



The Economic Outlook and Revenue Forecast through Fiscal Year 2026

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

November 21, 2022

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Section 1

The U.S. Economy

Introduction

This section reviews Fiscal Year 2022 economic outcomes compared with the official forecast and examines the outlook for the national economy for Fiscal Years 2023 and 2024. Table 1.1 on the next page compares the official forecast for Fiscal Year 2022 to the actual outcomes for key economic variables. Tables 1.2 and 1.3 at the end of this section compare three forecasts for your consideration: the IHS Markit November 2022 standard forecast, the alternative pessimistic scenario, and the alternative optimistic scenario.

Review of Fiscal Year 2022

As IHS Markit prepared the October 2021 forecast, on which the current official revenue forecast is based, it reflected all pandemic relief measures of 2020, including the \$1.9 trillion American Recovery Plan Act enacted in March of that year, and the Infrastructure Investment and Jobs Act (about \$300 billion of additional spending over the next five fiscal years). Continuing supply restraints and COVID-19 effects were expected to dampen the expansion in the second half of the year.

Over the course of the fiscal year, GDP growth was lower than expected, but income and wage growth were much higher than expected. Prices, as measured by the CPI and GDP deflator, were significantly higher than forecast. Table 1.1 on the next page compares the official forecast and actual results for key variables in Fiscal Year 2022.

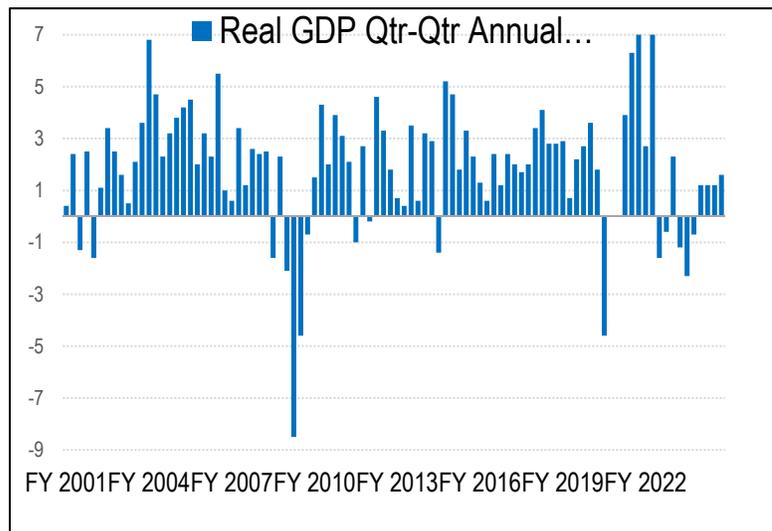
Table 1.1 - Fiscal Year 2022 U.S. Forecast Performance (% Change)

	<u>Forecast</u>	<u>Actual</u>	<u>Actual Minus Forecast</u>
<u>Output, Income, and Spending (% of Total)</u>			
Real GDP	4.5	4.0	(0.5)
Total Personal Income	1.0	2.8	1.8
Wages and Salaries (52%)	8.3	10.2	1.9
Average Wage	3.9	5.5	1.6
Real Consumer Spending	5.3	5.4	0.1
<u>Employment and Labor Markets (% of Total)</u>			
Total Nonagricultural Employment	4.2	4.5	0.3
Construction (5%)	1.0	3.0	2.0
Manufacturing (8%)	2.4	3.3	0.9
Trade, Transportation, and Utilities (19%)	2.6	4.1	1.5
Information (2%)	5.8	6.8	1.0
Financial Activities (6%)	1.8	1.8	0.0
Professional and Business Services (15%)	5.5	5.8	0.3
Education and Health Services (16%)	2.8	2.6	(0.2)
Leisure and Hospitality (10%)	13.1	14.6	1.5
Other Services (4%)	5.3	4.9	(0.4)
Government (15%)	3.2	1.4	(1.8)
Unemployment Rate (%)	4.6	4.2	(0.4)
<u>Interest Rates</u>			
3-Month Treasury Bills	0.1	0.4	0.3
30-Year Treasury Bonds	2.1	2.3	0.2
<u>Prices</u>			
CPI	4.6	7.2	2.6
GDP Deflator	4.2	6.4	2.2
The Official forecast is IHS Markit's October 2021 U.S. standard scenario.			

The IHS Markit U.S. Standard Forecast

The U.S. economy is more vulnerable to falling into a recession next year than was previously thought. Persistently high and broad-based inflation has prompted the Federal Reserve to raise the federal funds rate more than expected and to signal that it will continue to keep rates as high as needed in order to tame inflation. These higher rates have already caused a significant slowdown in the interest rate sensitive sectors of the economy, particularly the housing market. There are increasing signs that the effects of higher rates are starting to reverberate to other sectors of the economy.

The majority of economists surveyed by the Wall Street Journal now expect that the U.S. economy will experience a mild and short contraction in 2023 as a result of higher rates. The baseline (standard) forecast, based on the IHS October forecast and input from advisory meetings, also assumes that Real GDP growth will begin to contract by 0.5 percent in 2023 but will resume growth in 2024. In the context of prior recessions, the standard forecast assumes a recession that is significantly less severe and shorter than the Great Recession, and more similar to the 2001 Recession, which lasted about three quarters.



This outcome is predicated on several assumptions, most critically that the Federal Reserve will be successful in taming inflation quickly without inflicting too much pain on consumers and the economy. There is little margin for error on the part of the Federal Reserve to achieve this expected scenario. Downside risks to the forecast outweigh upside risks. Critically, if inflation were to be more persistent than expected, or if a policy miss were to result in current Federal Reserve actions having already inflicted more pain than is assumed, a longer lasting and deeper recession would occur. Although upside offsets to the baseline scenario are less likely to occur and would involve some luck on the inflation front, there is room for optimism. The fundamentals of the U.S. economy were strong before the economy was impacted by the shocks of the pandemic and inflation. If the Federal Reserve is successful in taming inflation quickly, and consumer sentiment and financial markets rebound, growth could resume along a pre-pandemic trend sooner than forecast.

Risks and offsets associated with alternative scenarios are discussed in the following sections. Tables 1.2 and 1.3 summarize the forecast of the major economic variables for the alternate scenarios.

Macroeconomic Backdrop

The backdrop against which the baseline scenario plays out is one in which growth slows as the Federal Reserve tightens rates and inflationary pressures begin to quickly subside. This allows the Federal Reserve to begin easing rates in 2024, ensuring that the pain inflicted on consumers and the economy is not so severe as to cause a deep and more protracted downturn.

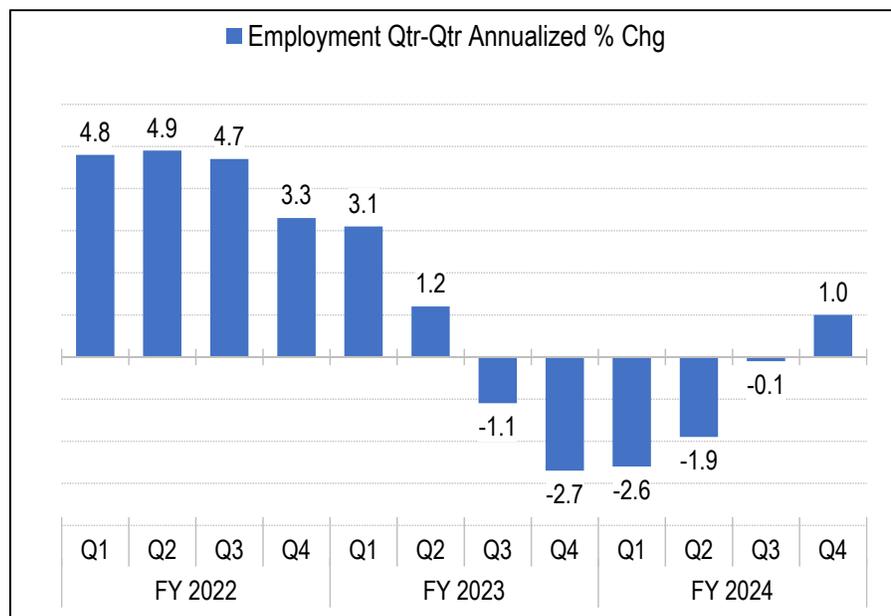
Labor markets: Signs of slowing are appearing and job losses are expected to occur beginning in the third quarter of Fiscal Year 2023 (the first quarter of Calendar Year 2023)

The U.S. labor market has begun to show signs of cooling, although by most measures conditions for job seekers still remain relatively strong. Monthly job gains, measured by the three-month average, have slowed from a pace that exceeded 600,000 in December of last year to 289,000 jobs most recently in October.

With job growth continuing, albeit at a more moderate pace, the nation's unemployment rate remained at a low rate of 3.7 percent in October. The low unemployment rate also can be attributed to a drop in the labor force participation rate during the pandemic when workers remained hesitant to seek work due to health concerns and generous federal assistance kept workers on the sideline. The unemployment rate has more recently started to move upwards but has not fully recovered to pre-pandemic levels.

There are increasing signs that the labor market will take a more decisive downturn in the coming months. Recent layoff announcements, which have been particularly concentrated in the previously high-flying tech sector of the economy, are not currently reflected in the labor statistics.

Additionally, the full impact of the recent



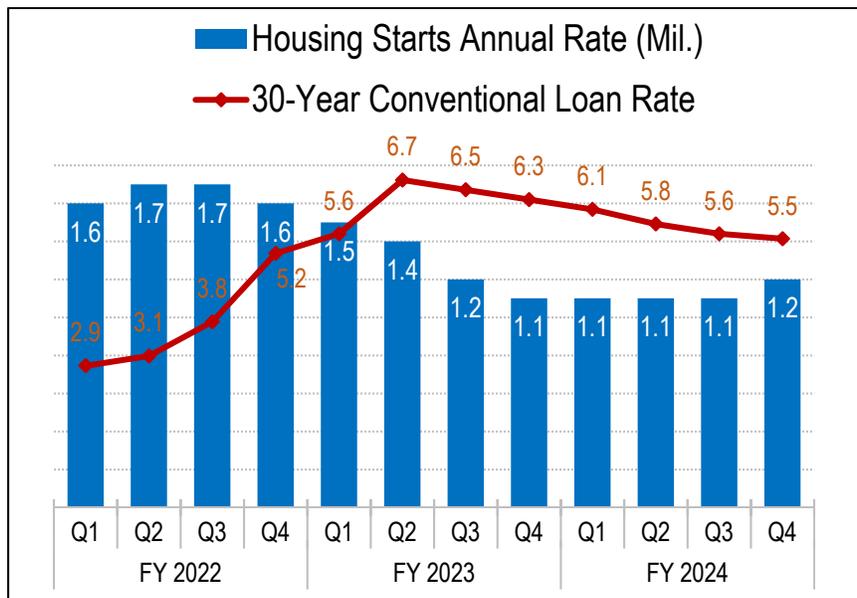
Federal Reserve rate hikes has yet to take hold on all sectors of the economy. Job growth is expected to dip into negative territory in the third quarter of Fiscal Year 2023 and remain negative through the first half of Fiscal Year 2024. The nation's unemployment rate is anticipated to increase to 5.3 percent in 2023, considerably lower than the 10.0 percent peak rate in 2009 and somewhat lower than the 6.0 percent peak in 2003.

Housing Market: The impact of higher interest rates is already evident

Recent rate hikes have had an immediate and significant impact on the nation's housing market. The 30-year fixed mortgage rate has soared to 7.0 percent from 3.0 percent in 2022, causing the nation's housing market to slow considerably in recent months. New home sales in September plunged 10.9 percent to a seasonally adjusted annual rate of 603,000 units, the lowest rate in two years. Decreasing affordability has forced sellers to reduce prices recently after years of robust price gains.

Housing starts, a forward-looking measure of the health of the housing market, have dropped sharply. The three-month average pace of starts was almost 7.0 percent lower compared to the previous September.

Headwinds from higher interest rates are expected to continue to sharply curtail activity in the housing market through 2023 and 2024. Existing home sales are projected to fall from their recent high of 6.1 million in 2021, to 4.0 million in 2023 and 4.4 million in 2024. Similarly, starts of new homes are expected to drop from recent highs of 1.6 million in 2021 and 2022 to just over 1.2 million in 2023 and 2024.

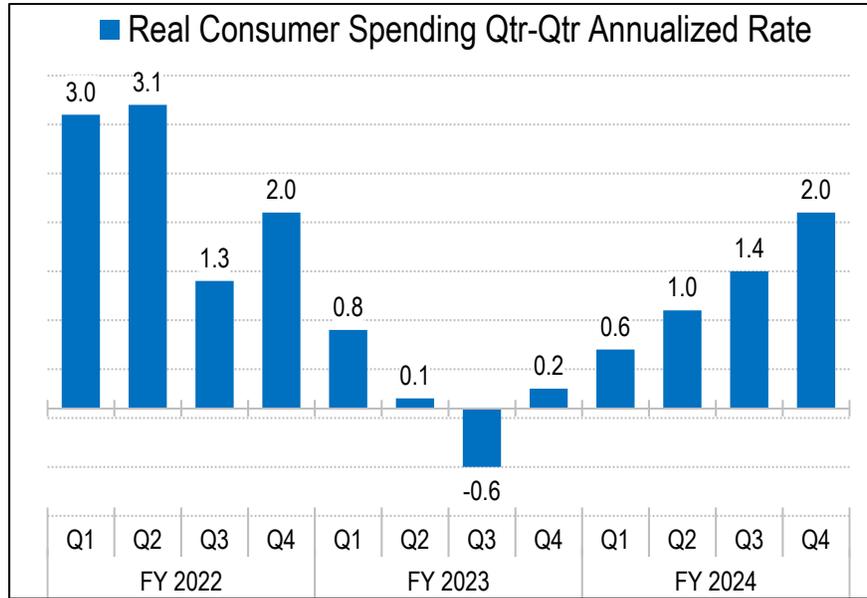


Consumer Spending: Healthy household balance sheets should enable consumers to sustain spending growth

Underpinning this baseline forecast of a shallow recession is the anticipation that consumers will be able to sustain spending growth throughout the forecast even as labor market conditions deteriorate and interest rates rise.

Consumer balance sheets are generally very healthy. Household debt to income ratios remain low by historical standards even as they have begun to creep up recently. Still, consumers are in far better shape compared to the periods that preceded the 2001 and 2008 downturns.

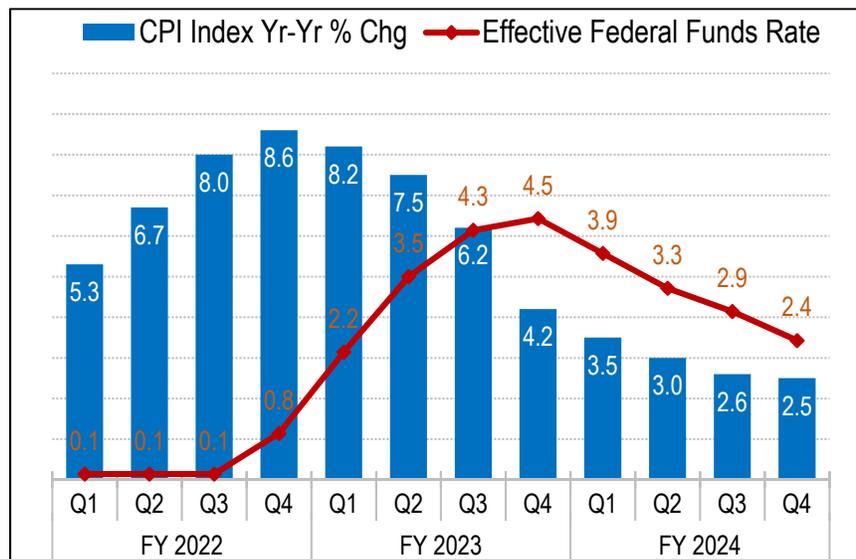
So far, signs of severe distress on consumers have been limited to lower-income households. While deteriorating household conditions pose a risk to the forecast, the baseline scenario assumes that growth in real consumption will dip slightly in the third quarter of Fiscal Year 2023 but remain positive for the year as a whole in both 2023 and 2024.



Inflation and Monetary Policy: The Federal Reserve successfully tames inflation in 2023 and begins to pivot in 2024

The news on inflation has improved somewhat with the October report showing a decline in the year-over-year rate from 8.2 percent in September to 7.7 percent in October. The assumption that inflation may have peaked, or will do so in the coming months, remains valid.

Energy prices have fallen. Oil prices (West Texas Intermediate or WTI) have hovered around \$80 in recent weeks compared to early 2022 when the price for crude oil exceeded \$100 per barrel.



Another driver of overall inflation in the past year has been the shelter component of the CPI, which accounts for one third of the overall index. Rapidly increasing rents and home prices have caused shelter inflation to rise by 6.6 percent year-over-year in the latest CPI report. However, more favorable news is on the horizon. Both rental rates and home prices now face strong headwinds. Rents are dictated by longer term leases that typically last a year or two. Therefore a lag occurs for rents to reset at lower values but

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they are expected to begin to decline in the later part of 2023 once the existing pipeline of prior renewals from 2020 is exhausted.

Other good news on the inflation front comes from the resolution of many of the supply chain bottlenecks that occurred during the pandemic. In particular, shortages of computer chips that impacted the automobile industry and shipping bottlenecks that delayed deliveries of goods have now been largely resolved.

The Federal Reserve is expected to continue to raise rates in the near term to continue to bring inflation down further. As expected, the Federal Reserve raised rates by 75 basis points at the November FOMC meeting, and the expectation is for a 50 basis point increase at the December meeting. Chairman Powell and other board members have hinted that the terminal federal funds rate could now exceed 5 percent, implying at least two more 25 basis point increases. According to the September dot plot, the Federal Reserve is anticipated to continue increasing rates through the first half of 2023 and then begin to gradually cut rates in 2024 as inflationary pressures subside.

Other Sectors of the Economy: Slowing but Not Collapsing

Business Investment

Business spending on equipment, unlike investment in residential structures, has not been impacted so far by higher interest rates. Business investment in equipment is expected to grow by 4.1 percent in 2022. The outlook changes noticeably in 2023 when both lower economic growth and higher rates begin to take a toll on equipment spending. In the baseline scenario, business investment on equipment contracts by 1.8 percent in 2023 and then remains flat in 2024.

Fiscal Policy and Federal Government Employment

Real government purchases declined in 2022 as the spending from the massive COVID-19 related programs in 2020 and 2021 began to unwind. Even as the programs unwind, the \$1.1 trillion infrastructure bill enacted in 2021 and the approximately \$450 billion of spending in the Inflation Reduction Act provide additional federal spending over the forecast horizon. In 2023 and 2024, federal consumption is forecast to grow by 1.8 percent and 0.3 percent, respectively. Federal government employment remains close to its near-term high of about 2.8 million jobs in 2023 and 2024. Federal government employee wages are also set to rise by 4.6 percent (4.1 percent across the board plus an average increase of 0.5 percent in locality pay) in 2023, the highest increase in twenty years.

Alternative U.S. Forecasts

The forecast for the national and local economy is highly uncertain. The tightrope that the Federal Reserve needs to walk in order to tame inflation without causing a severe recession allows very little margin for error. Economists remain divided about the chances

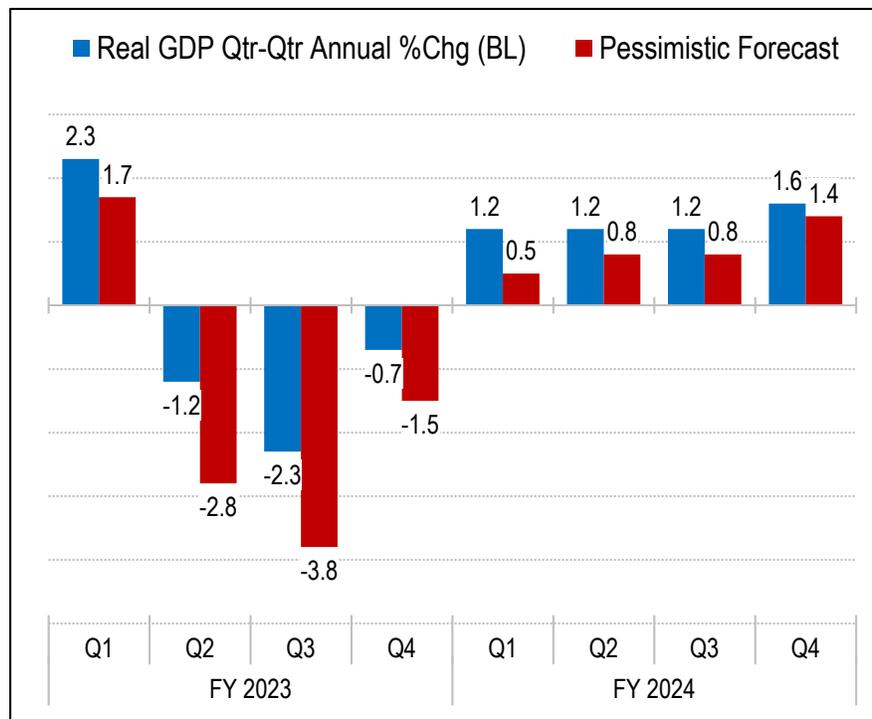
of the Federal Reserve achieving a mild recession. There are significant downside risks that could push the economy into a more severe recession.

Significant downside risks include:

A Federal Reserve policy miss that results from the Federal Reserve’s recent rate increases inflicting more pain on the economy and consumers than currently anticipated could cause the recession to be more severe than forecast. As shown in the graph below, the resulting recession would be both more severe and more protracted than the baseline.

The assumption underlying the baseline scenario that consumer spending holds up would not pan out.

The Federal Reserve may also need to raise interest rates more aggressively than expected and further delay lowering rates than assumed in the baseline if inflation is more difficult to tame than forecast. Longer and higher tightening of monetary policy would also result in a more severe and protracted downturn.



The rapid rise in the dollar and the forecast global slowdown could also cause a more protracted recession to occur. Exports, however, are a relatively small share (10 percent) of GDP compared to consumption and investment, so the risks to the economy from the export sectors are relatively lower.

Upside offsets include:

With inflation and monetary policy being the major determinants of the trajectory of the economy, upside offsets to the baseline generally revolve around better than expected news on those fronts. With some luck, the Federal Reserve could succeed in taming inflation in the near-term, with interest rates coming down more quickly than anticipated. If this were to occur, consumer and market sentiment could rebound strongly and growth would return to its full employment level sooner than in the baseline.

Table 1.2 - Fiscal Years 2022-2026 Actual and IHS Forecasts
U.S. Economic Forecasts - Income and Other Indicators (% Change)

		Actual				
		<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>
<u>Output, Income, and Spending (% of Total)</u>						
Real GDP	Oct Standard	4.0	0.1	0.3	1.7	2.1
	Oct Pessimistic		(0.6)	(0.5)	1.5	2.2
	Oct Optimistic		0.6	0.6	1.7	2.1
Total Personal Income	Oct Standard	2.8	4.2	3.9	4.8	4.8
	Oct Pessimistic		3.9	2.5	4.7	4.9
	Oct Optimistic		4.7	4.5	5.0	4.8
Wages and Salaries (50%)	Oct Standard	10.2	6.0	2.9	5.2	5.0
	Oct Pessimistic		5.3	1.0	4.0	4.9
	Oct Optimistic		6.4	3.5	5.5	5.2
Average Wage	Oct Standard	5.5	3.7	4.5	4.5	4.2
	Oct Pessimistic		3.8	4.3	3.9	3.6
	Oct Optimistic		3.9	5.0	4.8	4.4
Real Consumer Spending	Oct Standard	5.4	0.9	0.6	2.0	2.3
	Oct Pessimistic		0.3	0.4	1.9	2.4
	Oct Optimistic		1.3	1.0	1.9	2.2
<u>Interest Rates</u>						
3-Month Treasury Bills	Oct Standard	0.4	3.8	4.2	3.0	2.4
	Oct Pessimistic		3.8	3.0	1.3	0.6
	Oct Optimistic		3.9	4.6	3.3	2.6
30-Year Treasury Bonds	Oct Standard	2.3	3.7	3.6	3.6	3.5
	Oct Pessimistic		3.5	3.2	2.9	2.7
	Oct Optimistic		3.8	3.9	3.7	3.6
<u>Prices</u>						
CPI	Oct Standard	7.2	6.5	2.9	2.4	2.2
	Oct Pessimistic		7.3	3.6	2.0	1.7
	Oct Optimistic		5.9	3.5	2.5	2.3
GDP Deflator	Oct Standard	6.4	6.2	3.0	2.1	2.1
	Oct Pessimistic		6.4	3.3	1.6	1.6
	Oct Optimistic		6.1	3.3	2.2	2.2

The October Standard forecast is IHS Markit's October 2022 U.S. standard forecast.

The October Pessimistic forecast is IHS Markit's October 2022 U.S. pessimistic alternative scenario.

The October Optimistic forecast is IHS Markit's October 2022 U.S. optimistic alternative scenario.

Table 1.3 - Fiscal Years 2022-2026 Actual and IHS Forecasts
U.S. Economic Forecasts - Employment and Labor Markets (% Change)

		Actual				
		<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>
<u>Employment and Labor Markets (% of Total)</u>						
Total Nonagricultural Employment	Oct Standard	4.5	2.2	(1.5)	0.7	0.8
	Oct Pessimistic		1.4	(3.1)	0.1	1.2
	Oct Optimistic		2.4	(1.5)	0.7	0.7
Construction (5%)	Oct Standard	3.0	0.8	(3.6)	(0.4)	0.0
	Oct Pessimistic		0.1	(5.9)	(2.0)	(0.9)
	Oct Optimistic		1.1	(3.0)	(0.1)	0.3
Manufacturing (8%)	Oct Standard	3.3	1.8	(4.3)	(1.6)	(0.9)
	Oct Pessimistic		1.2	(7.3)	(3.1)	0.5
	Oct Optimistic		2.0	(3.8)	(1.5)	(1.2)
Trade, Transportation, and Utilities (19%)	Oct Standard	4.1	1.7	(2.5)	(0.7)	(0.4)
	Oct Pessimistic		0.2	(4.2)	(1.3)	(0.3)
	Oct Optimistic		1.8	(2.5)	(0.5)	(0.2)
Financial Activities (6%)	Oct Standard	1.8	(0.2)	(1.0)	2.5	1.0
	Oct Pessimistic		(0.4)	(1.0)	2.6	0.7
	Oct Optimistic		0.2	(1.0)	2.3	0.9
Professional and Business Services (15%)	Oct Standard	5.8	1.2	(8.1)	1.0	3.6
	Oct Pessimistic		(1.7)	(14.5)	(0.5)	6.4
	Oct Optimistic		2.0	(7.7)	1.0	3.2
Education and Health Services (16%)	Oct Standard	2.6	3.4	0.9	1.7	0.7
	Oct Pessimistic		3.4	1.4	1.8	0.6
	Oct Optimistic		3.8	0.8	1.9	0.7
Leisure and Hospitality (10%)	Oct Standard	14.6	6.4	3.7	1.1	0.2
	Oct Pessimistic		6.1	3.0	0.7	0.5
	Oct Optimistic		6.4	3.7	1.2	0.1
Government (15%)	Oct Standard	1.4	1.2	1.1	0.9	0.7
	Oct Pessimistic		1.2	1.1	0.9	0.7
	Oct Optimistic		1.2	1.1	0.9	0.7
Unemployment Rate (%)	Oct Standard	4.2	4.0	5.8	5.4	4.9
	Oct Pessimistic		4.7	7.6	7.3	6.3
	Oct Optimistic		3.8	5.5	5.1	4.6

The October Standard forecast is IHS Markit's October 2022 U.S. standard forecast.

The October Pessimistic forecast is IHS Markit's October 2022 U.S. pessimistic alternative scenario.

The October Optimistic forecast is IHS Markit's October 2022 U.S. optimistic alternative scenario.

Section 2 The Virginia Economy

Introduction

This section begins with a review of Fiscal Year 2022, 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 2021 U.S. standard forecast with modifications from both the Joint Advisory Board of Economists (JABE) and the Governor's Advisory Council on Revenue Estimates (GACRE) at their fall 2021 meetings. Following the review of Fiscal Year 2022, the IHS Markit's September standard, pessimistic, and optimistic alternative forecasts are summarized.

The development of the Virginia forecast starts with a national economic model using forecast data provided by IHS Markit. The national model is then combined with historical Virginia data to produce the Virginia forecast. Virginia's employment volatility is closely tied to fluctuations in the national labor market. Therefore, Virginia's employment forecast is derived from recent trends in the state's employment by sector and the U.S. employment forecast. Average wages and salaries for Virginia's sectors are then combined with the employment forecast to produce total wage and salary income.

Review of Fiscal Year 2022

Payroll employment growth exceeded expectations in Fiscal Year 2022. In the official forecast, total nonagricultural employment was projected to increase by 2.8 percent while actual growth was 3.2 percent. Higher-than-expected gains in leisure and hospitality services offset lower growth in many other employment sectors.

Table 2.1 displays Fiscal Year 2022 income and employment data. The official forecast predicted that Virginia's Fiscal Year 2022 personal income would advance at a 4.6 percent rate. Actual growth came in at 3.0 percent. Strong wages and salaries (53 percent of total personal income) and proprietor's income (6 percent of total personal income) offset a sharper-than-expected decline in net transfer payments (8 percent of total personal income) to buoy personal income growth.

Table 2.1 - Fiscal Year 2022 Virginia Forecast Performance (% Change)			
	<u>Forecast</u>	<u>Actual</u>	<u>Actual Minus Forecast</u>
<u>Income (% of Total)*</u>			
Total Personal Income	4.6	3.0	(1.6)
Wages and Salaries (53%)	6.4	8.0	1.6
Average Wage	3.5	4.7	1.2
Dividends, Interest, and Rent (18%)	10.5	3.7	(6.8)
Supplements to Wages and Salaries (11%)	5.9	5.5	(0.4)
Proprietor's Income (6%)	(1.0)	6.1	7.1
Net Transfer Payments (8%)	(13.0)	(24.5)	(11.5)
<u>Employment and Labor Markets (% of Total)</u>			
Total Nonagricultural Employment	2.8	3.2	0.4
Construction and Mining (5%)	0.5	0.4	(0.1)
Manufacturing (6%)	1.8	0.3	(1.5)
Trade, Transportation, and Utilities (17%)	1.2	2.2	1.0
Information (2%)	0.9	3.6	2.7
Financial Activities (5%)	2.9	(0.3)	(3.2)
Professional and Business Services (20%)	2.8	2.5	(0.3)
Education and Health Services (14%)	3.5	2.7	(0.8)
Leisure and Hospitality (10%)	4.8	16.7	11.9
Other Services (5%)	9.3	3.0	(6.3)
Government (19%)	2.3	1.5	(0.8)
Unemployment Rate (%)	3.6	3.2	(0.4)
The forecast data are based on the October 2021 IHS Markit's U.S. standard forecast and the corresponding Virginia state forecast developed as recommended by JABE and GACRE members.			

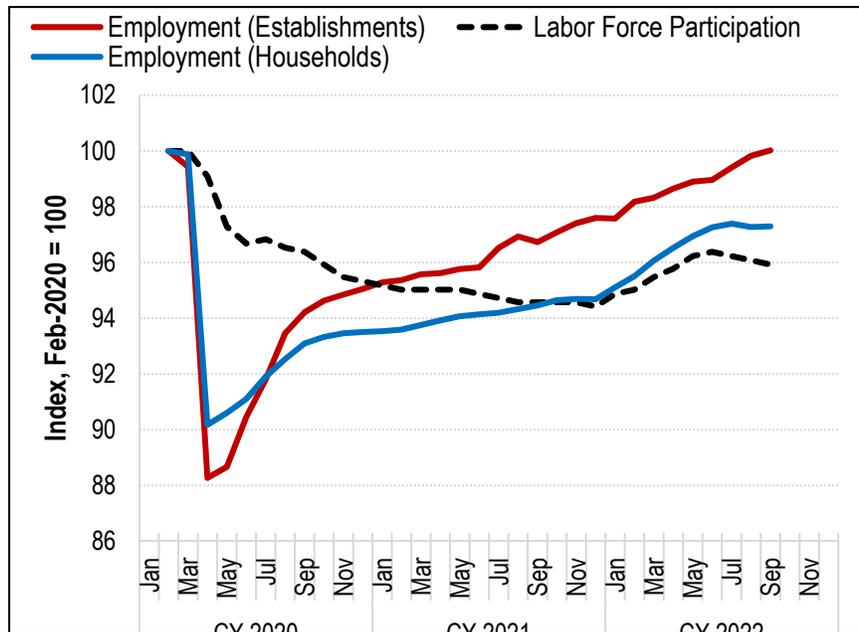
Economic Forecast for Fiscal Years 2023 and 2024

Virginia's economic outlook is predicated on the assumption of a moderate recession that underscores the nation's baseline scenario. The following section provides a similar overview of key sectors of the local economy and assumptions driving the forecast.

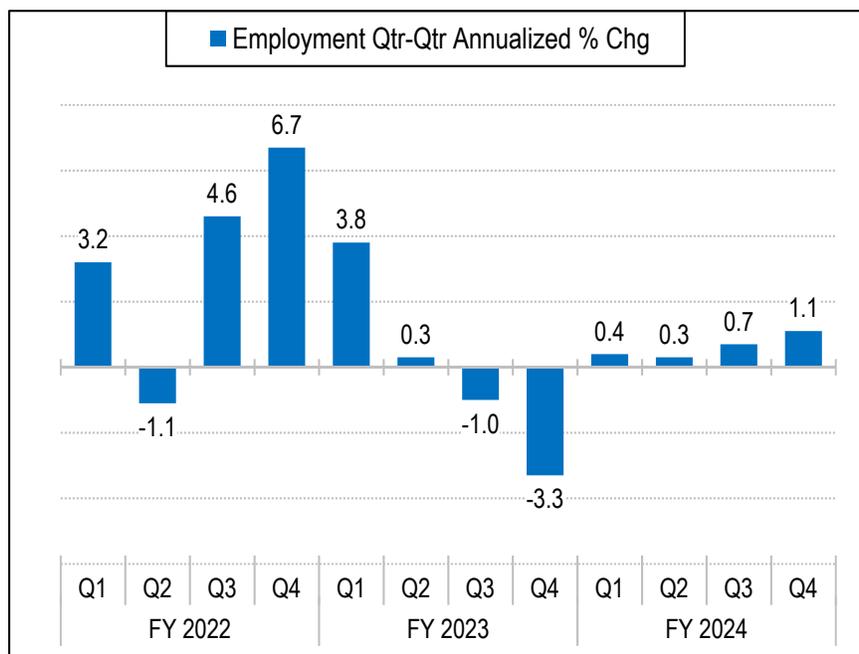
Labor Markets: Current data shows mixed results, and a slowdown is expected to occur in the third quarter of Fiscal Year 2023

Employment in Virginia's business establishments only recently recovered to its pre-pandemic peak level with September data showing employment exceeding February's 2020 level for the first time. Year-over-year employment growth was 3.3 percent, lagging the nation's rate of 4.4 percent.

However, results of the household survey from the Bureau of Labor Statistics show a less favorable picture. Resident household employment in Virginia continues to lag pre-pandemic levels and the nation. Virginia's labor force participation remains considerably lower than pre-pandemic rates, particularly among older men. It is unknown whether this lower participation rate is temporary, related to the pandemic, or permanent.



Much like the nation, as the full effects of the Federal Reserve's monetary policy take their toll on the economy, local employment is expected to begin to slow in the second half of Fiscal Year 2023 before slowly rebounding in Fiscal Year 2024. Compared to the nation's forecast decline of 2.4 percent in 2024, Virginia's decline in 2024 is forecast to be a lower 0.5 percent due to the buffer from the federal government sector.



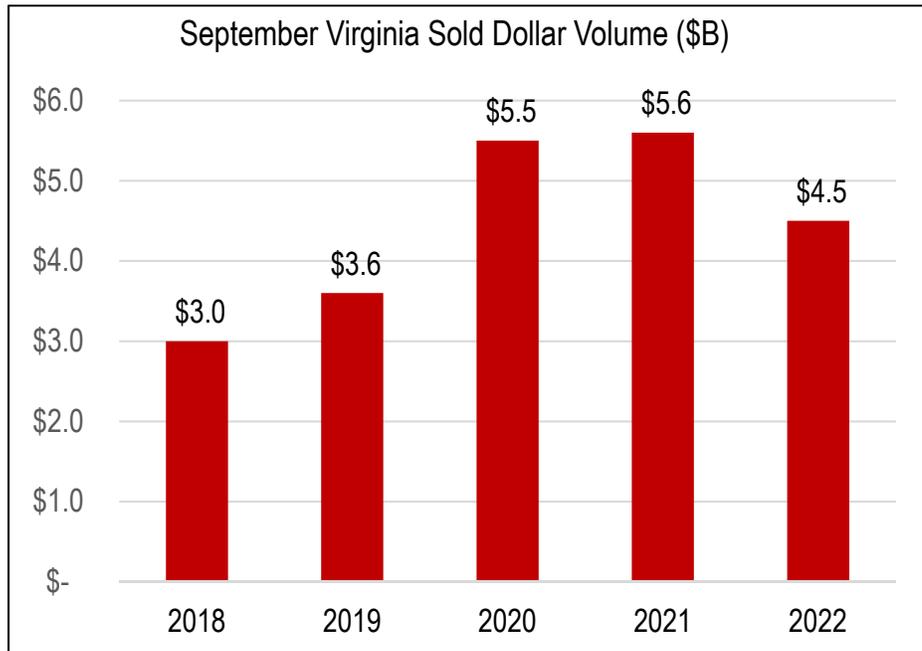
In terms of the private sector breakdown, losses are concentrated in the cyclical trade sector while non-cyclical sectors such as education and health continue to grow. The unemployment rate is expected to reach 4.6 percent in Fiscal Year 2024.

Housing Market: Also slowing in Virginia

The effects of higher interest rates are also impacting Virginia’s housing market. The Federal Reserve’s November Snapshot of the Fifth District Economy shows that permitting data for new residential buildings in Virginia declined 11.2 percent from August to September and was down 6.3 percent on a year-over-year basis.

Based on data from the Association of Virginia Realtors, the volume of homes sold in September 2022 declined by 19.6 percent compared to the previous year, falling below 2021 levels.

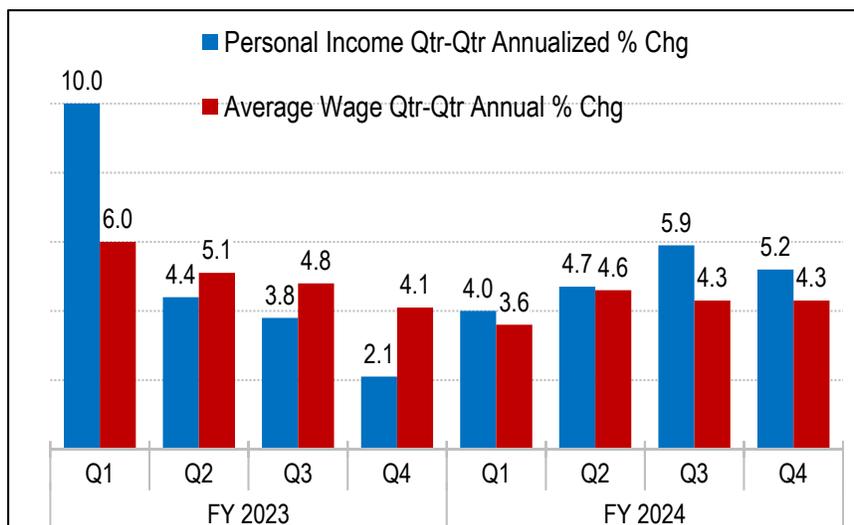
Housing market activity in Virginia is also expected to remain subdued throughout 2023 and 2024.



Consumers: Wage rate and personal income growth slows in Virginia as the economy weakens

The slowdown in the national and local economy, and cooling inflationary pressures are expected to impact household income growth and consumption.

In this mild recession scenario, average wage rate growth, the major source of income for most households, is assumed to slow from approximately 6.0 percent in the first quarter of Fiscal Year 2023 to less than 4.0 percent by the first quarter of Fiscal Year 2024, and then resume to grow as the economy recovers. Wage rate growth in



Virginia is also supported by the increases in federal wages discussed in the national overview.

Personal income, which includes other sources of income from rents and proprietor income, follows a similar trajectory.

Alternative Virginia Forecasts

The same risk and offset factors that could result in a different trajectory for the nation from the baseline discussed previously also weigh on the local outlook. In particular, the ability of consumers to sustain spending in a high interest rate and high inflation environment is of major concern. Savings that were accumulated during the pandemic are dwindling and credit card debt is on the rise. All this suggests that there is only a limited amount of time for the Fed to pivot, to hold, and then to lower rates before conditions deteriorate and cause a deeper recession to occur.

In addition to these broader macroeconomic concerns, Virginia's current low rate of labor force participation, if sustained, could dampen employment growth in the baseline forecast. The slowing rate of overall population growth that occurred over the past decade poses a longer term downside risk to Virginia's economy.

The unprecedented surge in non-withholding that occurred over the past two years, with back to back increases of 30 percent is due for a correction. Both the extent of the decline and the timing of the impact is highly uncertain, it could be more severe than indicated in our base scenario estimates.

Table 2.2 - Fiscal Years 2022-2026 Actual and IHS Forecasts
Virginia Economic Forecasts - Employment and Labor Markets (% Change)

		<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>
<u>Employment and Labor Markets (% of Total)</u>						
Total Nonagricultural Employment	Oct Standard	3.2	2.4	(0.4)	0.9	1.1
	Oct Pessimistic		1.7	(1.7)	0.4	1.5
	Oct Optimistic		2.6	(0.4)	0.9	1.1
Construction and Mining (5%)	Oct Standard	0.4	0.2	1.9	0.4	0.4
	Oct Pessimistic		(0.3)	0.1	(0.7)	(0.2)
	Oct Optimistic		0.4	2.3	0.7	0.7
Manufacturing (6%)	Oct Standard	0.3	2.1	(0.4)	0.9	(0.5)
	Oct Pessimistic		1.4	(3.8)	(0.6)	1.0
	Oct Optimistic		2.3	0.1	1.0	(0.8)
Trade, Transportation, and Utilities (17%)	Oct Standard	2.2	2.7	(2.3)	(0.9)	(1.0)
	Oct Pessimistic		0.6	(4.6)	(1.6)	(0.6)
	Oct Optimistic		2.7	(2.5)	(0.7)	(0.8)
Financial Activities (5%)	Oct Standard	(0.3)	(1.7)	(1.2)	2.9	1.2
	Oct Pessimistic		(1.9)	(1.2)	3.1	0.8
	Oct Optimistic		(1.3)	(1.1)	2.7	1.0
Professional and Business Services (20%)	Oct Standard	2.5	0.4	(0.3)	1.8	1.5
	Oct Pessimistic		(1.1)	(3.5)	1.2	2.7
	Oct Optimistic		0.8	(0.1)	1.8	1.4
Education and Health Services (14%)	Oct Standard	2.7	3.3	2.4	2.2	0.8
	Oct Pessimistic		3.3	3.0	2.3	0.6
	Oct Optimistic		3.7	2.3	2.3	0.7
Leisure and Hospitality (10%)	Oct Standard	16.7	6.1	1.3	2.7	0.2
	Oct Pessimistic		5.7	0.5	2.2	0.5
	Oct Optimistic		6.1	1.3	2.8	0.1
Government (19%)	Oct Standard	1.5	1.2	(1.2)	(0.2)	3.5
	Oct Pessimistic		1.2	(1.2)	(0.3)	3.5
	Oct Optimistic		1.2	(1.2)	(0.2)	3.5
Unemployment Rate (%)	Oct Standard	3.2	3.2	4.6	4.3	3.9
	Oct Pessimistic		3.7	6.0	5.8	5.0
	Oct Optimistic		3.0	4.4	4.0	3.7

The October Standard forecast is IHS Markit's October 2022 U.S. standard forecast.

The October Pessimistic forecast is IHS Markit's October 2022 U.S. pessimistic alternative scenario.

The October Optimistic forecast is IHS Markit's October 2022 U.S. optimistic alternative scenario.

Table 2.3 - Fiscal Years 2022-2026 Actual and IHS Forecasts
Virginia Economic Forecasts - Income (% Change)

		<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>
<u>Income (% of Total)</u>						
Total Personal Income	Oct Standard	3.0	5.5	4.1	5.0	4.6
	Oct Pessimistic		5.0	2.7	4.6	4.4
	Oct Optimistic		5.8	4.3	5.2	4.7
Wages and Salaries (53%)	Oct Standard	8.0	8.0	3.8	5.2	4.8
	Oct Pessimistic		7.4	2.3	4.1	4.4
	Oct Optimistic		8.2	3.9	5.3	4.9
Average Wage	Oct Standard	4.7	5.5	4.2	4.3	3.7
	Oct Pessimistic		5.6	4.1	3.6	2.9
	Oct Optimistic		5.5	4.3	4.3	3.8
Dividends, Interest, and Rent (18%)	Oct Standard	3.7	4.9	6.4	4.9	4.1
	Oct Pessimistic		4.5	4.0	6.8	5.3
	Oct Optimistic		6.3	6.8	4.6	4.0
Supplements to Wages and Salaries (11%)	Oct Standard	5.5	3.3	2.9	5.2	5.1
	Oct Pessimistic		2.6	1.0	4.0	4.9
	Oct Optimistic		3.7	3.5	5.6	5.2
Proprietor's Income (6%)	Oct Standard	6.1	1.3	(0.5)	(2.8)	(0.5)
	Oct Pessimistic		2.0	0.4	(1.9)	0.0
	Oct Optimistic		1.1	0.5	(3.2)	(2.1)
Net Transfer Payments (8%)	Oct Standard	(24.5)	0.5	5.9	9.6	6.5
	Oct Pessimistic		0.2	7.1	8.7	4.7
	Oct Optimistic		0.0	4.4	10.8	8.6

The October Standard forecast is IHS Markit's October 2022 U.S. standard forecast.

The October Pessimistic forecast is IHS Markit's October 2022 U.S. pessimistic alternative scenario.

The October Optimistic forecast is IHS Markit's October 2022 U.S. optimistic alternative scenario.

Section 3 General Fund Revenues

General Fund Revenues

This section reviews General Fund revenue collections for Fiscal Year 2022, comparing actual collections with the official forecast for the year. Following this review, three General Fund revenue forecasts are presented: the November standard, optimistic, and pessimistic forecasts. The standard forecast is based on the IHS Markit October 2022 standard economic outlook. The basis for the pessimistic forecast is the IHS October 2022 pessimistic economic scenario, while the optimistic forecast is the IHS October 2022 optimistic scenario. These updated forecasts are compared with the official forecast based on the IHS October 2021 outlook and the corresponding Virginia state forecast developed by the Department of Taxation. Each forecast incorporates actions of the General Assembly, including changes reflected in the 2022 Appropriation Act (House Bill 30, 2022 Special Session I, Chapter 2).

Fiscal Year 2022 in Review

In Fiscal Year 2022, total General Fund revenues rose 16.3 percent, with a surplus of \$1.95 billion (7.2 percent variance from the official revenue forecast). All major revenue sources, except corporate, finished the year above their respective forecasts with individual nonwithholding taxes responsible for much of the surplus. In addition, individual refunds were lower than expected. Collections of miscellaneous taxes and other revenues exceeded the official revenue forecast by \$19.0 million (2.1 percent variance).

Table 3.1 compares actual revenues for Fiscal Year 2022 with the official revenue forecast. The official revenue forecast was based on the October 2021 IHS Markit standard U.S. forecast and the corresponding Virginia economic forecast developed by the Department of Taxation with recommendations from GACRE. The official revenue forecast incorporates actions of the General Assembly, including changes reflected in the 2022 Appropriation Act (House Bill 30, 2022 Special Session I, Chapter 2).

Net Individual Income Taxes

Withholding: In Fiscal Year 2022, withholding receipts (53 percent of total revenues) increased 9.5 percent, exceeding the forecast growth rate of 9.0 percent and \$73.1 million above the official revenue forecast.

Nonwithholding: Collections of individual nonwithholding (24 percent of total revenues) rose 30.5 percent in Fiscal Year 2022, exceeding the official revenue forecast of 2.5 percent growth and contributing \$1.5 billion to the surplus. These payments are historically tied to non-wage income sources - mainly the financial markets - and are extremely volatile. The annual estimate included reducing the forecasted collections by \$270 million for the nonwithholding collar. The nonwithholding collar is the 10-year

average of nonwithholding payments as a percent of total revenues (17.2 percent), limited to 1 percent of General Fund revenues.

Refunds: Individual income tax refunds were \$280.2 million less than expected in Fiscal Year 2022. The amount of refunds issued fell 9.6 percent over last year, compared with the official revenue forecast of 4.9 percent growth.

Retail Sales and Use Taxes

Collections of sales and use taxes (16 percent of total revenues) were \$120.5 million above the official revenue forecast. This represented a 9.4 percent increase for the year, ahead of the official revenue forecast of 6.5 percent growth.

Corporate Income Taxes

Corporate income tax collections (7 percent of total revenues), historically the most volatile revenue source, fell short of the official revenue forecast. Collections were \$30.9 million below expectations in Fiscal Year 2022, with growth of 30.5 percent compared with the official revenue forecast of 32.6 percent growth.

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 official revenue forecast in Fiscal Year 2022 by \$3.4 million. Collections declined 3.8 percent in Fiscal Year 2021 compared with the official revenue forecast of a 4.3 percent decline.

Insurance Premiums License Taxes

Insurance premiums license tax collections (1 percent of total revenues) were \$7.5 million above the official revenue forecast. Collections grew 17.6 percent for the year compared with the official revenue forecast of 15.5 percent growth.

Table 3.1
Fiscal Year 2022 General Fund Collections: Actual and Official Forecast
(Dollars in Millions)

July 25, 2022

	Fiscal Year 2021		Fiscal Year 2022						
	Actual	% Growth	Official Forecast	Actual	Forecast Variance		% Growth Over FY 21		
					Dollars	Percent	Official	Actual	
MAJOR TAX SOURCES									
Corporate Income	\$ 1,515.7	49.8 %	\$ 2,009.6	\$ 1,978.7	\$ (30.9)	(1.5) %	32.6 %	30.5 %	
Individual Income Tax:									
Gross	19,229.9	11.9	20,613.8	22,150.7	1,536.9	7.5	7.2	15.2	
Withholding	14,012.9	4.7	15,267.2	15,340.3	73.1	0.5	9.0	9.5	
Nonwithholding	5,217.0	37.1	5,346.6	6,810.5	1,463.9	27.4	2.5	30.5	
Refunds	<u>(1,926.2)</u>	<u>5.2</u>	<u>(2,020.7)</u>	<u>(1,740.5)</u>	<u>280.2</u>	<u>(13.9)</u>	<u>4.9</u>	<u>(9.6)</u>	
Net	17,303.7	12.7	18,593.1	20,410.2	1,817.1	9.8	7.5	18.0	
Insurance Company Premiums	363.1	0.7	419.3	426.8	7.5	1.8	15.5	17.6	
State Sales & Use Tax	4,166.2	12.4	4,437.6	4,558.1	120.5	2.7	6.5	9.4	
Wills, Suits, Deeds, & Contract Fees	679.7	40.6	650.7	654.1	3.4	0.5	(4.3)	(3.8)	
Total Major Tax Sources	\$ 24,028.3	14.9 %	\$ 26,110.3	\$ 28,027.9	\$ 1,917.6	7.3 %	8.7 %	16.6 %	
MISCELLANEOUS TAXES AND OTHER REVENUES									
Alcoholic Beverage State Tax	\$ 254.0	12.2 %	\$ 258.3	\$ 260.2	\$ 1.9	0.7 %	1.7 %	2.4 %	
Bank Franchise Tax	26.8	0.4	26.8	37.4	10.6	39.7	(0.1)	39.6	
Beer & Beverage Excise Tax	42.0	3.1	42.0	40.0	(2.0)	(4.8)	(0.1)	(4.8)	
Corporate Franchise & Charter Fees	61.4	3.7	62.3	77.4	15.1	24.3	1.5	26.1	
Excess & Other Fees from Officers	(13.9)	(61.2)	(9.3)	(12.3)	(3.0)	32.4	(33.3)	(11.6)	
Estate & Gifts	0.8	na	0.0	0.0	0.0	n/a	n/a	n/a	
Institutional Revenues	2.3	(12.2)	2.2	2.4	0.2	8.4	(2.5)	5.6	
Interest & Rents	83.5	(24.6)	89.1	76.8	(12.3)	(13.8)	6.7	(8.0)	
Licenses & Permits	3.0	(15.7)	2.9	4.6	1.7	57.8	(3.2)	52.8	
Miscellaneous Taxes and Penalties	251.5	9.2	271.8	278.1	6.3	2.3	8.1	10.6	
Other Miscellaneous Revenues	37.7	8.4	38.4	39.8	1.4	3.7	1.9	5.6	
Public Service GR / Consumption Tax	101.1	4.2	103.5	102.6	(0.9)	(0.9)	2.4	1.5	
Total Misc. Taxes and Other Revenues	\$ 850.1	3.2 %	\$ 888.0	\$ 907.0	\$ 19.0	2.1 %	4.5 %	6.7 %	
TOTAL GF REVENUES	\$ 24,878.5	14.4 %	\$ 26,998.3	\$ 28,934.9	\$ 1,936.6	7.2 %	8.5 %	16.3 %	
TRANSFERS									
A.B.C. Profits	\$ 177.9	29.4 %	\$ 146.7	\$ 162.9	\$ 16.2	11.0 %	(17.5) %	(8.4) %	
Sales Tax (0.25%)	458.4	12.9	534.1	522.5	(11.6)	(2.2)	16.5	14.0	
Transfers Per Appropriations Act	122.3	(23.8)	123.1	129.0	5.9	4.8	0.7	5.5	
Total Transfers	\$ 758.6	7.8 %	\$ 803.9	\$ 814.3	\$ 10.4	1.3 %	6.0 %	7.3 %	
TOTAL GENERAL FUND	\$ 25,637.1	14.2 %	\$ 27,802.2	\$ 29,749.2	\$ 1,947.0	7.0 %	8.4 %	16.0 %	

The Official forecast is based on the October 2021 IHS Markit US Standard outlook and the corresponding Virginia economic outlook developed by the Department of Taxation with recommendations from GACRE. It includes actions from the 2022 GA Special Session, Chapter 1.

The General Fund Revenue Forecast for Fiscal Years 2023-2026

Policy Changes That Affect the Revenue Forecast

A number of policy changes were enacted that affect the revenue forecast. Major changes are described below and included in Table 3.2.

Standard Deduction Increase

The standard deduction increases from \$4,500 to \$8,000 for single filers and from \$9,000 to \$16,000 for married filers filing jointly, effective for Taxable Years 2022 through 2025. The increase for Taxable Year 2022 is contingent on annual revenue growth of at least five percent for the six-month period of July 2022 through December 2022, adjusted for the impact of tax policy changes. The increase for Taxable Year 2023 is contingent on annual revenue growth of at least five percent for the twelve-month period of July 2022 through June 2023. If the five percent growth rate is not met for either taxable year, the standard deduction for that taxable year will be \$7,500 for single individuals and \$15,000 for married persons. There is no revenue contingency imposed for Taxable Years 2024 or 2025. The increase in the standard deduction is scheduled to sunset after Taxable Year 2025 and revert to the standard deduction amounts that applied prior to Taxable Year 2019, \$3,000 for single filers and \$6,000 for married couples filing jointly.

Individual Income Tax Rebates

One-time individual income tax rebates of up to \$250 for a single taxpayer, or up to \$500 for married taxpayers filing a joint return were also part of the Governor's tax package. In order to qualify, a Taxable Year 2021 return must be filed on or before November 1, 2022. Refunds for returns filed by July 1, 2022 were required to be issued by October 17, 2022. Refunds for returns filed between July 1, 2022 and November 1, 2022 must be issued within four months after such return is filed. A refund is allowed only up to the amount of the taxpayer's tax liability after the application of any deductions, subtractions, or credits to which the taxpayer is entitled.

Military Retirement Subtraction

An individual is allowed an income tax subtraction for certain military benefits received by an individual age 55 or older. The maximum amount of the subtraction is \$10,000 in Taxable Year 2022; \$20,000 in Taxable Year 2023; \$30,000 for Taxable Year 2024; and \$40,000 for Taxable Year 2025 and after. For purposes of this subtraction, "military benefits" are defined as: military retirement income received for service in the Armed Forces of the United States; qualified military benefits received pursuant to a section of the Internal Revenue Code regarding certain military benefits; benefits paid to the surviving spouse of a veteran of the Armed Forces of the United States under the Survivor Benefit Plan program established by the U.S. Department of Defense; and military benefits paid to the surviving spouse of a veteran of the Armed Forces of the United

States. This subtraction is not allowed if a credit, exemption, subtraction, or deduction is claimed for the same income pursuant to any other provision of Virginia or federal law.

Refundable Virginia Earned Income Tax Credit

Virginia residents are able to claim a Refundable Virginia Earned Income Tax Credit (“EITC”). Under current law, Virginia allowed a taxpayer to claim either: a nonrefundable individual income tax credit equal to 20 percent of the federal EITC claimed by an eligible individual for the taxable year (“Nonrefundable Virginia Earned Income Tax Credit”), or a nonrefundable individual income tax credit equal to \$300 each for an eligible individual, the individual’s spouse, and any person claimed as a dependent on such individual’s or married person’s income tax return for the taxable year (“Nonrefundable Tax Credit for Low-Income Individuals”). Because both credits above are nonrefundable, taxpayers can only utilize these credits up to the extent of their Virginia income tax liability.

Effective for Taxable Year 2022 and after, Virginia residents may instead choose to claim a refundable individual income tax credit equal to 15 percent of the federal EITC claimed by such residents for the same taxable year. Nonresidents and part-year residents are ineligible for the refundable credit, but they may continue to claim either the Nonrefundable Virginia Earned Income Tax Credit or the Nonrefundable Tax Credit for Low-Income Individuals. In addition, an eligible household may only claim one of these credits in the same taxable year. For purposes of these credits, “household” means an individual or married persons, regardless of whether such married persons file joint or separate Virginia individual income tax returns.

Elimination of Accelerated Sales Tax in Fiscal Year 2022

The Accelerated Sales Tax was eliminated for any period beginning after June 30, 2021. This provision is effective June 17, 2022.

Exemption for Food and Essential Personal Hygiene Products

Beginning January 1, 2023, there will be a state Retail Sales and Use Tax exemption for food purchased for human consumption and essential personal hygiene products. However, such purchases will continue to be subject to the local 1 percent optional Retail Sales and Use Tax. Prior to January 1, 2023, food purchased for human consumption and essential personal hygiene products are subject to a reduced 1.5 percent state sales tax rate, comprised of a one percent distribution allocated to localities to fund education and one-half percent distribution allocated to the Commonwealth Transportation Fund, and 1 percent local option sales tax rate for a total rate of 2.5 percent. Beginning February 1, 2023, there will be a distribution of state revenues to cities and counties for educational funding to replace the one percent tax attributable to food for human consumption and essential personal hygiene products that would have been distributed to them under prior law.

Table 3.2
Summary of Recent Legislation Affecting General Fund Revenues
(Millions of Dollars)

	FY 23	FY 24	FY 25	FY 26
Individual Income Tax				
Increase Standard Deduction to \$8,000/\$16,000 (contingent on revenue targets)	(970.1)	(665.2)	(673.2)	(681.7)
Military Retirement Subtraction	(145.0)	(156.0)	(182.0)	(194.4)
Refundable EITC to 15% of EITC	(159.0)	(156.0)	(159.5)	(155.0)
Tax Rebate (\$250/\$500)	(1,048.6)	-	-	-
Education Tax Credit	(6.0)	(6.0)	(6.0)	(6.0)
Corporate Income Tax				
Education Tax Credit	(6.0)	(6.0)	(6.0)	(6.0)
State Sales/Use				
Eliminate State Share of Grocery Tax	(107.3)	(265.1)	(274.4)	(281.5)
Total	(2,442.0)	(1,254.3)	(1,301.1)	(1,324.6)
Note: The standard deduction and the refundable EITC estimates assume that the federal TCJA provisions will be extended on and after January 1, 2026.				

General Fund Revenue Forecasts

Table 3.3 at the end of this section provides a comparison of the official revenue forecast with the November 2022 standard, pessimistic, and optimistic General Fund forecasts. Under the official revenue forecast, General Fund revenues are expected to decline 7.9 percent in Fiscal Year 2023 and grow 9.6 percent in Fiscal Year 2024.

Standard General Fund Revenue Forecast

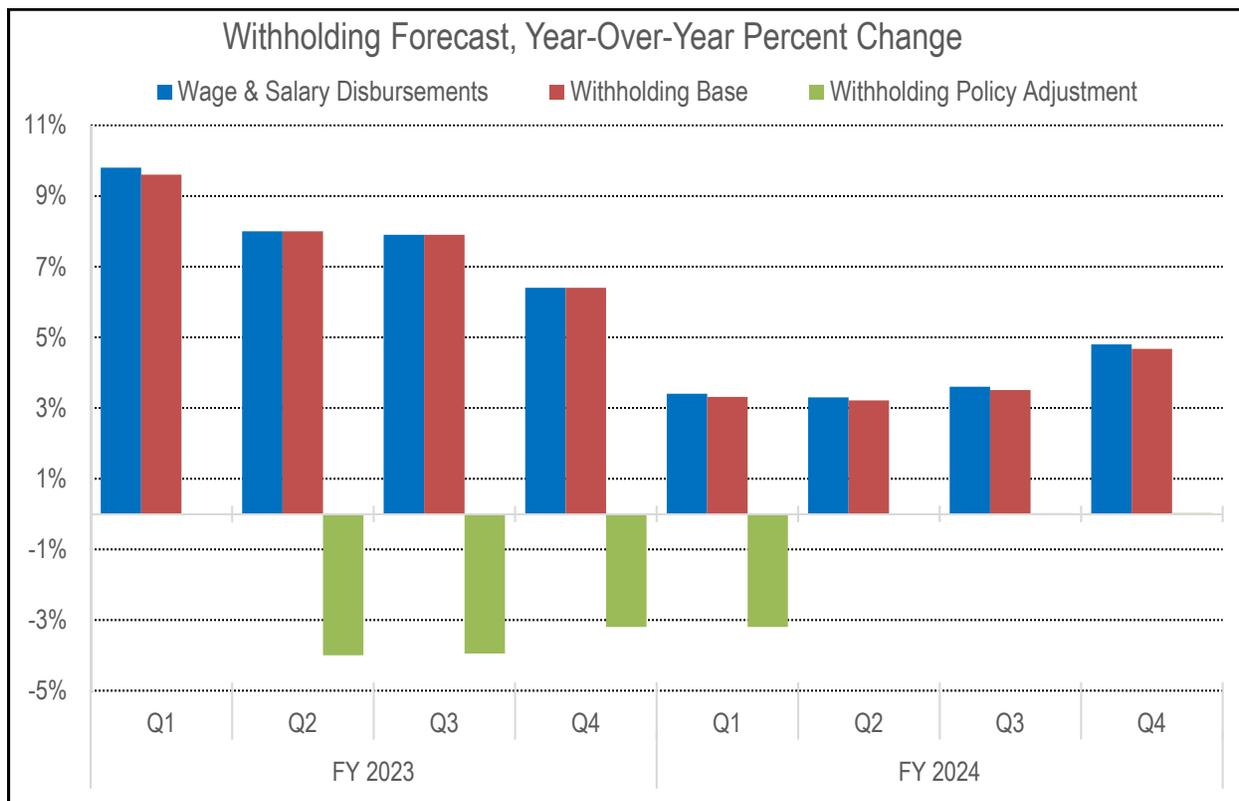
In the November standard forecast, total General Fund revenues would increase by \$1.4 billion in Fiscal Year 2023. The increase from the official revenue forecast comes mainly from upward revisions to withholding and sales and use taxes. Under the standard forecast, revenues would decrease 9.2 percent in Fiscal Year 2023 and increase 6.7 percent in Fiscal Year 2024. **IHS Markit assigns a probability of 55 percent to the standard scenario.**

Net Individual Income Taxes

Withholding

The withholding revenue model is based on a direct relationship with wages and salaries (49 percent of total personal income) in Virginia. Withholding collections are projected to increase 4.4 percent in Fiscal Year 2023 and grow 3.9 percent in Fiscal Year 2024. The graph below displays the connection between baseline withholding and wage and salary

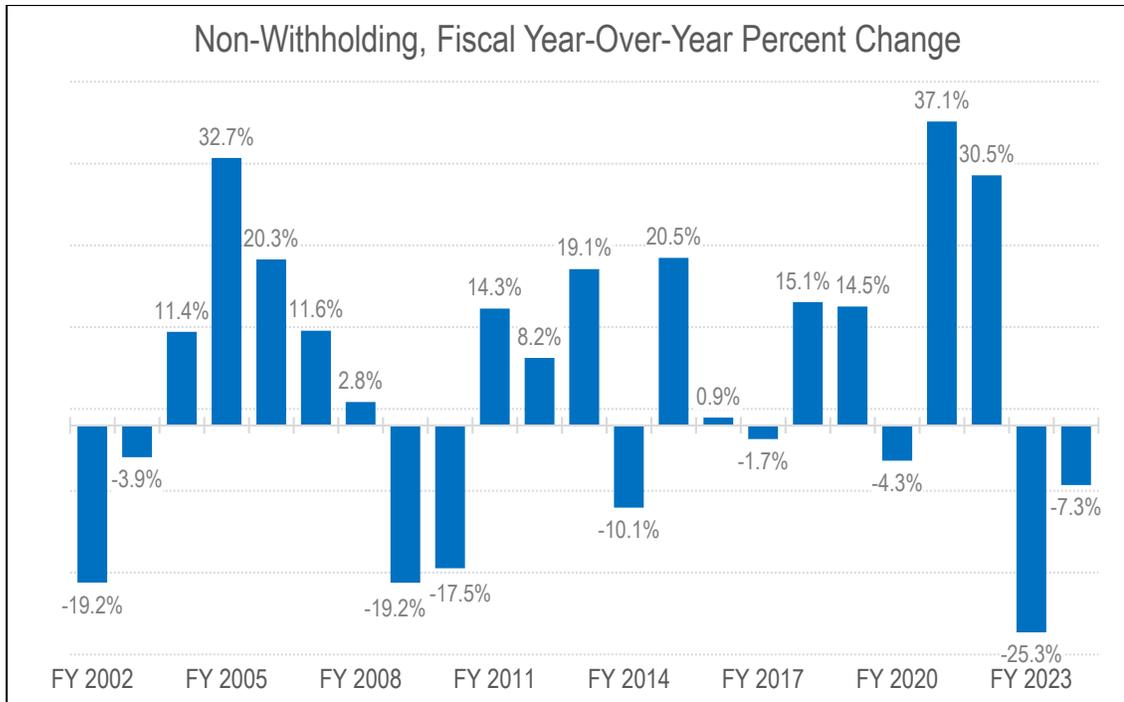
disbursements over the forecast horizon; it also includes policy adjustments that will impact withholding collections. Baseline revenue is the revenue change due to economic fundamentals, while net revenue includes tax policy changes and one-time adjustments. In the first quarter of Fiscal Year 2023, which assumed no adjustments to withholding as a result of tax policy changes, withholding grew a strong 9.3 percent. Beginning in the second quarter of Fiscal Year 2023, the increase in the standard deduction will begin to reduce the quarterly baseline figures.



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.

Following two consecutive fiscal years of over 30 percent growth, the forecast predicts a decline of 25.3 percent in Fiscal Year 2023 and a decline of 7.3 percent in Fiscal Year 2024 to a more sustainable trend given this year’s stock market decline. The extent of the decline is expected to be severe given the ramp up that occurred. In the pessimistic scenario the declines are projected to be even higher particularly in 2024, when they are projected to decline by 15.2 percent.

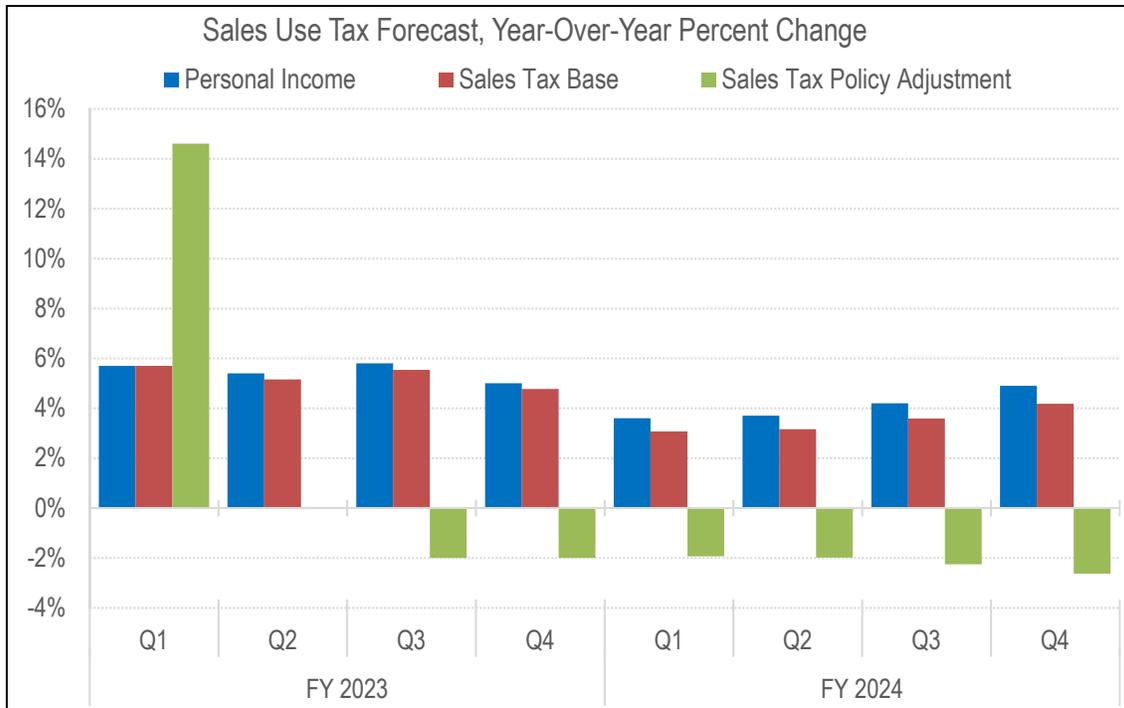


Refunds

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. Individual refunds are projected to grow 103.1 percent in Fiscal Year 2023 and fall 48.4 percent in Fiscal Year 2024. In Fiscal Year 2023, a significant part of the tax policy changes are estimated to impact refunds. The majority of the tax rebates, which total an estimated \$1.0 billion, were disbursed in September and October of this fiscal year, and accounted for as refunds.

Retail Sales and Use Taxes

The retail sales and use tax revenue model is based on a direct relationship with total personal income in Virginia. This source is expected to grow 7.6 percent in Fiscal Year 2023 and 0.3 percent in Fiscal Year 2024. The graph below displays the connection between baseline retail sales and use taxes and personal income over the forecast horizon. Net revenue is the revenue that is actually collected after accounting for policy adjustments. In the first quarter of Fiscal Year 2023, baseline sales tax grew 5.7 percent; however, including policy changes, such as the accelerated sales tax repeal in June 2022, net sales tax increased 20.3 percent. The primary policy adjustment that will impact sales tax collections during Fiscal Year 2023 will be the repeal of the state share of the grocery tax, which becomes effective in January 2023 and will impact sales tax payments beginning in February 2023.



Over 85 percent of total General Fund revenues are comprised of net individual income tax and sales and use taxes. The remaining components are summarized below.

All Other General Fund Revenues

Collections of all other General Fund revenues are forecast to total \$3.8 billion in Fiscal Year 2023, which is a decline of 4.2 percent. This is anticipated to be followed by a decline of 5.4 percent in Fiscal Year 2024. Corporate income tax revenue is expected to fall by 4.9 percent in Fiscal Year 2023 and 6.4 percent in Fiscal Year 2024. Wills, suits, deeds, and contract fees are estimated to fall 21.4 percent in Fiscal Year 2023 and 15.0 percent in Fiscal Year 2024. Offsetting some of this decline is interest income.

Optimistic General Fund Revenue Forecast

In the November optimistic forecast, total General Fund revenues would increase by \$1.8 billion in Fiscal Year 2023. Under this scenario, General Fund revenues would be expected to fall 7.9 percent in Fiscal Year 2023 then increase 6.1 percent in Fiscal Year 2024. The optimistic forecast exceeds the standard forecast by \$377 million in Fiscal Year 2023 and \$234 million in Fiscal Year 2024. This increase relative to the standard forecast is mainly due to stronger withholding and nonwithholding collections. **IHS Markit assigns a probability of 15 percent to the optimistic scenario.**

Pessimistic General Fund Revenue Forecast

In the November pessimistic forecast, total General Fund revenues would increase by \$669.6 million in Fiscal Year 2023. Under this scenario, General Fund revenues are expected to fall 11.7 percent in Fiscal Year 2023 then increase 3.2 percent in Fiscal Year 2024. The pessimistic forecast is below the standard forecast by \$738.4 million in Fiscal Year 2023 and \$1.7 billion in Fiscal Year 2024. This decrease relative to the standard forecast is mainly due to weaker withholding and nonwithholding collections. **IHS Markit assigns a probability of 30 percent to the optimistic scenario.**

Table 3.3
The Official to November Standard General Fund Forecast for Fiscal Year 2023
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2023				
	Official Forecast	November Forecast	Change	% Growth Over FY22	
				Official	November
MAJOR TAX SOURCES					
Corporate Income	\$ 1,737.0	\$ 1,881.0	\$ 144.0	(13.6) %	(4.9) %
Individual Income Tax:					
Gross	20,533.5	21,106.8	573.3	(0.4)	(4.7)
Withholding	15,319.9	16,018.2	698.3	0.3	4.4
Nonwithholding	5,213.6	5,088.6	(125.0)	(2.5)	(25.3)
Refunds	<u>(3,800.9)</u>	<u>(3,535.2)</u>	<u>265.7</u>	<u>88.1</u>	<u>103.1</u>
Net	16,732.6	17,571.6	839.0	(10.0)	(13.9)
Insurance Company Premiums	406.1	425.0	18.9	(3.1)	(0.4)
State Sales & Use Tax	4,497.8	4,906.1	408.3	1.4	7.6
Wills, Suits, Deeds, & Contract Fees	<u>593.7</u>	<u>514.0</u>	<u>(79.7)</u>	<u>(8.8)</u>	<u>(21.4)</u>
Total Major Tax Sources	\$ 23,967.2	\$ 25,297.7	\$ 1,330.5	(8.2) %	(9.7) %
MISCELLANEOUS TAXES AND OTHER REVENUES					
Alcoholic Beverage State Tax	\$ 261.6	\$ 270.4	\$ 8.8	1.3 %	3.9 %
Bank Franchise Tax	26.8	37.9	11.1	0.0	1.3
Beer & Beverage Excise Tax	42.0	40.5	(1.5)	0.0	1.3
Corporate Franchise & Charter Fees	62.3	78.4	16.1	0.0	1.3
Excess & Other Fees from Officers	(9.3)	(12.5)	(3.2)	0.0	1.3
Estate & Gifts	0.0	0.0	0.0	n/a	n/a
Institutional Revenues	2.2	2.4	0.2	0.0	1.3
Interest & Rents	98.4	122.8	24.4	10.4 %	59.9
Licenses & Permits	2.9	4.6	1.7	0.0 %	1.3
Miscellaneous Taxes and Penalties	275.3	292.2	16.9	1.3 %	5.1
Other Miscellaneous Revenues	38.4	40.3	1.9	0.0 %	1.1
Public Service GR / Consumption Tax	<u>103.5</u>	<u>104.5</u>	<u>1.0</u>	<u>0.0 %</u>	<u>1.9</u>
Total Misc. Taxes and Other Revenues	\$ 904.1	\$ 981.6	\$ 77.5	1.8 %	8.2 %
TOTAL GF REVENUES	\$ 24,871.3	\$ 26,279.3	\$ 1,408.0	(7.9) %	(9.2) %
TRANSFERS					
A.B.C. Profits	\$ 112.1	\$ 131.4	\$ 19.3	(23.6) %	(19.3) %
Sales Tax (0.375%)	506.9	570.8	63.9	(5.1)	9.3
Transfers Per Appropriations Act	<u>95.7</u>	<u>86.9</u>	<u>(8.8)</u>	<u>(22.2)</u>	<u>(32.6)</u>
Total Transfers	\$ 714.7	\$ 789.1	\$ 74.4	(11.1) %	(3.1) %
TOTAL GENERAL FUND	\$ 25,586.0	\$ 27,068.4	\$ 1,482.4	(8.0) %	(9.0) %

The Official forecast is based on the October 2021 IHS Markit Standard Outlook and the corresponding Virginia state forecast developed by the Department of Taxation and incorporates actions of the General Assembly 2022 special session, Chapter 2. The November forecast is based on the October 2022 IHS Markit Standard Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE.

Table 3.3
The Official to November Standard General Fund Forecast for Fiscal Year 2024
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2024					2022-2024 Biennium		
	Official Forecast	November Forecast	Change	% Growth Over FY23		Official Forecast	November Forecast	Change
				Official	November			
MAJOR TAX SOURCES								
Corporate Income	\$ 1,784.9	\$ 1,760.3	\$ (24.6)	2.8 %	(6.4) %	\$ 3,521.9	\$ 3,641.3	\$ 119.4
Individual Income Tax:								
Gross	21,348.5	21,357.2	8.7	4.0	1.2	41,882.0	42,464.0	582.0
Withholding	15,775.5	16,641.5	866.0	3.0	3.9	31,095.4	32,659.7	1,564.3
Nonwithholding	5,573.0	4,715.7	(857.3)	6.9	(7.3)	10,786.6	9,804.3	(982.3)
Refunds	<u>(2,289.9)</u>	<u>(1,824.4)</u>	<u>465.5</u>	<u>(39.8)</u>	<u>(48.4)</u>	<u>(6,090.8)</u>	<u>(5,359.6)</u>	<u>731.2</u>
Net	19,058.6	19,532.8	474.2	13.9	11.2	35,791.2	37,104.4	1,313.2
Insurance Company Premiums	425.3	403.8	(21.6)	4.7	(5.0)	831.4	828.8	(2.7)
State Sales & Use Tax	4,472.7	4,922.1	449.4	(0.6)	0.3	8,970.5	9,828.2	857.7
Wills, Suits, Deeds, & Contract Fees	<u>593.7</u>	<u>436.9</u>	<u>(156.8)</u>	<u>0.0</u>	<u>(15.0)</u>	<u>1,187.4</u>	<u>950.9</u>	<u>(236.5)</u>
Total Major Tax Sources	\$ 26,335.2	\$ 27,055.9	\$ 720.6	9.9 %	6.9 %	\$ 50,302.4	\$ 52,353.6	\$ 2,051.1
MISCELLANEOUS TAXES AND OTHER REVENUES								
Alcoholic Beverage State Tax	\$ 269.2	\$ 277.9	\$ 8.7	2.9 %	2.8 %	\$ 530.8	\$ 548.3	\$ 17.5
Bank Franchise Tax	26.8	38.4	11.6	0.0	1.3	53.6	76.3	22.7
Beer & Beverage Excise Tax	42.0	41.0	(1.0)	0.0	1.3	84.0	81.5	(2.5)
Corporate Franchise & Charter Fees	62.3	79.4	17.1	0.0	1.3	124.6	157.9	33.3
Excess & Other Fees from Officers	(9.3)	(12.6)	(3.3)	0.0	(1.3)	(18.6)	(25.1)	(6.5)
Estate & Gifts	0.0	0.0	0.0	n/a	n/a	0.0	0.0	n/a
Institutional Revenues	2.2	2.5	0.3	0.0	1.3	4.4	4.9	0.5
Interest & Rents	110.0	124.4	14.4	11.8	1.3	208.4	247.1	38.7
Licenses & Permits	2.9	4.7	1.8	0.0	1.3	5.8	9.3	3.5
Miscellaneous Taxes and Penalties	279.8	300.0	20.2	1.6	2.7	555.1	592.2	37.1
Other Miscellaneous Revenues	38.4	34.7	(3.7)	0.0	(13.8)	76.8	75.0	(1.8)
Public Service GR / Consumption Tax	<u>103.5</u>	<u>105.9</u>	<u>2.4</u>	<u>0.0</u>	<u>1.3</u>	<u>207.0</u>	<u>210.4</u>	<u>3.4</u>
Total Misc. Taxes and Other Revenues	\$ 927.8	\$ 996.3	\$ 68.5	2.6 %	1.5 %	\$ 1,831.9	\$ 1,977.9	\$ 146.0
TOTAL GF REVENUES	\$ 27,263.0	\$ 28,052.2	\$ 789.1	9.6 %	6.7 %	\$ 52,134.3	\$ 54,331.5	\$ 2,197.2
TRANSFERS								
A.B.C. Profits	\$ 116.0	\$ 116.0	\$ 0.0	3.5 %	(11.7) %	\$ 228.0	\$ 247.4	\$ 19.4
Sales Tax (0.375%)	521.5	588.3	66.8	2.9	3.1	1,028.4	1,159.1	130.7
Transfers Per Appropriations Act	<u>95.7</u>	<u>87.9</u>	<u>(7.8)</u>	<u>0.0</u>	<u>1.2</u>	<u>191.4</u>	<u>174.8</u>	<u>(16.6)</u>
Total Transfers	\$ 733.2	\$ 792.2	\$ 59.0	2.6 %	0.4 %	\$ 1,447.9	\$ 1,581.3	\$ 133.4
TOTAL GENERAL FUND	\$ 27,996.2	\$ 28,844.4	\$ 848.2	9.4 %	6.6 %	\$ 53,582.2	\$ 55,912.8	\$ 2,330.6

The Official forecast is based on the October 2021 IHS Markit Standard Outlook and the corresponding Virginia state forecast developed by the Department of Taxation and incorporates actions of the General Assembly 2022 special session, Chapter 2.

The November forecast is based on the October 2022 IHS Markit Standard Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE.

Table 3.3
The November Standard General Fund Forecast for Fiscal Years 2025-26
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2025		Fiscal Year 2026		2025-2026 Biennium	
	November Forecast	% Growth Over FY 24	November Forecast	% Growth Over FY 25	November Forecast	% Growth Over 22-24
MAJOR TAX SOURCES						
Corporate Income	\$ 1,945.2	10.5 %	\$ 2,004.6	3.0 %	\$ 3,949.8	13.0 %
Individual Income Tax:						
Gross	22,652.4	6.1	23,440.1	3.5	46,092.5	11.4
Withholding	17,654.9	6.1	18,552.7	5.1	36,207.6	23.4
Nonwithholding	4,997.5	6.0	4,887.4	(2.2)	9,884.9	(17.8)
Refunds	<u>(1,731.6)</u>	(5.1)	<u>(1,789.9)</u>	3.4	<u>(3,521.5)</u>	(4.0)
Net	20,920.8	7.1	21,650.2	3.5	42,571.0	12.9
Insurance Company Premiums	421.9	4.5	432.9	2.6	854.8	8.2
State Sales & Use Tax	5,097.3	3.6	5,229.8	2.6	10,327.1	18.4
Wills, Suits, Deeds, & Contract Fees	<u>454.4</u>	<u>4.0</u>	<u>472.6</u>	<u>4.0</u>	<u>926.9</u>	<u>(30.5)</u>
Total Major Tax Sources	\$ 28,839.7	6.6 %	\$ 29,790.0	3.3 %	\$ 58,629.7	12.6 %
MISCELLANEOUS TAXES AND OTHER REVENUES						
Alcoholic Beverage State Tax	\$ 284.1	2.2 %	\$ 287.8	1.3 %	\$ 571.9	11.2 %
Bank Franchise Tax	38.9	1.3	39.4	1.3	78.3	21.9
Beer & Beverage Excise Tax	41.6	1.3	42.1	1.3	83.7	2.0
Corporate Franchise & Charter Fees	80.5	1.3	81.5	1.3	162.0	16.7
Excess & Other Fees from Officers	(12.8)	1.3	(13.0)	1.3	(25.8)	(1.8)
Estate & Gifts	0.0	n/a	0.0	n/a	0.0	n/a
Institutional Revenues	2.5	1.3	2.5	1.3	5.0	7.6
Interest & Rents	126.0	1.3	127.6	1.3	253.6	58.2
Licenses & Permits	4.8	1.3	4.8	1.3	9.6	26.4
Miscellaneous Taxes and Penalties	283.9	(5.4)	287.5	1.3	571.4	7.9
Other Miscellaneous Revenues	35.2	1.3	35.6	1.3	70.8	(8.7)
Public Service GR / Consumption Tax	<u>107.3</u>	<u>1.3</u>	<u>108.7</u>	<u>1.3</u>	<u>215.9</u>	<u>6.0</u>
Total Misc. Taxes and Other Revenues	\$ 991.8	(0.5) %	\$ 1,004.7	1.3 %	\$ 1,996.5	13.6 %
TOTAL GF REVENUES	\$ 29,831.4	6.3 %	\$ 30,794.7	3.2 %	\$ 60,626.1	12.7 %
TRANSFERS						
A.B.C. Profits	\$ 113.8	(1.9) %	\$ 115.3	1.3 %	\$ 229.1	%
Sales Tax (0.375%)	609.8	3.7	625.7	2.6	1,235.5	26.0
Transfers Per Appropriations Act	<u>89.0</u>	<u>1.3</u>	<u>90.2</u>	<u>1.3</u>	<u>179.2</u>	<u>(28.7)</u>
Total Transfers	\$ 812.6	2.6 %	\$ 831.2	2.3 %	\$ 1,643.8	4.5 %
TOTAL GENERAL FUND	\$ 30,644.1	6.2 %	\$ 31,625.9	3.2 %	\$ 62,269.9	12.4 %

The November forecast is based on the October 2022 IHS Markit Standard Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE.

Table 3.3
The Official to November Optimistic General Fund Forecast for Fiscal Year 2023
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2023				
	Official	November	Change	% Growth Over FY22	
	Forecast	Forecast		Official	November
MAJOR TAX SOURCES					
Corporate Income	\$ 1,737.0	\$ 1,906.0	\$ 169.0	(13.6) %	(3.7) %
Individual Income Tax:					
Gross	20,533.5	21,281.8	748.3	(0.4)	(3.9)
Withholding	15,319.9	16,068.2	748.3	0.3	4.7
Nonwithholding	5,213.6	5,213.6	0.0	(2.5)	(23.4)
Refunds	<u>(3,800.9)</u>	<u>(3,360.2)</u>	<u>440.7</u>	<u>88.1</u>	<u>93.1</u>
Net	16,732.6	17,921.6	1,189.0	(10.0)	(12.2)
Insurance Company Premiums	406.1	415.0	8.9	(3.1)	(2.8)
State Sales & Use Tax	4,497.8	4,936.7	438.9	1.4	8.3
Wills, Suits, Deeds, & Contract Fees	<u>593.7</u>	<u>495.0</u>	<u>(98.7)</u>	<u>(8.8)</u>	<u>(24.3)</u>
Total Major Tax Sources	\$ 23,967.2	\$ 25,674.3	\$ 1,707.1	(8.2) %	(8.4) %
MISCELLANEOUS TAXES AND OTHER REVENUES					
Alcoholic Beverage State Tax	\$ 261.6	\$ 270.4	\$ 8.8	1.3 %	3.9 %
Bank Franchise Tax	26.8	37.9	11.1	0.0	1.3
Beer & Beverage Excise Tax	42.0	40.5	(1.5)	0.0	1.3
Corporate Franchise & Charter Fees	62.3	78.4	16.1	0.0	1.3
Excess & Other Fees from Officers	(9.3)	(12.5)	(3.2)	0.0	1.3
Estate & Gifts	0.0	0.0	0.0	n/a	n/a
Institutional Revenues	2.2	2.4	0.2	0.0	1.3
Interest & Rents	98.4	122.8	24.4	10.4 %	59.9
Licenses & Permits	2.9	4.6	1.7	0.0 %	1.3
Miscellaneous Taxes and Penalties	275.3	292.2	16.9	1.3 %	5.1
Other Miscellaneous Revenues	38.4	40.3	1.9	0.0 %	1.1
Public Service GR / Consumption Tax	<u>103.5</u>	<u>104.5</u>	<u>1.0</u>	<u>0.0 %</u>	<u>1.9</u>
Total Misc. Taxes and Other Revenues	\$ 904.1	\$ 981.6	\$ 77.5	1.8 %	8.2 %
TOTAL GF REVENUES	\$ 24,871.3	\$ 26,655.9	\$ 1,784.6	(7.9) %	(7.9) %
TRANSFERS					
A.B.C. Profits	\$ 112.1	\$ 131.4	\$ 19.3	(23.6) %	(19.3) %
Sales Tax (0.375%)	506.9	569.9	63.0	(5.1)	9.1
Transfers Per Appropriations Act	<u>95.7</u>	<u>86.9</u>	<u>(8.8)</u>	<u>(22.2)</u>	<u>(32.6)</u>
Total Transfers	\$ 714.7	\$ 788.2	\$ 73.5	(11.1) %	(3.2) %
TOTAL GENERAL FUND	\$ 25,586.0	\$ 27,444.1	\$ 1,858.1	(8.0) %	(7.7) %

The Official forecast is based on the October 2021 IHS Markit Standard Outlook and the corresponding Virginia state forecast developed by the Department of Taxation and incorporates actions of the General Assembly 2022 special session, Chapter 2.

The November forecast is based on the October 2022 IHS Markit Optimistic Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE.

Table 3.3
The Official to November Optimistic General Fund Forecast for Fiscal Year 2024
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2024					2022-2024 Biennium		
	Official Forecast	November Forecast	Change	% Growth Over FY23 Official November		Official Forecast	November Forecast	Change
MAJOR TAX SOURCES								
Corporate Income	\$ 1,784.9	\$ 1,822.7	\$ 37.8	2.8 %	(4.4) %	\$ 3,521.9	\$ 3,728.7	\$ 206.8
Individual Income Tax:								
Gross	21,348.5	21,722.7	374.2	4.0	2.1	41,882.0	43,004.5	1,122.5
Withholding	15,775.5	16,710.0	934.5	3.0	4.0	31,095.4	32,778.2	1,682.8
Nonwithholding	5,573.0	5,012.7	(560.3)	6.9	(3.9)	10,786.6	10,226.3	(560.3)
Refunds	<u>(2,289.9)</u>	<u>(2,049.4)</u>	<u>240.5</u>	<u>(39.8)</u>	<u>(39.0)</u>	<u>(6,090.8)</u>	<u>(5,409.6)</u>	<u>681.2</u>
Net	19,058.6	19,673.3	614.7	13.9	9.8	35,791.2	37,594.9	1,803.7
Insurance Company Premiums	425.3	394.3	(31.1)	4.7	(5.0)	831.4	809.3	(22.2)
State Sales & Use Tax	4,472.7	4,979.0	506.3	(0.6)	0.9	8,970.5	9,915.7	945.2
Wills, Suits, Deeds, & Contract Fees	<u>593.7</u>	<u>420.8</u>	<u>(173.0)</u>	<u>0.0</u>	<u>(15.0)</u>	<u>1,187.4</u>	<u>915.8</u>	<u>(271.7)</u>
Total Major Tax Sources	\$ 26,335.2	\$ 27,290.0	\$ 954.7	9.9 %	6.3 %	\$ 50,302.4	\$ 52,964.3	\$ 2,661.8
MISCELLANEOUS TAXES AND OTHER REVENUES								
Alcoholic Beverage State Tax	\$ 269.2	\$ 277.9	\$ 8.7	2.9 %	2.8 %	\$ 530.8	\$ 548.3	\$ 17.5
Bank Franchise Tax	26.8	38.4	11.6	0.0	1.3	53.6	76.3	22.7
Beer & Beverage Excise Tax	42.0	41.0	(1.0)	0.0	1.3	84.0	81.5	(2.5)
Corporate Franchise & Charter Fees	62.3	79.4	17.1	0.0	1.3	124.6	157.9	33.3
Excess & Other Fees from Officers	(9.3)	(12.6)	(3.3)	0.0	(1.3)	(18.6)	(25.1)	(6.5)
Estate & Gifts	0.0	0.0	0.0	n/a	n/a	0.0	0.0	n/a
Institutional Revenues	2.2	2.5	0.3	0.0	1.3	4.4	4.9	0.5
Interest & Rents	110.0	124.4	14.4	11.8	1.3	208.4	247.1	38.7
Licenses & Permits	2.9	4.7	1.8	0.0	1.3	5.8	9.3	3.5
Miscellaneous Taxes and Penalties	279.8	300.0	20.2	1.6	2.7	555.1	592.2	37.1
Other Miscellaneous Revenues	38.4	34.7	(3.7)	0.0	(13.8)	76.8	75.0	(1.8)
Public Service GR / Consumption Tax	<u>103.5</u>	<u>105.9</u>	<u>2.4</u>	<u>0.0</u>	<u>1.3</u>	<u>207.0</u>	<u>210.4</u>	<u>3.4</u>
Total Misc. Taxes and Other Revenues	\$ 927.8	\$ 996.3	\$ 68.5	2.6 %	1.5 %	\$ 1,831.9	\$ 1,977.9	\$ 146.0
TOTAL GF REVENUES	\$ 27,263.0	\$ 28,286.3	\$ 1,023.2	9.6 %	6.1 %	\$ 52,134.3	\$ 54,942.2	\$ 2,807.8
TRANSFERS								
A.B.C. Profits	\$ 116.0	\$ 116.0	\$ 0.0	3.5 %	(11.7) %	\$ 228.0	\$ 247.4	\$ 19.4
Sales Tax (0.375%)	521.5	590.2	68.7	2.9	3.6	1,028.4	1,160.1	131.7
Transfers Per Appropriations Act	<u>95.7</u>	<u>87.9</u>	<u>(7.8)</u>	<u>0.0</u>	<u>1.2</u>	<u>191.4</u>	<u>174.8</u>	<u>(16.6)</u>
Total Transfers	\$ 733.2	\$ 794.1	\$ 60.9	2.6 %	0.7 %	\$ 1,447.9	\$ 1,582.3	\$ 134.4
TOTAL GENERAL FUND	\$ 27,996.2	\$ 29,080.4	\$ 1,084.1	9.4 %	6.0 %	\$ 53,582.2	\$ 56,524.5	\$ 2,942.3

The Official forecast is based on the October 2021 IHS Markit Standard Outlook and the corresponding Virginia state forecast developed by the Department of Taxation and incorporates actions of the General Assembly 2022 special session, Chapter 2.

The November forecast is based on the October 2022 IHS Markit Optimistic Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE.

Table 3.3
The November Optimistic General Fund Forecast for Fiscal Years 2025-26
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2025		Fiscal Year 2026		2025-2026 Biennium	
	November Forecast	% Growth Over FY 24	November Forecast	% Growth Over FY 25	November Forecast	% Growth Over 22-24
MAJOR TAX SOURCES						
Corporate Income	\$ 2,013.9	10.5 %	\$ 2,095.7	4.1 %	\$ 4,109.6	17.6 %
Individual Income Tax:						
Gross	23,101.2	6.3	24,372.3	5.5	47,473.5	14.7
Withholding	17,736.1	6.1	18,729.3	5.6	36,465.4	24.2
Nonwithholding	5,365.1	7.0	5,643.0	5.2	11,008.1	(8.5)
Refunds	<u>(2,000.1)</u>	(2.4)	<u>(2,067.4)</u>	<u>3.4</u>	<u>(4,067.5)</u>	<u>10.9</u>
Net	21,101.1	7.3	22,304.9	5.7	43,406.0	15.1
Insurance Company Premiums	412.0	4.5	422.7	2.6	834.7	5.7
State Sales & Use Tax	5,182.5	4.1	5,393.7	4.1	10,576.1	21.2
Wills, Suits, Deeds, & Contract Fees	<u>448.1</u>	<u>6.5</u>	<u>466.0</u>	<u>4.0</u>	<u>914.1</u>	<u>(31.5)</u>
Total Major Tax Sources	\$ 29,157.5	6.8 %	\$ 30,683.1	5.2 %	\$ 59,840.6	15.0 %
MISCELLANEOUS TAXES AND OTHER REVENUES						
Alcoholic Beverage State Tax	\$ 284.1	2.2 %	\$ 287.8	1.3 %	\$ 571.9	11.2 %
Bank Franchise Tax	38.9	1.3	39.4	1.3	78.3	21.9
Beer & Beverage Excise Tax	41.6	1.3	42.1	1.3	83.7	2.0
Corporate Franchise & Charter Fees	80.5	1.3	81.5	1.3	162.0	16.7
Excess & Other Fees from Officers	(12.8)	1.3	(13.0)	1.3	(25.8)	(1.8)
Estate & Gifts	0.0	n/a	0.0	n/a	0.0	n/a
Institutional Revenues	2.5	1.3	2.5	1.3	5.0	7.6
Interest & Rents	126.0	1.3	127.6	1.3	253.6	58.2
Licenses & Permits	4.8	1.3	4.8	1.3	9.6	26.4
Miscellaneous Taxes and Penalties	283.9	(5.4)	287.5	1.3	571.4	7.9
Other Miscellaneous Revenues	35.2	1.3	35.6	1.3	70.8	(8.7)
Public Service GR / Consumption Tax	<u>107.3</u>	<u>1.3</u>	<u>108.7</u>	<u>1.3</u>	<u>215.9</u>	<u>6.0</u>
Total Misc. Taxes and Other Revenues	\$ 991.8	(0.5) %	\$ 1,004.7	1.3 %	\$ 1,996.5	13.6 %
TOTAL GF REVENUES	\$ 30,149.3	6.6 %	\$ 31,687.7	5.1 %	\$ 61,837.0	14.9 %
TRANSFERS						
A.B.C. Profits	\$ 113.8	(1.9) %	\$ 115.3	1.3 %	\$ 229.1	(32.8) %
Sales Tax (0.375%)	614.7	4.2	639.9	4.1	1,254.6	27.9
Transfers Per Appropriations Act	<u>89.0</u>	<u>1.3</u>	<u>90.2</u>	<u>1.3</u>	<u>179.2</u>	<u>(28.7)</u>
Total Transfers	\$ 817.5	3.0 %	\$ 845.4	3.4 %	\$ 1,662.9	5.7 %
TOTAL GENERAL FUND	\$ 30,966.8	6.5 %	\$ 32,533.1	5.1 %	\$ 63,499.9	14.6 %

The November forecast is based on the October 2022 IHS Markit Optimistic Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE.

Table 3.3
The Official to November Pessimistic General Fund Forecast for Fiscal Year 2023
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2023				
	Official	November	Change	% Growth Over FY22	
	Forecast	Forecast		Official	November
MAJOR TAX SOURCES					
Corporate Income	\$ 1,737.0	\$ 1,751.0	\$ 14.0	(13.6) %	(11.5) %
Individual Income Tax:					
Gross	20,533.5	20,596.8	63.3	(0.4)	(7.0)
Withholding	15,319.9	15,668.2	348.3	0.3	2.1
Nonwithholding	5,213.6	4,928.6	(285.0)	(2.5)	(27.6)
Refunds	<u>(3,800.9)</u>	<u>(3,535.2)</u>	<u>265.7</u>	<u>88.1</u>	<u>103.1</u>
Net	16,732.6	17,061.6	329.0	(10.0)	(16.4)
Insurance Company Premiums	406.1	415.0	8.9	(3.1)	(2.8)
State Sales & Use Tax	4,497.8	4,836.7	338.9	1.4	6.1
Wills, Suits, Deeds, & Contract Fees	<u>593.7</u>	<u>495.0</u>	<u>(98.7)</u>	<u>(8.8)</u>	<u>(24.3)</u>
Total Major Tax Sources	\$ 23,967.2	\$ 24,559.3	\$ 592.1	(8.2) %	(12.4) %
MISCELLANEOUS TAXES AND OTHER REVENUES					
Alcoholic Beverage State Tax	\$ 261.6	\$ 270.4	\$ 8.8	1.3 %	3.9 %
Bank Franchise Tax	26.8	37.9	11.1	0.0	1.3
Beer & Beverage Excise Tax	42.0	40.5	(1.5)	0.0	1.3
Corporate Franchise & Charter Fees	62.3	78.4	16.1	0.0	1.3
Excess & Other Fees from Officers	(9.3)	(12.5)	(3.2)	0.0	1.3
Estate & Gifts	0.0	0.0	0.0	n/a	n/a
Institutional Revenues	2.2	2.4	0.2	0.0	1.3
Interest & Rents	98.4	122.8	24.4	10.4 %	59.9
Licenses & Permits	2.9	4.6	1.7	0.0 %	1.3
Miscellaneous Taxes and Penalties	275.3	292.2	16.9	1.3 %	5.1
Other Miscellaneous Revenues	38.4	40.3	1.9	0.0 %	1.1
Public Service GR / Consumption Tax	<u>103.5</u>	<u>104.5</u>	<u>1.0</u>	<u>0.0 %</u>	<u>1.9</u>
Total Misc. Taxes and Other Revenues	\$ 904.1	\$ 981.6	\$ 77.5	1.8 %	8.2 %
TOTAL GF REVENUES	\$ 24,871.3	\$ 25,540.9	\$ 669.6	(7.9) %	(11.7) %
TRANSFERS					
A.B.C. Profits	\$ 112.1	\$ 131.4	\$ 19.3	(23.6) %	(19.3) %
Sales Tax (0.375%)	506.9	558.8	51.9	(5.1)	7.0
Transfers Per Appropriations Act	<u>95.7</u>	<u>86.9</u>	<u>(8.8)</u>	<u>(22.2)</u>	<u>(32.6)</u>
Total Transfers	\$ 714.7	\$ 777.1	\$ 62.4	(11.1) %	(4.6) %
TOTAL GENERAL FUND	\$ 25,586.0	\$ 26,318.0	\$ 732.0	(8.0) %	(11.5) %

The Official forecast is based on the October 2021 IHS Markit Standard Outlook and the corresponding Virginia state forecast developed by the Department of Taxation and incorporates actions of the General Assembly 2022 special session, Chapter 2.

The November forecast is based on the October 2022 IHS Markit Pessimistic Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE.

Table 3.3
The Official to November Pessimistic General Fund Forecast for Fiscal Year 2024
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2024					2022-2024 Biennium		
	Official Forecast	November Forecast	Change	% Growth Over FY23 Official November		Official Forecast	November Forecast	Change
MAJOR TAX SOURCES								
Corporate Income	\$ 1,784.9	\$ 1,639.4	\$ (145.5)	2.8 %	(6.4) %	\$ 3,521.9	\$ 3,390.4	\$ (131.5)
Individual Income Tax:								
Gross	21,348.5	20,356.5	(992.0)	4.0	(1.2)	41,882.0	40,953.3	(928.7)
Withholding	15,775.5	16,165.0	389.5	3.0	3.2	31,095.4	31,833.2	737.8
Nonwithholding	5,573.0	4,191.4	(1,381.6)	6.9	(15.0)	10,786.6	9,120.0	(1,666.6)
Refunds	<u>(2,289.9)</u>	<u>(2,272.2)</u>	<u>17.7</u>	<u>(39.8)</u>	<u>(35.7)</u>	<u>(6,090.8)</u>	<u>(5,807.4)</u>	<u>283.4</u>
Net	19,058.6	18,084.3	(974.3)	13.9	6.0	35,791.2	35,145.9	(645.3)
Insurance Company Premiums	425.3	394.3	(31.1)	4.7	(5.0)	831.4	809.3	(22.2)
State Sales & Use Tax	4,472.7	4,815.6	342.9	(0.6)	(0.4)	8,970.5	9,652.3	681.8
Wills, Suits, Deeds, & Contract Fees	<u>593.7</u>	<u>420.8</u>	<u>(173.0)</u>	<u>0.0</u>	<u>(15.0)</u>	<u>1,187.4</u>	<u>915.8</u>	<u>(271.7)</u>
Total Major Tax Sources	\$ 26,335.2	\$ 25,354.3	\$ (981.0)	9.9 %	3.2 %	\$ 50,302.4	\$ 49,913.6	\$ (388.9)
MISCELLANEOUS TAXES AND OTHER REVENUES								
Alcoholic Beverage State Tax	\$ 269.2	\$ 277.9	\$ 8.7	2.9 %	2.8 %	\$ 530.8	\$ 548.3	\$ 17.5
Bank Franchise Tax	26.8	38.4	11.6	0.0	1.3	53.6	76.3	22.7
Beer & Beverage Excise Tax	42.0	41.0	(1.0)	0.0	1.3	84.0	81.5	(2.5)
Corporate Franchise & Charter Fees	62.3	79.4	17.1	0.0	1.3	124.6	157.9	33.3
Excess & Other Fees from Officers	(9.3)	(12.6)	(3.3)	0.0	(1.3)	(18.6)	(25.1)	(6.5)
Estate & Gifts	0.0	0.0	0.0	n/a	n/a	0.0	0.0	n/a
Institutional Revenues	2.2	2.5	0.3	0.0	1.3	4.4	4.9	0.5
Interest & Rents	110.0	124.4	14.4	11.8	1.3	208.4	247.1	38.7
Licenses & Permits	2.9	4.7	1.8	0.0	1.3	5.8	9.3	3.5
Miscellaneous Taxes and Penalties	279.8	300.0	20.2	1.6	2.7	555.1	592.2	37.1
Other Miscellaneous Revenues	38.4	34.7	(3.7)	0.0	(13.8)	76.8	75.0	(1.8)
Public Service GR / Consumption Tax	<u>103.5</u>	<u>105.9</u>	<u>2.4</u>	<u>0.0</u>	<u>1.3</u>	<u>207.0</u>	<u>210.4</u>	<u>3.4</u>
Total Misc. Taxes and Other Revenues	\$ 927.8	\$ 996.3	\$ 68.5	2.6 %	1.5 %	\$ 1,831.9	\$ 1,977.9	\$ 146.0
TOTAL GF REVENUES	\$ 27,263.0	\$ 26,350.6	\$ (912.5)	9.6 %	3.2 %	\$ 52,134.3	\$ 51,891.5	\$ (242.9)
TRANSFERS								
A.B.C. Profits	\$ 116.0	\$ 116.0	\$ 0.0	3.5 %	(11.7) %	\$ 228.0	\$ 247.4	\$ 19.4
Sales Tax (0.375%)	521.5	572.3	50.8	2.9	2.4	1,028.4	1,131.1	102.7
Transfers Per Appropriations Act	<u>95.7</u>	<u>87.9</u>	<u>(7.8)</u>	<u>0.0</u>	<u>1.2</u>	<u>191.4</u>	<u>174.8</u>	<u>(16.6)</u>
Total Transfers	\$ 733.2	\$ 776.2	\$ 43.0	2.6 %	(0.1) %	\$ 1,447.9	\$ 1,553.3	\$ 105.4
TOTAL GENERAL FUND	\$ 27,996.2	\$ 27,126.8	\$ (869.5)	9.4 %	3.1 %	\$ 53,582.2	\$ 53,444.8	\$ (137.4)

The Official forecast is based on the October 2021 IHS Markit Standard Outlook and the corresponding Virginia state forecast developed by the Department of Taxation and incorporates actions of the General Assembly 2022 special session, Chapter 2.

The November forecast is based on the October 2022 IHS Markit Pessimistic Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE.

Table 3.3
The November Pessimistic General Fund Forecast for Fiscal Years 2025-26
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2025		Fiscal Year 2026		2025-2026 Biennium	
	November Forecast	% Growth Over FY 24	November Forecast	% Growth Over FY 25	November Forecast	% Growth Over 22-24
MAJOR TAX SOURCES						
Corporate Income	\$ 1,845.8	12.6 %	\$ 1,953.7	5.8 %	\$ 3,799.5	8.7 %
Individual Income Tax:						
Gross	21,310.7	4.7	22,265.3	4.5	43,576.0	5.3
Withholding	16,824.3	4.1	17,506.9	4.1	34,331.2	17.0
Nonwithholding	4,486.3	7.0	4,758.5	6.1	9,244.8	(23.1)
Refunds	<u>(2,272.7)</u>	0.0	<u>(2,349.7)</u>	<u>3.4</u>	<u>(4,622.4)</u>	<u>26.1</u>
Net	19,038.0	5.3	19,915.7	4.6	38,953.6	3.3
Insurance Company Premiums	412.0	4.5	422.7	2.6	834.7	5.7
State Sales & Use Tax	4,987.1	3.6	5,190.5	4.1	10,177.6	16.7
Wills, Suits, Deeds, & Contract Fees	<u>448.1</u>	<u>6.5</u>	<u>466.0</u>	<u>4.0</u>	<u>914.1</u>	<u>(31.5)</u>
Total Major Tax Sources	\$ 26,731.0	5.4 %	\$ 27,948.6	4.6 %	\$ 54,679.6	5.0 %
MISCELLANEOUS TAXES AND OTHER REVENUES						
Alcoholic Beverage State Tax	\$ 284.1	2.2 %	\$ 287.8	1.3 %	\$ 571.9	11.2 %
Bank Franchise Tax	38.9	1.3	39.4	1.3	78.3	21.9
Beer & Beverage Excise Tax	41.6	1.3	42.1	1.3	83.7	2.0
Corporate Franchise & Charter Fees	80.5	1.3	81.5	1.3	162.0	16.7
Excess & Other Fees from Officers	(12.8)	1.3	(13.0)	1.3	(25.8)	(1.8)
Estate & Gifts	0.0	n/a	0.0	n/a	0.0	n/a
Institutional Revenues	2.5	1.3	2.5	1.3	5.0	7.6
Interest & Rents	126.0	1.3	127.6	1.3	253.6	58.2
Licenses & Permits	4.8	1.3	4.8	1.3	9.6	26.4
Miscellaneous Taxes and Penalties	283.9	(5.4)	287.5	1.3	571.4	7.9
Other Miscellaneous Revenues	35.2	1.3	35.6	1.3	70.8	(8.7)
Public Service GR / Consumption Tax	<u>107.3</u>	<u>1.3</u>	<u>108.7</u>	<u>1.3</u>	<u>215.9</u>	<u>6.0</u>
Total Misc. Taxes and Other Revenues	\$ 991.8	(0.5) %	\$ 1,004.7	1.3 %	\$ 1,996.5	13.6 %
TOTAL GF REVENUES	\$ 27,722.7	5.2 %	\$ 28,953.3	4.4 %	\$ 56,676.0	5.3 %
TRANSFERS						
A.B.C. Profits	\$ 113.8	(1.9) %	\$ 115.3	1.3 %	\$ 229.1	(32.8) %
Sales Tax (0.375%)	593.2	3.7	617.5	4.1	1,210.7	23.4
Transfers Per Appropriations Act	<u>89.0</u>	<u>1.3</u>	<u>90.2</u>	<u>1.3</u>	<u>179.2</u>	<u>(28.7)</u>
Total Transfers	\$ 796.0	2.6 %	\$ 823.0	3.4 %	\$ 1,619.0	2.9 %
TOTAL GENERAL FUND	\$ 28,518.8	5.1 %	\$ 29,776.3	4.4 %	\$ 58,295.0	5.3 %

The November forecast is based on the October 2022 IHS Markit Pessimistic Outlook and the corresponding Virginia state forecast developed by the Department of Taxation with recommendations from JABE.

Section 4 Non-General Fund Revenues

Transportation Revenues

2020 House Bill 1414 and Senate Bill 890 (Chapters 1230 and 1275 of the 2020 *Acts of Assembly*) directed most transportation revenues to a new Commonwealth Transportation Fund. In addition to the financial structural changes made to the Commonwealth's transportation funding system, several changes were made to the funding mechanisms: the motor fuels tax was converted to a cents-per-gallon tax, the base registration fee was reduced, and a highway use fee for alternative fuel and fuel-efficient vehicles were implemented in Fiscal Year 2021.

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 Motor Vehicle Sales and Use Tax,
- Licensing fees,
- A portion of the state Retail Sales and Use Tax,
- 3.0 cents of the state Recordation Tax,
- One-third of the state Insurance Premiums License 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.

Fiscal Year 2022 in Review

Table 4.1 on the following page compares actual collections in Fiscal Year 2022 to the official forecast for the Commonwealth Transportation Fund. Total transportation revenues totaled close to \$4.6 billion, an increase of \$457.5 million over last year. Revenue collections grew by 11.1 percent, slightly lagging the official forecast of 11.9 percent, resulting in a forecast variance of -0.7 percent.

The economic rebound following the depths of the COVID-19 slowdown, along with funds from the federal stimulus programs, boosted growth in the Commonwealth Transportation Fund, particularly in retail sales tax collections. In addition, increases in the tax rate for motor fuels resulted in strong growth in motor fuels tax collections.

Table 4.1
Commonwealth Transportation Fund
Actual Collections Compared to the Official Forecast for Fiscal Year 2022
(Millions of Dollars)

Revenue Sources	FY2021 Actual	FY2022 Actual	FY2022 Forecast	Percent Change 2021-2022		Forecast Variance	
				Actual	Forecast	Amount	Percent
Motor Fuels Tax	971.9	1,215.3	1,282.4	25.0	31.9	(67.1)	(5.2)
Road Use Tax	55.0	71.2	68.2	29.5	24.0	3.0	4.4
Vehicle Sales Tax	1,110.6	1,200.2	1,174.0	8.1	5.7	26.2	2.2
Vehicle Licenses	241.7	231.0	234.8	(4.4)	(2.9)	(3.8)	(1.6)
Highway User Fee	42.7	53.8	52.4	26.0	22.7	1.4	2.7
State Sales Tax	1,264.1	1,368.3	1,355.1	8.2	7.2	13.2	1.0
Recordation Tax	83.8	81.6	88.8	(2.6)	6.0	(7.2)	(8.1)
Insurance Premiums Tax	181.4	180.7	180.7	(0.4)	(0.4)	0.0	0.0
Int'l Registration Plan	121.4	118.7	124.3	(2.2)	2.4	(5.6)	(4.5)
Interest Earnings	5.9	1.7	5.7	(71.2)	(3.4)	(4.0)	(70.2)
Rental Tax	34.3	48.8	40.7	42.3	18.7	8.1	19.9
Aviation Fuels Tax	1.0	1.5	2.0	50.0	100.0	(0.5)	(25.0)
Miscellaneous	19.8	21.3	17.2	7.6	(13.1)	4.1	23.8
TOTAL	\$4,133.6	\$4,594.1	\$4,626.3	11.1	11.9	(32.2)	(0.7)

Outlook for Key Tax Base Variables

Motor Fuel Consumption

Table 4.2 on the next page shows that gasoline consumption increased by 6.0 percent while diesel fuel consumption experienced a marginal 0.7 percent decline in Fiscal Year 2022 as many workers returned to their offices and business and leisure travel expanded. Despite the solid growth in Fiscal Year 2022, motor fuels consumption remains 3.5 percent below pre-pandemic levels.

U.S. gasoline consumption in 2022 is expected to average 8.8 million barrels per day, down 40,000 b/d from 2021, and it is expected to stay near that level in 2023, with rising fuel efficiency offsetting price- and economy-driven increases in transportation demand.

Higher motor fuels costs are not expected to substantially affect vehicle miles traveled over the short-term; however, the longer that fuel prices stay elevated, vehicle miles traveled will see a negative impact. A Congressional Budget Office analysis of vehicle miles traveled (VMT) during the recession of 2007-2008 confirmed that higher gas prices have a more significant impact on vmt the longer they remain elevated. The Energy Information Administration forecasts that prices for regular gasoline will average \$4.05 per gallon for 2022 and \$3.57 per gallon in 2023. Those figures were \$2.18 per gallon and \$3.02 per gallon in 2020 and 2021, respectively.

	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
Taxable Gallons - Gasoline				
Official	(5.9)	6.0	0.1	(0.6)
Standard			3.2	0.4
Alternative			(4.2)	(1.1)
Taxable Gallons - Diesel				
Official	14.8	(0.7)	1.4	0.5
Standard			(0.5)	(1.6)
Alternative			(1.4)	(3.4)

Vehicle Sales

New car sales fell by 13.7 percent and used car sales were flat in Fiscal Year 2022. Table 4.3 on the following page shows the official and November 2022 forecasts for new and used vehicles. The discussion of the vehicle sales outlook is divided into two sections: new taxable titles and used taxable titles.

New Taxable Titles: In Fiscal Year 2022, 343,800 new vehicles were titled in Virginia, a decline of over 54,000 units from Fiscal Year 2021.

Forecasters lowered their expectations for 2022 U.S. auto sales yet again, to just 13.7 million new cars and trucks versus 15 million in 2021 (a 9 percent decrease), and 17.1 million in pre-COVID 2019 (a nearly 20 percent decrease). The ongoing computer chip shortage and other supply-chain problems, which often have the COVID-19 pandemic as a root cause, get much of the blame, along with disruptions caused by the war in Ukraine, and higher interest rates.

The inventory shortages have resulted in price increases that have not been experienced in a generation. In Virginia, new vehicle prices rose 15.8 percent. Prices are expected to remain at record highs over the coming months. Typically, dealers offer incentives to move units of the preceding model year. With no backlog of unsold cars and trucks because of earlier COVID shutdowns and the chip shortage, there's little or no pressure

to offer discounts. Automakers have promised to keep leaner inventories in the future to boost vehicle profits and prices.

Used Taxable Titles: 1,140,800 used cars were sold in Virginia in Fiscal Year 2022, about the same as were sold in Fiscal Year 2021. Inventory shortages for new vehicles boosted demand for used vehicles that resulted in a price spike. In Virginia, used car prices rose by 19.3 percent. The average price of a used car purchased in Virginia has increased by over 43 percent from pre-pandemic prices.

As new-car inventory begins to stabilize, J.D. Power forecasts that used-vehicle values will begin their descent to more normal levels by late 2022 and into 2023. According to an Automotive News report from December 2021, consulting firm KPMG predicts a dramatic dip in used-vehicle prices will precede the stabilization of new-vehicle inventory. The firm reportedly expects used car prices to drop 20 percent to -30 percent sometime in the months after October 2022.

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.

	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
New Taxable Titles				
Official	7.8	(13.7)	5.7	(0.7)
Standard			(3.8)	(2.2)
Alternative			(6.7)	(4.8)
Used Taxable Titles				
Official	8.7	(0.1)	(2.1)	(3.2)
Standard			(4.2)	(3.9)
Alternative			(1.6)	(6.8)

November 2021 Standard Commonwealth Transportation Fund Forecast

Table 4.4 on the following pages presents a comparison of the November 2022 standard forecast to the official revenue forecast.

The November 2022 standard forecast shows an increase of \$70.1 million and \$124.7 million in Fiscal Years 2023 and 2024, respectively.

Table 4.4
The Official and November Standard Commonwealth Transportation Fund Forecast for Fiscal Year 2023
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2022		Fiscal Year 2023				
	Forecast	% Growth	Official Forecast	November Forecast	Change	% Growth over FY 22	
			Official	November		Official	November
Commonwealth Transportation Fund							
Motor Fuels Tax	\$ 1,215.3	25.0 %	\$ 1,360.7	\$ 1,407.7	\$ 47.0	12.0 %	15.8 %
Road Tax	71.2	29.5	69.2	71.4	2.2	(2.8)	0.3
Aviation Fuels Tax	1.5	50.0	2.0	2.0	0.0	33.3	33.3
Motor Vehicle Sales and Use Tax	1,200.2	8.1	1,155.1	1,141.8	(13.3)	(3.8)	(4.9)
Motor Vehicle Rental Tax(1)	48.8	42.3	42.9	52.3	9.4	(12.1)	7.2
Motor Vehicle License Fees	231.0	(4.4)	236.6	200.7	(35.9)	2.4	(13.1)
Highway User Fee	53.8	26.0	59.7	61.3	1.6	11.0	13.9
International Registration Plan	118.7	(2.2)	124.2	119.2	(5.0)	4.6	0.4
Retail Sales and Use Tax	1,368.3	8.2	1,349.2	1,428.2	79.0	(1.4)	4.4
Recordation Tax (3 cents)	81.6	(2.6)	81.0	61.7	(19.3)	(0.7)	(24.4)
Insurance Premiums Tax (1/3)	180.7	(0.4)	196.0	202.5	6.5	8.5	12.1
Interest Earnings	1.7	(71.2)	5.7	3.2	(2.5)	235.3	88.2
Miscellaneous	21.3	7.6	17.2	17.6	0.4	(19.2)	(17.4)
Total State Taxes and Fees	\$ 4,594.1	11.1 %	\$ 4,699.5	\$ 4,769.6	\$ 70.1	2.3 %	3.8 %

The Official forecast is based on the October 2021 IHS Markit Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation adjusted for actions of the 2022 session of the General Assembly.

The November forecast is based on the October 2022 IHS Markit Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation and adjusted per the recommendations of the Joint Advisory Board of Economists.

(1) Consistent with pages 4 and 5 of the monthly 10-page revenue report, includes distributions to Fund 04000 Commonwealth Transportation Fund and Fund 09830 WMATA Capital Fund.

Table 4.4
The Official and November Standard Commonwealth Transportation Fund Forecast for Fiscal Year 2024
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2024					
	Official Forecast	November Forecast	Change	% Growth over FY 23		
				Official	November	
Commonwealth Transportation Fund						
Motor Fuels Tax	\$ 1,380.7	\$ 1,499.5	\$ 118.8	1.5 %	6.5 %	
Road Tax	69.5	71.2	1.7	0.4	(0.3)	
Aviation Fuels Tax	2.0	2.0	0.0	0.0	0.0	
Motor Vehicle Sales and Use Tax	1,119.4	1,078.2	(41.2)	(3.1)	(5.6)	
Motor Vehicle Rental Tax(1)	43.6	51.9	8.3	1.6	(0.8)	
Motor Vehicle License Fees	240.3	218.4	(21.9)	1.6	8.8	
Highway User Fee	62.7	64.4	1.7	5.0	5.0	
International Registration Plan	122.6	118.2	(4.4)	(1.3)	(0.8)	
Retail Sales and Use Tax	1,313.9	1,395.6	81.7	(2.6)	(2.3)	
Recordation Tax (3 cents)	81.0	52.4	(28.6)	0.0	(15.1)	
Insurance Premiums Tax (1/3)	203.8	214.5	10.7	4.0	5.9	
Interest Earnings	5.7	3.2	(2.5)	0.0	0.0	
Miscellaneous	<u>17.2</u>	<u>17.6</u>	<u>0.4</u>	<u>0.0</u>	<u>0.0</u>	
Total State Taxes and Fees	\$ <u>4,662.4</u>	\$ <u>4,787.1</u>	\$ <u>124.7</u>	<u>(0.8)</u> %	<u>0.4</u> %	

The Official forecast is based on the October 2021 IHS Markit Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation adjusted for actions of the 2022 session of the General Assembly.

The November forecast is based on the October 2022 IHS Markit Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation and adjusted per the recommendations of the Joint Advisory Board of Economists.

(1) Consistent with pages 4 and 5 of the monthly 10-page revenue report, includes distributions to Fund 04000 Commonwealth Transportation Fund and Fund 09830 WMATA Capital Fund.

Table 4.4
The Official and November Standard Commonwealth Transportation Fund Forecast for Fiscal Year 2025
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2025					
	Official	November			% Growth over FY 24	
	Forecast	Forecast	Change	Official	November	
Commonwealth Transportation Fund						
Motor Fuels Tax	\$ 1,392.5	\$ 1,561.2	\$ 168.7	0.9 %	4.1 %	
Road Tax	69.4	72.0	2.6	(0.1)	1.1	
Aviation Fuels Tax	2.0	2.0	0.0	0.0	0.0	
Motor Vehicle Sales and Use Tax	1,128.9	1,218.2	89.3	0.8	13.0	
Motor Vehicle Rental Tax(1)	44.4	51.3	6.9	1.8	(1.2)	
Motor Vehicle License Fees	241.3	219.5	(21.8)	0.4	0.5	
Highway User Fee	66.5	66.3	(0.2)	6.1	3.0	
International Registration Plan	119.6	119.6	0.0	(2.4)	1.2	
Retail Sales and Use Tax	1,346.8	1,445.9	99.1	2.5	3.6	
Recordation Tax (3 cents)	81.0	54.5	(26.5)	0.0	4.0	
Insurance Premiums Tax (1/3)	212.8	223.5	10.7	4.4	4.2	
Interest Earnings	5.7	3.2	(2.5)	0.0	0.0	
Miscellaneous	<u>17.2</u>	<u>17.6</u>	<u>0.4</u>	<u>0.0</u>	<u>0.0</u>	
Total State Taxes and Fees	\$ <u>4,728.1</u>	\$ <u>5,054.8</u>	\$ <u>326.7</u>	<u>1.4</u> %	<u>5.6</u> %	

The Official forecast is based on the October 2021 IHS Markit Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation adjusted for actions of the 2022 session of the General Assembly.

The November forecast is based on the October 2022 IHS Markit Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation and adjusted per the recommendations of the Joint Advisory Board of Economists.

(1) Consistent with pages 4 and 5 of the monthly 10-page revenue report, includes distributions to Fund 04000 Commonwealth Transportation Fund and Fund 09830 WMATA Capital Fund.

Table 4.4
The Official and November Standard Commonwealth Transportation Fund Forecast for Fiscal Year 2026
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2026				
	Official Forecast	November Forecast	Change	% Growth over FY 25	
				Official	November
Commonwealth Transportation Fund					
Motor Fuels Tax	\$ 1,405.2	\$ 1,611.7	\$ 206.5	0.9 %	3.2 %
Road Tax	69.0	72.7	3.7	(0.6)	1.0
Aviation Fuels Tax	2.0	2.0	0.0	0.0	0.0
Motor Vehicle Sales and Use Tax	1,124.2	1,249.6	125.4	(0.4)	2.6
Motor Vehicle Rental Tax(1)	45.2	51.3	6.1	1.8	0.0
Motor Vehicle License Fees	242.5	221.4	(21.1)	0.5	0.9
Highway User Fee	66.5	68.3	1.8	0.0	3.0
International Registration Plan	120.0	120.0	0.0	0.3	0.3
Retail Sales and Use Tax	1,355.2	1,483.6	128.4	0.6	2.6
Recordation Tax (3 cents)	81.0	56.7	(24.3)	0.0	4.0
Insurance Premiums Tax (1/3)	222.8	235.2	12.4	4.7	5.2
Interest Earnings	5.7	3.2	(2.5)	0.0	0.0
Miscellaneous	<u>17.2</u>	<u>17.6</u>	<u>0.4</u>	<u>0.0</u>	<u>0.0</u>
Total State Taxes and Fees	\$ <u>4,756.5</u>	\$ <u>5,193.3</u>	\$ <u>436.8</u>	<u>0.6</u> %	<u>2.7</u> %

The Official forecast is based on the October 2021 IHS Markit Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation adjusted for actions of the 2022 session of the General Assembly.

The November forecast is based on the October 2022 IHS Markit Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation and adjusted per the recommendations of the Joint Advisory Board of Economists.

(1) Consistent with pages 4 and 5 of the monthly 10-page revenue report, includes distributions to Fund 04000 Commonwealth Transportation Fund and Fund 09830 WMATA Capital Fund.

Alternative Forecast

Table 4.5 on the following pages compares the November 2022 alternative and official Commonwealth Transportation Fund forecasts. Under the alternative forecast, total transportation fund revenues are \$50.0 million lower in Fiscal Year 2023 and \$122.5 million lower in Fiscal Year 2024.

This forecast is based on IHS Markit October 2022 alternative pessimistic forecast and the corresponding Virginia state forecast.

Table 4.5
The Official and November Alternative Commonwealth Transportation Fund Forecast for Fiscal Year 2023
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2022		Fiscal Year 2023					
	Forecast	% Growth	Official Forecast	November Forecast	Change	% Growth over FY 22 Official November		
Commonwealth Transportation Fund								
Motor Fuels Tax	\$ 1,215.3	25.0 %	\$ 1,360.7	\$ 1,324.4	\$ (36.3)	12.0 %	9.0 %	
Road Tax	71.2	29.5	69.2	71.4	2.2	(2.8)	0.3	
Aviation Fuels Tax	1.5	50.0	2.0	2.0	0.0	33.3	33.3	
Motor Vehicle Sales and Use Tax	1,200.2	8.1	1,155.1	1,125.3	(29.8)	(3.8)	(6.2)	
Motor Vehicle Rental Tax(1)	48.8	42.3	42.9	52.3	9.4	(12.1)	7.2	
Motor Vehicle License Fees	231.0	(4.4)	236.6	200.7	(35.9)	2.4	(13.1)	
Highway User Fee	53.8	26.0	59.7	61.3	1.6	11.0	13.9	
International Registration Plan	118.7	(2.2)	124.2	119.2	(5.0)	4.6	0.4	
Retail Sales and Use Tax	1,368.3	8.2	1,349.2	1,407.9	58.7	(1.4)	2.9	
Recordation Tax (3 cents)	81.6	(2.6)	81.0	61.7	(19.3)	(0.7)	(24.4)	
Insurance Premiums Tax (1/3)	180.7	(0.4)	196.0	202.5	6.5	8.5	12.1	
Interest Earnings	1.7	(71.2)	5.7	3.2	(2.5)	235.3	88.2	
Miscellaneous	21.3	7.6	17.2	17.6	0.4	(19.2)	(17.4)	
Total State Taxes and Fees	\$ 4,594.1	11.1 %	\$ 4,699.5	\$ 4,649.5	\$ (50.0)	2.3 %	1.2 %	

The Official forecast is based on the October 2021 IHS Markit Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation adjusted for actions of the 2022 session of the General Assembly.
The November forecast is based on the October 2022 IHS Markit Alternative outlook and the corresponding Virginia state forecast developed by the Department of Taxation.
(1) Consistent with pages 4 and 5 of the monthly 10-page revenue report, includes distributions to Fund 04000 Commonwealth Transportation Fund and Fund 09830 WMATA Capital Fund.

Table 4.5
The Official and November Alternative Commonwealth Transportation Fund Forecast for Fiscal Year 2024
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2024			% Growth over FY 23	
	Official Forecast	November Forecast	Change	Official	November
Commonwealth Transportation Fund					
Motor Fuels Tax	\$ 1,380.7	\$ 1,388.3	\$ 7.6	1.5 %	4.8 %
Road Tax	69.5	71.2	1.7	0.4	(0.3)
Aviation Fuels Tax	2.0	2.0	0.0	0.0	0.0
Motor Vehicle Sales and Use Tax	1,119.4	1,009.1	(110.3)	(3.1)	(10.3)
Motor Vehicle Rental Tax(1)	43.6	51.9	8.3	1.6	(0.8)
Motor Vehicle License Fees	240.3	218.4	(21.9)	1.6	8.8
Highway User Fee	62.7	64.4	1.7	5.0	5.0
International Registration Plan	122.6	118.2	(4.4)	(1.3)	(0.8)
Retail Sales and Use Tax	1,313.9	1,328.7	14.8	(2.6)	(5.6)
Recordation Tax (3 cents)	81.0	52.4	(28.6)	0.0	(15.1)
Insurance Premiums Tax (1/3)	203.8	214.5	10.7	4.0	5.9
Interest Earnings	5.7	3.2	(2.5)	0.0	0.0
Miscellaneous	<u>17.2</u>	<u>17.6</u>	<u>0.4</u>	<u>0.0</u>	<u>0.0</u>
Total State Taxes and Fees	\$ <u>4,662.4</u>	\$ <u>4,539.9</u>	\$ <u>(122.5)</u>	<u>(0.8)</u> %	<u>(2.4)</u> %

The Official forecast is based on the October 2021 IHS Markit Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation adjusted for actions of the 2022 session of the General Assembly.
The November forecast is based on the October 2022 IHS Markit Alternative outlook and the corresponding Virginia state forecast developed by the Department of Taxation.
(1) Consistent with pages 4 and 5 of the monthly 10-page revenue report, includes distributions to Fund 04000 Commonwealth Transportation Fund and Fund 09830 WMATA Capital Fund.

Table 4.5
The Official and November Alternative Commonwealth Transportation Fund Forecast for Fiscal Year 2025
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2025			% Growth over FY 24	
	Official Forecast	November Forecast	Change	Official	November
Commonwealth Transportation Fund					
Motor Fuels Tax	\$ 1,392.5	\$ 1,427.4	\$ 34.9	0.9 %	2.8 %
Road Tax	69.4	72.0	2.6	(0.1)	1.1
Aviation Fuels Tax	2.0	2.0	0.0	0.0	0.0
Motor Vehicle Sales and Use Tax	1,128.9	1,055.9	(73.0)	0.8	4.6
Motor Vehicle Rental Tax(1)	44.4	51.3	6.9	1.8	(1.2)
Motor Vehicle License Fees	241.3	219.5	(21.8)	0.4	0.5
Highway User Fee	66.5	66.3	(0.2)	6.1	3.0
International Registration Plan	119.6	119.6	0.0	(2.4)	1.2
Retail Sales and Use Tax	1,346.8	1,376.0	29.2	2.5	3.6
Recordation Tax (3 cents)	81.0	54.5	(26.5)	0.0	4.0
Insurance Premiums Tax (1/3)	212.8	223.5	10.7	4.4	4.2
Interest Earnings	5.7	3.2	(2.5)	0.0	0.0
Miscellaneous	<u>17.2</u>	<u>17.6</u>	<u>0.4</u>	<u>0.0</u>	<u>0.0</u>
Total State Taxes and Fees	\$ <u>4,728.1</u>	\$ <u>4,688.8</u>	\$ <u>(39.3)</u>	<u>1.4</u> %	<u>3.3</u> %

The Official forecast is based on the October 2021 IHS Markit Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation adjusted for actions of the 2022 session of the General Assembly.
The November forecast is based on the October 2022 IHS Markit Alternative outlook and the corresponding Virginia state forecast developed by the Department of Taxation.
(1) Consistent with pages 4 and 5 of the monthly 10-page revenue report, includes distributions to Fund 04000 Commonwealth Transportation Fund and Fund 09830 WMATA Capital Fund.

Table 4.5
The Official and November Alternative Commonwealth Transportation Fund Forecast for Fiscal Year 2026
(Dollars in Millions)

November 21, 2022

	Fiscal Year 2026				
	Official Forecast	November Forecast	Change	% Growth over FY 25 Official	November
Commonwealth Transportation Fund					
Motor Fuels Tax	\$ 1,405.2	\$ 1,478.5	\$ 73.3	0.9 %	3.6 %
Road Tax	69.0	72.7	3.7	(0.6)	1.0
Aviation Fuels Tax	2.0	2.0	0.0	0.0	0.0
Motor Vehicle Sales and Use Tax	1,124.2	1,127.6	3.4	(0.4)	6.8
Motor Vehicle Rental Tax(1)	45.2	51.3	6.1	1.8	0.0
Motor Vehicle License Fees	242.5	221.4	(21.1)	0.5	0.9
Highway User Fee	66.5	68.3	1.8	0.0	3.0
International Registration Plan	120.0	120.0	0.0	0.3	0.3
Retail Sales and Use Tax	1,355.2	1,432.1	76.9	0.6	4.1
Recordation Tax (3 cents)	81.0	56.7	(24.3)	0.0	4.0
Insurance Premiums Tax (1/3)	222.8	235.2	12.4	4.7	5.2
Interest Earnings	5.7	3.2	(2.5)	0.0	0.0
Miscellaneous	<u>17.2</u>	<u>17.6</u>	<u>0.4</u>	<u>0.0</u>	<u>0.0</u>
Total State Taxes and Fees	\$ <u>4,756.5</u>	\$ <u>4,886.6</u>	\$ <u>130.1</u>	<u>0.6</u> %	<u>4.2</u> %

The Official forecast is based on the October 2021 IHS Markit Standard outlook and the corresponding Virginia state forecast developed by the Department of Taxation adjusted for actions of the 2022 session of the General Assembly.

The November forecast is based on the October 2022 IHS Markit Alternative outlook and the corresponding Virginia state forecast developed by the Department of Taxation.

(1) Consistent with pages 4 and 5 of the monthly 10-page revenue report, includes distributions to Fund 04000 Commonwealth Transportation Fund and Fund 09830 WMATA Capital Fund.

ABC Revenues and Profits Fiscal Year 2022

In Fiscal Year 2022, ABC's total revenue, excluding state tax receipts, was \$1,173.1 million. Gross sales of alcoholic beverages in the retail stores accounted for 97.3 percent of the revenue. The remaining 2.7 percent of revenue was generated largely through the Authority's regulatory and licensing activities. Table 4.6 shows ABC's revenues, costs, and profits for Fiscal Years 2019 through 2022. Along with the net ABC profits, Table 4.6 also shows transfers required by the Acts of the Assembly and net profits for distribution transferred to the General Fund.

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Total Revenue*	902.7	1,001.4	1,135.0	1,173.1
Cost of Goods & Total Operating Expenses	701.4	789.8	906.0	931.5
Net ABC Profit	202.0	212.0	233.0	253.0
Transfer to the General Fund:				
Reimbursement for Appropriations as provided by the Acts of the Assembly	69.9	69.4	69.4	69.4
Net Profits for Distribution	126.7	142.7	179.0	175.3
*These revenue figures exclude receipts collected under the state tax on alcoholic beverages and the general sales tax.				

ABC Revenues and Profit Forecast for 2023-2025

Comparisons of ABC's performance in Fiscal Year 2021, estimated performance for Fiscal Year 2022, and actual performance in Fiscal Year 2022, are included in Table 4.7 on the following page. Fiscal Year 2022 compared to 2021 shows an increase in sales, an increase in net ABC profits for distribution, and an increase in state tax revenue. Table 4.8, on the following page, contains Fiscal Year 2022 results for store sales, profits for distribution and state tax revenues along with the 2023 through 2025 forecasts. Profit forecasts in Table 4.8 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 both cases, forecasts beyond Fiscal Year 2023 are more prone to forecast

error given the uncertainty with the economy and impacts on customer behavior and ABC's cost structure.

	<u>FY21 Actual</u>	<u>FY22 Estimate</u>	<u>FY22 Actual</u>	<u>Variance</u>	
				<u>Amount</u>	<u>Percent</u>
Total Store Sales*	1,333.6	1,350.0	1,376.6	26.6	2.0%
Net ABC Profit for Distribution	179.0	146.7	175.3	28.6	19.5%
State Tax Revenue**	253.1	258.3	260.8	2.5	1.0%

*These figures include state tax 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 DBHDS

	<u>Actual</u>	<u>Forecast</u>		
	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
Total ABC Store Sales: (1)	1,376.6	1,421.0	1,462.2	1,495.1
Excess FY 2021 & 2022 Q4 profits (7)	1.1	12.4		
Adjusted Net Profits for Distribution: (2) (3) (5) (6)	174.2	119.0	116.0	113.8
Total Adjusted Net Profits for Distribution	175.3	131.4	116.0	113.8
ABC State Tax Revenues:(1)				
Spirits	227.7	236.6	243.4	248.9
Wine (4)	33.1	33.8	34.5	35.2
Total Tax Revenue:	260.8	270.4	277.9	284.1

(1) Excludes the general sales tax
(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 profit on June 30th.
(4) Wine figure excludes statutory transfers
(5) Forecasted decline in FY 2023 Adjusted Net Profit is driven by a one-time benefit of \$14.9M occurring in FY 2022 for the sale of the Hermitage Road headquarters and warehouse property, \$1.7M federal grant money in FY 2022 for Covid expense, increases in personal services costs including the Commonwealth mandated pay increases, market compensation study, lower vacancy impact, mid-year minimum wage increase to \$15/Hr to maintain competitive compensation with similarly situated retailers and distribution companies and added staff
(6) Forecasted decline in FY 2024 Adjusted Net Profit is driven by Commonwealth mandated pay increases, full impact of minimum wage increase to \$15/Hr and store network growth costs.
(7) Reflects the accrual-based transfer of the excess FY 2021 and FY 2022 Q4 profits deposited into the general fund in Q1 of FY 2022 and FY 2023, respectively.

In Fiscal Year 2023, ABC expects sales to grow in the retail segment but at a lower rate mainly due to the anticipated recession and inflationary impacts on consumer spending. Similarly, lower growth is anticipated in the licensee segment due to the downward pressures that could impact restaurant visits by consumers. Like other industries, the spirits industry is challenged with the lingering effects that supply shortages and disruptions could have on the availability of products. Challenges continue to exist for suppliers in the production, bottling, and transportation of spirits. Additional uncertainties exist around the legalization of cannabis and its potential offsetting impact to spirit sales. Initial periods of the current fiscal year show customer discretionary spending habits are negatively impacted by ongoing fuel price volatility and price inflation for nondiscretionary consumer goods. Continued price increases in these areas may result in shifts away from premium products to value products, which have a lower profit margin. Additionally, premiumization was a major driver of profit growth in previous years and a loss of this trend will further challenge performance.

On the expense side, ABC is faced with mandated salary and benefit costs, market-based increases in salaries and wages to remain competitive, automatic rent escalation, freight increases due to higher fuel costs and volume, telecommunication and technology costs and growth in credit card discount fees that are all very difficult to influence in the short run. One of the challenges that ABC faces is the change in marketplace demand for workers and the increased wages and personnel costs associated with the demand for employees. The forecast represents the statewide pay increase for employees of the Commonwealth as well as additional costs to remain competitive with marketplace compensation. Maintaining strong wage structures amid an increasingly competitive landscape is a priority to both retain and hire the talent to grow the Authority's revenues.

Personnel costs account for 57 percent of ABC non-merchandise expenditures. Of the remaining non-merchandise expenditures, 16 percent are for continuous charges such as rent, GASB 87 lease amortization, and utilities; 18 percent are for contractual services such as credit card fees, shipping product to stores, and telecommunications; and 9 percent are for miscellaneous expenses such as supplies and materials, equipment, and depreciation. In Fiscal Years 2023 through 2025, increases in expenditures are expected due to the need to make significant ongoing infrastructure improvements to improve our information technology infrastructure. Currently, several of 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. Changes in salary and benefit cost rates, impacts of recession, continuing inflation, and mandated Appropriations Act transfers, can also significantly impact the accuracy of ABC's expense forecasts.

Distribution of ABC Profits and ABC State Tax Revenues

During Fiscal Year 2022, ABC contributed \$243.6 million (accrual basis) of net profits to the Commonwealth, and collected \$311.9 million of taxes on store sales, wine and beer and an additional \$67.3 million of general sales tax totaling \$622.8 million.

Net ABC profits are generally earmarked for deposit in the General Fund. Certain appropriations have been made by the General Assembly to recover alcohol-related program costs. The transfers for these programs and others were \$69.4 million in Fiscal Year 2022. These appropriations are charged against net ABC profits before being transferred to the General Fund. The remaining ABC profits are transferred into the General Fund as ABC profits. ABC expects to meet transfer requirements in Fiscal Year 2023 given the projected increase in gross sales. However, risks include the impact of recession, continuing inflation, and supply chain impacts on inventory.

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. This issue is exacerbated at year-end when ABC must estimate fourth quarter profits and make the transfer in advance of year-end closing.

Table 4.9
Virginia Alcoholic Beverage Control Authority
Forecast (FY2023-FY2028) (1)
As of 10/10/2022
(in millions)

	Actual	Forecast							
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028		
Revenue Sources:			<i>Growth Rate</i>	3.2%	2.9%	2.2%	3.3%	4.0%	4.5%
Alcoholic Beverages (Store Sales)	1,376.6	1,421.0	1,462.2	1,495.1	1,543.7	1,605.4	1,677.7		
Less: State Taxes on Spirits & Wine	227.7	236.6	243.4	248.9	257.0	267.3	279.3		
Net Store Sales	1,148.9	1,184.4	1,218.8	1,246.2	1,286.7	1,338.1	1,398.4		
Other Revenue	41.4	25.3	25.3	25.7	26.1	26.6	27.1		
Total ABC Revenue	1,190.3	1,209.7	1,244.1	1,271.9	1,312.8	1,364.7	1,425.5		
Cost of Goods Sold:	660.7	682.1	701.9	717.7	741.0	770.5	805.2		
Operating Costs:	286.0	339.2	355.3	365.2	373.4	380.5	387.8		
Infrastructure Projects (2):			1.5	5.8	9.2	10.6	10.2		
ABC Net Profit	243.6	188.4	185.4	183.2	189.2	203.1	222.3		
Profit Carryover from Prior Fiscal Year		12.4	0.0						
ABC Profit Requirement & Mandatory Transfers (3)		181.5	185.4						
Over/(Under) Required Transfer		19.2	0.0						

Notes:

1. Forecast developed on accrual basis. The profit transfer occurs on a cash basis. Variances often occur at year end when ABC has to transfer estimated profits prior to June 30th.
2. Infrastructure projects are ongoing and the depreciation/amortization impact with an increased impact beginning in FY25. These projects include the Human Capital Management project, E-Commerce project and other internal projects. All live projects as well as projects that will be going live in FY23 were included in the FY23 base budget.
3. Chapter 2 Budget Bill

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 2022

The Virginia Lottery transferred \$843.4 million to the Lottery Proceeds Fund during Fiscal Year 2022. The Lottery also transferred \$6.0 million for debt set-off to the

Department of Taxation and \$17.2 million from unclaimed prizes to the Literary Fund.

Sales for Fiscal Year 2022 were \$3.752 billion, an increase of \$493.4 million (15.1 percent) from Fiscal Year 2021. Net income was \$779.6 million, \$12.8 million (1.7 percent) more than Fiscal Year 2021.

Total transfers to the Lottery Proceeds Fund during Fiscal Year 2022 were as follows: \$67.3 million in residual profits from Fiscal Year 2021, and \$776.1 million in estimated profits from Fiscal Year 2022. The \$3.5 million of residual Fiscal Year 2022 profits, transferred in August 2022 after the 2022 fiscal year results were certified by the Auditor of Public Accounts, will be included in the total Fiscal Year 2023 transfers.

Forecast Overview - Fiscal Years 2023 through 2026

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

- Continued traditional lottery gaming competition from neighboring jurisdictions, as well as the competition from sports betting and casino-style gaming in Virginia and neighboring jurisdictions;
- 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; and
- 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.

For Fiscal Year 2023, the Lottery is projecting sales of \$4.198 billion and net income (turnover to the Lottery Proceeds Fund) of \$771.7 million. Prize expense is estimated to be \$3.1 billion, or 73.8 percent of sales, while retailer compensation is forecast to be \$136.0 million, or 5.8 percent of retail sales. This forecast takes into account current trends, the expansion of the competitive gaming environment, simulation models for jackpot progressions and sales, and statistically expected prize expense rates. The total estimated \$771.7 million net income, plus the residual \$3.5 million of Fiscal Year 2022 profits that has been transferred during Fiscal Year 2023, brings the total expected transfers to the Lottery Proceeds Fund for Fiscal Year 2023 to \$775.2 million. This is a decrease of \$9.5 million from the figure in Chapter 2 for Fiscal Year 2023, but \$10.5M more than forecast last fall.

For Fiscal Year 2024, the Lottery expects that sales will sustain the growth anticipated in the current year, creating revenue for the Lottery Proceeds Fund of \$769.0 million in Fiscal Year 2024. This is an increase of \$4,337,830 from the figure in Chapter 2 for Fiscal Year 2024.

For the current 2022-2024 biennium, total transfers of lottery profits to the Lottery Proceeds Fund are estimated to be \$1.544 billion, or about \$5.2 million less than the total in the current budget.

For the 2024-2026 biennium, the expected transfers to the Lottery Proceeds Fund total \$1.535 billion.

Sales Projections for Fiscal Years 2023 through 2026

For each fiscal year forecast, the Lottery's 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, and product life cycles.

Traditional Games

Traditional-style lottery products include those available at approximately 5,300 retail sales partners across Virginia. These products include scratch-off tickets, draw-game tickets where players select numbers that may match future draw results for chances to win prizes, instant-win games printed at lottery terminals, and limited-offerings including raffle style games. Games include national and regional multi-state game offerings as well as Virginia-only style games.

iLottery Products

Beginning July 1, 2020, registered adult players within the geographic boundaries of Virginia may purchase Instant games online, for chances to win prizes. In addition to the online-only category of Instant games, several other traditional-style games are also available for purchase, including single or multiple future drawings to games including Powerball and Mega Millions.

Net Income for Fiscal Years 2023 through 2026

The Lottery is forecasting net income of \$771.7 million for Fiscal Year 2023, and \$769.0 million for Fiscal Year 2024. The Lottery's largest expense, prizes to players, is expected to increase over this period as sales increase and players buy more products designed with a higher portion of sales returned back in the form of prizes. Retailers should continue to earn commissions and incentives equal to about 6 percent of retail sales. Operating expenses are projected to remain low in proportion to sales, less than 5 percent of total sales – about half of the 10 percent statutory maximum.

For the 2024-2026 biennium, net income is projected at about \$767 million each year.

Table 4.10
Forecast of Lottery Sales and Transfers to the Lottery Proceeds Fund

	FY2023	FY2024	FY2025	FY2026
Sales	4,197,854,058	4,390,941,132	4,434,850,543	4,479,199,049
- Prize Expense	3,099,786,151	3,279,868,760	3,326,137,907	3,368,357,685
- Retailer Compensation	136,038,757	135,560,642	135,967,324	136,375,226
- Operating Expenses	191,547,417	207,702,185	206,220,550	208,282,756
+ Other Income	1,200,000	1,200,000	1,200,000	1,200,000
Net Income	771,681,733	769,009,545	767,724,762	767,383,382
Other Transfers	3,490,520	-	-	-
Total Available	775,172,253	769,009,545	767,724,762	767,383,382

Ongoing Risks to the Forecast

There are 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 profits 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 smaller jackpots. A long period without a jackpot win can generate much higher sales due to the growth of the jackpot, exceeding \$1 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. Mobile sports wagering became available in Virginia starting in January 2021. Four Virginia localities approved local referenda to establish land-based casino gaming. The first casino opened in a temporary location in Bristol in July 2022, and other casino openings are expected during the current biennium.

Other risks include public health emergencies and the potential for additional retail and consumer purchase disruption, the overall economic impacts from changes in employment, inflation and consumer disposable income, as well as potential legislative action related to gaming in Virginia.

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 to sustain and expand 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											
	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	19,130.9	19,215.7	18,989.9	17,378.7	18,743.7	18,924.3	19,216.2	19,544.2	19,672.6	20,006.2	19,924.1	19,895.3
Annualized % Change	3.6	1.8	(4.6)	(29.9)	35.3	3.9	6.3	7.0	2.7	7.0	(1.6)	(0.6)
% Change from Prior Year's Quarter	2.3	2.6	0.8	(8.4)	(2.0)	(1.5)	1.2	12.5	5.0	5.7	3.7	1.8
Real Consumer Spending, Billions \$, SAAR	13,148.9	13,225.6	13,016.8	11,817.1	12,922.4	13,046.6	13,386.8	13,773.7	13,874.4	13,981.5	14,028.4	14,099.5
Annualized % Change	3.4	2.4	(6.2)	(32.1)	43.0	3.9	10.8	12.1	3.0	3.1	1.3	2.0
% Change from Prior Year's Quarter	2.0	2.2	0.5	(9.4)	(1.7)	(1.4)	2.8	16.6	7.4	7.2	4.8	2.4
U.S. Personal Income, Billions \$, SAAR	18,655.5	18,842.3	19,033.7	20,479.4	20,019.2	19,796.9	22,095.5	20,916.4	21,005.2	21,162.1	21,319.8	21,625.5
Annualized % Change	3.3	4.1	4.1	34.0	(8.7)	(4.4)	55.2	(19.7)	1.7	3.0	3.0	5.9
% Change from Prior Year's Quarter	4.8	4.5	3.8	10.7	7.3	5.1	16.1	2.1	4.9	6.9	(3.5)	3.4
Virginia Personal Income, Millions \$, SAAR	510,604.6	514,994.4	520,002.0	550,612.9	537,442.0	539,211.9	593,043.6	561,046.2	565,215.0	572,806.8	576,285.3	583,239.5
Annualized % Change	4.3	3.5	3.9	25.7	(9.2)	1.3	46.3	(19.9)	3.0	5.5	2.5	4.9
% Change from Prior Year's Quarter	5.0	4.5	3.9	9.0	5.3	4.7	14.0	1.9	5.2	6.2	(2.8)	4.0
Virginia Wages and Salaries, Millions \$, SAAR	263,125.2	266,249.4	271,548.4	258,260.7	267,264.1	277,482.6	277,462.5	283,021.6	289,341.6	298,042.1	301,070.5	305,718.2
Annualized % Change	5.3	4.8	8.2	(18.2)	14.7	16.2	0.0	8.3	9.2	12.6	4.1	6.3
% Change from Prior Year's Quarter	4.5	4.9	5.2	(0.6)	1.6	4.2	2.2	9.6	8.3	7.4	8.5	8.0
Virginia Dividends, Interest, and Rent, Millions \$, SAAR	108,454.9	108,712.1	108,323.7	106,251.5	105,243.6	106,859.9	107,093.2	108,541.5	109,373.5	110,556.4	110,897.5	112,690.2
Annualized % Change	3.4	1.0	(1.4)	(7.4)	(3.7)	6.3	0.9	5.5	3.1	4.4	1.2	6.6
% Change from Prior Year's Quarter	8.4	5.5	3.0	(1.2)	(3.0)	(1.7)	(1.1)	2.2	3.9	3.5	3.6	3.8
Virginia Total Proprietor's Income, Millions \$, SAAR	29,505.1	29,714.6	28,432.4	25,597.4	31,007.3	29,391.4	29,298.2	30,851.6	31,431.7	31,799.5	32,189.3	32,501.9
Annualized % Change	7.5	2.9	(16.2)	(34.3)	115.3	(19.3)	(1.3)	23.0	7.7	4.8	5.0	3.9
% Change from Prior Year's Quarter	8.4	8.6	(1.9)	(11.7)	5.1	(1.1)	3.0	20.5	1.4	8.2	9.9	5.3

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.1 - QUARTERLY NATIONAL AND VIRGINIA ECONOMIC VARIABLE:

	History											
	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	151.1	151.6	151.9	133.8	140.5	142.5	143.7	145.2	146.9	148.6	150.4	151.6
Annualized % Change	0.9	1.3	0.8	(39.8)	21.5	5.8	3.6	4.1	4.8	4.9	4.7	3.3
% Change from Prior Year's Quarter	1.3	1.3	1.1	(11.2)	(7.0)	(6.0)	(5.4)	8.5	4.6	4.3	4.6	4.4
Virginia Total Nonag. Employment, Thousands, SA	4,067.4	4,059.1	4,079.1	3,668.2	3,824.5	3,859.9	3,894.9	3,941.3	3,972.1	3,961.4	4,005.9	4,071.4
Annualized % Change	(0.2)	(0.8)	2.0	(34.6)	18.2	3.7	3.7	4.9	3.2	(1.1)	4.6	6.7
% Change from Prior Year's Quarter	1.1	1.2	1.0	(9.9)	(6.0)	(4.9)	(4.5)	7.4	3.9	2.6	2.9	3.3
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	2.8	2.8	2.9
Annualized % Change	1.5	2.5	1.3	(3.4)	4.8	2.2	4.1	8.2	6.7	7.9	9.2	10.5
% Change from Prior Year's Quarter	1.8	2.0	2.1	0.4	1.3	1.2	1.9	4.8	5.3	6.7	8.0	8.6
Refiner's Acquisition Cost of Oil, \$ per Barrel	58.7	58.0	47.3	26.6	40.8	42.0	57.3	66.0	70.3	76.4	92.4	109.8
Quarterly Change	(27.5)	(4.5)	(55.8)	(90.0)	455.5	12.9	244.4	76.9	28.6	39.5	113.9	99.1
Change from Prior Year's Quarter	(15.1)	(2.7)	(17.3)	(58.2)	(30.5)	(27.5)	21.1	148.7	72.5	81.8	61.4	66.3
Before-Tax Corporate Profits, Billions \$, SAAR	2,269.1	2,383.9	2,202.7	2,078.1	2,702.7	2,615.9	2,938.0	3,209.4	3,214.2	3,190.7	3,328.5	3,521.8
Annualized % Change	(7.1)	21.8	(27.1)	(20.8)	186.1	(12.2)	59.1	42.4	0.6	(2.9)	18.4	25.3
% Change from Prior Year's Quarter	(0.3)	3.9	(2.3)	(10.1)	19.1	9.7	33.4	54.4	18.9	22.0	13.3	9.7
S&P 500 Stock Market Index, Level	2,958.6	3,086.4	3,069.3	2,928.8	3,321.6	3,554.3	3,862.6	4,182.5	4,421.2	4,601.0	4,467.0	4,110.2
Annualized % Change	10.9	18.4	(2.2)	(17.1)	65.5	31.1	39.5	37.5	24.9	17.3	(11.1)	(28.3)
% Change from Prior Year's Quarter	3.8	14.7	12.8	1.6	12.3	15.2	25.8	42.8	33.1	29.4	15.6	(1.7)
30-Year Treasury Bonds, Level	2.3	2.3	1.9	1.4	1.4	1.6	2.1	2.3	1.9	1.9	2.3	3.0
Quarterly Change	(54.3)	(4.7)	(51.7)	(71.1)	(4.3)	98.2	167.2	42.3	(46.6)	3.3	78.4	233.3
Change from Prior Year's Quarter	(25.5)	(30.9)	(37.6)	(50.4)	(40.3)	(28.3)	10.0	63.9	41.6	20.4	8.8	34.6

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.2 - QUARTERLY NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	October Standard Forecast											
	2022.3	2022.4	2023.1	2023.2	2023.3	2023.4	2024.1	2024.2	2024.3	2024.4	2025.1	2025.2
Real Gross Domestic Product,												
Billions \$, SAAR	20,010.3	19,951.8	19,833.5	19,796.9	19,856.2	19,917.4	19,976.8	20,058.0	20,145.0	20,247.0	20,351.0	20,460.8
Annualized % Change	2.3	(1.2)	(2.3)	(0.7)	1.2	1.2	1.2	1.6	1.7	2.0	2.1	2.2
% Change from Prior Year's Quarter	1.7	(0.3)	(0.5)	(0.5)	(0.8)	(0.2)	0.7	1.3	1.5	1.7	1.9	2.0
Real Consumer Spending,												
Billions \$, SAAR	14,128.1	14,132.0	14,110.7	14,118.2	14,138.1	14,174.6	14,222.4	14,293.6	14,373.1	14,454.7	14,537.6	14,624.2
Annualized % Change	0.8	0.1	(0.6)	0.2	0.6	1.0	1.4	2.0	2.2	2.3	2.3	2.4
% Change from Prior Year's Quarter	1.8	1.1	0.6	0.1	0.1	0.3	0.8	1.2	1.7	2.0	2.2	2.3
U.S. Personal Income,												
Billions \$, SAAR	21,888.3	22,149.5	22,268.7	22,417.6	22,647.3	22,877.9	23,176.2	23,442.0	23,712.9	23,991.1	24,300.1	24,586.8
Annualized % Change	4.9	4.9	2.2	2.7	4.2	4.1	5.3	4.7	4.7	4.8	5.3	4.8
% Change from Prior Year's Quarter	4.2	4.7	4.5	3.7	3.5	3.3	4.1	4.6	4.7	4.9	4.8	4.9
Virginia Personal Income,												
Millions \$, SAAR	597,364.3	603,779.6	609,483.1	612,631.8	618,733.2	625,836.6	634,795.7	642,888.7	651,352.7	658,637.1	666,372.0	673,156.9
Annualized % Change	10.0	4.4	3.8	2.1	4.0	4.7	5.9	5.2	5.4	4.5	4.8	4.1
% Change from Prior Year's Quarter	5.7	5.4	5.8	5.0	3.6	3.7	4.2	4.9	5.3	5.2	5.0	4.7
Virginia Wages and Salaries,												
Millions \$, SAAR	317,675.8	321,883.9	324,832.0	325,391.7	328,587.0	332,528.6	336,654.8	341,109.2	346,176.2	350,272.3	353,995.6	357,655.3
Annualized % Change	16.6	5.4	3.7	0.7	4.0	4.9	5.1	5.4	6.1	4.8	4.3	4.2
% Change from Prior Year's Quarter	9.8	8.0	7.9	6.4	3.4	3.3	3.6	4.8	5.4	5.3	5.2	4.9
Virginia Dividends, Interest, and Rent,												
Millions \$, SAAR	114,898.6	114,684.3	116,960.9	118,805.7	120,904.3	122,908.0	124,780.5	126,391.5	127,813.5	129,174.7	130,508.7	131,830.6
Annualized % Change	8.1	(0.7)	8.2	6.5	7.3	6.8	6.2	5.3	4.6	4.3	4.2	4.1
% Change from Prior Year's Quarter	5.1	3.7	5.5	5.4	5.2	7.2	6.7	6.4	5.7	5.1	4.6	4.3
Virginia Total Proprietor's Income,												
Millions \$, SAAR	32,843.3	32,534.1	32,094.2	32,050.2	32,414.6	32,508.8	32,141.3	31,777.3	31,489.1	31,368.6	31,219.7	31,199.4
Annualized % Change	4.3	(3.7)	(5.3)	(0.5)	4.6	1.2	(4.4)	(4.5)	(3.6)	(1.5)	(1.9)	(0.3)
% Change from Prior Year's Quarter	4.5	2.3	(0.3)	(1.4)	(1.3)	(0.1)	0.1	(0.9)	(2.9)	(3.5)	(2.9)	(1.8)

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.2 - QUARTERLY NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	October Standard Forecast											
	2022.3	2022.4	2023.1	2023.2	2023.3	2023.4	2024.1	2024.2	2024.3	2024.4	2025.1	2025.2
Total U.S. Employment, Millions, SA	152.7	153.2	152.8	151.7	150.7	150.0	150.0	150.3	150.8	151.1	151.4	151.7
Annualized % Change	3.1	1.2	(1.1)	(2.7)	(2.6)	(1.9)	(0.1)	1.0	1.2	1.0	0.8	0.7
% Change from Prior Year's Quarter	4.0	3.1	1.6	0.1	(1.3)	(2.1)	(1.8)	(0.9)	0.0	0.8	1.0	0.9
Virginia Total Nonag. Employment, Thousands, SA	4,109.1	4,111.9	4,101.6	4,067.5	4,071.5	4,074.3	4,081.9	4,093.0	4,109.4	4,115.7	4,118.1	4,121.5
Annualized % Change	3.8	0.3	(1.0)	(3.3)	0.4	0.3	0.7	1.1	1.6	0.6	0.2	0.3
% Change from Prior Year's Quarter	3.4	3.8	2.4	(0.1)	(0.9)	(0.9)	(0.5)	0.6	0.9	1.0	0.9	0.7
CPI, All Urban, 1982-1984=1.0, SA	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.2
Annualized % Change	5.4	5.0	4.2	2.3	2.7	2.8	2.6	2.0	2.4	2.6	2.1	2.1
% Change from Prior Year's Quarter	8.2	7.5	6.2	4.2	3.5	3.0	2.6	2.5	2.4	2.4	2.3	2.3
Refiner's Acquisition Cost of Oil, \$ per Barrel	86.2	83.6	77.1	71.7	74.6	77.7	77.1	74.4	76.9	80.0	80.1	79.9
Quarterly Change	(62.0)	(11.5)	(27.6)	(25.4)	16.8	18.1	(3.3)	(13.0)	13.9	16.9	0.5	(0.8)
Change from Prior Year's Quarter	22.6	9.4	(16.5)	(34.7)	(13.5)	(7.1)	(0.1)	3.8	3.2	2.9	3.9	7.3
Before-Tax Corporate Profits, Billions \$, SAAR	3,483.8	3,497.6	3,463.2	3,415.4	3,462.6	3,492.5	3,541.8	3,519.0	3,518.6	3,534.9	3,611.0	3,626.0
Annualized % Change	(4.2)	1.6	(3.9)	(5.4)	5.6	3.5	5.8	(2.6)	0.0	1.9	8.9	1.7
% Change from Prior Year's Quarter	8.4	9.6	4.0	(3.0)	(0.6)	(0.1)	2.3	3.0	1.6	1.2	2.0	3.0
S&P 500 Stock Market Index, Level	3,973.6	3,629.3	3,703.0	3,745.9	3,763.1	3,765.5	3,799.7	3,853.2	3,886.0	3,915.3	3,937.7	3,954.6
Annualized % Change	(12.6)	(30.4)	8.4	4.7	1.8	0.3	3.7	5.7	3.5	3.1	2.3	1.7
% Change from Prior Year's Quarter	(10.1)	(21.1)	(17.1)	(8.9)	(5.3)	3.8	2.6	2.9	3.3	4.0	3.6	2.6
30-Year Treasury Bonds, Level	3.3	3.9	3.9	3.8	3.7	3.7	3.6	3.6	3.6	3.6	3.6	3.6
Quarterly Change	32.0	96.5	0.4	(5.3)	(8.3)	(7.4)	(6.2)	(1.0)	(1.2)	(1.4)	(0.5)	(0.4)
Change from Prior Year's Quarter	68.8	98.2	71.7	25.3	14.4	(5.2)	(6.8)	(5.8)	(4.0)	(2.5)	(1.0)	(0.9)

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.2 - QUARTERLY NATIONAL AND VIRGINIA ECONOMIC VARIABLE¹

	Pessimistic Alternative Scenario											
	2022.3	2022.4	2023.1	2023.2	2023.3	2023.4	2024.1	2024.2	2024.3	2024.4	2025.1	2025.2
Real Gross Domestic Product, Billions \$, SAAR	19,980.9	19,837.0	19,646.4	19,573.2	19,596.3	19,633.8	19,670.6	19,738.3	19,810.7	19,893.1	19,985.9	20,090.2
Annualized % Change	1.7	(2.8)	(3.8)	(1.5)	0.5	0.8	0.8	1.4	1.5	1.7	1.9	2.1
% Change from Prior Year's Quarter	1.6	(0.8)	(1.4)	(1.6)	(1.9)	(1.0)	0.1	0.8	1.1	1.3	1.6	1.8
Real Consumer Spending, Billions \$, SAAR	14,105.5	14,050.9	13,998.9	14,014.2	14,033.0	14,065.3	14,105.1	14,174.8	14,248.0	14,314.4	14,390.7	14,475.5
Annualized % Change	0.2	(1.5)	(1.5)	0.4	0.5	0.9	1.1	2.0	2.1	1.9	2.2	2.4
% Change from Prior Year's Quarter	1.7	0.5	(0.2)	(0.6)	(0.5)	0.1	0.8	1.1	1.5	1.8	2.0	2.1
U.S. Personal Income, Billions \$, SAAR	21,893.1	22,124.3	22,182.7	22,220.9	22,338.8	22,502.4	22,771.4	23,024.3	23,289.4	23,559.3	23,865.2	24,155.9
Annualized % Change	5.0	4.3	1.1	0.7	2.1	3.0	4.9	4.5	4.7	4.7	5.3	5.0
% Change from Prior Year's Quarter	4.2	4.5	4.0	2.8	2.0	1.7	2.7	3.6	4.3	4.7	4.8	4.9
Virginia Personal Income, Millions \$, SAAR	597,212.7	602,570.4	606,446.8	606,604.9	609,975.4	615,250.5	622,989.1	630,244.8	638,021.5	644,643.4	652,007.0	658,566.9
Annualized % Change	9.9	3.6	2.6	0.1	2.2	3.5	5.1	4.7	5.0	4.2	4.6	4.1
% Change from Prior Year's Quarter	5.7	5.2	5.2	4.0	2.1	2.1	2.7	3.9	4.6	4.8	4.7	4.5
Virginia Wages and Salaries, Millions \$, SAAR	317,599.2	320,866.7	322,863.4	321,785.6	323,685.3	326,595.4	329,496.4	332,829.4	336,816.3	339,881.9	342,931.5	346,139.7
Annualized % Change	16.5	4.2	2.5	(1.3)	2.4	3.6	3.6	4.1	4.9	3.7	3.6	3.8
% Change from Prior Year's Quarter	9.8	7.7	7.2	5.3	1.9	1.8	2.1	3.4	4.1	4.1	4.1	4.0
Virginia Dividends, Interest, and Rent, Millions \$, SAAR	114,865.4	114,998.9	116,475.7	117,183.4	117,963.9	119,399.6	121,291.1	123,562.6	125,760.3	127,878.2	129,899.1	131,692.4
Annualized % Change	7.9	0.5	5.2	2.5	2.7	5.0	6.5	7.7	7.3	6.9	6.5	5.6
% Change from Prior Year's Quarter	5.0	4.0	5.0	4.0	2.7	3.8	4.1	5.4	6.6	7.1	7.1	6.6
Virginia Total Proprietor's Income, Millions \$, SAAR	32,891.8	32,768.6	32,394.3	32,397.2	32,802.0	32,989.9	32,742.6	32,460.9	32,239.9	32,171.2	32,059.2	32,064.4
Annualized % Change	4.9	(1.5)	(4.5)	-	5.1	2.3	(3.0)	(3.4)	(2.7)	(0.8)	(1.4)	0.1
% Change from Prior Year's Quarter	4.6	3.0	0.6	(0.3)	(0.3)	0.7	1.1	0.2	(1.7)	(2.5)	(2.1)	(1.2)

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.2 - QUARTERLY NATIONAL AND VIRGINIA ECONOMIC VARIABLES

	Pessimistic Alternative Scenario											
	2022.3	2022.4	2023.1	2023.2	2023.3	2023.4	2024.1	2024.2	2024.3	2024.4	2025.1	2025.2
Total U.S. Employment, Millions, SA	152.7	152.3	151.3	149.5	147.9	146.6	146.1	146.2	146.4	146.6	146.9	147.3
Annualized % Change	3.1	(1.2)	(2.5)	(4.7)	(4.4)	(3.3)	(1.4)	0.1	0.7	0.5	0.8	1.2
% Change from Prior Year's Quarter	4.0	2.4	0.6	(1.4)	(3.2)	(3.7)	(3.4)	(2.2)	(1.0)	0.0	0.5	0.8
Virginia Total Nonag. Employment, Thousands, SA	4,109.1	4,091.6	4,070.1	4,018.4	4,008.3	4,000.1	3,996.2	4,000.4	4,012.0	4,014.5	4,017.6	4,024.6
Annualized % Change	3.8	(1.7)	(2.1)	(5.0)	(1.0)	(0.8)	(0.4)	0.4	1.2	0.3	0.3	0.7
% Change from Prior Year's Quarter	3.4	3.3	1.6	(1.3)	(2.5)	(2.2)	(1.8)	(0.4)	0.1	0.4	0.5	0.6
CPI, All Urban, 1982-1984=1.0, SA	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2
Annualized % Change	5.9	6.9	6.0	3.0	3.6	3.0	2.4	1.7	2.0	2.2	1.6	1.7
% Change from Prior Year's Quarter	8.4	8.1	7.3	5.4	4.9	3.9	3.0	2.7	2.3	2.1	1.9	1.8
Refiner's Acquisition Cost of Oil, \$ per Barrel	86.2	97.6	93.0	88.9	93.0	95.9	92.8	91.0	93.7	96.4	96.3	96.0
Quarterly Change	(62.0)	64.4	(17.6)	(16.5)	19.7	13.0	(12.1)	(7.8)	12.5	12.4	(0.6)	(1.4)
Change from Prior Year's Quarter	22.6	27.8	0.6	(19.0)	7.9	(1.8)	(0.2)	2.3	0.7	0.6	3.7	5.5
Before-Tax Corporate Profits, Billions \$, SAAR	3,469.3	3,476.4	3,483.3	3,459.5	3,471.5	3,498.6	3,553.1	3,535.5	3,537.4	3,540.4	3,601.2	3,594.7
Annualized % Change	(5.8)	0.8	0.8	(2.7)	1.4	3.2	6.4	(2.0)	0.2	0.3	7.1	(0.7)
% Change from Prior Year's Quarter	7.9	9.0	4.6	(1.8)	0.1	0.6	2.0	2.2	1.9	1.2	1.4	1.7
S&P 500 Stock Market Index, Level	3,973.6	3,606.3	3,640.5	3,657.1	3,632.7	3,583.7	3,589.1	3,634.5	3,676.4	3,720.4	3,760.5	3,797.1
Annualized % Change	(12.6)	(32.2)	3.8	1.8	(2.6)	(5.3)	0.6	5.2	4.7	4.9	4.4	4.0
% Change from Prior Year's Quarter	(10.1)	(21.6)	(18.5)	(11.0)	(8.6)	(0.6)	(1.4)	(0.6)	1.2	3.8	4.8	4.5
30-Year Treasury Bonds, Level	3.3	3.7	3.6	3.5	3.3	3.2	3.1	3.0	2.9	2.9	2.8	2.8
Quarterly Change	32.0	63.9	(7.6)	(9.6)	(19.8)	(16.9)	(13.2)	(8.2)	(8.6)	(7.9)	(4.8)	(4.5)
Change from Prior Year's Quarter	68.8	89.4	60.7	16.0	2.4	(13.6)	(14.9)	(14.6)	(11.8)	(9.5)	(7.4)	(6.5)

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

		History											
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Real Gross Domestic Product, Billions \$, SAAR	Calendar Year	15,891.5	16,254.0	16,553.3	16,932.1	17,390.3	17,680.3	18,076.7	18,609.1	19,036.1	18,509.1	19,609.8	19,945.3
	% Change	1.5	2.3	1.8	2.3	2.7	1.7	2.2	2.9	2.3	(2.8)	5.9	1.7
	Fiscal Year	15,795.3	16,088.3	16,372.0	16,707.5	17,216.8	17,520.9	17,851.3	18,360.3	18,807.8	18,678.8	19,107.1	19,874.5
	% Change	2.5	1.9	1.8	2.0	3.0	1.8	1.9	2.9	2.4	(0.7)	2.3	4.0
Real Consumer Spending, Billions \$, SAAR	Calendar Year	10,898.3	11,047.4	11,211.7	11,515.3	11,892.9	12,187.7	12,478.2	12,837.3	13,092.3	12,700.7	13,754.1	14,097.0
	% Change	1.7	1.4	1.5	2.7	3.3	2.5	2.4	2.9	2.0	(3.0)	8.3	2.5
	Fiscal Year	10,834.3	10,971.4	11,119.2	11,329.8	11,721.6	12,047.5	12,324.1	12,660.6	12,956.3	12,802.1	13,282.4	13,995.9
	% Change	2.3	1.3	1.3	1.9	3.5	2.8	2.3	2.7	2.3	(1.2)	3.8	5.4
U.S. Personal Income, Billions \$, SAAR	Calendar Year	13,339.3	14,014.3	14,193.7	14,976.6	15,685.2	16,096.9	16,839.8	17,683.8	18,587.0	19,832.3	21,294.8	21,745.8
	% Change	5.9	5.1	1.3	5.5	4.7	2.6	4.6	5.0	5.1	6.7	7.4	2.1
	Fiscal Year	12,992.2	13,658.2	14,124.4	14,525.5	15,386.1	15,881.0	16,439.9	17,243.1	18,169.9	19,252.7	20,707.0	21,278.2
	% Change	6.0	5.1	3.4	2.8	5.9	3.2	3.5	4.9	5.4	6.0	7.6	2.8
Virginia Personal Income, Millions \$, SAAR	Calendar Year	385,984.5	404,179.7	401,684.3	419,329.6	438,272.8	449,830.1	466,610.7	483,922.1	507,874.1	536,817.2	573,027.9	590,167.2
	% Change	5.7	4.7	(0.6)	4.4	4.5	2.6	3.7	3.7	4.9	5.7	6.7	3.0
	Fiscal Year	375,873.2	395,043.0	404,365.1	408,362.6	429,618.9	443,805.7	458,236.3	474,548.1	496,195.0	524,053.5	557,685.9	574,386.7
	% Change	5.7	5.1	2.4	1.0	5.2	3.3	3.3	3.6	4.6	5.6	6.4	3.0
Virginia Wages and Salaries, Millions \$, SAAR	Calendar Year	202,093.4	208,182.2	210,447.7	215,898.3	225,622.2	231,103.6	240,843.0	250,370.4	261,831.8	268,639.0	286,966.9	311,587.1
	% Change	2.9	3.0	1.1	2.6	4.5	2.4	4.2	4.0	4.6	2.6	6.8	8.6
	Fiscal Year	199,878.5	204,801.6	210,485.7	212,041.0	220,555.6	228,214.7	236,051.3	245,510.1	255,902.0	264,795.9	276,307.7	298,543.1
	% Change	3.4	2.5	2.8	0.7	4.0	3.5	3.4	4.0	4.2	3.5	4.3	8.0
Virginia Dividends, Interest, and Rent, Millions \$, SAAR	Calendar Year	72,698.6	80,147.4	77,717.7	83,664.9	88,219.4	91,993.1	96,191.9	99,561.3	107,485.0	106,669.7	108,891.2	113,292.7
	% Change	9.1	10.2	(3.0)	7.7	5.4	4.3	4.6	3.5	8.0	(0.8)	2.1	4.0
	Fiscal Year	69,405.1	76,498.4	79,249.2	80,123.8	86,446.5	89,974.9	94,315.4	97,167.5	103,967.2	107,935.6	106,934.5	110,879.4
	% Change	6.7	10.2	3.6	1.1	7.9	4.1	4.8	3.0	7.0	3.8	(0.9)	3.7
Virginia Total Proprietor's Income, Millions \$, SAAR	Calendar Year	24,763.2	28,691.2	26,523.2	27,670.9	28,060.0	26,782.1	26,852.5	27,120.2	29,293.7	28,607.1	30,845.3	32,517.2
	% Change	11.0	15.9	(7.6)	4.3	1.4	(4.6)	0.3	1.0	8.0	(2.3)	7.8	5.4
	Fiscal Year	23,364.5	27,021.4	27,691.2	26,949.2	28,049.2	27,335.4	26,853.4	26,954.0	28,135.1	28,312.4	30,137.1	31,980.6
	% Change	19.3	15.7	2.5	(2.7)	4.1	(2.5)	(1.8)	0.4	4.4	0.6	6.4	6.1

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

		October Standard Forecast				Pessimistic Alternative Scenario			
		2023	2024	2025	2026	2023	2024	2025	2026
Real Gross Domestic Product, Billions \$, SAAR	Calendar Year	19,851.0	20,106.7	20,517.8	20,927.7	19,612.4	19,778.2	20,151.7	20,593.7
	% Change	(0.5)	1.3	2.0	2.0	(1.5)	0.8	1.9	2.2
	Fiscal Year	19,898.1	19,952.1	20,300.9	20,732.9	19,759.4	19,659.8	19,945.0	20,379.9
	% Change	0.1	0.3	1.7	2.1	(0.6)	(0.5)	1.5	2.2
Real Consumer Spending, Billions \$, SAAR	Calendar Year	14,135.4	14,335.9	14,669.2	14,990.4	14,027.9	14,210.5	14,522.1	14,857.4
	% Change	0.3	1.4	2.3	2.2	(0.3)	1.3	2.2	2.3
	Fiscal Year	14,122.2	14,207.1	14,497.4	14,836.8	14,042.4	14,094.6	14,357.2	14,696.6
	% Change	0.9	0.6	2.0	2.3	0.3	0.4	1.9	2.4
U.S. Personal Income, Billions \$, SAAR	Calendar Year	22,552.9	23,580.5	24,733.4	25,890.5	22,311.2	23,161.1	24,303.7	25,448.3
	% Change	3.7	4.6	4.9	4.7	2.6	3.8	4.9	4.7
	Fiscal Year	22,181.0	23,035.8	24,147.7	25,317.1	22,105.2	22,659.2	23,717.4	24,887.7
	% Change	4.2	3.9	4.8	4.8	3.9	2.5	4.7	4.9
Virginia Personal Income, Millions \$, SAAR	Calendar Year	616,671.2	646,918.6	677,286.1	707,438.2	609,569.4	633,974.7	662,500.3	690,063.8
	% Change	4.5	4.9	4.7	4.5	3.3	4.0	4.5	4.2
	Fiscal Year	605,814.7	630,563.5	662,379.7	692,668.4	603,208.7	619,615.0	648,309.7	676,903.9
	% Change	5.5	4.1	5.0	4.6	5.0	2.7	4.6	4.4
Virginia Wages and Salaries, Millions \$, SAAR	Calendar Year	327,834.8	343,553.1	360,228.4	377,215.2	323,732.4	334,756.0	348,561.2	363,782.1
	% Change	5.2	4.8	4.9	4.7	4.0	3.4	4.1	4.4
	Fiscal Year	322,445.8	334,719.9	352,024.9	369,061.6	320,778.7	328,151.6	341,442.3	356,567.6
	% Change	8.0	3.8	5.2	4.8	7.4	2.3	4.1	4.4
Virginia Dividends, Interest, and Rent, Millions \$, SAAR	Calendar Year	119,894.7	127,040.0	132,521.6	137,912.7	117,755.6	124,623.1	132,465.6	138,284.4
	% Change	5.8	6.0	4.3	4.1	3.9	5.8	6.3	4.4
	Fiscal Year	116,337.4	123,746.0	129,831.9	135,209.7	115,880.8	120,554.3	128,807.5	135,597.3
	% Change	4.9	6.4	4.9	4.1	4.5	4.0	6.8	5.3
Virginia Total Proprietor's Income, Millions \$, SAAR	Calendar Year	32,267.0	31,694.1	31,208.2	31,060.8	32,645.9	32,403.7	32,099.4	32,187.2
	% Change	(0.8)	(1.8)	(1.5)	(0.5)	0.2	(0.7)	(0.9)	0.3
	Fiscal Year	32,380.5	23,364.5	27,021.4	27,691.2	32,613.0	32,748.9	32,133.7	32,139.7
	% Change	1.3	(0.5)	(2.8)	(0.5)	2.0	0.4	(1.9)	0.0

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

		History											
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total U.S. Employment, Millions, SA	Calendar Year	131.9	134.2	136.4	138.9	141.8	144.3	146.6	148.9	150.9	142.1	146.1	152.0
	% Change	1.2	1.7	1.6	1.9	2.1	1.8	1.6	1.6	1.3	(5.8)	2.8	4.0
	Fiscal Year	131.0	133.1	135.2	137.5	140.4	143.1	145.5	147.7	149.9	147.1	143.0	149.4
	% Change	0.6	1.6	1.6	1.7	2.1	1.9	1.7	1.5	1.5	(1.9)	(2.8)	4.5
Virginia Total Nonag. Employment, Thousands, SA	Calendar Year	3,692.9	3,735.9	3,762.5	3,783.5	3,859.0	3,915.4	3,958.8	4,010.9	4,058.2	3,857.9	3,942.4	4,074.6
	% Change	1.3	1.2	0.7	0.6	2.0	1.5	1.1	1.3	1.2	(4.9)	2.2	3.4
	Fiscal Year	3,671.6	3,714.6	3,753.8	3,768.8	3,810.9	3,897.2	3,938.3	3,985.7	4,034.8	3,968.5	3,880.1	4,002.7
	% Change	1.1	1.2	1.1	0.4	1.1	2.3	1.1	1.2	1.2	(1.6)	(2.2)	3.2
CPI, All Urban, 1982-1984=1.0, SA	Calendar Year	2.2	2.3	2.3	2.4	2.4	2.4	2.5	2.5	2.6	2.6	2.7	2.9
	% Change	3.1	2.1	1.5	1.6	0.1	1.3	2.1	2.4	1.8	1.2	4.7	8.1
	Fiscal Year	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.5	2.5	2.6	2.6	2.8
	% Change	2.0	2.9	1.7	1.6	0.7	0.7	1.9	2.2	2.1	1.6	2.3	7.2
Refiner's Acquisition Cost of Oil, \$ per Barrel	Calendar Year	101.8	101.0	100.5	92.2	48.4	40.6	50.7	64.5	59.4	39.2	67.5	93.0
	Change	32.7	(0.7)	(0.5)	(8.2)	(47.5)	(16.1)	24.9	27.2	(7.9)	(34.0)	72.4	37.8
	Fiscal Year	89.4	103.6	98.8	100.0	68.9	40.3	46.8	58.6	62.4	47.6	51.5	87.2
	Change	22.9	15.9	(4.6)	1.2	(31.1)	(41.5)	16.1	25.2	6.5	(23.6)	8.2	69.3
Before-Tax Corporate Profits, Billions \$, SAAR	Calendar Year	1,818.2	2,156.1	2,151.5	2,264.5	2,128.3	2,134.2	2,194.6	2,257.7	2,304.8	2,399.8	3,138.1	3,457.9
	% Change	(0.9)	18.6	(0.2)	5.2	(6.0)	0.3	2.8	2.9	2.1	4.1	30.8	10.2
	Fiscal Year	1,833.3	2,011.3	2,132.6	2,206.6	2,247.5	2,081.9	2,185.9	2,205.8	2,284.1	2,233.4	2,866.5	3,313.8
	% Change	7.5	9.7	6.0	3.5	1.9	(7.4)	5.0	0.9	3.5	(2.2)	28.3	15.6
S&P 500 Stock Market Index, Level	Calendar Year	1,268.9	1,379.6	1,642.5	1,930.7	2,061.2	2,092.4	2,448.2	2,744.7	2,912.5	3,218.5	4,266.8	4,045.0
	% Change	11.4	8.7	19.1	17.5	6.8	1.5	17.0	12.1	6.1	10.5	32.6	(5.2)
	Fiscal Year	1,230.5	1,287.9	1,486.2	1,795.1	2,038.4	2,025.7	2,266.6	2,627.1	2,787.0	3,010.8	3,730.3	4,399.8
	% Change	13.4	4.7	15.4	20.8	13.6	(0.6)	11.9	15.9	6.1	8.0	23.9	17.9
30-Year Treasury Bonds, Level	Calendar Year	3.9	2.9	3.4	3.3	2.8	2.6	2.9	3.1	2.6	1.6	2.1	3.1
	Change	(8.0)	(25.3)	18.0	(3.1)	(15.0)	(8.5)	11.4	7.5	(17.0)	(39.6)	31.5	51.2
	Fiscal Year	4.2	3.2	3.0	3.7	2.9	2.8	2.8	2.9	3.0	1.9	1.8	2.3
	Change	(4.1)	(24.2)	(7.2)	23.0	(20.3)	(3.9)	(1.5)	6.4	3.1	(35.7)	(6.3)	25.5

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

		October Standard Forecast				Pessimistic Alternative Scenario			
		2023	2024	2025	2026	2023	2024	2025	2026
Total U.S. Employment, Millions, SA	Calendar Year	151.3	150.5	151.8	152.9	148.8	146.3	147.6	149.5
	% Change	(0.4)	(0.5)	0.9	0.7	(1.9)	(1.7)	0.9	1.3
	Fiscal Year	152.6	150.2	151.2	152.4	151.5	146.7	146.8	148.6
	% Change	2.2	(1.5)	0.7	0.8	1.4	(3.1)	0.1	1.2
Virginia Total Nonag. Employment, Thousands, SA	Calendar Year	4,078.7	4,100.0	4,133.0	4,183.5	4,024.2	4,005.8	4,038.9	4,108.3
	% Change	0.1	0.5	0.8	1.2	(1.1)	(0.5)	0.8	1.7
	Fiscal Year	4,097.5	4,080.2	4,116.2	4,160.6	4,072.3	4,001.2	4,017.2	4,075.7
	% Change	2.4	(0.4)	0.9	1.1	1.7	(1.7)	0.4	1.5
CPI, All Urban, 1982-1984=1.0, SA	Calendar Year	3.1	3.1	3.2	3.3	3.1	3.2	3.2	3.3
	% Change	4.2	2.5	2.2	2.2	5.3	2.5	1.8	1.7
	Fiscal Year	3.0	3.1	3.2	3.2	3.0	3.1	3.2	3.3
	% Change	6.5	2.9	2.4	2.2	7.3	3.6	2.0	1.7
Refiner's Acquisition Cost of Oil, \$ per Barrel	Calendar Year	75.3	77.1	80.0	81.2	92.7	93.5	96.0	96.8
	Change	(19.1)	2.4	3.7	1.5	(4.0)	0.8	2.7	0.9
	Fiscal Year	79.7	76.0	79.2	80.3	91.4	93.2	95.6	96.0
	Change	(8.7)	(4.7)	4.3	1.3	4.8	1.9	2.6	0.5
Before-Tax Corporate Profits, Billions \$, SAAR	Calendar Year	3,458.4	3,528.6	3,636.9	3,769.3	3,478.2	3,541.6	3,591.7	3,654.4
	% Change	0.0	2.0	3.1	3.6	0.8	1.8	1.4	1.7
	Fiscal Year	3,465.0	3,503.9	3,572.6	3,706.0	3,472.1	3,514.7	3,568.4	3,622.0
	% Change	4.6	1.1	2.0	3.7	4.8	1.2	1.5	1.5
S&P 500 Stock Market Index, Level	Calendar Year	3,744.4	3,863.5	3,966.3	4,053.4	3,628.5	3,655.1	3,816.0	3,955.2
	% Change	(7.4)	3.2	2.7	2.2	(10.2)	0.7	4.4	3.6
	Fiscal Year	3,763.0	3,795.4	3,923.4	4,009.3	3,719.4	3,610.0	3,738.6	3,888.7
	% Change	(14.5)	0.9	3.4	2.2	(15.5)	(2.9)	3.6	4.0
30-Year Treasury Bonds, Level	Calendar Year	3.8	3.6	3.6	3.6	3.4	3.0	2.8	2.7
	Change	21.4	(4.8)	(0.8)	(0.1)	11.7	(12.8)	(6.0)	(2.9)
	Fiscal Year	3.7	3.6	3.6	3.5	3.5	3.2	2.9	2.7
	Change	61.3	(1.4)	(2.1)	(0.6)	53.7	(10.5)	(8.9)	(4.3)

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

Virginia		History											
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Construction and Mining Thousands, SA	Calendar Year	189.5	187.5	186.9	187.9	193.8	196.2	201.5	206.3	211.2	209.7	212.2	213.0
	% Change	(2.0)	(1.0)	(0.3)	0.5	3.1	1.2	2.7	2.4	2.4	(0.7)	1.2	0.4
	Fiscal Year	192.1	188.4	187.2	186.8	190.2	195.4	198.8	203.9	209.0	210.8	211.3	212.1
	% Change	(1.1)	(2.0)	(0.6)	(0.2)	1.8	2.7	1.7	2.6	2.5	0.9	0.2	0.4
Manufacturing Thousands, SA	Calendar Year	231.1	231.7	231.2	232.3	234.1	233.2	234.9	240.5	243.6	234.1	236.3	239.0
	% Change	0.2	0.2	(0.2)	0.5	0.8	(0.4)	0.8	2.4	1.3	(3.9)	0.9	1.1
	Fiscal Year	230.1	231.6	231.5	231.6	232.9	234.0	233.8	237.1	243.3	238.4	235.6	236.2
	% Change	(1.3)	0.7	(0.1)	0.0	0.6	0.5	(0.1)	1.4	2.6	(2.0)	(1.2)	0.3
Trade, Transportation, and Utilities Thousands, SA	Calendar Year	628.2	633.0	634.6	640.9	652.8	660.7	661.5	661.1	658.7	636.3	655.0	672.7
	% Change	1.2	0.8	0.3	1.0	1.9	1.2	0.1	(0.1)	(0.4)	(3.4)	2.9	2.7
	Fiscal Year	625.0	630.9	633.2	637.8	644.9	659.4	661.4	661.5	659.9	644.6	647.5	661.6
	% Change	1.1	0.9	0.4	0.7	1.1	2.3	0.3	0.0	(0.2)	(2.3)	0.5	2.2
Financial Activities Thousands, SA	Calendar Year	182.5	188.3	192.5	194.0	197.7	201.0	205.1	208.3	212.0	209.7	209.9	207.5
	% Change	2.0	3.1	2.2	0.8	1.9	1.7	2.0	1.6	1.8	(1.1)	0.1	(1.2)
	Fiscal Year	180.6	185.3	190.9	193.2	195.7	199.3	203.0	206.9	210.0	211.9	209.3	208.6
	% Change	1.4	2.6	3.0	1.2	1.3	1.9	1.8	1.9	1.5	0.9	(1.2)	(0.3)
Professional and Business Services Thousands, SA	Calendar Year	667.8	678.7	681.6	682.4	702.6	715.6	730.4	749.6	767.5	758.0	776.0	791.2
	% Change	2.6	1.6	0.4	0.1	3.0	1.9	2.1	2.6	2.4	(1.2)	2.4	2.0
	Fiscal Year	660.4	673.6	682.6	679.8	689.7	711.2	722.5	740.8	757.9	765.2	764.9	784.4
	% Change	2.9	2.0	1.3	(0.4)	1.5	3.1	1.6	2.5	2.3	1.0	0.0	2.5
Education and Health Services Thousands, SA	Calendar Year	469.7	480.4	491.5	497.7	513.9	526.5	535.5	546.2	553.4	527.4	536.0	555.7
	% Change	1.4	2.3	2.3	1.3	3.2	2.5	1.7	2.0	1.3	(4.7)	1.6	3.7
	Fiscal Year	467.7	473.6	487.3	494.3	503.7	522.6	530.8	540.9	550.0	541.8	530.1	544.1
	% Change	2.1	1.3	2.9	1.4	1.9	3.8	1.6	1.9	1.7	(1.5)	(2.2)	2.7
Leisure and Hospitality Thousands, SA	Calendar Year	351.0	360.9	368.1	373.4	388.1	401.2	406.2	410.1	414.4	325.7	357.2	410.5
	% Change	2.3	2.8	2.0	1.4	3.9	3.4	1.2	1.0	1.0	(21.4)	9.7	14.9
	Fiscal Year	347.3	356.0	364.8	370.8	378.5	397.0	404.8	408.8	412.8	371.7	331.8	387.3
	% Change	1.8	2.5	2.5	1.7	2.1	4.9	2.0	1.0	1.0	(10.0)	(10.7)	16.7
Government Thousands, SA	Calendar Year	713.2	713.4	712.4	710.5	711.3	714.4	716.7	722.8	731.7	711.2	709.7	718.8
	% Change	0.9	0.0	(0.1)	(0.3)	0.1	0.4	0.3	0.9	1.2	(2.8)	(0.2)	1.3
	Fiscal Year	709.2	714.4	713.4	710.2	711.1	712.6	715.8	719.2	726.1	727.7	703.5	714.1
	% Change	0.5	0.7	(0.1)	(0.5)	0.1	0.2	0.4	0.5	1.0	0.2	(3.3)	1.5

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

TABLE A.3 - ANNUAL NATIONAL AND VIRGINIA ECONOMIC VARIABLES

Virginia		October Standard Forecast				Pessimistic Alternative Scenario			
		2023	2024	2025	2026	2023	2024	2025	2026
Construction and Mining Thousands, SA	Calendar Year	213.7	217.5	217.7	218.6	210.6	211.2	209.8	209.6
	% Change	0.3	1.8	0.1	0.4	(1.1)	0.3	(0.7)	(0.1)
	Fiscal Year	212.5	216.5	217.4	218.3	211.4	211.6	210.2	209.8
	% Change	0.2	1.9	0.4	0.4	(0.3)	0.1	(0.7)	(0.2)
Manufacturing Thousands, SA	Calendar Year	239.9	242.5	241.8	241.2	234.3	229.8	229.7	234.0
	% Change	0.4	1.1	(0.3)	(0.3)	(1.9)	(1.9)	0.0	1.8
	Fiscal Year	241.2	240.3	242.5	241.2	239.5	230.4	229.1	231.3
	% Change	2.1	(0.4)	0.9	(0.5)	1.4	(3.8)	(0.6)	1.0
Trade, Transportation, and Utilities Thousands, SA	Calendar Year	674.0	659.9	653.1	650.1	651.1	628.3	621.0	623.2
	% Change	0.2	(2.1)	(1.0)	(0.5)	(2.7)	(3.5)	(1.2)	0.4
	Fiscal Year	679.3	663.5	657.4	650.8	665.9	635.1	624.8	620.8
	% Change	2.7	(2.3)	(0.9)	(1.0)	0.6	(4.6)	(1.6)	(0.6)
Financial Activities Thousands, SA	Calendar Year	201.6	205.6	210.0	211.2	201.2	205.5	209.7	210.3
	% Change	(2.8)	1.9	2.1	0.6	(3.0)	2.2	2.0	0.3
	Fiscal Year	205.0	202.5	208.4	210.8	204.6	202.2	208.5	210.1
	% Change	(1.7)	(1.2)	2.9	1.2	(1.9)	(1.2)	3.1	0.8
Professional and Business Services Thousands, SA	Calendar Year	780.8	792.3	805.9	816.2	755.8	751.6	768.1	788.6
	% Change	(1.3)	1.5	1.7	1.3	(4.2)	(0.6)	2.2	2.7
	Fiscal Year	787.2	785.0	799.2	811.5	776.0	749.2	758.2	778.8
	% Change	0.4	(0.3)	1.8	1.5	(1.1)	(3.5)	1.2	2.7
Education and Health Services Thousands, SA	Calendar Year	567.3	583.8	590.7	595.1	569.0	587.1	594.0	597.4
	% Change	2.1	2.9	1.2	0.7	2.5	3.2	1.2	0.6
	Fiscal Year	562.2	575.7	588.3	593.0	561.9	578.6	592.0	595.6
	% Change	3.3	2.4	2.2	0.8	3.3	3.0	2.3	0.6
Leisure and Hospitality Thousands, SA	Calendar Year	408.1	425.1	427.3	428.9	405.1	418.9	421.0	424.4
	% Change	(0.6)	4.2	0.5	0.4	(1.2)	3.4	0.5	0.8
	Fiscal Year	410.9	416.3	427.3	428.4	409.5	411.5	420.7	423.0
	% Change	6.1	1.3	2.7	0.2	5.7	0.5	2.2	0.5
Government Thousands, SA	Calendar Year	718.7	712.1	719.6	751.5	718.8	712.1	719.1	750.6
	% Change	0.0	(0.9)	1.1	4.4	0.0	(0.9)	1.0	4.4
	Fiscal Year	722.8	713.7	712.2	737.3	722.8	713.8	712.0	736.6
	% Change	1.2	(1.2)	(0.2)	3.5	1.2	(1.2)	(0.3)	3.5

SAAR: Seasonally Adjusted at Annual Rates

SA: Seasonally Adjusted

**APPENDIX B
GENERAL FUND DATA**

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

	2008 3	2008 4	2009 1	2009 2	2009 3	2009 4	2010 1	2010 2	2010 3	2010 4	2011 1	2011 2	2011 3
Withholding	2,175.8	2,384.3	2,306.6	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
Annual % Change	5.5	6.2	(4.4)	2.6	(2.3)	(2.3)	4.8	1.5	4.4	5.6	5.1	4.8	4.0
Nonwithholding	406.5	243.3	458.8	1,201.8	311.3	217.8	373.0	1,004.6	292.9	204.6	435.7	1,245.4	348.0
Annual % Change	3.1	(6.5)	(17.6)	(27.2)	(23.4)	(10.5)	(18.7)	(16.4)	(5.9)	(6.0)	16.8	24.0	18.8
Gross Individual Income Tax	2,582.2	2,627.6	2,765.4	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
Annual % Change	5.1	4.9	(6.8)	(10.1)	(5.6)	(3.1)	0.9	(4.7)	3.1	4.6	6.6	10.6	5.7
Individual Refunds	127.2	141.3	873.2	825.8	150.8	182.3	947.1	714.4	123.1	160.9	888.2	697.1	105.7
Annual % Change	52.0	(1.8)	7.6	28.8	18.6	29.1	8.5	(13.5)	(18.4)	(11.8)	(6.2)	(2.4)	(14.1)
Net Individual Income Tax	2,455.0	2,486.3	1,892.2	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
Annual % Change	3.4	5.3	(12.3)	(17.9)	(6.9)	(4.9)	(2.6)	(1.9)	4.5	5.9	13.2	14.2	6.8
Sales and Use Tax	769.9	729.2	708.8	695.4	724.7	724.0	674.5	959.4	577.9	746.3	719.7	968.5	620.4
Annual % Change	(2.0)	(8.6)	(2.0)	(9.5)	(5.9)	(0.7)	(4.8)	38.0	(20.3)	3.1	6.7	0.9	7.3
Corporate Income Tax	191.4	71.9	71.1	313.6	176.3	175.6	56.8	397.8	177.6	160.5	127.8	356.4	191.3
Annual % Change	(12.1)	(37.7)	(48.7)	(6.7)	(7.9)	144.4	(20.2)	26.8	0.7	(8.6)	125.1	(10.4)	7.7
Wills, Suits, Deeds, Contracts	90.3	66.2	68.4	89.3	80.5	74.6	60.1	75.0	75.7	77.7	63.3	74.7	78.9
Annual % Change	(30.9)	(41.2)	(30.6)	(22.0)	(10.9)	12.8	(12.2)	(16.0)	(5.9)	4.1	5.4	(0.4)	4.2
Insurance Premiums	0.0	75.6	(20.2)	199.6	0.0	75.1	(20.3)	207.1	0.0	80.5	(9.4)	210.4	0.0
Annual % Change	(100.0)	22.9	(163.0)	(0.9)	NA	(0.6)	0.4	3.7	NA	7.2	(53.7)	1.6	NA
Interest Income	74.6	25.4	23.3	(19.0)	40.3	26.4	33.3	(5.7)	25.7	21.6	23.8	10.0	29.5
Annual % Change	(29.3)	(61.7)	(37.8)	(4.2)	(45.9)	3.9	42.8	(70.0)	(36.2)	(18.0)	(28.5)	(274.5)	14.5
Alcoholic Beverage Sales	12.8	41.5	47.1	71.8	12.3	42.2	47.5	73.0	12.8	43.2	48.7	74.3	13.8
Annual % Change	(7.2)	4.7	3.5	2.7	(4.0)	1.7	1.0	1.7	3.9	2.2	2.5	1.7	7.9
All Other Revenues	85.8	102.9	103.4	143.7	87.4	71.8	97.5	164.1	89.4	81.1	105.7	151.9	89.1
Annual % Change	(24.5)	(28.5)	(29.8)	(5.8)	1.9	(30.2)	(5.7)	14.2	2.4	12.9	8.4	(7.4)	(0.3)
Total General Fund Revenues	3,679.9	3,599.0	2,894.2	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
Annual % Change	(4.2)	(2.7)	(14.4)	(14.5)	(7.4)	(1.3)	(3.5)	7.8	(1.7)	4.5	13.4	7.7	6.7

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

	2011 4	2012 1	2012 2	2012 3	2012 4	2013 1	2013 2	2013 3	2013 4	2014 1	2014 2	2014 3	2014 4	2015 1
Withholding	2,510.9	2,640.7	2,580.0	2,292.0	2,606.4	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
Annual % Change	2.1	4.0	6.7	(0.7)	3.8	4.6	0.5	4.8	2.1	1.5	1.0	6.3	6.0	2.6
Nonwithholding	222.8	468.9	1,318.3	362.4	201.3	575.7	1,668.3	372.8	260.6	496.7	1,394.8	427.7	327.6	602.1
Annual % Change	8.9	7.6	5.9	4.1	(9.6)	22.8	26.5	2.9	29.4	(13.7)	(16.4)	14.7	25.7	21.2
Gross Individual Income Tax	2,733.7	3,109.6	3,898.3	2,654.4	2,807.7	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
Annual % Change	2.6	4.6	6.4	(0.1)	2.7	7.3	9.3	4.6	4.0	(1.1)	(5.8)	7.4	7.8	5.4
Individual Refunds	132.1	862.9	684.1	98.2	108.9	827.8	684.2	118.6	156.9	820.2	660.1	123.5	156.8	790.5
Annual % Change	(17.9)	(2.9)	(1.9)	(7.1)	(17.6)	(4.1)	0.0	20.8	44.2	(0.9)	(3.5)	4.1	(0.1)	(3.6)
Net Individual Income Tax	2,601.6	2,246.7	3,214.2	2,556.2	2,698.9	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
Annual % Change	3.9	7.7	8.4	0.2	3.7	11.7	11.3	4.0	2.4	(1.1)	(6.3)	7.6	8.2	8.3
Sales and Use Tax	772.0	768.1	961.0	684.7	777.1	787.0	971.0	653.9	766.1	721.1	925.3	684.0	778.5	764.3
Annual % Change	3.5	6.7	(0.8)	10.4	0.7	2.5	1.0	(4.5)	(1.4)	(8.4)	(4.7)	4.6	1.6	6.0
Corporate Income Tax	134.4	162.4	371.8	168.8	197.9	84.5	345.6	201.5	102.2	124.0	329.8	226.6	140.2	144.6
Annual % Change	(16.3)	27.1	4.3	(11.8)	47.2	(48.0)	(7.0)	19.4	(48.4)	46.8	(4.6)	12.4	37.2	16.6
Wills, Suits, Deeds, Contracts	79.8	73.5	89.8	90.7	92.2	91.3	103.3	93.2	76.2	60.6	80.8	87.5	80.9	76.1
Annual % Change	2.8	16.1	20.2	14.9	15.5	24.1	15.1	2.8	(17.3)	(33.6)	(21.8)	(6.1)	6.1	25.7
Insurance Premiums	56.4	(15.2)	211.7	0.0	79.9	(21.0)	203.3	0.0	90.3	3.5	226.7	0.0	75.5	5.3
Annual % Change	(29.9)	62.4	0.6	NA	41.7	37.7	(4.0)	NA	12.9	(116.5)	11.5	NA	(16.4)	52.6
Interest Income	17.0	19.9	10.8	26.9	15.1	21.8	3.7	18.3	22.8	23.4	9.6	18.0	14.5	12.7
Annual % Change	(21.5)	(16.2)	8.0	(8.9)	(10.9)	9.2	(65.4)	(31.7)	50.5	7.3	157.4	(2.0)	(36.6)	(45.9)
Alcoholic Beverage Sales	45.0	50.6	77.0	15.7	46.1	53.2	80.2	14.8	47.7	54.4	82.3	15.2	49.0	56.8
Annual % Change	4.2	4.0	3.6	13.7	2.6	5.1	4.1	(5.8)	3.4	2.3	2.7	2.8	2.7	4.3
All Other Revenues	77.2	107.3	140.3	76.6	88.2	101.3	159.6	83.3	79.5	105.0	161.8	82.9	88.0	104.8
Annual % Change	(4.9)	1.6	(7.7)	(14.0)	14.3	(5.6)	13.8	8.7	(9.8)	3.6	1.4	(0.5)	10.6	(0.2)
Total General Fund Revenues	3,783.4	3,413.4	5,076.6	3,619.5	3,995.5	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
Annual % Change	1.9	7.8	5.5	1.3	5.6	6.3	7.2	2.8	(1.2)	(1.5)	(5.0)	6.7	6.8	7.8

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

	2015 2	2015 3	2015 4	2016 1	2016 2	2016 3	2016 4	2017 1	2017 2	2017 3	2017 4	2018 1	2018 2	2018 3
Withholding	2,794.7	2,666.5	2,829.2	3,029.1	2,781.5	2,777.0	2,966.4	3,231.3	2,920.7	2,888.1	3,026.9	3,441.1	3,184.5	2,920.9
Annual % Change	6.8	4.4	0.3	5.3	(0.5)	4.1	4.8	6.7	5.0	4.0	2.0	6.5	9.0	1.1
Nonwithholding	1,684.2	472.0	316.8	652.9	1,628.4	470.8	329.5	683.1	1,535.1	463.8	581.7	688.5	1,738.9	530.3
Annual % Change	20.7	10.3	(3.3)	8.4	(3.3)	(0.2)	4.0	4.6	(5.7)	(1.5)	76.6	0.8	13.3	14.4
Gross Individual Income Tax	4,478.9	3,138.5	3,146.1	3,682.0	4,409.8	3,247.8	3,295.9	3,914.4	4,455.8	3,351.8	3,608.6	4,129.5	4,923.4	3,451.2
Annual % Change	11.6	5.2	(0.0)	5.9	(1.5)	3.5	4.8	6.3	1.0	3.2	9.5	5.5	10.5	3.0
Individual Refunds	686.5	122.9	165.8	844.6	687.4	114.9	143.0	871.4	731.6	126.7	162.3	876.1	742.5	137.9
Annual % Change	4.0	(0.5)	5.8	6.8	0.1	(6.5)	(13.7)	3.2	6.4	10.3	13.5	0.5	1.5	8.8
Net Individual Income Tax	3,792.3	3,015.6	2,980.2	2,837.4	3,722.4	3,132.9	3,152.8	3,043.0	3,724.2	3,225.1	3,446.3	3,253.5	4,180.9	3,313.3
Annual % Change	13.1	5.5	(0.4)	5.6	(1.8)	3.9	5.8	7.2	0.0	2.9	9.3	6.9	12.3	2.7
Sales and Use Tax	1,008.7	648.9	831.6	781.5	1,033.9	649.9	827.1	820.0	1,060.1	667.2	865.2	832.2	1,097.2	717.2
Annual % Change	9.0	(5.1)	6.8	2.2	2.5	0.2	(0.5)	4.9	2.5	2.7	4.6	1.5	3.5	7.5
Corporate Income Tax	320.6	188.0	101.7	164.3	311.0	197.5	119.8	147.8	361.8	252.7	134.9	104.5	369.9	227.4
Annual % Change	(2.8)	(17.0)	(27.5)	13.6	(3.0)	5.1	17.8	(10.0)	16.3	27.9	12.6	(29.3)	2.2	(10.0)
Wills, Suits, Deeds, Contracts	101.8	96.0	90.4	78.7	104.0	109.6	98.5	80.4	105.9	107.1	94.2	83.1	110.5	97.4
Annual % Change	26.1	9.7	11.8	3.4	2.1	14.2	8.9	2.1	1.8	(2.3)	(4.4)	3.4	4.3	(9.1)
Insurance Premiums	219.9	0.0	87.4	8.1	243.5	0.0	90.2	7.0	243.7	0.0	94.7	(11.0)	254.3	0.0
Annual % Change	(3.0)	NA	15.8	53.7	10.8	NA	3.2	(14.4)	0.1	NA	4.9	(257.7)	4.3	NA
Interest Income	3.6	18.2	14.6	15.7	3.5	25.0	10.8	18.9	0.9	28.2	21.6	10.7	1.0	42.6
Annual % Change	(62.4)	1.5	1.4	24.2	(1.9)	36.8	(26.2)	20.3	(73.4)	12.8	100.1	(43.6)	2.2	51.2
Alcoholic Beverage Sales	86.8	11.8	55.1	59.2	91.5	14.1	53.8	60.6	93.9	15.3	55.4	61.9	99.3	14.0
Annual % Change	5.5	(22.6)	12.5	4.3	5.3	20.3	(2.5)	2.3	2.6	7.9	3.1	2.1	5.8	(8.0)
All Other Revenues	160.5	87.9	90.6	97.6	169.7	82.2	87.1	105.8	169.8	86.8	70.7	105.4	162.3	90.8
Annual % Change	(0.8)	6.1	3.0	(6.9)	5.7	(6.5)	(3.9)	8.4	0.1	5.6	(18.8)	(0.4)	(4.4)	4.6
Total General Fund Revenues	5,694.3	4,066.3	4,251.8	4,042.5	5,679.5	4,211.3	4,440.0	4,283.4	5,760.3	4,382.3	4,782.9	4,440.2	6,275.4	4,502.7
Annual % Change	10.2	2.4	0.8	5.0	(0.3)	3.6	4.4	6.0	1.4	4.1	7.7	3.7	8.9	2.7

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

	2018 4	2019 1	2019 2	2019 3	2019 4	2020 1	2020 2	2020 3	2020 4	2021 1	2021 2
Withholding	3,259.3	3,481.2	3,326.4	3,091.4	3,449.9	3,580.9	3,255.9	3,164.2	3,567.7	3,762.5	3,518.5
Annual % Change	7.7	1.2	4.5	5.8	5.8	2.9	(2.1)	2.4	3.4	5.1	8.1
Nonwithholding	297.9	727.0	2,421.6	617.6	359.0	801.7	2,026.2	982.4	357.6	903.1	2,973.9
Annual % Change	(48.8)	5.6	39.3	16.5	20.5	10.3	(16.3)	59.1	(0.4)	12.7	46.8
Gross Individual Income Tax	3,557.2	4,208.2	5,748.0	3,709.0	3,808.8	4,382.5	5,282.1	4,146.6	3,925.3	4,665.6	6,492.3
Annual % Change	(1.4)	1.9	16.7	7.5	7.1	4.1	(8.1)	11.8	3.1	6.5	22.9
Individual Refunds	167.3	739.2	693.7	158.5	191.9	838.8	641.7	280.7	190.8	696.6	758.1
Annual % Change	3.1	(15.6)	(6.6)	15.0	14.7	13.5	(7.5)	77.1	(0.6)	(17.0)	18.1
Net Individual Income Tax	3,389.9	3,469.0	5,054.2	3,550.5	3,616.9	3,543.7	4,640.5	3,865.9	3,734.5	3,969.0	5,734.3
Annual % Change	(1.6)	6.6	20.9	7.2	6.7	2.2	(8.2)	8.9	3.3	12.0	23.6
Sales and Use Tax	888.1	842.4	1,132.7	773.0	962.7	918.4	1,052.7	830.8	1,020.5	984.7	1,330.1
Annual % Change	2.6	1.2	3.2	7.8	8.4	9.0	(7.1)	7.5	6.0	7.2	26.3
Corporate Income Tax	164.7	101.4	449.8	246.8	220.7	116.3	427.9	335.8	307.7	137.0	735.1
Annual % Change	22.1	(2.9)	21.6	8.5	34.0	14.6	(4.9)	36.1	39.4	17.8	71.8
Wills, Suits, Deeds, Contracts	93.5	80.6	115.0	122.1	124.2	107.7	129.6	165.8	176.2	155.4	182.2
Annual % Change	(0.8)	(3.0)	4.1	25.4	32.9	33.6	12.7	35.9	41.9	44.3	40.6
Insurance Premiums	93.2	18.1	270.7	0.0	94.0	(12.0)	278.5	0.0	102.2	(25.5)	286.3
Annual % Change	(1.5)	(264.6)	6.5	NA	0.9	(166.3)	2.9	NA	8.7	112.3	2.8
Interest Income	20.5	33.6	(9.7)	73.1	27.5	19.0	(9.2)	50.0	11.7	20.8	0.9
Annual % Change	(5.5)	214.9	(1,106.0)	71.7	34.5	(43.5)	(5.0)	(31.5)	(57.6)	9.3	(109.3)
Alcoholic Beverage Sales	57.5	64.8	104.5	17.4	61.1	71.1	117.6	15.8	71.0	79.1	130.3
Annual % Change	3.8	4.7	5.2	24.1	6.2	9.8	12.6	(9.6)	16.2	11.2	10.8
All Other Revenues	88.6	106.9	174.8	87.2	96.0	102.6	160.1	88.2	85.6	105.6	191.3
Annual % Change	25.3	1.5	7.7	(3.9)	8.4	(4.0)	(8.4)	1.1	(10.8)	2.9	19.5
Total General Fund Revenues	4,796.0	4,716.8	7,292.0	4,870.1	5,203.1	4,866.8	6,797.8	5,352.4	5,509.4	5,426.2	8,590.4
Annual % Change	0.3	6.2	16.2	8.2	8.5	3.2	(6.8)	9.9	5.9	11.5	26.4

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

		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Withholding	Calendar Year	6,513.0	6,772.2	7,305.3	7,733.2	8,240.8	8,792.5	9,185.8	9,031.7	9,401.4	9,775.0
	% Change	2.6	4.0	7.9	5.9	6.6	6.7	4.5	(1.7)	4.1	4.0
	Fiscal Year	6,422.4	6,567.4	7,039.3	7,513.0	8,053.7	8,565.5	8,933.6	9,138.1	9,176.2	9,635.1
	% Change	2.7	2.3	7.2	6.7	7.2	6.4	4.3	2.3	0.4	5.0
Nonwithholding	Calendar Year	1,456.4	1,423.7	1,658.4	2,151.8	2,540.3	2,815.0	2,856.7	2,189.8	1,875.2	2,251.8
	% Change	(19.2)	(2.2)	16.5	29.7	18.1	10.8	1.5	(23.3)	(14.4)	20.1
	Fiscal Year	1,459.5	1,402.7	1,562.8	2,073.5	2,493.8	2,782.0	2,861.2	2,310.4	1,906.8	2,178.6
	% Change	(19.2)	(3.9)	11.4	32.7	20.3	11.6	2.8	(19.2)	(17.5)	14.3
Gross Individual Income Tax	Calendar Year	7,969.4	8,195.9	8,963.7	9,884.9	10,781.0	11,607.5	12,042.5	11,221.4	11,276.6	12,026.8
	% Change	(2.2)	2.8	9.4	10.3	9.1	7.7	3.7	(6.8)	0.5	6.7
	Fiscal Year	7,881.9	7,970.1	8,602.1	9,586.6	10,547.5	11,347.4	11,794.7	11,448.5	11,082.9	11,813.7
	% Change	(2.2)	1.1	7.9	11.4	10.0	7.6	3.9	(2.9)	(3.2)	6.6
Individual Refunds	Calendar Year	1,108.8	1,167.3	1,227.3	1,178.3	1,389.6	1,567.4	1,720.8	2,032.1	1,945.5	1,823.1
	% Change	22.8	5.3	5.1	(4.0)	17.9	12.8	9.8	18.1	(4.3)	(6.3)
	Fiscal Year	1,171.1	1,194.4	1,217.2	1,234.2	1,282.6	1,559.8	1,679.9	1,967.4	1,994.7	1,869.3
	% Change	40.2	2.0	1.9	1.4	3.9	21.6	7.7	17.1	1.4	(6.3)
Net Individual Income Tax	Calendar Year	6,860.6	7,028.6	7,736.4	8,706.7	9,391.4	10,040.0	10,321.7	9,189.3	9,331.1	10,203.8
	% Change	(5.3)	2.4	10.1	12.5	7.9	6.9	2.8	(11.0)	1.5	9.4
	Fiscal Year	6,710.8	6,775.7	7,384.9	8,352.4	9,264.9	9,787.6	10,114.8	9,481.1	9,088.3	9,944.4
	% Change	(7.1)	1.0	9.0	13.1	10.9	5.6	3.3	(6.3)	(4.1)	9.4
Sales and Use Tax	Calendar Year	2,309.9	2,410.4	2,705.1	3,002.6	3,014.1	3,123.8	2,990.8	2,853.0	2,958.0	3,080.6
	% Change	0.9	4.4	12.2	11.0	0.4	3.6	(4.3)	(4.6)	3.7	4.1
	Fiscal Year	2,429.8	2,336.0	2,562.3	2,946.1	2,812.7	3,049.1	3,075.5	2,903.4	3,082.5	3,012.4
	% Change	6.9	(3.9)	9.7	15.0	(4.5)	8.4	0.9	(5.6)	6.2	(2.3)
Corporate Income Tax	Calendar Year	320.5	348.6	521.7	840.6	839.8	769.3	738.0	736.7	792.7	809.9
	% Change	(1.8)	8.8	49.7	61.1	(0.1)	(8.4)	(4.1)	(0.2)	7.6	2.2
	Fiscal Year	290.2	343.3	425.7	616.7	867.1	879.6	807.9	648.0	806.5	822.3
	% Change	(20.2)	18.3	24.0	44.9	40.6	1.4	(8.2)	(19.8)	24.4	2.0

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

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Withholding	Calendar Year	10,119.1	10,415.9	10,795.6	11,165.7	11,554.0	12,066.9	12,805.8	13,348.9	13,568.7	14,707.4	
	% Change	3.5	2.9	3.6	3.4	3.5	4.4	6.1	4.2	1.6	8.4	
	Fiscal Year	10,039.7	10,251.3	10,484.2	11,044.3	11,306.3	11,895.4	12,540.5	12,987.8	13,378.1	14,012.9	15,340.3
	% Change	4.2	2.1	2.3	5.3	2.4	5.2	5.4	3.6	3.0	4.7	9.5
Nonwithholding	Calendar Year	2,350.9	2,877.3	2,646.9	3,075.1	3,081.5	3,263.7	3,255.6	4,125.2	4,167.9	5,219.8	
	% Change	4.4	22.4	(8.0)	16.2	0.2	5.9	(0.2)	26.7	1.0	25.2	
	Fiscal Year	2,357.9	2,807.7	2,524.9	3,041.6	3,070.1	3,018.5	3,472.9	3,976.8	3,804.5	5,217.0	6,810.5
	% Change	8.2	19.1	(10.1)	20.5	0.9	(1.7)	15.1	14.5	(4.3)	37.1	30.5
Gross Individual Income Tax	Calendar Year	12,470.0	13,293.3	13,442.5	14,240.8	14,635.5	15,330.6	16,061.4	17,474.1	17,736.6	19,927.2	
	% Change	3.7	6.6	1.1	5.9	2.8	4.7	4.8	8.8	1.5	12.4	
	Fiscal Year	12,397.6	13,059.0	13,009.2	14,086.0	14,376.4	14,913.9	16,013.4	16,964.7	17,182.5	19,229.9	22,150.7
	% Change	4.9	5.3	(0.4)	8.3	2.1	3.7	7.4	5.9	1.3	11.9	15.2
Individual Refunds	Calendar Year	1,754.0	1,787.6	1,760.5	1,765.7	1,790.0	1,892.1	1,923.8	1,783.4	1,952.0	1,797.1	
	% Change	(3.8)	1.9	(1.5)	0.3	1.4	5.7	1.7	(7.3)	9.5	(7.9)	
	Fiscal Year	1,784.7	1,719.1	1,755.8	1,757.3	1,820.7	1,861.0	1,907.6	1,738.2	1,830.9	1,926.2	1,740.5
	% Change	(4.5)	(3.7)	2.1	0.1	3.6	2.2	2.5	(8.9)	5.3	5.2	(9.6)
Net Individual Income Tax	Calendar Year	10,716.0	11,505.7	11,682.0	12,475.1	12,845.5	13,438.5	14,137.7	15,690.6	15,784.6	18,130.0	
	% Change	5.0	7.4	1.5	6.8	3.0	4.6	5.2	11.0	0.6	14.9	
	Fiscal Year	10,612.8	11,340.0	11,253.3	12,328.7	12,555.6	13,052.9	14,105.8	15,226.5	15,351.6	17,303.7	20,410.2
	% Change	6.7	6.9	(0.8)	9.6	1.8	4.0	8.1	7.9	0.8	12.7	18.0
Sales and Use Tax	Calendar Year	3,190.9	3,178.0	3,108.9	3,253.5	3,292.3	3,412.5	3,534.7	3,710.8	3,822.5	4,439.7	
	% Change	3.6	(0.4)	(2.2)	4.7	1.2	3.6	3.6	5.0	3.0	16.1	
	Fiscal Year	3,121.5	3,219.8	3,066.5	3,235.4	3,295.9	3,357.1	3,461.8	3,580.4	3,706.8	4,166.2	4,558.1
	% Change	3.6	3.1	(4.8)	5.5	1.9	1.9	3.1	3.4	3.5	12.4	9.4
Corporate Income Tax	Calendar Year	900.9	733.7	820.6	754.8	792.6	897.2	866.5	1,018.7	1,187.7	1,884.6	
	% Change	11.2	(18.6)	11.8	(8.0)	5.0	13.2	(3.4)	17.6	16.6	58.7	
	Fiscal Year	859.9	796.7	757.5	831.9	764.9	827.0	861.9	943.4	1,011.7	1,515.7	1,978.7
	% Change	4.6	(7.3)	(4.9)	9.8	(8.0)	8.1	4.2	9.5	7.2	49.8	30.5

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

		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Wills, Suits, Deeds, Contracts	Calendar Year	247.2	319.5	431.7	704.7	616.2	531.9	369.5	312.8	288.5	296.8
	% Change	26.4	29.3	35.1	63.2	(12.6)	(13.7)	(30.5)	(15.3)	(7.8)	2.9
	Fiscal Year	214.4	285.8	340.6	596.1	694.7	582.9	456.3	314.3	290.2	291.5
	% Change	27.9	33.3	19.1	75.0	16.6	(16.1)	(21.7)	(31.1)	(7.7)	0.4
Insurance Premiums	Calendar Year	308.7	339.4	365.4	372.8	366.9	398.8	309.2	254.5	267.3	257.4
	% Change	9.9	9.9	7.7	2.0	(1.6)	8.7	(22.5)	(17.7)	5.0	(3.7)
	Fiscal Year	292.7	333.0	351.3	373.6	373.8	384.9	396.9	255.0	261.9	281.6
	% Change	9.2	13.8	5.5	6.3	0.1	3.0	3.1	(35.7)	2.7	7.5
Interest Income	Calendar Year	86.9	59.5	69.7	105.4	180.2	213.1	117.6	71.0	75.0	80.2
	% Change	(22.4)	(31.5)	17.3	51.2	71.0	18.2	(44.8)	(39.6)	5.5	7.0
	Fiscal Year	100.4	81.7	61.4	83.9	116.5	175.9	189.3	104.2	94.3	81.1
	% Change	(24.6)	(18.6)	(24.8)	36.6	38.9	51.1	7.6	(44.9)	(9.5)	(14.0)
Alcoholic Beverage Sales	Calendar Year	129.0	131.5	139.6	147.0	155.2	163.1	169.8	173.4	176.5	181.8
	% Change	4.3	1.9	6.2	5.3	5.6	5.0	4.1	2.2	1.8	3.0
	Fiscal Year	127.5	128.7	138.0	144.5	153.0	161.8	168.9	173.2	175.1	178.9
	% Change	3.6	1.0	7.2	4.7	5.9	5.8	4.3	2.6	1.1	2.2
All Other Revenues	Calendar Year	548.2	596.8	673.1	518.9	567.4	563.1	488.5	406.3	432.1	423.9
	% Change	(0.2)	8.9	12.8	(22.9)	9.3	(0.8)	(13.3)	(16.8)	6.4	(1.9)
	Fiscal Year	513.1	582.9	653.6	574.1	551.6	543.9	557.4	435.7	420.7	428.1
	% Change	(6.8)	13.6	12.1	(12.2)	(3.9)	(1.4)	2.5	(21.8)	(3.4)	1.8
Total General Fund Revenues	Calendar Year	10,810.9	11,234.2	12,642.8	14,398.7	15,131.3	15,803.1	15,505.0	13,997.0	14,321.2	15,334.3
	% Change	(2.8)	3.9	12.5	13.9	5.1	4.4	(1.9)	(9.7)	2.3	7.1
	Fiscal Year	10,679.0	10,867.1	11,917.9	13,687.3	14,834.3	15,565.8	15,767.0	14,315.1	14,219.5	15,040.2
	% Change	(3.8)	1.8	9.7	14.8	8.4	4.9	1.3	(9.2)	(0.7)	5.8

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

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Wills, Suits, Deeds, Contracts	Calendar Year	346.2	364.0	309.7	364.4	390.8	387.6	384.4	441.9	579.3	686.9	
	% Change	16.6	5.1	(14.9)	17.7	7.2	(0.8)	(0.8)	14.9	31.1	18.6	
	Fiscal Year	322.1	377.5	310.8	346.3	369.1	394.4	394.9	386.5	483.5	679.7	654.1
	% Change	10.5	17.2	(17.7)	11.4	6.6	6.9	0.1	(2.1)	25.1	40.6	(3.8)
Insurance Premiums	Calendar Year	276.4	272.6	305.6	312.6	341.9	345.4	336.5	382.8	368.8	380.4	
	% Change	7.4	(1.4)	12.1	2.3	9.4	1.0	(2.6)	13.8	(3.7)	3.2	
	Fiscal Year	252.9	262.2	320.4	300.6	339.1	340.9	337.9	382.0	360.6	363.1	426.8
	% Change	(10.2)	3.7	22.2	(6.2)	12.8	0.5	(0.9)	13.0	(5.6)	0.7	17.6
Interest Income	Calendar Year	72.7	66.6	65.4	49.2	55.0	69.6	74.7	124.5	71.5	85.8	
	% Change	(9.4)	(8.3)	(1.8)	(24.8)	11.9	26.6	7.2	66.8	(42.6)	19.9	
	Fiscal Year	77.2	67.5	74.1	48.7	52.2	55.6	61.4	87.0	110.4	83.3	76.6
	% Change	(4.9)	(12.5)	9.8	(34.3)	7.1	6.7	10.4	41.6	26.9	(24.5)	(8.0)
Alcoholic Beverage Sales	Calendar Year	189.4	195.9	200.9	210.5	218.6	225.1	232.7	247.7	275.4	297.4	
	% Change	4.2	3.4	2.6	4.8	3.8	3.0	3.4	6.5	11.2	8.0	
	Fiscal Year	186.4	195.2	199.2	207.8	217.6	222.4	231.8	240.8	267.2	296.1	300.2
	% Change	4.2	4.7	2.1	4.3	4.7	2.2	4.3	3.9	11.0	10.8	1.4
All Other Revenues	Calendar Year	412.4	423.7	437.7	443.8	436.6	433.2	447.1	465.0	436.5	500.4	
	% Change	(2.7)	2.7	3.3	1.4	(1.6)	(0.8)	3.2	4.0	(6.1)	14.6	
	Fiscal Year	413.9	425.7	429.6	436.2	445.8	444.9	425.2	461.1	446.0	470.8	530.2
	% Change	(3.3)	2.9	0.9	1.5	2.2	(0.2)	(4.4)	8.4	(3.3)	5.6	12.6
Total General Fund Revenues	Calendar Year	16,105.0	16,740.2	16,930.7	17,863.9	18,373.3	19,209.0	20,014.2	22,082.0	22,526.4	26,405.3	
	% Change	5.0	3.9	1.1	5.5	2.9	4.5	4.2	10.3	2.0	17.2	
	Fiscal Year	15,846.7	16,684.6	16,411.4	17,735.6	18,040.1	18,695.1	19,880.8	21,307.5	21,737.8	24,878.5	28,934.9
	% Change	5.4	5.3	(1.6)	8.1	1.7	3.6	6.3	7.2	2.0	14.4	16.3

APPENDIX C
MODELS AND METHODOLOGIES

Corporate Income Tax

CORP

Ordinary Least Squares

QUARTERLY data for 67 periods from 2006Q1 to 2022Q3

Date: 26 OCT 2022

diffya(corp)

$$= 2.22311 * \text{diffya}(\text{zbva}) + 2.52271 * \text{diffya}(\text{sp500va}) + 0.40052$$

(2.60982) (3.10234) (0.06430)

Sum Sq	124935	Std Err	44.1828	LHS Mean	18.4905
R Sq	0.4030	R Bar Sq	0.3843	F 2, 64	21.5986
D.W.(1)	2.2682	D.W.(4)	1.3928		

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

Corporate Income Tax, Gross Receipts

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2013	12Q3	224.8	275.8	(51.0)	-22.7%
	12Q4	273.1	250.1	23.0	8.4%
	13Q1	134.1	191.6	(57.5)	-42.8%
	13Q2	375.1	413.6	(38.5)	-10.3%
	Total	1,007.1	1,131.2	(124.0)	-12.3%
2014	13Q3	256.6	240.5	16.1	6.3%
	13Q4	242.0	299.8	(57.8)	-23.9%
	14Q1	159.4	157.8	1.6	1.0%
	14Q2	350.5	404.6	(54.1)	-15.4%
	Total	1,008.5	1,102.7	(94.1)	-9.3%
2015	14Q3	242.2	271.9	(29.8)	-12.3%
	14Q4	225.4	246.2	(20.8)	-9.2%
	15Q1	141.3	157.8	(16.5)	-11.7%
	15Q2	356.1	367.0	(10.9)	-3.1%
	Total	965.0	1,042.9	(77.9)	-8.1%
2016	15Q3	233.5	251.3	(17.8)	-7.6%
	15Q4	219.5	231.2	(11.7)	-5.3%
	16Q1	186.3	146.4	39.9	21.4%
	16Q2	334.5	345.4	(10.9)	-3.3%
	Total	973.8	974.3	(0.5)	0.0%
2017	16Q3	242.4	245.0	(2.6)	-1.1%
	16Q4	232.2	241.2	(9.0)	-3.9%
	17Q1	165.1	221.9	(56.8)	-34.4%
	17Q2	391.3	361.0	30.3	7.7%
	Total	1,031.1	1,069.1	(38.1)	-3.7%
2018	17Q3	272.8	270.9	1.9	0.7%
	17Q4	235.2	255.0	(19.9)	-8.4%
	18Q1	138.1	191.5	(53.4)	-38.7%
	18Q2	404.8	413.2	(8.4)	-2.1%
	Total	1,050.9	1,130.6	(79.8)	-7.6%
2019	18Q3	254.0	297.5	(43.5)	-17.1%
	18Q4	269.4	250.7	18.8	7.0%
	19Q1	135.0	137.5	(2.5)	-1.8%
	19Q2	416.3	419.0	(2.7)	-0.6%
	Total	1,074.7	1,104.6	(29.9)	-2.8%
2020	19Q3	292.5	259.5	33.1	11.3%
	19Q4	311.9	297.1	14.8	4.8%
	20Q1	153.5	149.5	4.1	2.7%
	20Q2	478.3	391.9	86.4	18.1%
	Total	1,236.3	1,097.9	138.4	11.2%
2021	20Q3	361.2	326.6	34.6	9.6%
	20Q4	383.3	357.6	25.7	6.7%
	21Q1	179.2	241.0	(61.8)	-34.5%
	21Q2	756.4	630.5	125.9	16.6%
	Total	1,680.1	1,555.7	124.5	7.4%
2022	21Q3	361.2	472.9	(111.7)	-30.9%
	21Q4	383.3	486.9	(103.7)	-27.0%
	22Q1	179.2	252.7	(73.4)	-41.0%
	22Q2	756.4	770.7	(14.2)	-1.9%
	Total	1,680.1	1,983.1	(303.0)	-18.0%

Individual Income Tax - Withholding

WITH

Cochrane-Orcutt

QUARTERLY data for 63 periods from 2007Q1 to 2022Q3

Date: 26 OCT 2022

diffya(with)

$$= -0.00055 * \text{diffya}(\text{ywstran}) + 126.862$$

(0.55669) (6.78040)

Sum Sq	552263	Std Err	95.9395	LHS Mean	118.003
R Sq	0.0139	R Bar Sq	-0.0190	F 2, 60	0.4215
D.W.(1)	1.1012	D.W.(4)	1.7058		

diffya

with

ywstran

Year-over-year difference function

Withholding tax receipts

Virginia income from wages and salaries and transfer payments

Individual Income Tax - Withholding

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2013	12Q3	2,292.0	2,375.8	(83.9)	-3.7%
	12Q4	2,606.4	2,647.8	(41.4)	-1.6%
	13Q1	2,761.1	2,720.2	40.9	1.5%
	13Q2	2,591.9	2,634.2	(42.3)	-1.6%
	Total	10,251.3	10,378.0	(126.7)	-1.2%
2014	13Q3	2,403.1	2,359.9	43.2	1.8%
	13Q4	2,659.9	2,626.9	32.9	1.2%
	14Q1	2,803.7	2,806.1	(2.4)	-0.1%
	14Q2	2,617.5	2,679.4	(61.9)	-2.4%
	Total	10,484.2	10,472.4	11.8	0.1%
2015	14Q3	2,554.4	2,487.7	66.7	2.6%
	14Q4	2,820.0	2,770.4	49.6	1.8%
	15Q1	2,875.3	2,921.7	(46.4)	-1.6%
	15Q2	2,794.7	2,769.2	25.4	0.9%
	Total	11,044.3	10,949.0	95.4	0.9%
2016	15Q3	2,666.5	2,691.8	(25.3)	-0.9%
	15Q4	2,829.2	2,932.6	(103.3)	-3.7%
	16Q1	3,029.1	2,984.2	44.9	1.5%
	16Q2	2,781.4	2,861.4	(80.0)	-2.9%
	Total	11,306.3	11,469.9	(163.7)	-1.4%
2017	16Q3	2,777.0	2,752.3	24.8	0.9%
	16Q4	2,966.4	2,956.6	9.8	0.3%
	17Q1	3,231.3	3,132.2	99.1	3.1%
	17Q2	2,920.7	2,930.8	(10.1)	-0.3%
	Total	11,895.4	11,771.8	123.6	1.0%
2018	17Q3	2,888.1	2,904.7	(16.6)	-0.6%
	17Q4	3,026.9	3,103.3	(76.4)	-2.5%
	18Q1	3,441.1	3,346.3	94.7	2.8%
	18Q2	3,064.5	3,050.6	13.9	0.5%
	Total	12,420.5	12,404.9	15.6	0.1%
2019	18Q3	3,040.9	3,030.9	10.0	0.3%
	18Q4	3,259.3	3,162.9	96.4	3.0%
	19Q1	3,481.2	3,578.5	(97.2)	-2.8%
	19Q2	3,326.4	3,211.3	115.1	3.5%
	Total	13,107.8	12,983.6	124.3	0.9%
2020	19Q3	3,091.4	3,169.4	(78.0)	-2.5%
	19Q4	3,449.9	3,385.9	64.0	1.9%
	20Q1	3,580.9	3,678.6	(97.7)	-2.7%
	20Q2	3,255.9	3,290.8	(34.9)	-1.1%
	Total	13,378.1	13,524.7	(146.7)	-1.1%
2021	20Q3	3,164.2	3,200.5	(36.3)	-1.1%
	20Q4	3,567.7	3,599.3	(31.6)	-0.9%
	21Q1	3,762.5	3,684.9	77.7	2.1%
	21Q2	3,518.5	3,568.0	(49.5)	-1.4%
	Total	14,012.9	14,052.7	(39.8)	-0.3%
2022	21Q3	3,470.7	3,287.9	182.8	5.3%
	21Q4	3,955.7	3,692.1	263.6	6.7%
	22Q1	4,114.9	3,851.3	263.6	6.4%
	22Q2	3,798.9	3,626.2	172.7	4.5%
	Total	15,340.3	14,457.5	882.7	5.8%

Individual Income Tax – Estimated Payments*

EP

Nonlinear Least Squares

QUARTERLY data for 67 periods from 2006Q1 to 2022Q3

Date: 26 OCT 2022

diffya(ep)

$$= 0.11976 * \text{diffya}(\text{sp500}) + 0.00013 * \text{diffya}(\text{ywpptva})$$

(3.49873) (0.02906)

$$+ 0.00374 * \text{diffya}(\text{yrdirva}) - 7.13015$$

(1.48292) (0.62920)

Sum Sq	461875	Std Err	86.3109	LHS Mean	29.9659
R Sq	0.2743	R Bar Sq	0.2275	F 4, 62	5.8598
%RMSE	1049.61	D.W.(1)	1.9138	D.W.(4)	1.7244
MA_0 =	- 0.40021 * MA_4-2.36903				

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

*For fiscal years 2023-2028, estimated and final payments, collectively were modeled assuming trend reversion to a long term trend of 24.8% percent of individual income tax collections

Individual Income Tax - Estimated Payments

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2013	12Q3	299.0	320.9	(21.9)	-7.3%
	12Q4	178.2	250.1	(71.9)	-40.4%
	13Q1	492.6	407.8	84.8	17.2%
	13Q2	593.0	510.6	82.4	13.9%
	Total	1,562.8	1,489.4	73.4	4.7%
2014	13Q3	328.3	348.8	(20.4)	-6.2%
	13Q4	223.2	262.1	(38.9)	-17.4%
	14Q1	453.2	468.8	(15.6)	-3.4%
	14Q2	567.7	574.9	(7.2)	-1.3%
	Total	1,572.5	1,654.6	(82.0)	-5.2%
2015	14Q3	372.7	392.8	(20.1)	-5.4%
	14Q4	317.8	296.8	21.0	6.6%
	15Q1	516.7	504.2	12.5	2.4%
	15Q2	642.8	605.8	37.1	5.8%
	Total	1,850.0	1,799.6	50.4	2.7%
2016	15Q3	398.1	397.7	0.3	0.1%
	15Q4	383.8	309.5	74.3	19.3%
	16Q1	493.9	499.2	(5.3)	-1.1%
	16Q2	646.6	616.8	29.8	4.6%
	Total	1,922.3	1,823.2	99.1	5.2%
2017	16Q3	410.6	424.4	(13.8)	-3.4%
	16Q4	335.7	350.3	(14.6)	-4.3%
	17Q1	581.4	553.8	27.6	4.7%
	17Q2	621.0	674.2	(53.3)	-8.6%
	Total	1,948.7	2,002.7	(54.0)	-2.8%
2018	17Q3	415.5	469.9	(54.4)	-13.1%
	17Q4	643.1	408.0	235.1	36.6%
	18Q1	474.9	615.6	(140.6)	-29.6%
	18Q2	705.9	703.4	2.5	0.4%
	Total	2,239.5	2,196.9	42.5	1.9%
2019	18Q3	444.8	509.6	(64.9)	-14.6%
	18Q4	285.5	474.8	(189.3)	-66.3%
	19Q1	548.8	579.7	(30.9)	-5.6%
	19Q2	838.4	721.7	116.7	13.9%
	Total	2,117.4	2,285.8	(168.4)	-8.0%
2020	19Q3	579.2	498.8	80.4	13.9%
	19Q4	354.5	470.0	(115.5)	-32.6%
	20Q1	650.8	607.6	43.2	6.6%
	20Q2	772.4	743.6	28.8	3.7%
	Total	2,356.8	2,319.9	36.9	1.6%
2021	20Q3	606.0	533.6	72.5	12.0%
	20Q4	363.8	485.3	(121.5)	-33.4%
	21Q1	648.9	701.7	(52.8)	-8.1%
	21Q2	1,044.2	894.3	149.9	14.4%
	Total	2,662.9	2,614.9	48.0	1.8%
2022	21Q3	697.0	666.6	30.5	4.4%
	21Q4	380.5	530.4	(149.9)	-39.4%
	22Q1	899.7	752.3	147.4	16.4%
	22Q2	1,355.3	1,034.1	321.2	23.7%
	Total	3,332.5	2,983.3	349.2	10.5%

Individual Income Tax – Final Payments

FP

Ordinary Least Squares

ANNUAL data for 17 periods from 2006 to 2022

Date: 2 NOV 2022

pch(fp)

$$= 0.89498 * \text{pch}(\text{cysp500}) + 3.06778$$

(2.06378) (0.45843)

Sum Sq	8171.80	Std Err	23.3407	LHS Mean	10.4328
R Sq	0.2212	R Bar Sq	0.1692	F 1, 15	4.2592
D.W.(1)	2.3526	D.W.(2)	1.3755		

pch

Percent change function

fp

Final payments

cysp500

Standard and Poor's 500 stock index, calendar year

State Sales Tax

SALES

Cochrane-Orcutt

QUARTERLY data for 61 periods from 2007Q3 to 2022Q3

Date: 26 OCT 2022

diff(sales)

$$= -0.00150 * \text{diff}(\text{yrpicva}) + 13.7839$$

(1.15941) (1.51307)

Sum Sq	489245	Std Err	91.8437	LHS Mean	7.7802
R Sq	0.3645	R Bar Sq	0.3426	F 2, 58	16.6363
D.W.(1)	2.1697	D.W.(4)	0.6711		

AR_0 = -0.59300 * AR_1-5.59062

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

State Sales Tax

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2013	12Q3	684.7	847.1	(162.4)	-23.7%
	12Q4	777.1	876.8	(99.7)	-12.8%
	13Q1	787.0	742.8	44.1	5.6%
	13Q2	971.0	812.4	158.5	16.3%
	Total	3,219.8	3,279.2	(59.4)	-1.8%
2014	13Q3	653.9	865.3	(211.4)	-32.3%
	13Q4	766.1	886.5	(120.4)	-15.7%
	14Q1	721.1	698.0	23.1	3.2%
	14Q2	925.3	757.4	167.9	18.1%
	Total	3,066.5	3,207.3	(140.9)	-4.6%
2015	14Q3	684.0	794.7	(110.7)	-16.2%
	14Q4	778.5	856.8	(78.3)	-10.1%
	15Q1	764.3	723.4	40.9	5.4%
	15Q2	1,008.7	782.5	226.2	22.4%
	Total	3,235.4	3,157.3	78.1	2.4%
2016	15Q3	648.9	853.1	(204.2)	-31.5%
	15Q4	831.6	908.2	(76.6)	-9.2%
	16Q1	781.5	724.0	57.5	7.4%
	16Q2	1,033.9	831.2	202.6	19.6%
	Total	3,295.9	3,316.5	(20.6)	-0.6%
2017	16Q3	649.9	874.7	(224.8)	-34.6%
	16Q4	827.1	920.0	(93.0)	-11.2%
	17Q1	820.0	715.9	104.1	12.7%
	17Q2	1,060.1	836.0	224.0	21.1%
	Total	3,357.1	3,346.7	10.4	0.3%
2018	17Q3	667.2	907.6	(240.4)	-36.0%
	17Q4	865.2	943.9	(78.8)	-9.1%
	18Q1	832.2	740.8	91.4	11.0%
	18Q2	1,097.2	866.7	230.5	21.0%
	Total	3,461.8	3,459.0	2.8	0.1%
2019	18Q3	912.3	926.7	(14.5)	-1.6%
	18Q4	888.1	1,047.0	(158.9)	-17.9%
	19Q1	842.4	913.7	(71.3)	-8.5%
	19Q2	825.8	885.8	(60.0)	-7.3%
	Total	3,468.5	3,773.2	(304.7)	-8.8%
2020	19Q3	965.0	848.7	116.3	12.1%
	19Q4	962.7	880.0	82.7	8.6%
	20Q1	918.4	971.3	(52.9)	-5.8%
	20Q2	865.7	919.5	(53.8)	-6.2%
	Total	3,711.8	3,619.5	92.3	2.5%
2021	20Q3	1,004.4	913.2	91.2	9.1%
	20Q4	1,020.6	942.3	78.3	7.7%
	21Q1	984.8	956.7	28.1	2.9%
	21Q2	1,126.7	1,027.1	99.5	8.8%
	Total	4,136.3	3,839.2	297.1	7.2%
2022	21Q3	1,164.2	1,074.5	89.8	7.7%
	21Q4	1,155.7	1,141.4	14.3	1.2%
	22Q1	1,141.4	1,162.9	(21.5)	-1.9%
	22Q2	1,186.6	1,143.8	42.7	3.6%
	Total	4,647.9	4,522.6	125.3	2.7%

Recordation Taxes

REC

Ordinary Least Squares

QUARTERLY data for 55 periods from 2009Q1 to 2022Q3

Date: 31 OCT 2022

diff(rec)

$$\begin{aligned}
 = & 0.02749 * \text{diff}(\text{mortorigin}) + 0.08993 * \text{diff}(\text{mortrefi}) \\
 & \quad (0.09725) \quad (0.81913) \\
 & + 0.21824 * \text{diff}(\text{homepriceind}) - 14.1034 * \text{diff}(\text{rtbond30y.1}) \\
 & \quad (1.43692) \quad (3.40689) \\
 & - 9.47137 * \text{qd1} + 25.6340 * \text{qd2} - 4.01344 \\
 & \quad (3.40451) \quad (8.92833) \quad (2.36291)
 \end{aligned}$$

Sum Sq	3357.99	Std Err	8.3641	LHS Mean	1.2593
R Sq	0.7638	R Bar Sq	0.7343	F 6, 48	25.8664
D.W.(1)	2.0875	D.W.(4)	1.5417		

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

Recordation Taxes

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2013	12Q3	90.7	87.5	3.2	3.5%
	12Q4	92.2	88.7	3.5	3.8%
	13Q1	91.3	80.8	10.5	11.5%
	13Q2	103.3	110.7	(7.4)	-7.2%
	Total	377.5	367.8	9.7	2.6%
2014	13Q3	93.2	97.9	(4.7)	-5.1%
	13Q4	76.2	79.1	(2.8)	-3.7%
	14Q1	60.6	65.6	(5.0)	-8.2%
	14Q2	80.8	87.9	(7.1)	-8.8%
	Total	310.8	330.4	(19.7)	-6.3%
2015	14Q3	87.5	79.7	7.8	9.0%
	14Q4	80.9	87.1	(6.2)	-7.7%
	15Q1	76.1	76.2	(0.0)	-0.1%
	15Q2	101.8	103.3	(1.4)	-1.4%
	Total	346.3	346.2	0.1	0.0%
2016	15Q3	96.0	93.9	2.1	2.2%
	15Q4	90.4	91.4	(1.0)	-1.1%
	16Q1	78.7	77.9	0.8	1.0%
	16Q2	104.0	105.0	(1.1)	-1.0%
	Total	369.1	368.3	0.8	0.2%
2017	16Q3	109.6	104.1	5.6	5.1%
	16Q4	98.5	112.9	(14.4)	-14.6%
	17Q1	80.4	76.8	3.6	4.5%
	17Q2	105.9	102.0	3.9	3.7%
	Total	394.4	395.7	(1.4)	-0.3%
2018	17Q3	107.1	105.8	1.3	1.2%
	17Q4	94.2	105.8	(11.6)	-12.3%
	18Q1	83.1	85.0	(1.9)	-2.3%
	18Q2	110.5	101.9	8.6	7.8%
	Total	394.9	398.5	(3.6)	-0.9%
2019	18Q3	97.4	106.9	(9.5)	-9.8%
	18Q4	93.5	94.4	(1.0)	-1.1%
	19Q1	80.6	80.3	0.3	0.4%
	19Q2	115.0	109.4	5.6	4.9%
	Total	386.5	391.1	(4.6)	-1.2%
2020	19Q3	122.1	116.8	5.3	4.3%
	19Q4	124.2	128.0	(3.8)	-3.1%
	20Q1	107.7	115.5	(7.8)	-7.2%
	20Q2	129.6	133.2	(3.6)	-2.8%
	Total	483.5	493.4	(9.9)	-2.0%
2021	20Q3	165.8	140.1	25.7	15.5%
	20Q4	176.2	167.7	8.5	4.8%
	21Q1	155.4	163.7	(8.2)	-5.3%
	21Q2	182.2	185.2	(3.0)	-1.6%
	Total	679.7	656.7	23.0	3.4%
2022	21Q3	180.8	139.1	41.7	23.1%
	21Q4	168.5	165.8	2.7	1.6%
	22Q1	138.6	155.6	(17.0)	-12.3%
	22Q2	166.2	172.8	(6.6)	-4.0%
	Total	654.1	633.3	20.8	3.2%

Motor Fuels Tax

gas

$$\begin{aligned}
 = & -0.00024 * \text{cyrpicva} + 0.44214 * \text{xtnemva} + 29.5258 * \text{jpc} \\
 & \quad (0.29550) \quad \quad (4.13424) \quad \quad (1.58375) \\
 & -30.0499 * \text{jpgdp} - 1.25632 * \text{jpcsvtspub} + 141.017 * \text{season}_2 \\
 & \quad (2.01617) \quad \quad (0.53609) \quad \quad (5.96567) \\
 & -19.3552 * \text{season}_3 + 52.9785 * \text{season}_4 - 440.211 \\
 & \quad (0.81625) \quad \quad (2.22057) \quad \quad (1.38108)
 \end{aligned}$$

Sum Sq	737794	Std Err	86.7670	LHS Mean	954.048
R Sq	0.4875	R Bar Sq	0.4456	F 8, 98	11.6509
D.W.(1)	2.7877	D.W.(4)	0.4983		

diesel

$$\begin{aligned}
 = & 0.14356 * \text{xtnemva} - 0.00029 * \text{cyrpicva} + 36.8984 * \text{season}_2 \\
 & \quad (4.23695) \quad \quad (2.51002) \quad \quad (4.77411) \\
 & -8.88814 * \text{season}_3 + 8.45152 * \text{season}_4 - 172.013 \\
 & \quad (1.14957) \quad \quad (1.08299) \quad \quad (1.99671)
 \end{aligned}$$

Sum Sq	81397.8	Std Err	28.3887	LHS Mean	259.358
R Sq	0.4216	R Bar Sq	0.3930	F 5,101	14.7235
D.W.(1)	1.5073	D.W.(4)	0.5990		

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
PPIRPP	PPI, refined petroleum products

Gasoline Consumption

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2013	12Q3	706.8	907.5	(200.7)	-28.4%
	12Q4	1,022.5	992.5	30.0	2.9%
	13Q1	904.7	944.7	(40.0)	-4.4%
	13Q2	1,153.5	1,075.7	77.7	6.7%
	Total	3,787.5	3,920.5	(132.9)	-3.5%
2014	13Q3	737.9	911.0	(173.0)	-23.4%
	13Q4	1,023.3	978.1	45.2	4.4%
	14Q1	977.4	927.4	50.0	5.1%
	14Q2	1,129.4	1,071.7	57.7	5.1%
	Total	3,868.0	3,888.2	(20.2)	-0.5%
2015	14Q3	856.3	905.8	(49.5)	-5.8%
	14Q4	989.3	974.5	14.8	1.5%
	15Q1	914.5	917.1	(2.5)	-0.3%
	15Q2	1,241.9	1,068.4	173.5	14.0%
	Total	4,002.0	3,865.8	136.3	3.4%
2016	15Q3	796.4	921.2	(124.8)	-15.7%
	15Q4	1,038.5	1,001.6	36.9	3.6%
	16Q1	959.3	951.5	7.7	0.8%
	16Q2	1,205.6	1,097.4	108.2	9.0%
	Total	3,999.8	3,971.7	28.0	0.7%
2017	16Q3	824.9	941.7	(116.8)	-14.2%
	16Q4	1,056.9	1,013.6	43.3	4.1%
	17Q1	947.0	967.1	(20.1)	-2.1%
	17Q2	1,292.9	1,112.5	180.3	13.9%
	Total	4,121.7	4,034.9	86.7	2.1%
2018	17Q3	827.5	949.8	(122.2)	-14.8%
	17Q4	1,057.0	1,018.0	39.1	3.7%
	18Q1	963.3	978.4	(15.1)	-1.6%
	18Q2	1,263.8	1,122.9	140.9	11.1%
	Total	4,111.7	4,069.1	42.6	1.0%
2019	18Q3	822.9	958.4	(135.5)	-16.5%
	18Q4	983.3	1,019.8	(36.5)	-3.7%
	19Q1	1,095.8	972.4	123.4	11.3%
	19Q2	1,216.8	1,127.3	89.5	7.4%
	Total	4,118.7	4,077.8	40.9	1.0%
2020	19Q3	869.6	962.7	(93.1)	-10.7%
	19Q4	1,032.1	1,029.7	2.4	0.2%
	20Q1	961.1	983.0	(21.8)	-2.3%
	20Q2	950.7	940.1	10.6	1.1%
	Total	3,813.6	3,915.5	(101.9)	-2.7%
2021	20Q3	722.4	857.5	(135.1)	-18.7%
	20Q4	888.7	935.9	(47.2)	-5.3%
	21Q1	915.7	882.6	33.1	3.6%
	21Q2	1,061.9	1,045.3	16.6	1.6%
	Total	3,588.7	3,721.2	(132.5)	-3.7%
2022	21Q3	797.1	888.3	(91.2)	-11.4%
	21Q4	978.8	948.3	30.6	3.1%
	22Q1	896.0	902.0	(6.0)	-0.7%
	22Q2	1,130.9	1,037.4	93.6	8.3%
	Total	3,802.9	3,775.9	27.0	0.7%

Diesel Fuel Consumption

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2013	12Q3	191.6	239.7	(48.1)	-25.1%
	12Q4	261.7	258.4	3.4	1.3%
	13Q1	240.4	255.1	(14.7)	-6.1%
	13Q2	323.7	290.6	33.2	10.2%
	Total	1,017.5	1,043.8	(26.3)	-2.6%
2014	13Q3	204.7	245.8	(41.1)	-20.1%
	13Q4	260.1	263.3	(3.2)	-1.2%
	14Q1	257.0	253.4	3.7	1.4%
	14Q2	307.9	292.1	15.7	5.1%
	Total	1,029.7	1,054.6	(24.9)	-2.4%
2015	14Q3	202.4	245.9	(43.5)	-21.5%
	14Q4	266.5	262.6	3.9	1.5%
	15Q1	243.3	254.9	(11.6)	-4.8%
	15Q2	319.4	295.4	24.0	7.5%
	Total	1,031.7	1,058.9	(27.2)	-2.6%
2016	15Q3	210.4	253.6	(43.2)	-20.5%
	15Q4	257.7	273.4	(15.7)	-6.1%
	16Q1	238.9	264.6	(25.7)	-10.7%
	16Q2	291.1	303.4	(12.3)	-4.2%
	Total	998.1	1,095.0	(96.9)	-9.7%
2017	16Q3	229.6	258.3	(28.8)	-12.5%
	16Q4	263.7	275.6	(11.9)	-4.5%
	17Q1	254.0	269.0	(15.0)	-5.9%
	17Q2	328.1	307.6	20.5	6.2%
	Total	1,075.4	1,110.5	(35.1)	-3.3%
2018	17Q3	200.4	262.2	(61.7)	-30.8%
	17Q4	270.8	278.8	(8.0)	-3.0%
	18Q1	258.8	274.1	(15.4)	-5.9%
	18Q2	330.4	314.7	15.7	4.7%
	Total	1,060.4	1,129.8	(69.4)	-6.5%
2019	18Q3	241.9	268.2	(26.3)	-10.9%
	18Q4	249.3	282.7	(33.4)	-13.4%
	19Q1	289.0	276.2	12.8	4.4%
	19Q2	323.0	317.3	5.7	1.8%
	Total	1,103.2	1,144.4	(41.2)	-3.7%
2020	19Q3	241.9	270.2	(28.3)	-11.7%
	19Q4	236.6	285.7	(49.1)	-20.7%
	20Q1	252.0	279.3	(27.4)	-10.9%
	20Q2	252.0	248.7	3.3	1.3%
	Total	982.5	1,083.9	(101.5)	-10.3%
2021	20Q3	242.2	229.9	12.2	5.1%
	20Q4	272.9	252.4	20.5	7.5%
	21Q1	290.1	236.9	53.2	18.3%
	21Q2	322.3	290.7	31.6	9.8%
	Total	1,127.5	1,010.0	117.5	10.4%
2022	21Q3	248.1	250.3	(2.1)	-0.8%
	21Q4	263.1	266.3	(3.2)	-1.2%
	22Q1	282.3	265.9	16.5	5.8%
	22Q2	326.1	312.9	13.2	4.0%
	Total	1,119.7	1,095.3	24.3	2.2%

Motor Vehicle Sales and Use Tax

log(ttcarsq)

$$\begin{aligned}
 = & 1.66113 * \text{dlogya}(\text{pdcgdp}) \\
 & \quad (2.23441) \\
 & + 0.79856 * \text{movavg}(2, \text{dlogya}(\text{xtnemva}.4)) \\
 & \quad (1.81476) \\
 & + 0.00000 * \text{diffya}(\text{yrpicva}) + 0.07590 * \text{season}_2 \\
 & \quad (0.26072) \quad (3.08073) \\
 & + 0.07811 * \text{season}_3 - 0.09086 * \text{season}_4 + 5.87759 \\
 & \quad (3.16958) \quad (3.65085) \quad (227.306)
 \end{aligned}$$

Sum Sq	0.6759	Std Err	0.0862	LHS Mean	5.9401
R Sq	0.4442	R Bar Sq	0.4076	F 6, 91	12.1216
D.W.(1)	0.7244	D.W.(4)	1.3029		

newcar

$$\begin{aligned}
 = & 0.00591 * \text{suvlv} + 0.01637 * \text{season}_2 + 0.01880 * \text{season}_3 \\
 & \quad (18.2266) \quad (10.2322) \quad (11.8790) \\
 & - 0.00845 \\
 & \quad (1.67411)
 \end{aligned}$$

Sum Sq	0.0068	Std Err	0.0074	LHS Mean	0.0906
R Sq	0.8027	R Bar Sq	0.7979	F 3,125	169.477
D.W.(1)	0.4632	D.W.(4)	0.5238		

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

New Taxable Titles (in thousands)

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2013	12Q3	94.1	94.8	(0.6)	-0.7%
	12Q4	81.6	79.7	1.9	2.3%
	13Q1	86.8	82.9	3.9	4.4%
	13Q2	99.1	100.0	(0.9)	-0.9%
	Total	361.6	357.3	4.2	1.2%
2014	13Q3	99.5	102.2	(2.8)	-2.8%
	13Q4	81.1	83.2	(2.1)	-2.6%
	14Q1	81.4	85.0	(3.6)	-4.4%
	14Q2	90.5	106.6	(16.1)	-17.8%
	Total	352.5	377.0	(24.5)	-7.0%
2015	14Q3	102.3	109.2	(6.8)	-6.7%
	14Q4	84.6	89.2	(4.6)	-5.5%
	15Q1	83.9	90.8	(6.9)	-8.2%
	15Q2	103.8	110.6	(6.8)	-6.6%
	Total	374.6	399.7	(25.1)	-6.7%
2016	15Q3	109.5	115.9	(6.4)	-5.9%
	15Q4	91.6	95.4	(3.8)	-4.1%
	16Q1	88.6	94.1	(5.5)	-6.2%
	16Q2	101.4	110.0	(8.7)	-8.5%
	Total	391.0	415.4	(24.4)	-6.2%
2017	16Q3	108.2	114.4	(6.2)	-5.8%
	16Q4	92.3	95.7	(3.4)	-3.7%
	17Q1	92.0	92.5	(0.5)	-0.5%
	17Q2	98.4	106.6	(8.3)	-8.4%
	Total	390.9	409.2	(18.4)	-4.7%
2018	17Q3	103.5	111.4	(7.9)	-7.7%
	17Q4	88.7	96.0	(7.3)	-8.3%
	18Q1	87.7	92.4	(4.7)	-5.3%
	18Q2	97.8	109.0	(11.2)	-11.4%
	Total	377.7	408.8	(31.1)	-8.2%
2019	18Q3	102.4	111.1	(8.7)	-8.5%
	18Q4	90.5	95.8	(5.3)	-5.9%
	19Q1	87.7	90.9	(3.2)	-3.6%
	19Q2	99.4	107.6	(8.2)	-8.3%
	Total	379.9	405.4	(25.4)	-6.7%
2020	19Q3	104.4	111.3	(6.9)	-6.7%
	19Q4	91.1	92.3	(1.2)	-1.3%
	20Q1	87.9	79.7	8.1	9.3%
	20Q2	73.8	73.9	(0.1)	-0.1%
	Total	357.2	357.3	(0.0)	0.0%
2021	20Q3	98.5	101.3	(2.9)	-2.9%
	20Q4	94.6	88.3	6.3	6.7%
	21Q1	91.9	90.4	1.6	1.7%
	21Q2	113.1	106.6	6.5	5.7%
	Total	398.1	386.6	11.5	2.9%
2022	21Q3	97.9	89.1	8.8	9.0%
	21Q4	77.8	68.4	9.4	12.1%
	22Q1	82.5	75.0	7.5	9.1%
	22Q2	85.6	86.5	(0.9)	-1.1%
	Total	343.8	318.9	24.8	7.2%

Used Taxable Titles (in thousands)

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2013	12Q3	282.8	306.9	(24.2)	-8.5%
	12Q4	237.1	262.4	(25.3)	-10.7%
	13Q1	280.8	289.0	(8.2)	-2.9%
	13Q2	305.5	300.0	5.5	1.8%
	Total	1,106.1	1,158.3	(52.1)	-4.7%
2014	13Q3	290.0	297.6	(7.6)	-2.6%
	13Q4	241.6	255.0	(13.4)	-5.5%
	14Q1	271.0	287.2	(16.2)	-6.0%
	14Q2	307.7	296.4	11.3	3.7%
	Total	1,110.3	1,136.2	(25.9)	-2.3%
2015	14Q3	289.1	294.2	(5.1)	-1.8%
	14Q4	250.1	247.9	2.2	0.9%
	15Q1	271.6	274.4	(2.8)	-1.0%
	15Q2	306.8	284.3	22.5	7.3%
	Total	1,117.6	1,100.8	16.7	1.5%
2016	15Q3	297.5	279.6	17.9	6.0%
	15Q4	257.4	238.0	19.4	7.5%
	16Q1	291.0	271.4	19.6	6.7%
	16Q2	309.5	285.9	23.7	7.6%
	Total	1,155.4	1,074.9	80.5	7.0%
2017	16Q3	304.0	284.4	19.6	6.4%
	16Q4	266.9	245.9	21.0	7.9%
	17Q1	305.4	285.3	20.0	6.6%
	17Q2	317.8	297.2	20.6	6.5%
	Total	1,194.1	1,112.9	81.2	6.8%
2018	17Q3	304.6	293.1	11.5	3.8%
	17Q4	261.4	244.8	16.6	6.4%
	18Q1	290.8	281.7	9.1	3.1%
	18Q2	317.2	298.1	19.0	6.0%
	Total	1,173.9	1,117.7	56.3	4.8%
2019	18Q3	301.0	296.6	4.4	1.5%
	18Q4	258.2	247.0	11.2	4.3%
	19Q1	296.1	283.2	12.9	4.4%
	19Q2	322.8	295.7	27.1	8.4%
	Total	1,178.2	1,122.5	55.6	4.7%
2020	19Q3	312.3	292.2	20.1	6.4%
	19Q4	271.1	247.3	23.9	8.8%
	20Q1	273.3	292.1	(18.8)	-6.9%
	20Q2	193.1	323.7	(130.6)	-67.6%
	Total	1,049.9	1,155.3	(105.4)	-10.0%
2021	20Q3	294.4	299.1	(4.7)	-1.6%
	20Q4	249.2	251.4	(2.2)	-0.9%
	21Q1	274.4	290.5	(16.1)	-5.9%
	21Q2	323.7	292.5	31.2	9.6%
	Total	1,141.6	1,133.4	8.2	0.7%
2022	21Q3	313.7	305.2	8.5	2.7%
	21Q4	270.1	278.1	(7.9)	-2.9%
	22Q1	265.0	307.3	(42.4)	-16.0%
	22Q2	292.1	354.9	(62.8)	-21.5%
	Total	1,140.8	1,245.5	(104.6)	-9.2%

Motor Vehicle License Revenues

vehreg1

$$= 0.95552 * \text{vehreg1}[-4] - 0.18390 * \text{vehreg2}[-8]$$

(23.0560) (2.28112)

$$+ 46892.1 * \text{origvttf} + 93397.2$$

(1.46293) (1.94298)

Sum Sq	5E+11	Std Err	62267.7	LHS Mean	1190187
R Sq	0.8180	R Bar Sq	0.8135	F 3,123	184.261
D.W.(1)	1.7725	D.W.(4)	2.5030		

vehreg2

$$= 1.27322 * (\text{vehreg2.8} * \text{renew}) - 3392.91 * \text{qd2} + 2476.01$$

(26.7413) (0.50175) (0.24171)

Sum Sq	1E+11	Std Err	32709.5	LHS Mean	267265
R Sq	0.8544	R Bar Sq	0.8521	F 2,124	363.852
D.W.(1)	0.6052	D.W.(4)	1.4734		

VEHREG1	One year registrations
VEHREG2	Two year registrations
RENEW2	Percent of two year renewals who maintain the two year interval
QD2	Dummy variable second quarter

One Year Registrations

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2013	12Q3	1,330,752	1,299,252	31,500	2.4%
	12Q4	1,059,221	1,057,028	2,193	0.2%
	13Q1	1,207,727	1,223,484	(15,757)	-1.3%
	13Q2	1,370,117	1,236,506	133,611	9.8%
	Total	4,967,817	4,816,270	151,547	3.1%
2014	13Q3	1,286,444	1,310,104	(23,660)	-1.8%
	13Q4	1,070,701	1,062,453	8,248	0.8%
	14Q1	1,177,663	1,194,763	(17,100)	-1.5%
	14Q2	1,324,308	1,348,067	(23,759)	-1.8%
	Total	4,859,116	4,915,387	(56,271)	-1.2%
2015	14Q3	1,303,376	1,261,948	41,428	3.2%
	14Q4	1,043,487	1,070,061	(26,574)	-2.5%
	15Q1	1,125,800	1,166,110	(40,310)	-3.6%
	15Q2	1,353,553	1,298,470	55,083	4.1%
	Total	4,826,216	4,796,589	29,627	0.6%
2016	15Q3	1,310,587	1,282,139	28,448	2.2%
	15Q4	1,091,163	1,043,568	47,595	4.4%
	16Q1	1,203,707	1,117,496	86,211	7.2%
	16Q2	1,305,838	1,326,700	(20,862)	-1.6%
	Total	4,911,295	4,769,903	141,392	2.9%
2017	16Q3	1,284,089	1,284,939	(850)	-0.1%
	16Q4	1,065,690	1,088,853	(23,163)	-2.2%
	17Q1	1,194,429	1,193,734	695	0.1%
	17Q2	1,302,104	1,278,774	23,330	1.8%
	Total	4,846,312	4,846,300	12	0.0%
2018	17Q3	1,242,320	1,260,246	(17,926)	-1.4%
	17Q4	1,041,436	1,062,317	(20,881)	-2.0%
	18Q1	1,199,940	1,178,834	21,106	1.8%
	18Q2	1,266,694	1,276,328	(9,634)	-0.8%
	Total	4,750,390	4,777,726	(27,336)	-0.6%
2019	18Q3	1,234,621	1,217,102	17,519	1.4%
	18Q4	1,067,739	1,036,236	31,503	3.0%
	19Q1	1,182,279	1,182,062	217	0.0%
	19Q2	1,263,417	1,240,120	23,297	1.8%
	Total	4,748,056	4,675,520	72,536	1.5%
2020	19Q3	1,263,017	1,212,771	50,246	4.0%
	19Q4	1,057,058	1,056,506	552	0.1%
	20Q1	1,086,420	1,154,625	(68,205)	-6.3%
	20Q2	965,886	1,226,525	(260,639)	-27.0%
	Total	4,372,381	4,650,428	(278,047)	-6.4%
2021	20Q3	1,166,725	1,225,608	(58,883)	-5.0%
	20Q4	961,479	1,038,936	(77,457)	-8.1%
	21Q1	1,017,152	1,060,530	(43,378)	-4.3%
	21Q2	1,031,040	939,628	91,412	8.9%
	Total	4,176,396	4,264,701	(88,305)	-2.1%
2022	21Q3	1,066,335	1,131,200	(64,865)	-6.1%
	21Q4	893,791	947,660	(53,869)	-6.0%
	22Q1	963,808	996,705	(32,897)	-3.4%
	22Q2	935,600	1,012,123	(76,523)	-8.2%
	Total	3,859,534	4,087,687	(228,153)	-5.9%

Two Year Registrations

	<u>Fiscal Year</u>	<u>Actual</u>	<u>Fitted</u>	<u>Residual</u>	<u>% Residual</u>
2013	12Q3	329,923	333,229	(3,306)	-1.0%
	12Q4	252,382	262,245	(9,863)	-3.9%
	13Q1	285,852	299,732	(13,880)	-4.9%
	13Q2	328,063	311,241	16,822	5.1%
	Total	1,196,220	1,206,447	(10,227)	-0.9%
2014	13Q3	308,108	325,288	(17,180)	-5.6%
	13Q4	255,044	255,833	(789)	-0.3%
	14Q1	280,728	312,275	(31,547)	-11.2%
	14Q2	326,511	319,840	6,671	2.0%
	Total	1,170,391	1,213,236	(42,845)	-3.7%
2015	14Q3	330,347	359,532	(29,185)	-8.8%
	14Q4	256,512	275,614	(19,102)	-7.4%
	15Q1	270,965	311,836	(40,871)	-15.1%
	15Q2	339,195	354,126	(14,931)	-4.4%
	Total	1,197,019	1,301,107	(104,088)	-8.7%
2016	15Q3	326,940	335,923	(8,983)	-2.7%
	15Q4	268,453	278,495	(10,042)	-3.7%
	16Q1	303,775	306,291	(2,516)	-0.8%
	16Q2	333,097	352,446	(19,349)	-5.8%
	Total	1,232,265	1,273,154	(40,889)	-3.3%
2017	16Q3	344,522	359,990	(15,468)	-4.5%
	16Q4	284,256	280,083	4,173	1.5%
	17Q1	314,861	295,725	19,136	6.1%
	17Q2	345,999	366,173	(20,174)	-5.8%
	Total	1,289,638	1,301,972	(12,334)	-1.0%
2018	17Q3	328,067	356,303	(28,236)	-8.6%
	17Q4	310,698	293,006	17,692	5.7%
	18Q1	372,289	331,233	41,056	11.0%
	18Q2	402,900	359,574	43,326	10.8%
	Total	1,413,954	1,340,117	73,837	5.2%
2019	18Q3	405,809	375,331	30,478	7.5%
	18Q4	350,744	310,109	40,635	11.6%
	19Q1	385,882	343,231	42,651	11.1%
	19Q2	417,039	373,537	43,502	10.4%
	Total	1,559,474	1,402,208	157,266	10.1%
2020	19Q3	418,853	357,523	61,330	14.6%
	19Q4	350,465	338,726	11,739	3.3%
	20Q1	373,041	405,382	(32,341)	-8.7%
	20Q2	361,360	435,117	(73,757)	-20.4%
	Total	1,503,719	1,536,748	(33,029)	-2.2%
2021	20Q3	389,820	441,658	(51,838)	-13.3%
	20Q4	399,497	382,065	17,432	4.4%
	21Q1	495,651	420,093	75,558	15.2%
	21Q2	493,669	450,419	43,250	8.8%
	Total	1,778,637	1,694,235	84,402	4.7%
2022	21Q3	502,153	455,775	46,378	9.2%
	21Q4	423,025	381,763	41,262	9.8%
	22Q1	463,402	406,196	57,206	12.3%
	22Q2	453,681	390,161	63,520	14.0%
	Total	1,842,261	1,633,895	208,366	11.3%

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

$R^2 = 98.7\%$