

**A LONG-RUN FORECAST OF  
TAXABLE SALES FOR ORANGE COUNTY**

*Prepared for*  
**ORANGE COUNTY TRANSPORTATION AUTHORITY**

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# **A Long-Run Forecast of Taxable Sales for Orange County**

This study revises, updates and extends the results of a previous study completed in May 2024 that forecasted annual taxable sales in Orange County. This study provides a quarterly forecast for 2025Q1 to 2029Q4, and an annual forecast from 2025 to 2041. The excess savings that the consumers have accumulated through three stimuli by the Trump and Biden administrations have already been spent. Fiscal policy remains expansionary as the budget deficit hovers around \$2 trillion. The Federal Reserve decreased the federal funds rate by 1 percent in 2024 but held it steady so far in 2025. The tariffs on foreign made products imposed by the Trump administration have resulted in chaos for the US economy as well as the world economies. The high level of tariffs, followed by postponement of some of the tariffs, and the constant changes in the decisions made created uncertainty in the mind of the consumers and in the business community.

## **I. Summary**

- While U.S. payroll employment increased by 1.3 percent in 2024, it only increased by 0.7% in California and an even lower 0.6% in Orange County.
- The population of Orange County did not increase in 2024. Neither this nor the low payroll employment growth helped taxable sales in 2024.
- Real gross domestic product grew by 2.8 percent in 2024, higher than most expectations. Due to the added tariffs by the Trump administration, the odds of a recession in 2025 have increased especially now that the first quarter showed a slight decline. Real gross domestic product is expected to grow at a lower rate in 2025. The level of the growth rate depends on how severe the tariff increases will eventually be.
- The Federal Reserve is expected to decrease the federal funds rate by 0.25 percent two times this year.

- Taxable sales in Orange County declined in both 2023 and 2024. They are expected to decline by 1 percent in 2025, and increase by 3.5 percent in 2026.

## **II. Tariffs: Chaos, Uncertainty and Bewilderment**

On March 12, a 25 percent tariff on imports of steel and aluminum took effect. The tariff on cars and car parts is 25 percent. Mexico and Canada were hit by a 25 percent on all goods except those that are compliant with the free trade agreement. On April 2, the Trump administration imposed a 10% tariff on all U.S. imports from all countries effective April 5. That same day reciprocal tariffs were imposed on 60 countries that have a high trade deficit with the U.S. The additional tariffs for example are: 24 percent on Japan, 46 percent on Vietnam, 32 percent on Taiwan, 25 percent on South Korea and 26 percent on India. On April 8, in a trade war with China, the Trump administration declared a 104 percent tariff on Chinese goods. On April 9, China retaliated with an 84 percent tariff on the U.S. goods. On that same day, the Trump administration retaliated by increasing the tariff to 145 percent. On April 11, China retaliated with a 125 percent tariff on their imports from the U.S. and cancelled purchases of Boeing airplanes. When the stock market tumbled and investors dumped U.S. Treasury securities resulting in a substantial increase in securities' yield, the Trump administration paused the implementation of the reciprocal tariffs for 90 days. Additionally, the Trump administration exempted smartphones, computers, flat-panel TVs and electronic products from the 145 percent tariff on Chinese goods. In a deal with the United Kingdom made on May 5, the tariff on cars is 10 percent for the first 100,000 cars and the tariff on steel and aluminum is zero. On May 12, tariffs on Chinese goods went down from 145 percent to 30 percent, and Chinese tariffs on American goods went down from 125 percent to 10 percent for 90 days.

In early March, Treasury Secretary Scott Bessent said that he is “highly confident that the Chinese manufacturers will eat the tariffs – prices won’t go up.” But during the week of March 17, hot rolled coil steel reached \$1,044 per metric ton, 38 percent higher than just before the Trump election victory. Practically no one believes that tariffs are paid by the country on which tariffs are imposed or that tariffs do not increase prices. Commenting on the exemptions of tariffs

on electronic goods, Commerce Secretary Howard Lutnick said that the exemptions to Chinese goods are temporary and that “they are exempt from the reciprocal tariffs, but they are included in the semiconductor tariffs which are coming into probably a month or two.” This and other comments by government officials have added uncertainty about President Trump's tariff policies particularly that these tariffs have been changing constantly over time. There is anecdotal evidence that consumers are refraining from some consumption due to the murky performance of the economy in the medium term. Businesses are also postponing major investment decisions due to the confusion associated with the tariff situation.

### **III. Deportations**

President Trump has declared that his administration intends to deport millions of undocumented immigrants. If this materializes, it will impact employment heavily in both California and Orange County in 2025 and beyond. The main impact will fall on lower-paid jobs such as in the hotel and restaurant businesses. Estimating the decrease in employment due to deportations is made difficult due to the unavailability of good quality data on undocumented employees at both the state and county levels. This presents an added twist in estimating the growth in payroll employment that will be discussed later in this report.

### **IV. Factors that Influence Taxable Sales**

#### **A. Population**

In 2023, according to the Center for Disease Control and Prevention, the fertility rate in the U.S. was 54.56 births per 1,000 women 15 to 44 years old (from 56 in 2020), about half what it was in the early 1960s. This in part explains the lower growth rate in the U.S. population. The decline in the total number of births was offset by an influx of immigrants into the country in the last four years. The table on the next page shows the percentage increase in the Orange County population over the decades. Orange County's population grew by only 5.9 percent between 2010 and 2020 compared to 20.1 percent in the 1990s. This growth rate is expected to decrease in the coming decades. The upcoming slow growth in the population will have a substantial

impact on the growth in employment, taxable sales, city and county tax revenues, residential development, and the broader real estate market. City and county governments will have to assess the impact on their jurisdictions and take the necessary steps to mitigate the negative consequences.

<b>ORANGE COUNTY POPULATION GROWTH RATE<sup>1</sup></b>		
<b>YEAR</b>	<b>PERCENT CHANGE</b>	<b>ACTUAL CHANGE</b>
1950-1960	228.8%	489,864
1960-1970	101.8%	716,461
1970-1980	36.1%	512,535
1980-1990	22.6%	437,010
1990-2000	20.1%	476,358
2000-2010	5.8%	163,943
2010-2020	5.9%	176,757

(1) Bureau of the Census, April 1<sup>st</sup> data

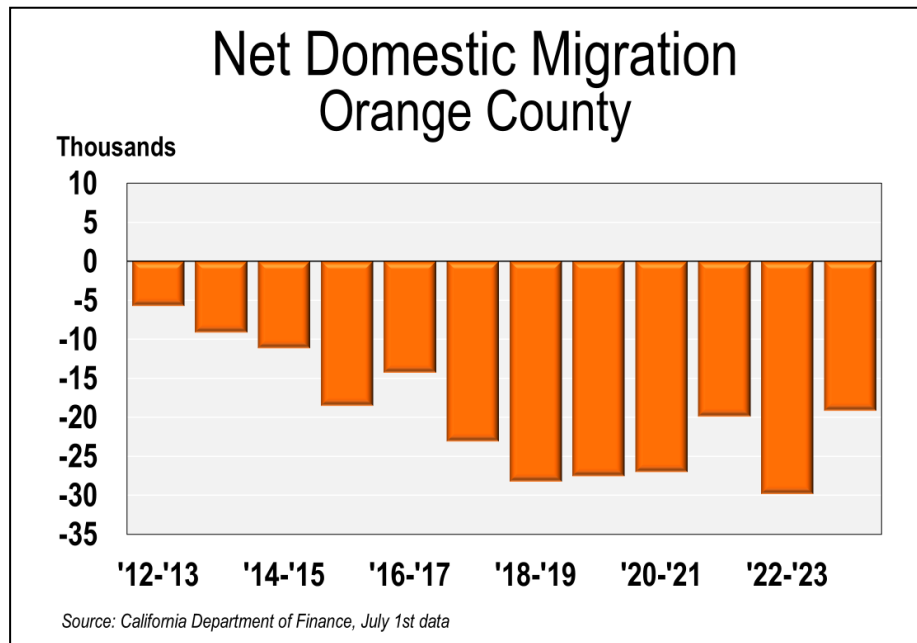
The table on the next page shows that the Orange County population growth rate has turned negative from 2019 to 2023. The population remained unchanged in 2024. Although the population growth rate is expected to be positive in the coming years, the rate is expected to remain at a very low level in the coming decades according to projections made by the California Department of Finance. In comparison, population growth in the Inland Empire has been higher than Orange County's. It is expected to drop over time but will continue to be higher than Orange County's. The decline in the population growth rate will impact not only the number of jobs in each county, but taxable sales growth as well. It is also important to note that the proportion of people over the age of 65 will continue to increase in the coming years as the baby boomer generation grows older.

POPULATION GROWTH RATE <sup>2</sup>		
YEAR	ORANGE COUNTY	INLAND EMPIRE
2019	-0.07%	0.69%
2020	-0.09%	0.74%
2021	-0.75%	0.10%
2022	-0.34%	-0.03%
2023	-0.37%	-0.21%
2024	0.00%	0.44%

(2) California Department of Finance, July 1<sup>st</sup> data

## **B. Impact of Population Growth on Employment**

The Orange County population has declined from 2019 to 2023 for several reasons: Covid deaths, lower international migration, lower birth rate, and higher net population outflow. Net population outflow from California to other states added up to -1,316,749 in the last five years according to the California Department of Finance. During that same period, net population outflow to other states and other parts of California was -123,374 in Orange County. The net population outflow was -19,151 last year alone.



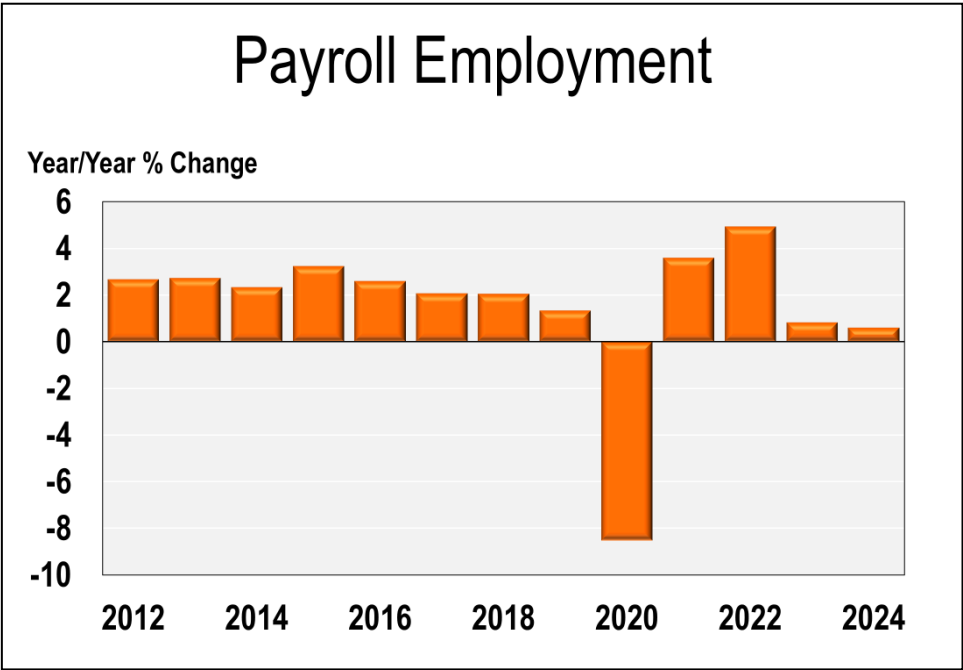
The population growth rate is forecasted to remain low in future years compared to previous years. With a lower population growth rate, one wonders where is Orange County going to get additional workers to fill its need for employees in order to continue growing its economy at a healthy rate. Given the high cost of living in Orange County, particularly the high home prices and rents, it is not surprising that many employees are unable to afford to live in Orange County. Consequently, an increasing number of people work in Orange County and live in neighboring counties such as the Inland Empire and Los Angeles County. This has occurred in previous years and will continue to occur in the future, possibly on a larger scale, particularly that the population growth rate in Orange County is expected to be below the Inland Empire's rate as mentioned earlier. In fact, more than 751,000 people worked in Orange County but lived outside Orange County in 2022 (the latest year this data is available). This figure was a little over 690,000 in 2021.

## **V. Employment Projections**

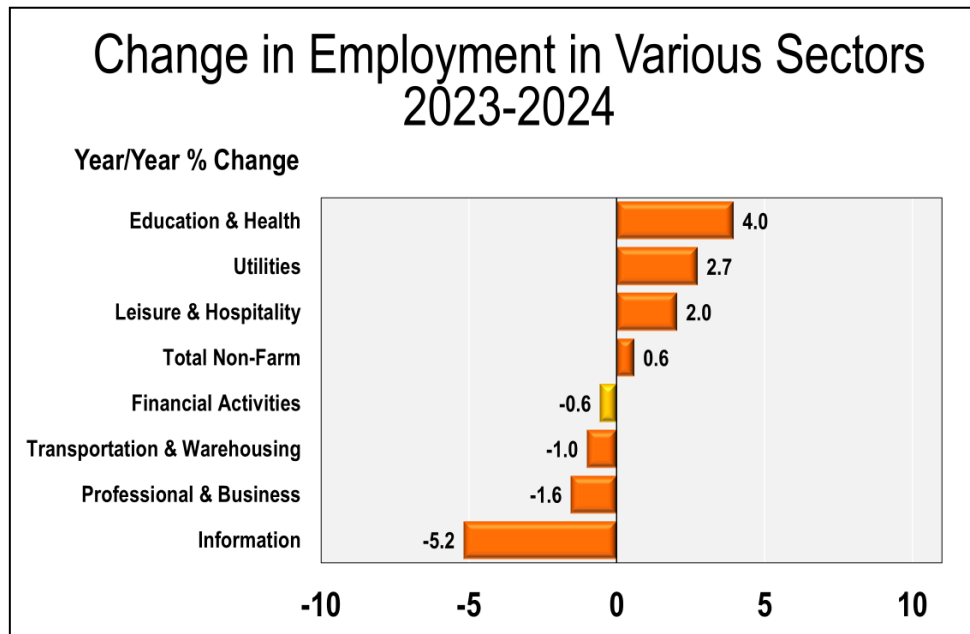
Employment in Orange County reached a peak in February 2020 before the onset of the COVID recession. It reached a trough in May 2020, started recovering the lost jobs, and



surpassed the previous peak in November 2022. A new peak was reached in November 2024. In 2024, employment increased by 0.6 percent compared to 2023.



The Education & Health, Utilities, and Leisure & Hospitality industries showed the highest growth rate in employment in 2024, while the Information, Professional & Business, and Transportation & Warehousing industries showed the highest decrease in the growth rate compared to 2023 as shown in the table on the next page.



Employment plays a critical role in forecasting taxable sales. That is why there is a need to forecast employment first. Our empirical findings suggest that growth in employment is explained by the real gross domestic product, the labor force participation rate and the population.

#### **A. Real Gross Domestic Product**

While it would be advantageous to include consumption in our forecasting equation, long-term consumption projections are unfortunately not available. Since there is a very strong and statistically significant relationship between consumption and gross domestic product, we use gross domestic product as a proxy for consumption spending to explain the growth rate in employment.

The depleted stock of excess household savings will lend less support to the economy in 2025. The federal funds rate that is set by the Federal Reserve has reached a range of 4.00-4.25 percent as of April 2024. Despite the decrease in the inflation rate, the researchers at the A. Gary Anderson Center for Economic Research expect the Federal Reserve to decrease the federal funds rate only twice this year. The expected increase in the inflation rate due to higher tariffs,

and the high level of interest rates in the economy lead the Anderson Center researchers to conclude that the economy will face a slowdown in the growth rate of real gross domestic product. While a recession in 2025 is not a forgone conclusion, the odds of a recession are much higher than they were at the end of 2024, mostly due to President Trump’s tariff policy. We project that the real gross domestic product will increase by 1.2 percent in 2025 compared to 2.8 percent in 2024. Projection of the growth rate in real gross domestic product for 2025 is derived from the forecasting model at the A. Gary Anderson Center for Economic Research. Further years’ projections are based on projections by the Federal Reserve and our own research.

## **B. Consumer Price Index**

The Consumer Price Index is a measure of the average price paid by urban consumers for a market basket of consumer goods and services. It is used in this study to compute real taxable sales, which are taxable sales adjusted for inflation. The Consumer Price Index increased by 2.9 percent in 2024. It is expected to increase by 3.3 percent in 2025.

Longer-run projection of the increase in the Consumer Price Index is 2.5 percent starting in 2027.

CONSUMER PRICE INDEX	
YEAR	ANNUAL % CHANGE
2024	2.9%
2025	3.3%
2026	3.0%

## **C. Labor Force Participation Rate**

The long-run nature of this forecast study limits the type of variables that can be used in forecasting taxable sales. One might hypothesize that both the population and the labor force

participation rate would be significant variables in explaining employment. In general, one would expect employment to increase as the population increases, although the number of employed workers is cyclical and varies substantially over the business cycle. Demographics also impact employment such as the aging of the population and the proportion of people in each age cohort who seek employment. As a result, the labor force participation rate becomes a relevant variable in explaining employment.

The labor force participation rate in Orange County increased in 2024, reaching 63.0. Projections of the U.S. labor force participation rate over the 2025-2035 period were made by the Congressional Budget Office. Orange County's percentage change in the labor force participation rate is assumed to be equal to that of the U.S. over that period, since county level labor force participation rate projections are not available. The U.S. rate of change in the labor force participating rate was applied to compute the Orange County labor force participation rate. The rate beyond 2035 is assumed to be equal to the 2035 value.

<b>OC LABOR FORCE PARTICIPATION RATE</b>	
<b>YEAR</b>	<b>RATE</b>
2010	64.8
2015	62.9
2020	61.4
2025	62.9
2030	62.7

The labor force participation rate for people over 65 years old is lower than the rate of other population cohorts. Since the proportion of people over 65 years old will be higher over the years, the labor force participation rate is expected to continue to decline over the long-term. This will negatively affect employment growth in Orange County.

#### **D. Payroll Employment Forecast**

The above mentioned information was used to forecast employment. The table below presents the forecast of payroll job growth over the 2025-2029 period. The growth rate in payroll employment in 2025 will be negative at -0.47 percent. It is on the negative side because of the new tariffs that have been imposed. If reciprocal tariffs will not be reversed after they were paused until July 7, the employment growth rate will drop even further. Future employment growth rates are expected to be low due to the expected low population growth rate. The longer-run projections of Orange County payroll employment are shown on page 17 of this report.

As far as deportation of undocumented workers is concerned, if it is substantial, then the forecast of employment growth in 2025 and 2026 presented here will be an overestimate.

<b>ORANGE COUNTY PAYROLL EMPLOYMENT</b>	
<b>YEAR</b>	<b>ANNUAL % CHANGE</b>
2025	-0.47%
2026	0.22%
2027	0.46%
2028	0.59%
2029	0.7%

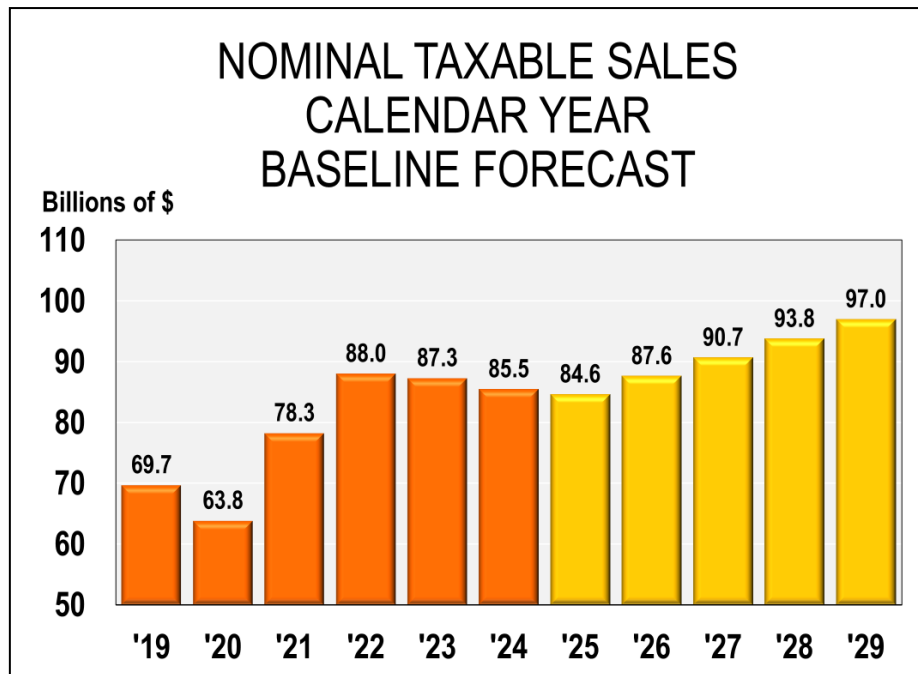
#### **VI. Taxable Sales Forecasts**

Projections of payroll employment, the real gross domestic product, and the consumer price index allow us to forecast taxable sales. Nominal taxable sales forecasts are converted to real forecasts using a projection of the Consumer Price Index (CPI) referenced earlier. The forecasts can be found on page 20 of this report.

The table below presents calendar year actual year-to-year percentage change in Orange County's nominal (not adjusted for inflation) taxable sales for 2022 to 2024, and forecasts for 2025 and 2026.

<b>NOMINAL TAXABLE SALES CALENDAR YEAR BASELINE FORECAST</b>	
<b>YEAR</b>	<b>ANNUAL % CHANGE</b>
2022	12.49%
2023	-0.83%
2024	-2.08%
2025	-0.99%
2026	3.54%

Nominal values of taxable sales are presented in the chart below. The data from 2019 to 2024 represent actual values, while the rest of the data are forecasted values.



The quarterly baseline, optimistic and pessimistic forecasts of taxable sales are shown on page 24, and the annual baseline, optimistic and pessimistic forecasts are shown on page 25.

Additionally, the fiscal year baseline, optimistic and pessimistic, nominal and real (adjusted for inflation) taxable sales forecasts over the 2005-2041 period are presented on pages 27 and 28 of this report.

## VII. Comparison

In our 2024 report, we forecast taxable sales to increase by 1.97 percent. The actual change in taxable sales turned out to be -2.08 percent (from \$87,298 billion to \$85,482 billion). As the table below indicates, California and Orange County taxable sales growth rates mimicked the growth rate in U.S. retail sales excluding groceries in 2021 and 2022. But in 2023, although U.S. retail sales excluding groceries increased by 3.5 percent, taxable sales in California and Orange County declined. What was the cause of the decline?

	YEAR TO YEAR GROWTH RATE		
YEAR	U.S. RETAIL SALES	CALIFORNIA TAXABLE SALES	ORANGE COUNTY TAXABLE SALES
2021	20.1%	22.1%	22.6%
2022	9.2%	10.3%	12.5%
2023	3.7%	-1.7%	-0.8%
2024	2.7%	-1.6%	-2.1%

Many variables could explain the decline. The table below shows that while U.S. payroll employment growth rate dropped from 4.3 percent in 2023 to 2.2 percent in 2024, the drop was much more dramatic in Orange County, where the rate dropped from 4.9 percent in 2022 to 0.8 percent in 2023. In 2024, the U.S. employment growth rate was 1.3 percent, but it was a meager 0.6 percent in Orange County. The Orange County population declined in 2023, and did not

grow at all in 2024. This and the very low employment growth rate led to a decline in taxable sales in both 2023 and 2024 in Orange County. The poor performance of the California and Orange County economies in 2023 and 2024 can be attributed to the flight of people from California to other states, high taxes, excessive regulations and high cost of living.

	<b>YEAR TO YEAR GROWTH RATE IN EMPLOYMENT</b>		
<b>YEAR</b>	<b>U.S.</b>	<b>CALIFORNIA</b>	<b>ORANGE COUNTY</b>
2022	4.3%	5.5%	4.9%
2023	2.2%	0.8%	0.8%
2024	1.3%	0.7%	0.6%

The forecast of fiscal year percentage change in taxable sales made last May (PASTOF2024) together with the forecast developed this May (PASTOF2025) are presented on page 30 of this report.



## Definition of Variables

STO:	Total quarterly taxable sales, actual and baseline forecast
STOO:	Total quarterly taxable sales, optimistic forecast
STOP:	Total quarterly taxable sales, pessimistic forecast
ASTO:	Total annual (calendar year) taxable sales, actual and baseline forecast
ASTOO:	Total annual (calendar year) taxable sales, optimistic forecast
ASTOP:	Total annual (calendar year) taxable sales, pessimistic forecast
ARSTO:	Total annual (calendar year) real taxable sales, actual and baseline forecast
ARSTOO:	Total annual (calendar year) real taxable sales, optimistic forecast
ARSTOP:	Total annual (calendar year) real taxable sales, pessimistic forecast
ASTOF:	Total annual (fiscal year) taxable sales, actual and baseline forecast
ASTOOF:	Total annual (fiscal year) taxable sales, optimistic forecast
ASTOPF:	Total annual (fiscal year) taxable sales, pessimistic forecast
ARSTOF:	Total annual (fiscal year) real taxable sales, actual and baseline forecast
ARSTOOF:	Total annual (fiscal year) real taxable sales, optimistic forecast
ARSTOPF:	Total annual (fiscal year) real taxable sales, pessimistic forecast
ACPI:	Annual (calendar year) average of the consumer price index, actual and forecast
ACPIF:	Annual (fiscal year) average of the consumer price index, actual and forecast
ALFPR:	Annual (calendar year) Orange County labor force participation rate
AOCPOP:	Annual Orange County population (July 1 <sup>st</sup> )
RGDP:	Real gross domestic product
ANTO:	Annual (calendar year) employment

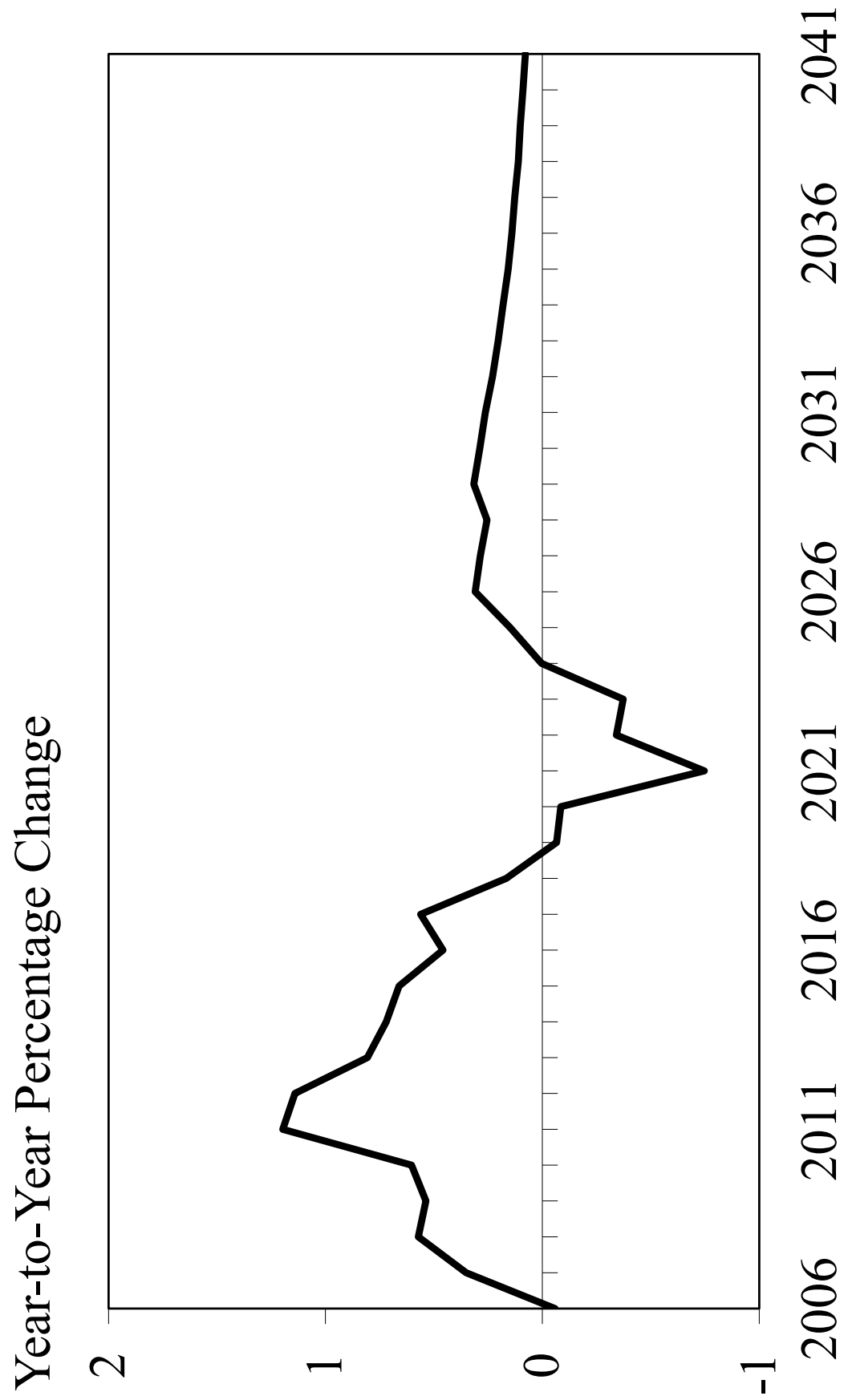
For any of the above variables, the letter P preceding the name of the variable indicates the year over year percentage change in that variable.

All taxable sales and real taxable sales are in millions of dollars.

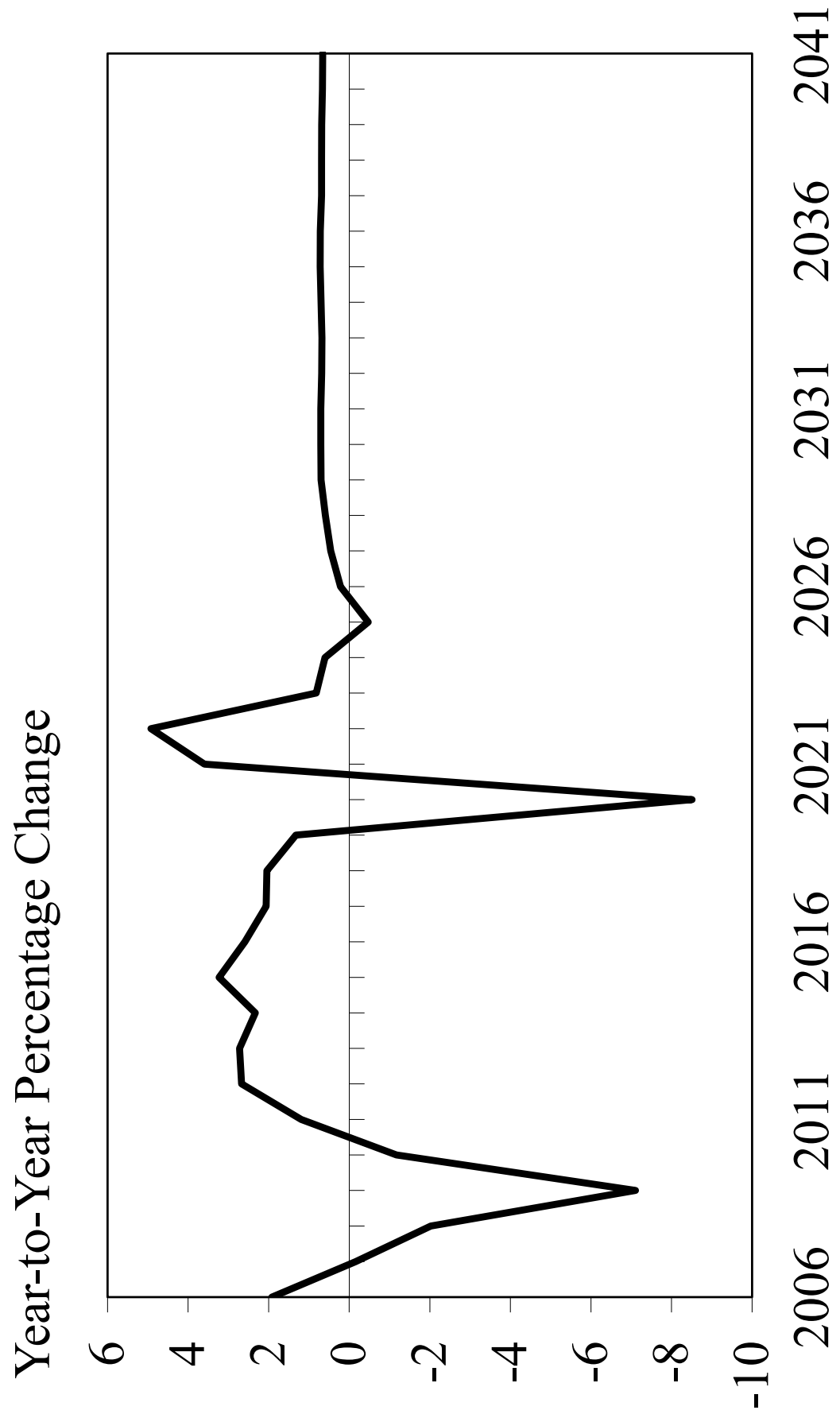
	ACPI	PACPI	AOCPOP	PAOCPOP
2005	195.27	3.37	2,957,151	0.02
2006	201.56	3.22	2,955,433	-0.06
2007	207.34	2.87	2,965,823	0.35
2008	215.25	3.81	2,982,788	0.57
2009	214.56	-0.32	2,998,816	0.54
2010	218.08	1.64	3,016,922	0.60
2011	224.92	3.14	3,053,035	1.20
2012	229.59	2.07	3,087,846	1.14
2013	232.95	1.47	3,112,757	0.81
2014	236.72	1.62	3,135,170	0.72
2015	237.00	0.12	3,155,895	0.66
2016	240.01	1.27	3,170,359	0.46
2017	245.12	2.13	3,188,158	0.56
2018	251.10	2.44	3,193,464	0.17
2019	255.65	1.81	3,191,365	-0.07
2020	258.86	1.25	3,188,652	-0.09
2021	270.97	4.68	3,164,848	-0.75
2022	292.63	7.99	3,154,042	-0.34
2023	304.70	4.13	3,142,277	-0.37
2024	313.70	2.95	3,142,387	0.00
2025	324.10	3.32	3,147,059	0.15
2026	333.88	3.02	3,156,817	0.31
2027	342.25	2.50	3,165,849	0.29
2028	350.80	2.50	3,173,938	0.26
2029	359.53	2.50	3,183,973	0.32
2030	368.55	2.50	3,193,151	0.29
2031	377.75	2.50	3,201,551	0.26
2032	387.20	2.50	3,208,903	0.23
2033	396.85	2.50	3,215,438	0.20
2034	406.80	2.50	3,221,266	0.18
2035	416.98	2.50	3,226,344	0.16
2036	427.38	2.50	3,230,887	0.14
2037	438.10	2.50	3,235,014	0.13
2038	449.00	2.50	3,238,605	0.11
2039	460.25	2.50	3,241,918	0.10
2040	471.78	2.50	3,244,826	0.09
2041	483.58	2.50	3,247,363	0.08

	ANTO	ACPIF	ALFPR
2005	1,499,575	191.70	70.24
2006	1,528,367	198.94	70.60
2007	1,525,934	204.11	70.37
2008	1,495,050	211.68	69.94
2009	1,388,800	214.65	67.91
2010	1,372,558	216.76	64.81
2011	1,388,925	221.06	64.09
2012	1,426,050	227.55	63.77
2013	1,464,858	231.39	63.13
2014	1,498,992	234.99	62.77
2015	1,547,442	236.67	62.95
2016	1,587,542	238.24	63.64
2017	1,620,283	242.68	63.49
2018	1,653,392	248.13	63.52
2019	1,675,283	253.26	63.47
2020	1,532,725	257.27	61.43
2021	1,587,825	263.14	61.37
2022	1,666,000	282.03	62.26
2023	1,679,642	299.66	62.91
2024	1,689,725	309.57	63.03
2025	1,681,722	318.25	62.95
2026	1,685,351	329.55	62.88
2027	1,693,078	338.05	62.82
2028	1,703,078	346.50	62.76
2029	1,714,974	355.13	62.71
2030	1,727,049	364.03	62.66
2031	1,739,222	373.13	62.62
2032	1,751,093	382.45	62.57
2033	1,762,922	392.00	62.52
2034	1,775,220	401.80	62.49
2035	1,788,007	411.85	62.49
2036	1,800,846	422.15	62.49
2037	1,813,187	432.70	62.49
2038	1,825,644	443.53	62.49
2039	1,838,104	454.60	62.49
2040	1,850,332	465.98	62.49
2041	1,862,478	477.65	62.49

# Population



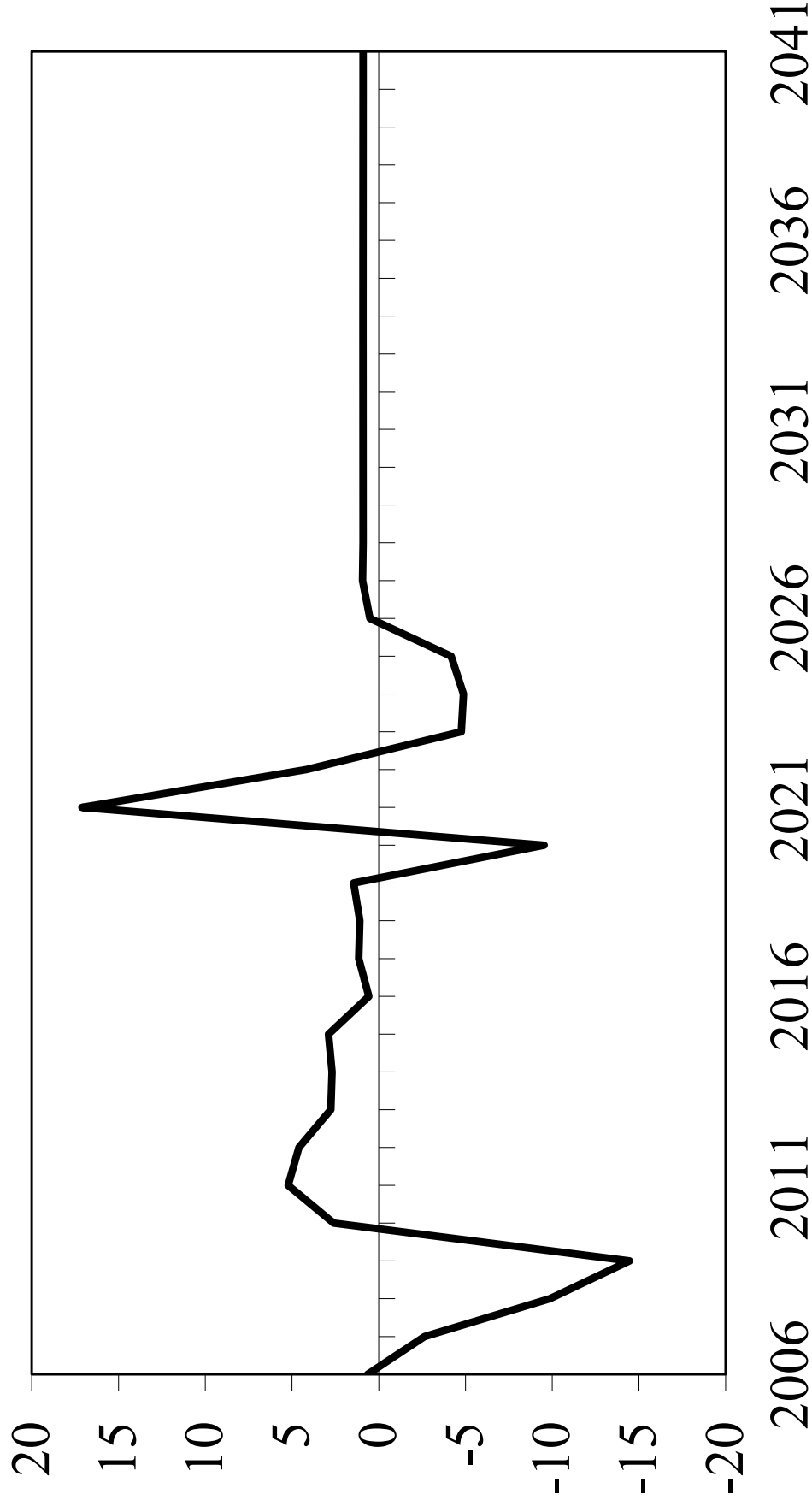
# Employment



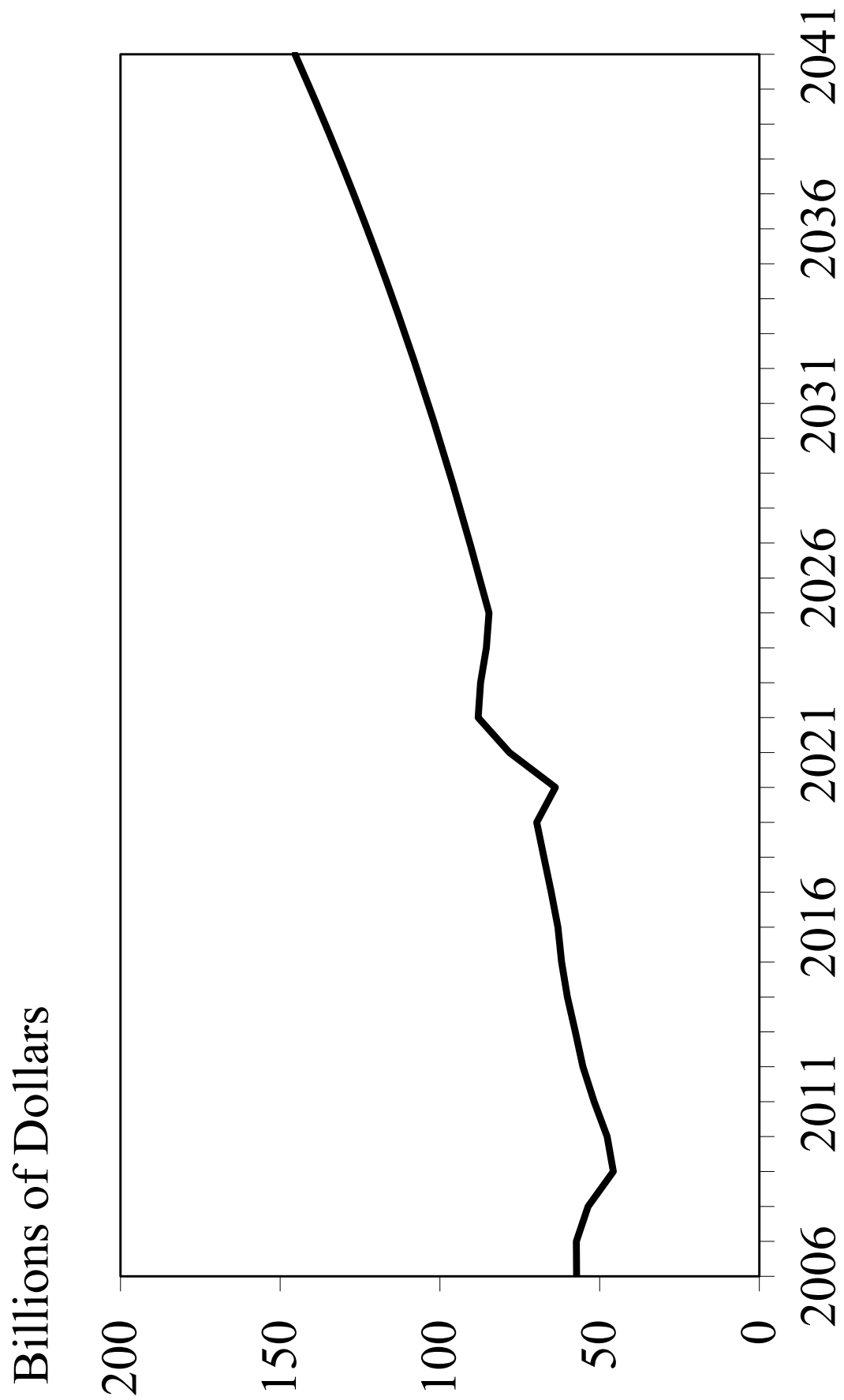
	ASTO	PASTO	ARSTO	PARSTO
2005	55,063	6.54	28,199	3.07
2006	57,203	3.89	28,380	0.64
2007	57,293	0.16	27,632	-2.64
2008	53,607	-6.43	24,904	-9.87
2009	45,713	-14.73	21,305	-14.45
2010	47,667	4.28	21,858	2.60
2011	51,731	8.53	22,999	5.22
2012	55,231	6.76	24,057	4.60
2013	57,591	4.27	24,722	2.77
2014	60,097	4.35	25,388	2.69
2015	61,916	3.03	26,125	2.90
2016	63,059	1.85	26,274	0.57
2017	65,148	3.31	26,578	1.16
2018	67,469	3.56	26,869	1.10
2019	69,689	3.29	27,259	1.45
2020	63,834	-8.40	24,660	-9.54
2021	78,254	22.59	28,879	17.11
2022	88,027	12.49	30,082	4.16
2023	87,298	-0.83	28,650	-4.76
2024	85,482	-2.08	27,250	-4.89
2025	84,632	-0.99	26,113	-4.17
2026	87,631	3.54	26,247	0.51
2027	90,667	3.47	26,492	0.93
2028	93,770	3.42	26,730	0.90
2029	96,978	3.42	26,974	0.91
2030	100,308	3.43	27,217	0.90
2031	103,750	3.43	27,465	0.91
2032	107,313	3.43	27,715	0.91
2033	110,995	3.43	27,969	0.92
2034	114,805	3.43	28,221	0.90
2035	118,740	3.43	28,477	0.90
2036	122,808	3.43	28,736	0.91
2037	127,018	3.43	28,993	0.90
2038	131,373	3.43	29,259	0.92
2039	135,886	3.43	29,524	0.91
2040	140,546	3.43	29,791	0.90
2041	145,365	3.43	30,061	0.91

# Calendar Year Real Taxable Sales

Year-to-Year Percentage Change



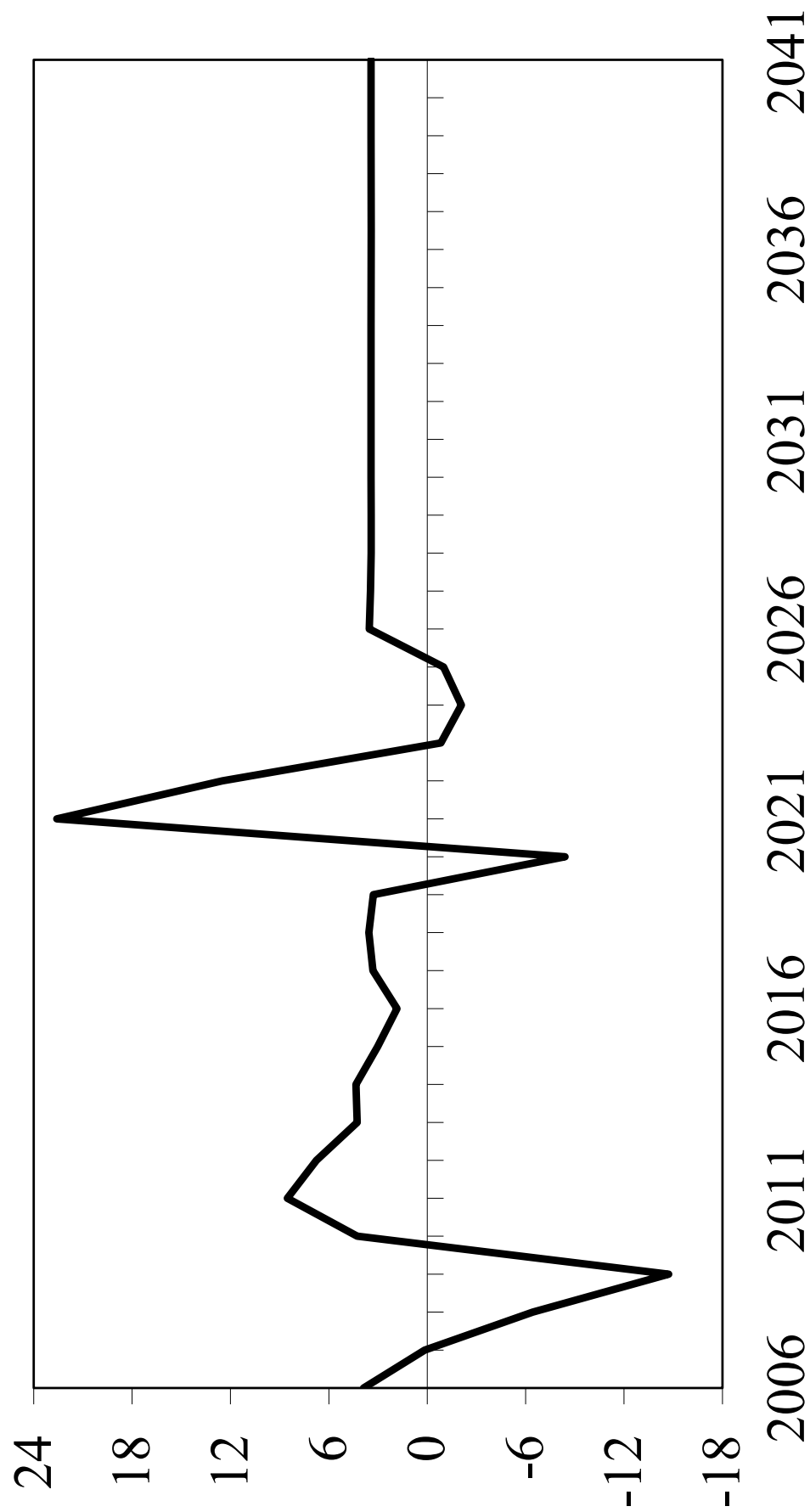
# Calendar Year Taxable Sales





# Calendar Year Taxable Sales

Year-to-Year Percentage Change



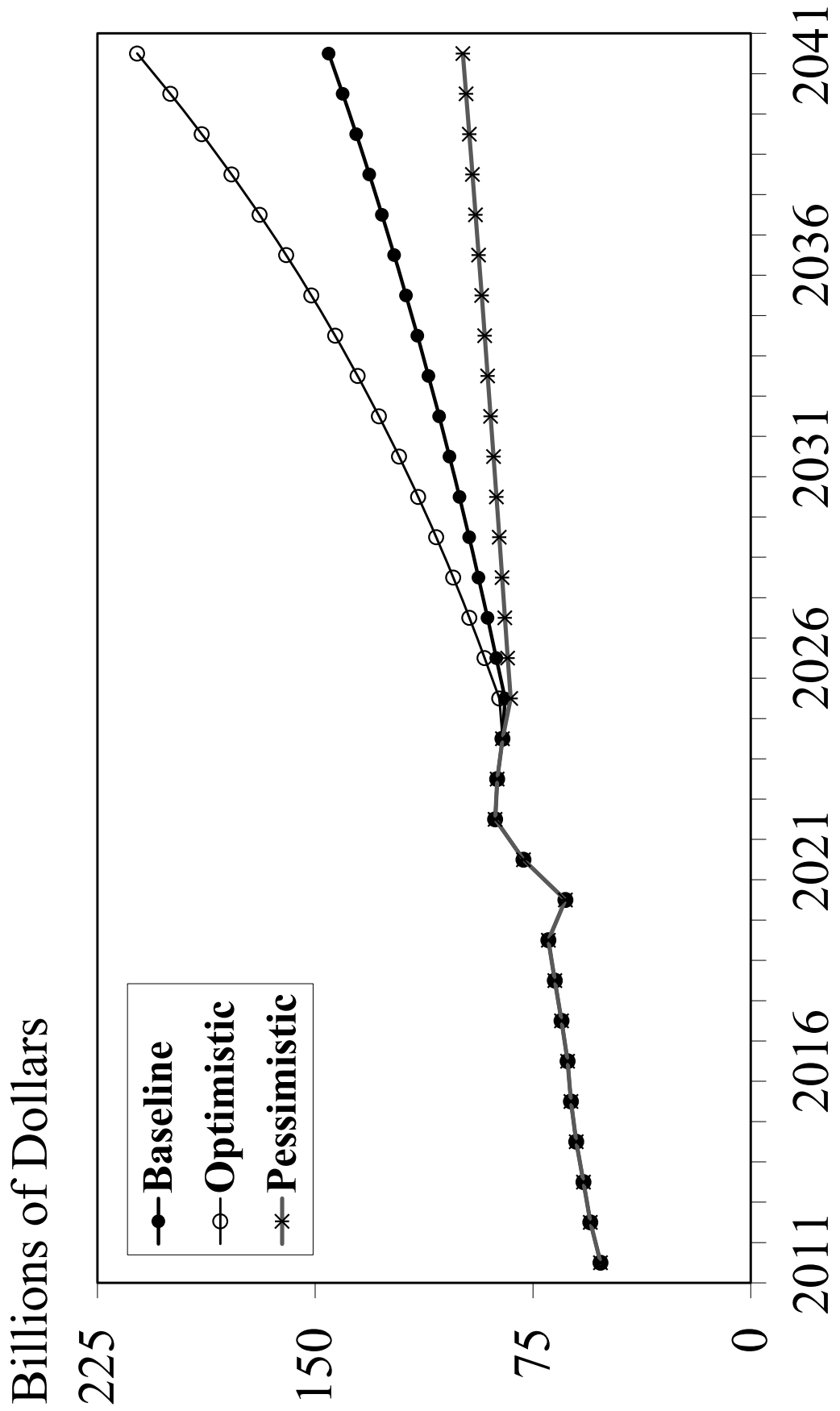
	STO	STOO	STOP
2019Q1	15,819	15,819	15,819
2019Q2	17,578	17,578	17,578
2019Q3	17,366	17,366	17,366
2019Q4	18,927	18,927	18,927
2020Q1	15,332	15,332	15,332
2020Q2	13,730	13,730	13,730
2020Q3	16,513	16,513	16,513
2020Q4	18,257	18,257	18,257
2021Q1	16,442	16,442	16,442
2021Q2	19,588	19,588	19,588
2021Q3	20,278	20,278	20,278
2021Q4	21,946	21,946	21,946
2022Q1	20,206	20,206	20,206
2022Q2	22,471	22,471	22,471
2022Q3	21,965	21,965	21,965
2022Q4	23,386	23,386	23,386
2023Q1	20,231	20,231	20,231
2023Q2	22,199	22,199	22,199
2023Q3	21,892	21,892	21,892
2023Q4	22,977	22,977	22,977
2024Q1	20,115	20,115	20,115
2024Q2	21,312	21,312	21,312
2024Q3	21,532	21,532	21,532
2024Q4	22,524	22,524	22,524
2025Q1	19,779	20,241	19,317
2025Q2	21,000	21,489	20,510
2025Q3	21,228	21,722	20,733
2025Q4	22,625	23,142	22,108
2026Q1	20,560	21,505	19,636
2026Q2	21,747	22,747	20,769
2026Q3	22,138	23,152	21,146
2026Q4	23,185	24,247	22,148
2027Q1	21,140	22,606	19,739
2027Q2	22,480	24,036	20,992
2027Q3	22,859	24,438	21,349
2027Q4	24,188	25,852	22,597
2028Q1	21,958	24,000	20,050
2028Q2	23,297	25,461	21,273
2028Q3	23,615	25,807	21,565
2028Q4	24,900	27,207	22,743
2029Q1	22,684	25,344	20,252
2029Q2	24,119	26,945	21,535
2029Q3	24,410	27,269	21,796
2029Q4	25,765	28,777	23,011

	ASTO	ASTOO	ASTOP
2005	55,063	55,063	55,063
2006	57,203	57,203	57,203
2007	57,293	57,293	57,293
2008	53,607	53,607	53,607
2009	45,713	45,713	45,713
2010	47,667	47,667	47,667
2011	51,731	51,731	51,731
2012	55,231	55,231	55,231
2013	57,591	57,591	57,591
2014	60,097	60,097	60,097
2015	61,916	61,916	61,916
2016	63,059	63,059	63,059
2017	65,148	65,148	65,148
2018	67,469	67,469	67,469
2019	69,689	69,689	69,689
2020	63,834	63,834	63,834
2021	78,254	78,254	78,254
2022	88,027	88,027	88,027
2023	87,298	87,298	87,298
2024	85,482	85,482	85,482
2025	84,632	86,595	82,669
2026	87,631	91,652	83,699
2027	90,667	96,933	84,678
2028	93,770	102,475	85,631
2029	96,978	108,334	86,594
2030	100,308	114,543	87,579
2031	103,750	121,104	88,573
2032	107,313	128,044	89,581
2033	110,995	135,377	90,597
2034	114,805	143,133	91,626
2035	118,740	151,326	92,663
2036	122,808	159,986	93,710
2037	127,018	169,143	94,770
2038	131,373	178,828	95,843
2039	135,886	189,077	96,935
2040	140,546	199,903	98,033
2041	145,365	211,348	99,143

# Calendar Year

## Taxable Sales Forecast

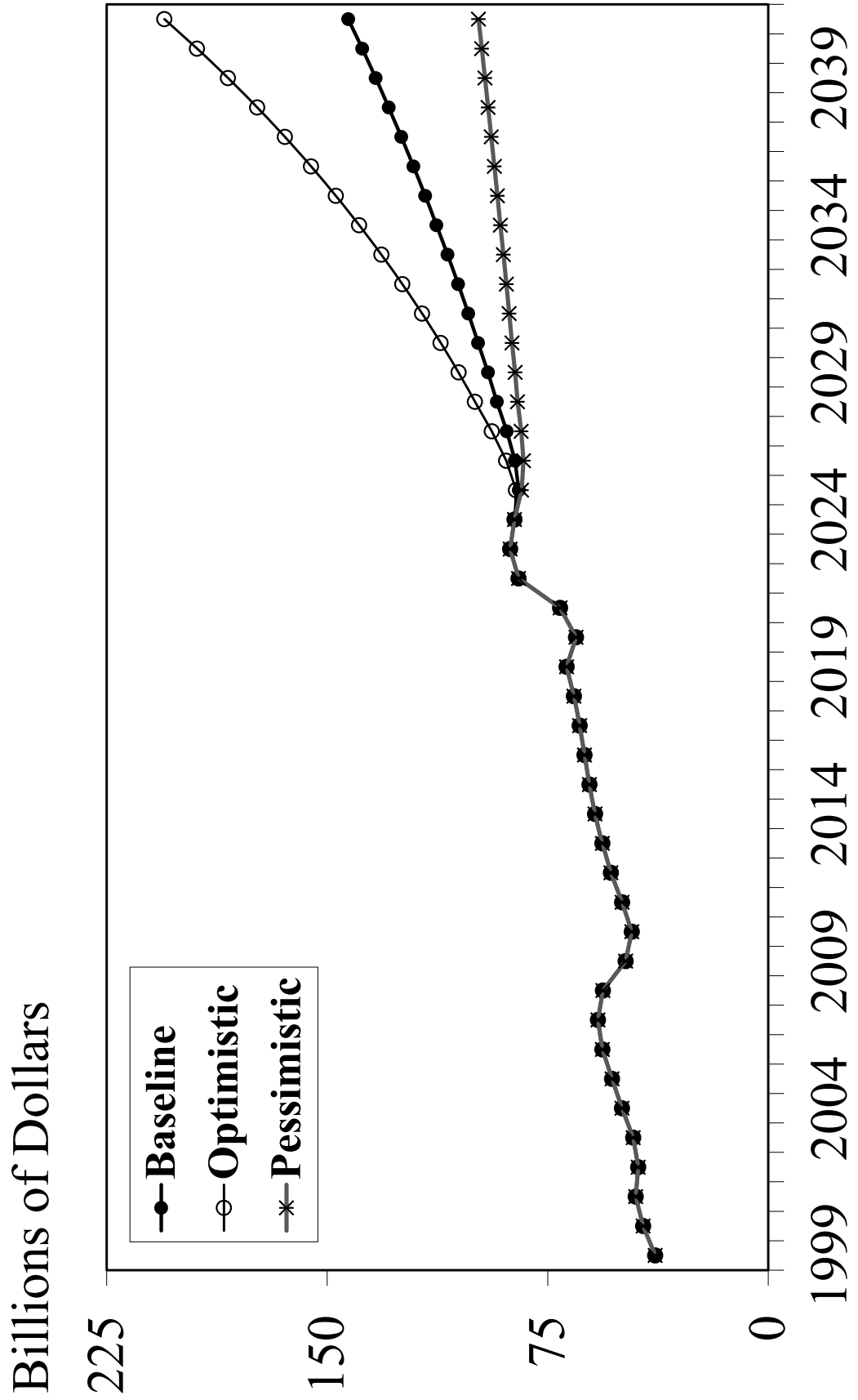
### (Baseline, Optimistic, Pessimistic)



	ASTOF	ASTOOF	ASTOPF	PASTOF	PASTOOF	PASTOPF
2005	53,101	53,101	53,101	6.72	6.72	6.72
2006	56,396	56,396	56,396	6.20	6.20	6.20
2007	57,900	57,900	57,900	2.67	2.67	2.67
2008	56,234	56,234	56,234	-2.88	-2.88	-2.88
2009	48,509	48,509	48,509	-13.74	-13.74	-13.74
2010	46,424	46,424	46,424	-4.30	-4.30	-4.30
2011	49,692	49,692	49,692	7.04	7.04	7.04
2012	53,503	53,503	53,503	7.67	7.67	7.67
2013	56,402	56,402	56,402	5.42	5.42	5.42
2014	58,894	58,894	58,894	4.42	4.42	4.42
2015	60,801	60,801	60,801	3.24	3.24	3.24
2016	62,486	62,486	62,486	2.77	2.77	2.77
2017	64,116	64,116	64,116	2.61	2.61	2.61
2018	66,093	66,093	66,093	3.08	3.08	3.08
2019	68,590	68,590	68,590	3.78	3.78	3.78
2020	65,355	65,355	65,355	-4.72	-4.72	-4.72
2021	70,801	70,801	70,801	8.33	8.33	8.33
2022	84,900	84,900	84,900	19.91	19.91	19.91
2023	87,780	87,780	87,780	3.39	3.39	3.39
2024	86,296	86,296	86,296	-1.69	-1.69	-1.69
2025	84,834	85,786	83,883	-1.69	-0.59	-2.80
2026	86,160	89,117	83,247	1.56	3.88	-0.76
2027	88,943	94,041	84,025	3.23	5.53	0.93
2028	92,302	99,752	85,269	3.78	6.07	1.48
2029	95,317	105,303	86,095	3.27	5.56	0.97
2030	98,682	111,439	87,156	3.53	5.83	1.23
2031	102,014	117,763	88,096	3.38	5.67	1.08
2032	105,480	124,468	89,065	3.40	5.69	1.10
2033	109,088	131,585	90,067	3.42	5.72	1.12
2034	112,848	139,141	91,102	3.45	5.74	1.15
2035	116,691	147,075	92,113	3.41	5.70	1.11
2036	120,689	155,492	93,155	3.43	5.72	1.13
2037	124,825	164,391	94,208	3.43	5.72	1.13
2038	129,098	173,792	95,270	3.42	5.72	1.13
2039	133,532	183,751	96,354	3.43	5.73	1.14
2040	138,110	194,270	97,445	3.43	5.72	1.13
2041	142,847	205,394	98,551	3.43	5.73	1.13

	ARSTOF	ARSTOOF	ARSTOPF	PARSTOF	PARSTOOF	PARSTOPF
2005	27,699	27,699	27,699	3.61	3.61	3.61
2006	28,351	28,351	28,351	2.35	2.35	2.35
2007	28,372	28,372	28,372	0.07	0.07	0.07
2008	26,576	26,576	26,576	-6.33	-6.33	-6.33
2009	22,581	22,581	22,581	-15.03	-15.03	-15.03
2010	21,418	21,418	21,418	-5.15	-5.15	-5.15
2011	22,478	22,478	22,478	4.95	4.95	4.95
2012	23,512	23,512	23,512	4.60	4.60	4.60
2013	24,376	24,376	24,376	3.67	3.67	3.67
2014	25,064	25,064	25,064	2.82	2.82	2.82
2015	25,688	25,688	25,688	2.49	2.49	2.49
2016	26,228	26,228	26,228	2.10	2.10	2.10
2017	26,423	26,423	26,423	0.75	0.75	0.75
2018	26,640	26,640	26,640	0.82	0.82	0.82
2019	27,083	27,083	27,083	1.66	1.66	1.66
2020	25,402	25,402	25,402	-6.21	-6.21	-6.21
2021	26,892	26,892	26,892	5.87	5.87	5.87
2022	30,103	30,103	30,103	11.94	11.94	11.94
2023	29,300	29,300	29,300	-2.67	-2.67	-2.67
2024	27,885	27,885	27,885	-4.83	-4.83	-4.83
2025	26,665	26,961	26,369	-4.37	-3.31	-5.44
2026	26,147	27,042	25,265	-1.94	0.30	-4.19
2027	26,314	27,820	24,861	0.64	2.87	-1.60
2028	26,641	28,789	24,613	1.25	3.49	-0.99
2029	26,843	29,653	24,248	0.76	3.00	-1.48
2030	27,111	30,614	23,946	1.00	3.24	-1.24
2031	27,343	31,561	23,614	0.85	3.10	-1.39
2032	27,582	32,545	23,292	0.88	3.12	-1.37
2033	27,831	33,568	22,980	0.90	3.14	-1.34
2034	28,088	34,630	22,677	0.92	3.16	-1.32
2035	28,336	35,711	22,369	0.88	3.12	-1.36
2036	28,592	36,834	22,070	0.90	3.14	-1.34
2037	28,850	37,992	21,776	0.91	3.15	-1.33
2038	29,110	39,185	21,484	0.90	3.14	-1.34
2039	29,376	40,421	21,199	0.92	3.16	-1.32
2040	29,642	41,692	20,916	0.90	3.14	-1.34
2041	29,909	43,002	20,636	0.90	3.14	-1.34

# Fiscal Year Taxable Sales Forecast (Baseline, Optimistic, Pessimistic)



PASTOF2024 PASTOF2025		
2025	2.43	-1.69
2026	3.82	1.56
2027	3.66	3.23
2028	3.61	3.78
2029	3.54	3.27
2030	3.55	3.53
2031	3.55	3.38
2032	3.54	3.40
2033	3.57	3.42
2034	3.53	3.45
2035	3.58	3.41
2036	3.56	3.43
2037	3.59	3.43
2038	3.55	3.42
2039	3.56	3.43
2040	3.58	3.43
2041	3.57	3.43



## **Disclaimer**

*This report is prepared by Raymond Sfeir and James Doti (Consultants). Consultants who are affiliated with the Chapman University, Argyros School of Business and Economics, shall conduct their business as an Independent Contractor and nothing contained herein shall be construed to create involvement of the Chapman University or of the Argyros School of Business and Economics between the Client and Consultants. Chapman University's Argyros School of Business and Economics shall not be liable to the Client, or to anyone who may claim any right due to Consultants' relationship with the Client, for any acts or omissions in the performance of said services on the part of the Consultants or on the part of the agents or employees of the Consultants.*

# Appendix

## Sources of Data

- **Consumer Price Index** — "The Consumer Price Index," U.S. Department of Labor, Bureau of Labor Statistics. Projections made by the A. Gary Anderson Center for Economic Research.
- **Orange County Payroll Employment** — Employment Development Department, Labor Market Information Division, State of California. Projections made by the A. Gary Anderson Center for Economic Research.
- **Orange County Taxable Sales** — "Taxable Sales in California (Sales and Use Tax)," California Department of Tax and Fee Administration.
- **Orange County Population** — California Department of Finance. Population projections also made by the California Department of Finance.
- **Orange County Labor Force Participation Rate** — California Department of Finance. Labor force participation rate projections are modeled after the U.S. labor force participation rate projections.
- **U.S. Real Gross Domestic Product** — U.S. Department of Commerce, Bureau of Economic Analysis. Projections made by the Congressional Budget Office, the Federal Reserve, and the A. Gary Anderson Center for Economic Research.
- **Inland Empire Population** — California Department of Finance.