithholding	575.7	1,668.3	372.8	260.6	496.7	1,394.8	427.7	327.6	602.1	1,684.2	472.0	316.8	652.9	1,628.4	470.8
Annual % Change	22.8	26.5	2.9	29.4	(13.7)	(16.4)	14.7	25.7	21.2	20.7	10.3	(3.3)	8.4	(3.3)	(0.2)
Gross Individual Income Tax	3,336.8	4,260.1	2,775.9	2,920.4	3,300.5	4,012.4	2,982.1	3,147.6	3,477.4	4,478.9	3,138.5	3,146.1	3,682.0	4,409.8	3,247.8
Annual % Change	7.3	9.3	4.6	4.0	(1.1)	(5.8)	7.4	7.8	5.4	11.6	5.2	(0.0)	5.9	(1.5)	3.5
Individual Refunds	827.8	684.2	118.6	156.9	820.2	660.1	123.5	156.8	790.5	686.5	122.9	165.8	844.6	687.4	114.9
Annual % Change	(4.1)	0.0	20.8	44.2	(0.9)	(3.5)	4.1	(0.1)	(3.6)	4.0	(0.5)	5.8	6.8	0.1	(6.5)
Net Individual Income Tax	2,509.1	3,575.9	2,657.3	2,763.5	2,480.3	3,352.3	2,858.6	2,990.8	2,686.9	3,792.3	3,015.6	2,980.2	2,837.4	3,722.4	3,132.9
Annual % Change	11.7	11.3	4.0	2.4	(1.1)	(6.3)	7.6	8.2	8.3	13.1	5.5	(0.4)	5.6	(1.8)	3.9
Sales and Use Tax	787.0	971.0	653.9	766.1	721.1	925.3	684.0	778.5	764.3	1,008.7	648.9	831.6	781.5	1,033.9	649.9
Annual % Change	2.5	1.0	(4.5)	(1.4)	(8.4)	(4.7)	4.6	1.6	6.0	9.0	(5.1)	6.8	2.2	2.5	0.2
Corporate Income Tax	84.5	345.6	201.5	102.2	124.0	329.8	226.6	140.2	144.6	320.6	188.0	101.7	164.3	311.0	197.5
Annual % Change	(48.0)	(7.0)	19.4	(48.4)	46.8	(4.6)	12.4	37.2	16.6	(2.8)	(17.0)	(27.5)	13.6	(3.0)	5.1
Wills, Suits, Deeds, Contracts	91.3	103.3	93.2	76.2	60.6	80.8	87.5	80.9	76.1	101.8	96.0	90.4	78.7	104.0	109.6
Annual % Change	24.1	15.1	2.8	(17.3)	(33.6)	(21.8)	(6.1)	6.1	25.7	26.1	9.7	11.8	3.4	2.1	14.2
Insurance Premiums	(21.0)	203.3	0.0	90.3	3.5	226.7	0.0	75.5	5.3	219.9	0.0	87.4	8.1	243.5	0.0
Annual % Change	37.7	(4.0)	NA	12.9	(116.5)	11.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Interest Income	21.8	3.7	18.3	22.8	23.4	9.6	18.0	14.5	12.7	3.6	18.2	14.6	15.7	3.5	25.0
Annual % Change	9.2	(65.4)	(31.7)	50.5	7.3	157.4	(2.0)	(36.6)	(45.9)	(62.4)	1.5	1.4	24.2	(1.9)	36.8
Alcoholic Beverage Sales	53.2	80.2	14.8	47.7	54.4	82.3	15.2	49.0	56.8	86.8	11.8	55.1	59.2	91.5	14.1
Annual % Change	5.1	4.1	(5.8)	3.4	2.3	2.7	2.8	2.7	4.3	5.5	(22.6)	12.5	4.3	5.3	20.3
All Other Revenues	101.3	159.6	83.3	79.5	105.0	161.8	82.9	88.0	104.8	160.5	87.9	90.6	97.6	169.7	82.2
Annual % Change	(5.6)	13.8	8.7	(9.8)	3.6	1.4	(0.5)	10.6	(0.2)	(0.8)	6.1	3.0	(6.9)	5.7	(6.5)
Total General Fund Revenues	3,627.1	5,442.5	3,722.3	3,948.3	3,572.3	5,168.5	3,972.6	4,217.2	3,851.4	5,694.3	4,066.3	4,251.8	4,042.5	5,679.5	4,211.3
Annual % Change	6.3	7.2	2.8	(1.2)	(1.5)	(5.0)	6.7	6.8	7.8	10.2	2.4	0.8	5.0	(0.3)	3.6

TABLE B.1 - QUARTERLY GENERAL FUND REVENUES
(Millions of Dollars)

	2016.4	2017.1	2017.2	2017.3	2017.4	2018.1	2018.2	2018.3	2018.4	2019.1	2019.2	2019.3
Withholding	2,966.4	3,231.3	2,920.7	2,888.1	3,026.9	3,441.1	3,184.5	2,920.9	3,259.3	3,481.2	3,326.4	3,091.4
Annual % Change	4.8	6.7	5.0	4.0	2.0	6.5	9.0	1.1	7.7	1.2	4.5	5.8
Nonwithholding	329.5	683.1	1,535.1	463.8	581.7	688.5	1,738.9	530.3	297.9	727.0	2,421.6	617.6
Annual % Change	4.0	4.6	(5.7)	(1.5)	76.6	0.8	13.3	14.4	(48.8)	5.6	39.3	16.5
Gross Individual Income Tax	3,295.9	3,914.4	4,455.8	3,351.8	3,608.6	4,129.5	4,923.4	3,451.2	3,557.2	4,208.2	5,748.0	3,709.0
Annual % Change	4.8	6.3	1.0	3.2	9.5	5.5	10.5	3.0	(1.4)	1.9	16.7	7.5
Individual Refunds	143.0	871.4	731.6	126.7	162.3	876.1	742.5	137.9	167.3	739.2	693.7	158.5
Annual % Change	(13.7)	3.2	6.4	10.3	13.5	0.5	1.5	8.8	3.1	(15.6)	(6.6)	15.0
Net Individual Income Tax	3,152.8	3,043.0	3,724.2	3,225.1	3,446.3	3,253.5	4,180.9	3,313.3	3,389.9	3,469.0	5,054.2	3,550.5
Annual % Change	5.8	7.2	0.0	2.9	9.3	6.9	12.3	2.7	(1.6)	6.6	20.9	7.2
Sales and Use Tax	827.1	820.0	1,060.1	667.2	865.2	832.2	1,097.2	717.2	888.1	842.4	1,132.7	773.0
Annual % Change	(0.5)	4.9	2.5	2.7	4.6	1.5	3.5	7.5	2.6	1.2	3.2	7.8
Corporate Income Tax	119.8	147.8	361.8	252.7	134.9	104.5	369.9	227.4	164.7	101.4	449.8	246.8
Annual % Change	17.8	(10.0)	16.3	27.9	12.6	(29.3)	2.2	(10.0)	22.1	(2.9)	21.6	8.5
Wills, Suits, Deeds, Contracts	98.5	80.4	105.9	107.1	94.2	83.1	110.5	97.4	93.5	80.6	115.0	122.1
Annual % Change	8.9	2.1	1.8	(2.3)	(4.4)	3.4	4.3	(9.1)	(0.8)	(3.0)	4.1	25.4
Insurance Premiums	90.2	7.0	243.7	0.0	94.7	(11.0)	254.3	0.0	93.2	18.1	270.7	0.0
Annual % Change	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Interest Income	10.8	18.9	0.9	28.2	21.6	10.7	1.0	42.6	20.5	33.6	(9.7)	73.1
Annual % Change	(26.2)	20.3	(73.4)	12.8	100.1	(43.6)	2.2	51.2	(5.5)	214.9	(1,106.0)	71.7
Alcoholic Beverage Sales	53.8	60.6	93.9	15.3	55.4	61.9	99.3	14.0	57.5	64.8	104.5	17.4
Annual % Change	(2.5)	2.3	2.6	7.9	3.1	2.1	5.8	(8.0)	3.8	4.7	5.2	24.1
All Other Revenues	87.1	105.8	169.8	86.8	70.7	105.4	162.3	90.8	88.6	106.9	174.8	87.2
Annual % Change	(3.9)	8.4	0.1	5.6	(18.8)	(0.4)	(4.4)	4.6	25.3	1.5	7.7	(3.9)
Total General Fund Revenues	4,440.0	4,283.4	5,760.3	4,382.3	4,782.9	4,440.2	6,275.4	4,502.7	4,796.0	4,716.8	7,292.0	4,870.1
Annual % Change	4.4	6.0	1.4	4.1	7.7	3.7	8.9	2.7	0.3	6.2	16.2	8.2

TABLE B.2 - ANNUAL GENERAL FUND REVENUES
(Millions of Dollars)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Withholding											
Calendar Year	4,979.1	5,673.3	6,007.5	6,347.5	6,513.0	6,772.2	7,305.3	7,733.2	8,240.8	8,792.5	9,185.8
% Change	9.4	13.9	5.9	5.7	2.6	4.0	7.9	5.9	6.6	6.7	4.5
Fiscal Year	4,759.0	5,311.9	5,861.3	6,254.9	6,422.4	6,567.4	7,039.3	7,513.0	8,053.7	8,565.5	8,933.6
% Change	10.6	11.6	10.3	6.7	2.7	2.3	7.2	6.7	7.2	6.4	4.3
Nonwithholding											
Calendar Year	1,317.7	1,596.4	1,640.6	1,801.7	1,456.4	1,423.7	1,658.4	2,151.8	2,540.3	2,815.0	2,856.7
% Change	21.5	21.2	2.8	9.8	(19.2)	(2.2)	16.5	29.7	18.1	10.8	1.5
Fiscal Year	1,284.7	1,487.8	1,669.7	1,806.8	1,459.5	1,402.7	1,562.8	2,073.5	2,493.8	2,782.0	2,861.2
% Change	23.3	15.8	12.2	8.2	(19.2)	(3.9)	11.4	32.7	20.3	11.6	2.8
Gross Individual Income Tax											
Calendar Year	6,296.7	7,269.7	7,648.1	8,149.2	7,969.4	8,195.9	8,963.7	9,884.9	10,781.0	11,607.5	12,042.5
% Change	11.7	15.5	5.2	6.6	(2.2)	2.8	9.4	10.3	9.1	7.7	3.7
Fiscal Year	6,043.7	6,799.8	7,530.9	8,061.7	7,881.9	7,970.1	8,602.1	9,586.6	10,547.5	11,347.4	11,794.7
% Change	13.1	12.5	10.8	7.0	(2.2)	1.1	7.9	11.4	10.0	7.6	3.9
Individual Refunds											
Calendar Year	655.2	717.4	773.8	902.6	1,108.8	1,167.3	1,227.3	1,178.3	1,389.6	1,567.4	1,720.8
% Change	4.2	9.5	7.9	16.6	22.8	5.3	5.1	(4.0)	17.9	12.8	9.8
Fiscal Year	638.2	711.9	702.0	835.4	1,171.1	1,194.4	1,217.2	1,234.2	1,282.6	1,559.8	1,679.9
% Change	3.4	11.5	(1.4)	19.0	40.2	2.0	1.9	1.4	3.9	21.6	7.7
Net Individual Income Tax											
Calendar Year	5,641.5	6,552.3	6,874.3	7,246.6	6,860.6	7,028.6	7,736.4	8,706.7	9,391.4	10,040.0	10,321.7
% Change	12.7	16.1	4.9	5.4	(5.3)	2.4	10.1	12.5	7.9	6.9	2.8
Fiscal Year	5,405.4	6,087.9	6,828.9	7,226.3	6,710.8	6,775.7	7,384.9	8,352.4	9,264.9	9,787.6	10,114.8
% Change	14.3	12.6	12.2	5.8	(7.1)	1.0	9.0	13.1	10.9	5.6	3.3
Sales and Use Tax											
Calendar Year	1,992.4	2,140.7	2,233.3	2,289.5	2,309.9	2,410.4	2,705.1	3,002.6	3,014.1	3,123.8	2,990.8
% Change	6.4	7.4	4.3	2.5	0.9	4.4	12.2	11.0	0.4	3.6	(4.3)
Fiscal Year	1,919.2	2,065.3	2,201.5	2,273.0	2,429.8	2,336.0	2,562.3	2,946.1	2,812.7	3,049.1	3,075.5
% Change	5.1	7.6	6.6	3.2	6.9	(3.9)	9.7	15.0	(4.5)	8.4	0.9
Corporate Income Tax											
Calendar Year	458.1	462.8	497.5	326.2	320.5	348.6	521.7	840.6	839.8	769.3	738.0
% Change	2.1	1.0	7.5	(34.4)	(1.8)	8.8	49.7	61.1	(0.1)	(8.4)	(4.1)
Fiscal Year	450.8	420.4	565.9	363.8	290.2	343.3	425.7	616.7	867.1	879.6	807.9
% Change	4.3	(6.7)	34.6	(35.7)	(20.2)	18.3	24.0	44.9	40.6	1.4	(8.2)
Wills, Suits, Deeds, Contracts											
Calendar Year	148.5	151.3	150.8	195.5	247.2	319.5	431.7	704.7	616.2	531.9	369.5
% Change	32.0	1.9	(0.3)	29.6	26.4	29.3	35.1	63.2	(12.6)	(13.7)	(30.5)
Fiscal Year	126.8	157.9	146.3	167.6	214.4	285.8	340.6	596.1	694.7	582.9	456.3
% Change	22.6	24.5	(7.3)	14.6	27.9	33.3	19.1	75.0	16.6	(16.1)	(21.7)

TABLE B.2 - ANNUAL GENERAL FUND REVENUES
(Millions of Dollars)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Withholding											
Calendar Year	9,031.7	9,401.4	9,775.0	10,119.1	10,415.9	10,795.6	11,165.7	11,554.0	12,066.9	12,805.8	
% Change	(1.7)	4.1	4.0	3.5	2.9	3.6	3.4	3.5	4.4	6.1	
Fiscal Year	9,138.1	9,176.2	9,635.1	10,039.7	10,251.3	10,484.2	11,044.3	11,306.3	11,895.4	12,540.5	12,987.8
% Change	2.3	0.4	5.0	4.2	2.1	2.3	5.3	2.4	5.2	5.4	3.6
Nonwithholding											
Calendar Year	2,189.8	1,875.2	2,251.8	2,350.9	2,877.3	2,646.9	3,075.1	3,081.5	3,263.7	3,255.6	
% Change	(23.3)	(14.4)	20.1	4.4	22.4	(8.0)	16.2	0.2	5.9	(0.2)	
Fiscal Year	2,310.4	1,906.8	2,178.6	2,357.9	2,807.7	2,524.9	3,041.6	3,070.1	3,018.5	3,472.9	3,976.8
% Change	(19.2)	(17.5)	14.3	8.2	19.1	(10.1)	20.5	0.9	(1.7)	15.1	14.5
Gross Individual Income Tax											
Calendar Year	11,221.4	11,276.6	12,026.8	12,470.0	13,293.3	13,442.5	14,240.8	14,635.5	15,330.6	16,061.4	
% Change	(6.8)	0.5	6.7	3.7	6.6	1.1	5.9	2.8	4.7	4.8	
Fiscal Year	11,448.5	11,082.9	11,813.7	12,397.6	13,059.0	13,009.2	14,086.0	14,376.4	14,913.9	16,013.4	16,964.7
% Change	(2.9)	(3.2)	6.6	4.9	5.3	(0.4)	8.3	2.1	3.7	7.4	5.9
Individual Refunds											
Calendar Year	2,032.1	1,945.5	1,823.1	1,754.0	1,787.6	1,760.5	1,765.7	1,790.0	1,892.1	1,923.8	
% Change	18.1	(4.3)	(6.3)	(3.8)	1.9	(1.5)	0.3	1.4	5.7	1.7	
Fiscal Year	1,967.4	1,994.7	1,869.3	1,784.7	1,719.1	1,755.8	1,757.3	1,820.7	1,861.0	1,907.6	1,738.2
% Change	17.1	1.4	(6.3)	(4.5)	(3.7)	2.1	0.1	3.6	2.2	2.5	(8.9)
Net Individual Income Tax											
Calendar Year	9,189.3	9,331.1	10,203.8	10,716.0	11,505.7	11,682.0	12,475.1	12,845.5	13,438.5	14,137.7	
% Change	(11.0)	1.5	9.4	5.0	7.4	1.5	6.8	3.0	4.6	5.2	
Fiscal Year	9,481.1	9,088.3	9,944.4	10,612.8	11,340.0	11,253.3	12,328.7	12,555.6	13,052.9	14,105.8	15,226.5
% Change	(6.3)	(4.1)	9.4	6.7	6.9	(0.8)	9.6	1.8	4.0	8.1	7.9
Sales and Use Tax											
Calendar Year	2,853.0	2,958.0	3,080.6	3,190.9	3,178.0	3,108.9	3,253.5	3,292.3	3,412.5	3,534.7	
% Change	(4.6)	3.7	4.1	3.6	(0.4)	(2.2)	4.7	1.2	3.6	3.6	
Fiscal Year	2,903.4	3,082.5	3,012.4	3,121.5	3,219.8	3,066.5	3,235.4	3,295.9	3,357.1	3,461.8	3,580.4
% Change	(5.6)	6.2	(2.3)	3.6	3.1	(4.8)	5.5	1.9	1.9	3.1	3.4
Corporate Income Tax											
Calendar Year	736.7	792.7	809.9	900.9	733.7	820.6	754.8	792.6	897.2	866.5	
% Change	(0.2)	7.6	2.2	11.2	(18.6)	11.8	(8.0)	5.0	13.2	(3.4)	
Fiscal Year	648.0	806.5	822.3	859.9	796.7	757.5	831.9	764.9	827.0	861.9	943.4
% Change	(19.8)	24.4	2.0	4.6	(7.3)	(4.9)	9.8	(8.0)	8.1	4.2	9.5
Wills, Suits, Deeds, Contracts											
Calendar Year	312.8	288.5	296.8	346.2	364.0	309.7	364.4	390.8	387.6	384.4	
% Change	(15.3)	(7.8)	2.9	16.6	5.1	(14.9)	17.7	7.2	(0.8)	(0.8)	
Fiscal Year	314.3	290.2	291.5	322.1	377.5	310.8	346.3	369.1	394.4	386.5	386.5
% Change	(31.1)	(7.7)	0.4	10.5	17.2	(17.7)	11.4	6.6	6.9	0.1	(2.1)

TABLE B.2 - ANNUAL GENERAL FUND REVENUES
(Millions of Dollars)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Insurance Premiums											
Calendar Year	243.6	248.3	254.3	280.9	308.7	339.4	365.4	372.8	366.9	398.8	309.2
% Change	10.5	1.9	2.4	10.5	9.9	9.9	7.7	2.0	(1.6)	8.7	(22.5)
Fiscal Year	237.0	244.9	251.1	268.1	292.7	333.0	351.3	373.6	373.8	384.9	396.9
% Change	8.2	3.4	2.5	6.8	9.2	13.8	5.5	6.3	0.1	3.0	3.1
Interest Income											
Calendar Year	125.0	118.3	147.8	111.9	86.9	59.5	69.7	105.4	180.2	213.1	117.6
% Change	7.3	(5.4)	24.9	(24.3)	(22.4)	(31.5)	17.3	51.2	71.0	18.2	(44.8)
Fiscal Year	105.8	126.1	131.2	133.2	100.4	81.7	61.4	83.9	116.5	175.9	189.3
% Change	(7.9)	19.2	4.0	1.5	(24.6)	(18.6)	(24.8)	36.6	38.9	51.1	7.6
Alcoholic Beverage Sales											
Calendar Year	107.2	111.9	119.2	123.6	129.0	131.5	139.6	147.0	155.2	163.1	169.8
% Change	3.2	4.4	6.5	3.7	4.3	1.9	6.2	5.3	5.6	5.0	4.1
Fiscal Year	105.5	110.6	117.2	123.0	127.5	128.7	138.0	144.5	153.0	161.8	168.9
% Change	1.9	4.8	6.0	4.9	3.6	1.0	7.2	4.7	5.9	5.8	4.3
All Other Revenues											
Calendar Year	432.6	560.6	484.2	549.3	548.2	596.8	673.1	518.9	567.4	563.1	488.5
% Change	0.6	29.6	(13.6)	13.5	(0.2)	8.9	12.8	(22.9)	9.3	(0.8)	(13.3)
Fiscal Year	422.9	489.7	546.4	550.4	513.1	582.9	653.6	574.1	551.6	543.9	557.4
% Change	0.3	15.8	11.6	0.7	(6.8)	13.6	12.1	(12.2)	(3.9)	(1.4)	2.5
Total General Fund Revenues											
Calendar Year	9,148.7	10,346.2	10,761.3	11,123.6	10,810.9	11,234.2	12,642.8	14,398.7	15,131.3	15,803.1	15,505.0
% Change	10.1	13.1	4.0	3.4	(2.8)	3.9	12.5	13.9	5.1	4.4	(1.9)
Fiscal Year	8,773.5	9,702.7	10,788.5	11,105.3	10,679.0	10,867.1	11,917.9	13,687.3	14,834.3	15,565.8	15,767.0
% Change	10.4	10.6	11.2	2.9	(3.8)	1.8	9.7	14.8	8.4	4.9	1.3
ABC Profits											
Fiscal Year	20.7	25.5	30.1	28.1	25.4	14.2	16.8	24.9	30.0	27.6	37.2
% Change	(12.9)	23.0	18.2	(6.8)	(9.6)	(44.1)	18.0	48.9	20.4	(8.3)	35.1

TABLE B.2 - ANNUAL GENERAL FUND REVENUES
(Millions of Dollars)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Insurance Premiums											
Calendar Year	254.5	267.3	257.4	276.4	272.6	305.6	312.6	341.9	345.4	336.5	
% Change	(17.7)	5.0	(3.7)	7.4	(1.4)	12.1	2.3	9.4	1.0	(2.6)	
Fiscal Year	255.0	261.9	281.6	252.9	262.2	320.4	300.6	339.1	340.9	337.9	382.0
% Change	(35.7)	2.7	7.5	(10.2)	3.7	22.2	(6.2)	12.8	0.5	(0.9)	13.0
Interest Income											
Calendar Year	71.0	75.0	80.2	72.7	66.6	65.4	49.2	55.0	69.6	74.7	
% Change	(39.6)	5.5	7.0	(9.4)	(8.3)	(1.8)	(24.8)	11.9	26.6	7.2	
Fiscal Year	104.2	94.3	81.1	77.2	67.5	74.1	48.7	52.2	55.6	61.4	87.0
% Change	(44.9)	(9.5)	(14.0)	(4.9)	(12.5)	9.8	(34.3)	7.1	6.7	10.4	41.6
Alcoholic Beverage Sales											
Calendar Year	173.4	176.5	181.8	189.4	195.9	200.9	210.5	218.6	225.1	232.7	
% Change	2.2	1.8	3.0	4.2	3.4	2.6	4.8	3.8	3.0	3.4	
Fiscal Year	173.2	175.1	178.9	186.4	195.2	199.2	207.8	217.6	222.4	231.8	240.8
% Change	2.6	1.1	2.2	4.2	4.7	2.1	4.3	4.7	2.2	4.3	3.9
All Other Revenues											
Calendar Year	406.3	432.1	423.9	412.4	423.7	437.7	443.8	436.6	433.2	447.1	
% Change	(16.8)	6.4	(1.9)	(2.7)	2.7	3.3	1.4	(1.6)	(0.8)	3.2	
Fiscal Year	435.7	420.7	428.1	413.9	425.7	429.6	436.2	445.8	444.9	425.2	461.1
% Change	(21.8)	(3.4)	1.8	(3.3)	2.9	0.9	1.5	2.2	(0.2)	(4.4)	8.4
Total General Fund Revenues											
Calendar Year	13,997.0	14,321.2	15,334.3	16,105.0	16,740.2	16,930.7	17,863.9	18,373.3	19,209.0	20,014.2	
% Change	(9.7)	2.3	7.1	5.0	3.9	1.1	5.5	2.9	4.5	4.2	
Fiscal Year	14,315.1	14,219.5	15,040.2	15,846.7	16,684.6	16,411.4	17,735.6	18,040.1	18,695.1	19,880.8	21,307.5
% Change	(9.2)	(0.7)	5.8	5.4	5.3	(1.6)	8.1	1.7	3.6	6.3	7.2
ABC Profits											
Fiscal Year	44.2	50.0	50.5	63.8	68.0	72.2	83.3	86.5	110.5	109.5	130.7
% Change	18.8	13.0	1.0	26.3	6.6	6.2	15.4	3.8	27.7	(0.9)	19.4

APPENDIX C
MODELS AND METHODOLOGIES

Corporate Income Tax

diffya(corp)

$$= 2.09816 * \text{diffya}(\text{zbva}) - 0.37176 * \text{diffya}(\text{sp500va})$$

(3.53189) (0.48527)

$$+5.74098$$

(1.25400)

Sum Sq	53566.3	Std Err	30.9280	LHS Mean	7.5785
R Sq	0.1929	R Bar Sq	0.1641	F 2, 56	6.6935
D.W.(1)	2.2427	D.W.(4)	2.0704		

Quarterly data for 59 periods from 2005Q1 to 2019Q3

diffya	Year-over-year difference function
corp	Gross corporate income tax receipts
zbva	Virginia portion of national pre-tax profits
sp500va	Virginia specific Standard and Poor's 500 stock index

GENERAL FUND METHODOLOGY

Corporate Income Tax, Gross Receipts

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2010	09Q3	203.7	233.1	(29.4)	-14.4%
	09Q4	249.8	255.2	(5.4)	-2.1%
	10Q1	129.0	149.1	(20.1)	-15.5%
	10Q2	379.4	368.3	11.0	2.9%
	Total	961.9	1,005.7	(43.8)	-4.6%
2011	10Q3	227.0	228.3	(1.3)	-0.6%
	10Q4	238.3	265.6	(27.3)	-11.5%
	11Q1	161.8	130.0	31.7	19.6%
	11Q2	390.4	384.8	5.6	1.4%
	Total	1,017.5	1,008.8	8.7	0.9%
2012	11Q3	241.8	226.2	15.6	6.4%
	11Q4	224.1	245.5	(21.4)	-9.5%
	12Q1	184.9	194.7	(9.8)	-5.3%
	12Q2	397.9	415.2	(17.3)	-4.3%
	Total	1,048.8	1,081.7	(32.9)	-3.1%
2013	12Q3	224.8	267.6	(42.8)	-19.0%
	12Q4	273.1	240.0	33.1	12.1%
	13Q1	134.1	183.0	(48.8)	-36.4%
	13Q2	375.1	397.8	(22.7)	-6.0%
	Total	1,007.1	1,088.4	(81.2)	-8.1%
2014	13Q3	242.2	224.7	17.5	7.2%
	13Q4	225.4	277.4	(51.9)	-23.0%
	14Q1	141.3	137.5	3.8	2.7%
	14Q2	356.1	387.1	(31.0)	-8.7%
	Total	965.0	1,026.6	(61.6)	-6.4%
2015	14Q3	256.6	253.2	3.4	1.3%
	14Q4	242.0	232.1	9.9	4.1%
	15Q1	159.4	145.5	13.9	8.7%
	15Q2	350.5	355.5	(5.0)	-1.4%
	Total	1,008.5	986.3	22.2	2.2%
2016	15Q3	233.5	251.3	(17.8)	-7.6%
	15Q4	219.5	231.1	(11.6)	-5.3%
	16Q1	186.3	158.0	28.3	15.2%
	16Q2	334.5	350.7	(16.2)	-4.8%
	Total	973.8	991.1	(17.3)	-1.8%
2017	16Q3	242.4	236.2	6.2	2.5%
	16Q4	232.2	232.5	(0.3)	-0.1%
	17Q1	165.1	194.9	(29.8)	-18.1%
	17Q2	391.3	338.2	53.2	13.6%
	Total	1,031.1	1,001.9	29.2	2.8%
2018	17Q3	272.8	249.2	23.6	8.6%
	17Q4	235.2	221.7	13.5	5.7%
	18Q1	138.1	157.7	(19.6)	-14.2%
	18Q2	404.8	388.0	16.8	4.1%
	Total	1,050.9	1,016.6	34.3	3.3%
2019	18Q3	254.0	267.4	(13.4)	-5.3%
	18Q4	269.4	244.3	25.1	9.3%
	19Q1	135.0	142.0	(7.0)	-5.2%
	19Q2	416.3	409.1	7.2	1.7%
	Total	1,074.7	1,062.9	11.8	1.1%

Individual Income Tax - Withholding

diffya(with)

$$= 0.00806 * \text{diffya}(\text{ywstran}) + 29.9199$$

(5.07258) (2.02156)

Sum Sq	172311	Std Err	55.4705	LHS Mean	99.2042
R Sq	0.2922	R Bar Sq	0.2669	F 2, 56	11.5578
D.W.(1)	2.4250	D.W.(4)	1.8905		

Quarterly data for 59 periods from 2005Q1 to 2019Q3

diffya	Year-over-year difference function
with	Withholding tax receipts
ywstran	Virginia income from wages and salaries and transfer payments

GENERAL FUND METHODOLOGY

Individual Income Tax - Withholding

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2010	09Q3	2,125.0	2,212.6	(87.6)	-4.1%
	09Q4	2,328.6	2,368.9	(40.3)	-1.7%
	10Q1	2,416.4	2,488.6	(72.2)	-3.0%
	10Q2	2,306.1	2,343.1	(37.0)	-1.6%
	Total	9,176.2	9,413.2	(237.0)	-2.6%
2011	10Q3	2,219.1	2,255.4	(36.3)	-1.6%
	10Q4	2,459.9	2,442.1	17.7	0.7%
	11Q1	2,538.5	2,564.9	(26.3)	-1.0%
	11Q2	2,417.6	2,427.7	(10.2)	-0.4%
	Total	9,635.1	9,690.1	(55.1)	-0.6%
2012	11Q3	2,308.0	2,329.5	(21.5)	-0.9%
	11Q4	2,510.9	2,540.5	(29.5)	-1.2%
	12Q1	2,640.7	2,617.4	23.3	0.9%
	12Q2	2,580.0	2,485.7	94.3	3.7%
	Total	10,039.7	9,973.1	66.6	0.7%
2013	12Q3	2,292.0	2,369.5	(77.5)	-3.4%
	12Q4	2,606.4	2,621.7	(15.4)	-0.6%
	13Q1	2,761.1	2,680.4	80.8	2.9%
	13Q2	2,591.9	2,598.7	(6.8)	-0.3%
	Total	10,251.3	10,270.2	(18.9)	-0.2%
2014	13Q3	2,403.1	2,336.2	66.9	2.8%
	13Q4	2,659.9	2,608.5	51.3	1.9%
	14Q1	2,803.7	2,802.3	1.4	0.0%
	14Q2	2,617.5	2,678.3	(60.8)	-2.3%
	Total	10,484.2	10,425.4	58.8	0.6%
2015	14Q3	2,554.4	2,484.9	69.5	2.7%
	14Q4	2,820.0	2,763.8	56.2	2.0%
	15Q1	2,875.3	2,924.9	(49.6)	-1.7%
	15Q2	2,794.7	2,760.4	34.3	1.2%
	Total	11,044.3	10,933.9	110.4	1.0%
2016	15Q3	2,666.5	2,674.6	(8.0)	-0.3%
	15Q4	2,829.2	2,924.5	(95.2)	-3.4%
	16Q1	3,029.1	2,978.5	50.5	1.7%
	16Q2	2,781.4	2,855.8	(74.4)	-2.7%
	Total	11,306.3	11,433.3	(127.1)	-1.1%
2017	16Q3	2,777.0	2,745.8	31.3	1.1%
	16Q4	2,966.4	2,949.5	16.9	0.6%
	17Q1	3,231.3	3,126.2	105.1	3.3%
	17Q2	2,920.7	2,916.6	4.1	0.1%
	Total	11,895.4	11,738.0	157.4	1.3%
2018	17Q3	2,888.1	2,885.9	2.1	0.1%
	17Q4	3,026.9	3,071.8	(44.9)	-1.5%
	18Q1	3,441.1	3,344.6	96.4	2.8%
	18Q2	3,064.5	3,047.9	16.7	0.5%
	Total	12,420.5	12,350.2	70.3	0.6%
2019	17Q3	3,040.9	3,023.4	17.5	0.6%
	17Q4	3,259.3	3,169.2	90.2	2.8%
	18Q1	3,481.2	3,561.0	(79.8)	-2.3%
	18Q2	3,326.4	3,222.8	103.6	3.1%
	Total	13,107.8	12,976.3	131.5	1.0%

Individual Income Tax – Estimated Payments

diffya(ep)

$$\begin{aligned}
 &= 0.08716 * \text{diffya}(\text{sp500}) - 0.00409 * \text{diffya}(\text{ywpptva}) \\
 &\quad (2.10347) \qquad\qquad\qquad (1.58095) \\
 &+ 0.00485 * \text{diffya}(\text{yrdirva}) - 5.22922 \\
 &\quad (2.26052) \qquad\qquad\qquad (0.82527)
 \end{aligned}$$

Sum Sq	227690	Std Err	62.6409	LHS Mean	19.9859
R Sq	0.4266	R Bar Sq	0.3870	F 4, 58	10.7874
D.W.(1)	2.0131	D.W.(4)	1.9234		

Quarterly data for 63 periods from 2004Q1 to 2019Q3

diffya	Year-over-year difference function
ep	Estimated payments
ywpptva	Virginia total proprietor’s income
yrdirva	Virginia dividends, interest, and rental income
sp500	Standard and Poor’s 500 stock index

GENERAL FUND METHODOLOGY

Individual Income Tax - Estimated Payments

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2010	09Q3	281.6	304.5	(23.0)	-8.2%
	09Q4	173.4	214.4	(41.1)	-23.7%
	10Q1	352.3	381.1	(28.8)	-8.2%
	10Q2	444.6	424.7	19.9	4.5%
	Total	1,251.8	1,324.8	(72.9)	-5.8%
2011	10Q3	254.8	282.5	(27.7)	-10.9%
	10Q4	204.8	208.6	(3.7)	-1.8%
	11Q1	351.3	407.9	(56.6)	-16.1%
	11Q2	490.4	465.2	25.2	5.1%
	Total	1,301.3	1,364.1	(62.9)	-4.8%
2012	11Q3	315.5	308.4	7.2	2.3%
	11Q4	226.7	232.6	(5.9)	-2.6%
	12Q1	370.3	415.7	(45.4)	-12.3%
	12Q2	522.6	492.9	29.7	5.7%
	Total	1,435.1	1,449.5	(14.4)	-1.0%
2013	12Q3	299.0	336.4	(37.4)	-12.5%
	12Q4	178.2	273.1	(94.9)	-53.3%
	13Q1	492.6	416.8	75.8	15.4%
	13Q2	593.0	510.0	83.0	14.0%
	Total	1,562.8	1,536.3	26.5	1.7%
2014	13Q3	328.3	352.4	(24.0)	-7.3%
	13Q4	223.2	262.7	(39.4)	-17.7%
	14Q1	453.2	476.1	(22.9)	-5.1%
	14Q2	567.7	579.7	(12.0)	-2.1%
	Total	1,572.5	1,670.9	(98.4)	-6.3%
2015	14Q3	372.7	400.4	(27.7)	-7.4%
	14Q4	317.8	302.3	15.5	4.9%
	15Q1	516.7	509.2	7.5	1.4%
	15Q2	642.8	613.6	29.2	4.5%
	Total	1,850.0	1,825.6	24.5	1.3%
2016	15Q3	398.1	413.7	(15.6)	-3.9%
	15Q4	383.8	318.3	65.5	17.1%
	16Q1	493.9	516.6	(22.7)	-4.6%
	16Q2	646.6	626.8	19.7	3.0%
	Total	1,922.3	1,875.4	46.9	2.4%
2017	16Q3	410.6	432.0	(21.4)	-5.2%
	16Q4	335.7	358.8	(23.1)	-6.9%
	17Q1	581.4	558.4	23.1	4.0%
	17Q2	621.0	672.5	(51.5)	-8.3%
	Total	1,948.7	2,021.7	(73.0)	-3.7%
2018	17Q3	415.5	467.4	(51.9)	-12.5%
	17Q4	643.1	411.0	232.1	36.1%
	18Q1	474.9	621.4	(146.5)	-30.8%
	18Q2	705.9	714.7	(8.7)	-1.2%
	Total	2,239.5	2,214.5	24.9	1.1%
2019	18Q3	444.8	519.4	(74.7)	-16.8%
	18Q4	285.5	490.8	(205.3)	-71.9%
	19Q1	548.8	595.5	(46.7)	-8.5%
	19Q2	838.4	734.2	104.2	12.4%
	Total	2,117.4	2,339.9	(222.5)	-10.5%

Individual Income Tax – Final Payments

pch(fp)

$$= 1.18365 * \text{pch}(\text{cysp500}) + 1.95686$$

(3.43977) (0.39610)

Sum Sq	3289.33	Std Err	19.8263	LHS Mean	7.4705
R Sq	0.4251	R Bar Sq	0.3892	F 1, 16	11.8320
D.W.(1)	1.8824	D.W.(2)	1.4036		

Annual data for 18 periods from 2001 to 2018

pch	Percent change function
fp	Final payments
cysp500	Standard and Poor's 500 stock index, calendar year

GENERAL FUND METHODOLOGY

Individual Income Tax - Final Payments Percent Growth

<u>Fiscal</u> <u>Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>
2002	(37.8)	(1.7)	(36.1)
2003	(4.3)	(6.9)	2.6
2004	27.9	18.1	9.7
2005	53.0	9.4	43.6
2006	21.0	6.4	14.6
2007	18.6	11.7	6.9
2008	4.5	6.6	(2.2)
2009	(30.0)	(14.5)	(15.5)
2010	(25.1)	16.7	(41.8)
2011	34.0	11.3	22.7
2012	5.2	4.9	0.3
2013	34.9	11.6	23.3
2014	(23.5)	19.8	(43.3)
2015	25.1	10.6	14.5
2016	(3.7)	4.5	(8.2)
2017	(6.8)	9.7	(16.5)
2018	15.3	14.6	0.7
2019	26.4	1.7	24.7

State Sales Tax

diff(sales)

$$= 0.00051 * \text{diff}(\text{yrpicva}) - 1.07884$$

(0.42612) (0.17584)

Sum Sq	62016.8	Std Err	36.7177	LHS Mean	3.0106
R Sq	0.0327	R Bar Sq	-0.0094	F 2, 46	1.7766
D.W.(1)	2.1861	D.W.(4)	0.6165		

Quarterly data for 49 periods from 2007Q3 to 2019Q3

diff	Quarter-over-quarter difference function
sales	Sales tax receipts
yrpicva	Virginia personal income

GENERAL FUND METHODOLOGY

State Sales Tax

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2010	09Q3	724.7	699.2	25.5	3.5%
	09Q4	724.0	721.3	2.7	0.4%
	10Q1	674.5	728.5	(54.0)	-8.0%
	10Q2	735.5	688.8	46.7	6.4%
	Total	2,858.7	2,837.8	20.9	0.7%
2011	10Q3	774.0	727.9	46.2	6.0%
	10Q4	746.3	770.5	(24.2)	-3.2%
	11Q1	719.7	758.1	(38.4)	-5.3%
	11Q2	776.4	728.7	47.7	6.1%
	Total	3,016.4	2,985.1	31.3	1.0%
2012	11Q3	787.1	769.9	17.2	2.2%
	11Q4	772.0	788.1	(16.1)	-2.1%
	12Q1	768.1	780.5	(12.4)	-1.6%
	12Q2	807.6	772.6	35.1	4.3%
	Total	3,134.8	3,111.1	23.7	0.8%
2013	12Q3	817.9	801.8	16.1	2.0%
	12Q4	777.1	823.2	(46.0)	-5.9%
	13Q1	787.0	780.1	6.9	0.9%
	13Q2	813.1	785.7	27.4	3.4%
	Total	3,195.1	3,190.7	4.4	0.1%
2014	13Q3	791.0	809.7	(18.8)	-2.4%
	13Q4	766.1	797.9	(31.8)	-4.1%
	14Q1	721.1	776.3	(55.2)	-7.7%
	14Q2	794.0	734.6	59.3	7.5%
	Total	3,072.2	3,118.5	(46.4)	-1.5%
2015	14Q3	793.3	784.7	8.6	1.1%
	14Q4	778.5	797.8	(19.3)	-2.5%
	15Q1	764.3	785.6	(21.3)	-2.8%
	15Q2	817.2	772.4	44.8	5.5%
	Total	3,153.3	3,140.6	12.7	0.4%
2016	15Q3	827.1	811.3	15.8	1.9%
	15Q4	831.7	827.1	4.6	0.6%
	16Q1	781.5	832.0	(50.6)	-6.5%
	16Q2	828.3	793.2	35.1	4.2%
	Total	3,268.6	3,263.6	5.0	0.2%
2017	16Q3	841.2	822.9	18.3	2.2%
	16Q4	827.1	843.0	(16.0)	-1.9%
	17Q1	820.0	833.9	(13.9)	-1.7%
	17Q2	848.8	824.5	24.2	2.9%
	Total	3,337.0	3,324.4	12.7	0.4%
2018	17Q3	863.7	847.4	16.3	1.9%
	17Q4	865.2	866.2	(1.0)	-0.1%
	18Q1	832.2	871.2	(39.0)	-4.7%
	18Q2	884.2	842.6	41.7	4.7%
	Total	3,445.3	3,427.3	18.0	0.5%
2019	18Q3	912.3	879.3	32.9	3.6%
	18Q4	848.1	911.1	(63.0)	-7.4%
	19Q1	802.4	865.0	(62.6)	-7.8%
	19Q2	885.8	816.4	69.3	7.8%
	Total	3,448.5	3,471.8	(23.3)	-0.7%

Recordation Taxes

diff(rec)

$$= - 0.01029 * \text{diff}(\text{mortorigin}) + 0.00274 * \text{diff}(\text{mortrefi}) -$$

(0.98715) (0.51223)

$$0.07554 * \text{diff}(\text{homepriceind}) - 11.6765 * \text{diff}(\text{rtbond30y.1}) -$$

(2.02971) (2.81836)

$$4.94512 * \text{qd1} + 26.6383 * \text{qd2} - 4.94942$$

(1.95190) (11.0104) (3.42462)

Sum Sq	1.593.07	Std Err	6.4748	LHS Mean	0.1692
R Sq	0.8304	R Bar Sq	0.8037	F 6, 38	31.0170
D.W.(1)	1.9534	D.W.(4)	1.2698		

Quarterly data for 45 periods from 2008Q3 to 2019Q3

diff	Quarter-over-quarter difference function
rec	Recordation tax receipts
mortorigin	Total mortgage originations
mortrefi	Total mortgage refinancing
homepriceind	Home price index
rtbond30y.1	Yield on 30-year treasury bond, lagged one quarter
qd1, qd2	Quarterly dummy variables for quarters 1 and 2

GENERAL FUND METHODOLOGY

Recordation Taxes					
	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2010	09Q3	80.5	74.8	5.7	7.1%
	09Q4	74.6	75.6	(1.0)	-1.3%
	10Q1	60.1	63.7	(3.6)	-6.0%
	10Q2	75.0	80.2	(5.2)	-6.9%
	Total	290.2	294.3	(4.1)	-1.4%
2011	10Q3	75.7	75.0	0.8	1.0%
	10Q4	77.7	76.0	1.7	2.2%
	11Q1	63.3	63.2	0.1	0.2%
	11Q2	74.7	80.9	(6.2)	-8.3%
	Total	291.5	295.0	(3.6)	-1.2%
2012	11Q3	78.9	72.7	6.2	7.8%
	11Q4	79.8	82.6	(2.8)	-3.5%
	12Q1	73.5	75.2	(1.7)	-2.3%
	12Q2	89.8	95.8	(6.0)	-6.7%
	Total	322.1	326.4	(4.3)	-1.3%
2013	12Q3	90.7	88.2	2.5	2.8%
	12Q4	92.2	87.7	4.5	4.8%
	13Q1	91.3	78.9	12.3	13.5%
	13Q2	103.3	108.6	(5.3)	-5.2%
	Total	377.5	363.5	14.0	3.7%
2014	13Q3	93.2	96.7	(3.5)	-3.8%
	13Q4	76.2	80.4	(4.2)	-5.5%
	14Q1	60.6	64.6	(4.0)	-6.6%
	14Q2	80.8	83.3	(2.6)	-3.2%
	Total	310.8	325.0	(14.3)	-4.6%
2015	14Q3	87.5	78.2	9.3	10.7%
	14Q4	80.9	84.3	(3.5)	-4.3%
	15Q1	76.1	74.5	1.6	2.1%
	15Q2	101.8	101.8	0.0	0.0%
	Total	346.3	338.8	7.5	2.2%
2016	15Q3	96.0	91.0	5.0	5.2%
	15Q4	90.4	90.5	(0.1)	-0.1%
	16Q1	78.7	79.2	(0.5)	-0.7%
	16Q2	104.0	103.0	1.0	0.9%
	Total	369.1	363.8	5.3	1.4%
2017	16Q3	109.6	101.2	8.4	7.7%
	16Q4	98.5	106.7	(8.2)	-8.3%
	17Q1	80.4	80.7	(0.4)	-0.5%
	17Q2	105.9	98.3	7.6	7.1%
	Total	394.4	386.9	7.4	1.9%
2018	17Q3	107.1	102.1	5.1	4.7%
	17Q4	94.2	102.4	(8.3)	-8.8%
	18Q1	83.1	83.9	(0.8)	-1.0%
	18Q2	110.5	101.4	9.1	8.3%
	Total	394.9	389.7	5.2	1.3%
2019	18Q3	97.4	104.0	(6.7)	-6.9%
	18Q4	93.5	92.0	1.5	1.6%
	19Q1	80.6	80.7	(0.1)	-0.2%
	19Q2	115.0	105.3	9.8	8.5%
	Total	386.5	382.0	4.4	1.2%

Motor Fuels Tax

gas

$$\begin{aligned}
 = & 0.00043 * \text{cyrpicva} + 0.18945 * \text{xtnemva} + 12.8495 * \text{jpc} \\
 & \quad (0.33387) \quad (1.59628) \quad (0.84679) \\
 & - 10.5234 * \text{jpgdp} - 3.40497 * \text{jpcsvtspub} + 128.408 * \text{season}_2 \\
 & \quad (0.71206) \quad (1.40086) \quad (5.99179) \\
 & + 12.3780 * \text{season}_3 + 56.1172 * \text{season}_4 + 151.649 \\
 & \quad (0.58188) \quad (2.61481) \quad (0.43980)
 \end{aligned}$$

Sum Sq	719020	Std Err	81.5941	LHS Mean	921.968
R Sq	0.6317	R Bar Sq	0.6044	F 8,108	23.1556
D.W.(1)	2.9026	D.W.(4)	0.3747		

diesel

$$\begin{aligned}
 = & 0.30223 * \text{xtnemva} - 0.00082 * \text{cyrpicva} + 32.8350 * \text{season}_2 \\
 & \quad (10.9560) \quad (6.78478) \quad (5.02475) \\
 & - 3.95019 * \text{season}_3 + 8.87278 * \text{season}_4 - 560.016 \\
 & \quad (0.60963) \quad (1.35766) \quad (9.5218)
 \end{aligned}$$

Sum Sq	68719.6	Std Err	24.8816	LHS Mean	238.650
R Sq	0.7920	R Bar Sq	0.7826	F 5,111	84.5291
D.W.(1)	1.7847	D.W.(4)	0.5071		

GAS	Taxable gallons of gasoline
PDCCENGAS	Gasoline and oil implicit price deflator
PDCCE	Consumer expenditures implicit price deflator
CYRPICVA	Virginia real personal income
SEASON_2	Dummy variable second quarter
SEASON_3	Dummy variable third quarter
SEASON_4	Dummy variable fourth quarter
DIESEL	Taxable gallons of diesel
GDP96	Real gross domestic product
PIRPP	PPI, refined petroleum products

NON-GENERAL FUND METHODOLOGY

Gasoline Consumption

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2010	09Q3	1,010.7	935.2	75.5	7.5%
	09Q4	935.7	973.0	(37.3)	-4.0%
	10Q1	955.3	912.2	43.1	4.5%
	10Q2	1,082.9	1,043.0	39.9	3.7%
	Total	3,984.6	3,863.5	121.1	3.0%
2011	10Q3	841.3	929.2	(87.9)	-10.5%
	10Q4	1,021.0	975.0	46.1	4.5%
	11Q1	927.3	915.8	11.5	1.2%
	11Q2	1,144.6	1,046.8	97.8	8.5%
	Total	3,934.3	3,866.8	67.5	1.7%
2012	11Q3	802.7	933.9	(131.1)	-16.3%
	11Q4	944.3	977.3	(33.0)	-3.5%
	12Q1	901.8	924.2	(22.4)	-2.5%
	12Q2	1,246.4	1,049.0	197.4	15.8%
	Total	3,895.3	3,884.4	10.9	0.3%
2013	12Q3	706.8	934.9	(228.1)	-32.3%
	12Q4	1,022.5	987.5	35.0	3.4%
	13Q1	904.7	926.1	(21.4)	-2.4%
	13Q2	1,153.5	1,053.7	99.8	8.6%
	Total	3,787.5	3,902.3	(114.8)	-3.0%
2014	13Q3	737.9	931.0	(193.1)	-26.2%
	13Q4	1,023.3	971.1	52.2	5.1%
	14Q1	977.4	923.8	53.6	5.5%
	14Q2	1,129.4	1,051.4	78.0	6.9%
	Total	3,868.0	3,877.3	(9.3)	-0.2%
2015	14Q3	856.3	934.2	(77.9)	-9.1%
	14Q4	989.3	980.9	8.4	0.8%
	15Q1	914.5	930.9	(16.4)	-1.8%
	15Q2	1,241.9	1,067.7	174.2	14.0%
	Total	4,002.0	3,913.7	88.4	2.2%
2016	15Q3	796.4	958.9	(162.5)	-20.4%
	15Q4	1,038.5	1,010.3	28.2	2.7%
	16Q1	959.3	954.0	5.3	0.5%
	16Q2	1,205.6	1,085.9	119.7	9.9%
	Total	3,999.8	4,009.1	(9.3)	-0.2%
2017	16Q3	824.9	972.0	(147.1)	-17.8%
	16Q4	1,056.9	1,020.9	36.0	3.4%
	17Q1	947.0	967.6	(20.6)	-2.2%
	17Q2	1,292.9	1,094.3	198.5	15.4%
	Total	4,121.7	4,054.8	66.8	1.6%
2018	17Q3	827.5	984.4	(156.9)	-19.0%
	17Q4	1,057.0	1,029.0	28.1	2.7%
	18Q1	963.3	986.4	(23.1)	-2.4%
	18Q2	1,263.8	1,108.5	155.3	12.3%
	Total	4,111.7	4,108.2	3.5	0.1%
2019	17Q3	822.9	994.6	(171.7)	-20.9%
	17Q4	983.3	1,031.7	(48.4)	-4.9%
	18Q1	1,095.8	987.4	108.4	9.9%
	18Q2	1,216.8	1,112.2	104.5	8.6%
	Total	4,118.7	4,125.9	(7.2)	-0.2%

NON-GENERAL FUND METHODOLOGY

Diesel Fuel Consumption

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2010	09Q3	252.3	230.5	21.9	8.7%
	09Q4	232.3	242.2	(9.9)	-4.3%
	10Q1	249.6	224.1	25.5	10.2%
	10Q2	278.3	264.6	13.6	4.9%
	Total	1,012.5	961.4	51.1	5.0%
2011	10Q3	217.2	226.1	(8.9)	-4.1%
	10Q4	259.2	240.0	19.2	7.4%
	11Q1	237.6	230.0	7.6	3.2%
	11Q2	299.8	265.2	34.6	11.5%
	Total	1,013.8	961.3	52.5	5.2%
2012	11Q3	184.8	228.9	(44.1)	-23.9%
	11Q4	257.0	244.8	12.2	4.7%
	12Q1	235.3	236.2	(1.0)	-0.4%
	12Q2	321.3	267.2	54.1	16.8%
	Total	998.3	977.1	21.2	2.1%
2013	12Q3	191.6	233.0	(41.4)	-21.6%
	12Q4	261.7	246.7	15.0	5.7%
	13Q1	240.4	252.3	(11.9)	-4.9%
	13Q2	323.7	281.7	42.0	13.0%
	Total	1,017.5	1,013.7	3.8	0.4%
2014	13Q3	204.7	247.3	(42.6)	-20.8%
	13Q4	260.1	260.2	(0.0)	0.0%
	14Q1	257.0	246.4	10.6	4.1%
	14Q2	307.9	282.0	25.9	8.4%
	Total	1,029.7	1,035.9	(6.2)	-0.6%
2015	14Q3	202.4	243.6	(41.1)	-20.3%
	14Q4	266.5	254.1	12.4	4.7%
	15Q1	243.3	245.1	(1.8)	-0.8%
	15Q2	319.4	282.8	36.6	11.5%
	Total	1,031.7	1,025.6	6.0	0.6%
2016	15Q3	210.4	253.8	(43.4)	-20.6%
	15Q4	257.7	273.4	(15.7)	-6.1%
	16Q1	238.9	264.9	(26.0)	-10.9%
	16Q2	291.1	300.3	(9.2)	-3.2%
	Total	998.1	1,092.5	(94.4)	-9.5%
2017	16Q3	229.6	265.2	(35.6)	-15.5%
	16Q4	263.7	279.5	(15.8)	-6.0%
	17Q1	254.0	272.9	(18.9)	-7.4%
	17Q2	328.1	305.6	22.5	6.9%
	Total	1,075.4	1,123.1	(47.8)	-4.4%
2018	17Q3	200.4	269.3	(68.9)	-34.4%
	17Q4	270.8	283.1	(12.3)	-4.5%
	18Q1	258.8	277.1	(18.4)	-7.1%
	18Q2	330.4	311.8	18.6	5.6%
	Total	1,060.4	1,141.3	(80.9)	-7.6%
2019	17Q3	241.9	276.0	(34.1)	-14.1%
	17Q4	249.3	285.9	(36.7)	-14.7%
	18Q1	289.0	280.9	8.1	2.8%
	18Q2	323.0	310.5	12.5	3.9%
	Total	1,103.2	1,153.4	(50.2)	-4.6%

NON-GENERAL FUND METHODOLOGY

Motor Vehicle Sales and Use Tax

log(ttcarsq)

$$\begin{aligned} &= 1.63211 * \text{dlogya}(\text{pdcgdp}) \\ &\quad (1.26881) \\ &+ 1.55173 * \text{movavg}(2, \text{dlogya}(\text{xtnemva}.4)) \\ &\quad (3.41635) \\ &+ 0.00001 * \text{diffya}(\text{yrpicva}) + 0.09797 * \text{season}_2 \\ &\quad (4.95142) \quad (5.01103) \\ &+ 0.08746 * \text{season}_3 - 0.09661 * \text{season}_4 + 5.78107 \\ &\quad (4.47437) \quad (4.89837) \quad (219.620) \end{aligned}$$

Sum Sq	0.5408	Std Err	0.0725	LHS Mean	5.9222
R Sq	0.6355	R Bar Sq	0.6142	F 6,103	29.9241
D.W.(1)	0.3959	D.W.(4)	0.8931		

newcar

$$\begin{aligned} &= 0.00595 * \text{suvlv} + 0.01658 * \text{season}_2 + 0.01938 * \text{season}_3 \\ &\quad (17.2657) \quad (9.7090) \quad (11.4688) \\ &- 0.00969 \\ &\quad (1.80563) \end{aligned}$$

Sum Sq	0.0064	Std Err	0.0075	LHS Mean	0.0907
R Sq	0.8086	R Bar Sq	0.8035	F 3,113	159.104
D.W.(1)	0.4271	D.W.(4)	0.4268		

TTCARSQ	Total taxable titles
PDIGDP	GDP price deflator
XTNEMVA	Virginia non-agricultural employment
YRPICVA	Virginia real personal income
SEASON_2	Dummy variable second quarter
SEASON_3	Dummy variable third quarter
SEASON_4	Dummy variable fourth quarter
NEWCAR	New taxable titles
SUVLV	U.S. new light vehicle sales
RMCLV	Rate on commercial bank loans for new vehicles

NON-GENERAL FUND METHODOLOGY

New Taxable Titles (in thousands)

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2010	09Q3	87.9	87.5	0.4	0.4%
	09Q4	55.7	62.3	(6.7)	-12.0%
	10Q1	59.9	68.6	(8.8)	-14.7%
	10Q2	81.5	88.3	(6.8)	-8.4%
	Total	284.9	306.8	(22.0)	-7.7%
2011	10Q3	79.9	93.5	(13.6)	-17.0%
	10Q4	67.2	76.0	(8.8)	-13.1%
	11Q1	76.0	84.7	(8.7)	-11.5%
	11Q2	85.8	94.9	(9.1)	-10.6%
	Total	308.9	349.1	(40.2)	-13.0%
2012	11Q3	83.2	95.8	(12.6)	-15.2%
	11Q4	74.8	80.0	(5.2)	-6.9%
	12Q1	81.6	88.5	(6.9)	-8.5%
	12Q2	95.4	96.3	(0.9)	-0.9%
	Total	335.0	360.5	(25.6)	-7.6%
2013	12Q3	95.1	98.9	(3.8)	-4.0%
	12Q4	81.6	80.6	1.0	1.2%
	13Q1	86.8	83.6	3.1	3.6%
	13Q2	99.1	97.5	1.6	1.6%
	Total	362.6	360.7	1.9	0.5%
2014	13Q3	99.5	97.0	2.4	2.5%
	13Q4	81.1	74.3	6.8	8.4%
	14Q1	81.4	74.9	6.5	7.9%
	14Q2	90.5	94.0	(3.4)	-3.8%
	Total	352.5	340.2	12.2	3.5%
2015	14Q3	102.3	99.4	2.9	2.8%
	14Q4	84.6	84.6	0.1	0.1%
	15Q1	83.9	83.4	0.5	0.6%
	15Q2	103.8	104.6	(0.8)	-0.8%
	Total	374.6	372.0	2.7	0.7%
2016	15Q3	109.5	108.5	1.0	0.9%
	15Q4	91.6	88.9	2.8	3.0%
	16Q1	88.6	87.8	0.7	0.8%
	16Q2	101.4	101.0	0.3	0.3%
	Total	391.0	386.3	4.8	1.2%
2017	16Q3	108.2	104.6	3.6	3.3%
	16Q4	92.3	87.0	5.4	5.8%
	17Q1	92.0	88.5	3.5	3.8%
	17Q2	98.4	101.5	(3.2)	-3.2%
	Total	390.9	381.6	9.3	2.4%
2018	17Q3	103.5	105.8	(2.3)	-2.2%
	17Q4	88.7	88.0	0.7	0.8%
	18Q1	87.7	88.1	(0.4)	-0.4%
	18Q2	97.8	105.2	(7.4)	-7.5%
	Total	377.7	387.0	(9.3)	-2.5%
2019	17Q3	102.4	108.0	(5.6)	-5.5%
	17Q4	90.5	90.1	0.4	0.4%
	18Q1	87.7	91.1	(3.4)	-3.9%
	18Q2	99.4	108.0	(8.6)	-8.7%
	Total	379.9	397.2	(17.2)	-4.5%

NON-GENERAL FUND METHODOLOGY

Used Taxable Titles (in thousands)

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2010	09Q3	277.1	256.6	20.5	7.4%
	09Q4	219.5	226.9	(7.4)	-3.4%
	10Q1	266.5	268.5	(1.9)	-0.7%
	10Q2	294.8	282.4	12.4	4.2%
	Total	1,057.9	1,034.4	23.5	2.2%
2011	10Q3	289.2	280.3	9.0	3.1%
	10Q4	237.9	240.0	(2.1)	-0.9%
	11Q1	289.1	276.6	12.5	4.3%
	11Q2	289.8	309.5	(19.7)	-6.8%
	Total	1,106.0	1,106.4	(0.3)	0.0%
2012	11Q3	276.8	317.1	(40.3)	-14.6%
	11Q4	237.4	261.6	(24.2)	-10.2%
	12Q1	296.0	288.9	7.1	2.4%
	12Q2	285.8	317.2	(31.4)	-11.0%
	Total	1,096.0	1,184.8	(88.8)	-8.1%
2013	12Q3	281.8	298.2	(16.4)	-5.8%
	12Q4	237.1	267.7	(30.6)	-12.9%
	13Q1	280.8	258.7	22.1	7.9%
	13Q2	305.5	274.8	30.7	10.0%
	Total	1,105.1	1,099.4	5.7	0.5%
2014	13Q3	290.0	270.5	19.5	6.7%
	13Q4	241.6	219.4	22.2	9.2%
	14Q1	271.0	286.6	(15.5)	-5.7%
	14Q2	307.7	314.8	(7.1)	-2.3%
	Total	1,110.3	1,091.2	19.1	1.7%
2015	14Q3	289.1	313.2	(24.2)	-8.4%
	14Q4	250.1	257.9	(7.9)	-3.1%
	15Q1	271.6	283.9	(12.3)	-4.5%
	15Q2	306.8	305.1	1.7	0.5%
	Total	1,117.6	1,160.2	(42.6)	-3.8%
2016	15Q3	297.5	296.4	1.1	0.4%
	15Q4	257.4	239.8	17.6	6.8%
	16Q1	291.0	266.0	25.0	8.6%
	16Q2	309.5	281.7	27.8	9.0%
	Total	1,155.4	1,083.9	71.5	6.2%
2017	16Q3	304.0	276.4	27.6	9.1%
	16Q4	266.9	243.8	23.2	8.7%
	17Q1	305.4	288.2	17.2	5.6%
	17Q2	317.8	309.9	7.9	2.5%
	Total	1,194.1	1,118.2	75.9	6.4%
2018	17Q3	304.6	301.8	2.8	0.9%
	17Q4	261.4	252.2	9.1	3.5%
	18Q1	290.8	294.7	(3.9)	-1.3%
	18Q2	317.2	323.7	(6.5)	-2.1%
	Total	1,173.9	1,172.4	1.5	0.1%
2019	17Q3	301.0	318.4	(17.4)	-5.8%
	17Q4	258.2	258.6	(0.4)	-0.2%
	18Q1	296.1	287.4	8.7	2.9%
	18Q2	322.8	315.7	7.2	2.2%
	Total	1,178.2	1,180.1	(2.0)	-0.2%

NON-GENERAL FUND METHODOLOGY

One Year Registrations

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2010	09Q3	1,278,480	1,350,953	(72,473)	-5.7%
	09Q4	1,047,572	1,081,103	(33,531)	-3.2%
	10Q1	1,215,359	1,264,540	(49,181)	-4.0%
	10Q2	1,318,585	1,372,944	(54,359)	-4.1%
	Total	4,859,996	5,069,541	(209,545)	-4.3%
2011	10Q3	1,339,471	1,281,910	57,561	4.3%
	10Q4	1,072,468	1,069,223	3,245	0.3%
	11Q1	1,241,276	1,221,587	19,689	1.6%
	11Q2	1,287,951	1,315,524	(27,573)	-2.1%
	Total	4,941,166	4,888,244	52,922	1.1%
2012	11Q3	1,320,807	1,331,050	(10,243)	-0.8%
	11Q4	1,054,684	1,089,440	(34,756)	-3.3%
	12Q1	1,235,555	1,242,171	(6,616)	-0.5%
	12Q2	1,251,833	1,287,940	(36,107)	-2.9%
	Total	4,862,879	4,950,601	(87,722)	-1.8%
2013	12Q3	1,330,752	1,317,916	12,836	1.0%
	12Q4	1,059,221	1,075,704	(16,483)	-1.6%
	13Q1	1,207,727	1,239,120	(31,393)	-2.6%
	13Q2	1,370,117	1,255,117	115,000	8.4%
	Total	4,967,817	4,887,857	79,960	1.6%
2014	13Q3	1,286,444	1,325,782	(39,338)	-3.1%
	13Q4	1,070,701	1,078,981	(8,280)	-0.8%
	14Q1	1,177,663	1,216,026	(38,363)	-3.3%
	14Q2	1,324,308	1,360,206	(35,898)	-2.7%
	Total	4,859,116	4,980,994	(121,878)	-2.5%
2015	14Q3	1,303,376	1,290,608	12,768	1.0%
	14Q4	1,043,487	1,091,299	(47,812)	-4.6%
	15Q1	1,125,800	1,189,511	(63,711)	-5.7%
	15Q2	1,353,553	1,323,715	29,838	2.2%
	Total	4,826,216	4,895,133	(68,917)	-1.4%
2016	15Q3	1,310,587	1,302,872	7,715	0.6%
	15Q4	1,091,163	1,067,665	23,498	2.2%
	16Q1	1,203,707	1,143,235	60,472	5.0%
	16Q2	1,305,838	1,349,271	(43,433)	-3.3%
	Total	4,911,295	4,863,044	48,251	1.0%
2017	16Q3	1,284,089	1,311,912	(27,823)	-2.2%
	16Q4	1,065,690	1,109,812	(44,122)	-4.1%
	17Q1	1,194,429	1,210,636	(16,207)	-1.4%
	17Q2	1,302,104	1,308,803	(6,699)	-0.5%
	Total	4,846,312	4,941,163	(94,851)	-2.0%
2018	17Q3	1,242,320	1,288,173	(45,853)	-3.7%
	17Q4	1,041,436	1,088,834	(47,398)	-4.6%
	18Q1	1,199,940	1,206,440	(6,500)	-0.5%
	18Q2	1,266,694	1,304,777	(38,083)	-3.0%
	Total	4,750,390	4,888,225	(137,835)	-2.9%
2019	17Q3	1,234,621	1,253,532	(18,911)	-1.5%
	17Q4	1,067,739	1,069,396	(1,657)	-0.2%
	18Q1	1,182,279	1,212,634	(30,355)	-2.6%
	18Q2	1,263,417	1,275,167	(11,750)	-0.9%
	Total	4,748,056	4,810,729	(62,673)	-1.3%

NON-GENERAL FUND METHODOLOGY

Two Year Registrations

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2010	09Q3	278,398	294,521	(16,123)	-5.8%
	09Q4	224,169	252,297	(28,128)	-12.5%
	10Q1	258,263	261,001	(2,738)	-1.1%
	10Q2	296,929	294,855	2,074	0.7%
	Total	1,057,759	1,102,674	(44,915)	-4.2%
2011	10Q3	305,619	330,270	(24,651)	-8.1%
	10Q4	240,029	255,286	(15,257)	-6.4%
	11Q1	274,668	292,393	(17,725)	-6.5%
	11Q2	288,437	318,749	(30,312)	-10.5%
	Total	1,108,753	1,196,698	(87,945)	-7.9%
2012	11Q3	298,282	294,031	4,251	1.4%
	11Q4	234,104	241,751	(7,647)	-3.3%
	12Q1	286,257	274,620	11,637	4.1%
	12Q2	296,383	313,843	(17,460)	-5.9%
	Total	1,115,026	1,124,244	(9,218)	-0.8%
2013	12Q3	329,923	320,274	9,649	2.9%
	12Q4	252,382	257,041	(4,659)	-1.8%
	13Q1	285,852	290,435	(4,583)	-1.6%
	13Q2	328,063	305,656	22,407	6.8%
	Total	1,196,220	1,173,406	22,814	1.9%
2014	13Q3	308,108	313,201	(5,093)	-1.7%
	13Q4	255,044	251,329	3,715	1.5%
	14Q1	280,728	301,608	(20,880)	-7.4%
	14Q2	326,511	313,316	13,195	4.0%
	Total	1,170,391	1,179,453	(9,062)	-0.8%
2015	14Q3	330,347	343,705	(13,358)	-4.0%
	14Q4	256,512	268,950	(12,438)	-4.8%
	15Q1	270,965	301,217	(30,252)	-11.2%
	15Q2	339,195	343,858	(4,663)	-1.4%
	Total	1,197,019	1,257,730	(60,711)	-5.1%
2016	15Q3	326,940	322,674	4,266	1.3%
	15Q4	268,453	271,516	(3,063)	-1.1%
	16Q1	303,775	296,277	7,498	2.5%
	16Q2	333,097	342,362	(9,265)	-2.8%
	Total	1,232,265	1,232,829	(564)	0.0%
2017	16Q3	344,522	344,113	409	0.1%
	16Q4	284,256	272,931	11,325	4.0%
	17Q1	314,861	286,865	27,996	8.9%
	17Q2	345,999	354,590	(8,591)	-2.5%
	Total	1,289,638	1,258,500	31,138	2.4%
2018	17Q3	328,067	340,829	(12,762)	-3.9%
	17Q4	310,698	284,443	26,255	8.5%
	18Q1	372,289	318,496	53,793	14.4%
	18Q2	402,900	348,711	54,189	13.4%
	Total	1,413,954	1,292,480	121,474	8.6%
2019	17Q3	405,809	357,779	48,030	11.8%
	17Q4	350,744	299,679	51,065	14.6%
	18Q1	385,882	329,184	56,698	14.7%
	18Q2	417,039	361,149	55,890	13.4%
	Total	1,559,474	1,347,791	211,683	13.6%

NON-GENERAL FUND METHODOLOGY

ABC Revenue Estimating Methodology

Distilled spirit sales revenues are a function of the price of product and quantity sold. Both are forecasted using separate models with quarterly data from 1981 through the present. The price of distilled spirits is a function of the cost of product and the appropriate state and federal taxes and mark-ups. Sales estimates serve as the basis for the development of pro forma profit and loss statements. Sales performance can be significantly influenced by changes in consumer behavior (primarily during the holiday period) and severe weather that are both impossible to accurately forecast. Expenses are estimated based on anticipated budget requirements during the forecasting period. Variations in anticipated expenses are often the source of forecasting error, particularly in the later years of the forecast.

Average Price of Distilled Spirits

The average sales price per gallon of distilled spirits sold was calculated for each quarter. This was adjusted to account for changes in mark-up, state taxes, and the Federal Excise Tax on distilled spirits. The resulting base price was forecasted using an ARIMA model that was found to fit the data better than previous regression-based forecasting methods.

Statistical Results:

Mean Squared Error = .04

$R^2 = 98.1\%$

Quantity of Liquor Demanded

Again, a variety of modeling techniques and data were evaluated to forecast the demand for distilled spirits. The Winter's Multiplicative exponential smoothing method provided the best fit for the data.

Statistical Results:

Mean Squared Error = .001

$R^2 = 98.7\%$