



# OUTLOOK FOR KEY REVENUES MONROE COUNTY

Fiscal Years 2020-21, 2021-22, 2022-23 and 2023-24

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# Introduction

- ◆ The COVID-19 pandemic has already caused unprecedented social and economic costs.
- ◆ There is tremendous uncertainty about the trajectory of new infections, rates of mortality and morbidity, public policies, and the economic costs associated with the pandemic.
- ◆ As a result, the precise magnitude of economic costs and financial market turbulence are unknowable at this juncture.
- ◆ Nevertheless: (a) governments must continue to provide public services and to protect the health, safety, and welfare of their communities and (b) businesses must plan and execute the re-opening of the economy.
- ◆ This analysis is provided to Monroe County for budget and policy planning.
- ◆ All data as of 11/16/2020 unless otherwise noted.



# COVID-19 Recession: Overview and Key Assumptions

## 1. Baseline

- A. **Overview:** COVID-19 has triggered a severe but short global recession. In the U.S. it is the worst since the depression.
- B. **Key Assumptions:** Emergency measures remain in place through May. Normal economic and social activities are delayed until mid-2021 when a vaccine is developed. In between social distancing is necessary as testing and quarantine measures ramp up depressing economic activity.

## 2. Pessimistic

- A. **Overview:** Infections rebound in the U.S. prompting renewals of lockdown measures preventing a recovery. The result is a prolonged period of below trend economic activity.
- B. **Key Assumptions:** Lockdown measures are abandoned too soon and the epidemic erupts in major cities. Extensive monetary and fiscal measures result in a quasi nationalization of major sectors of the economy. These measures fail to restore a meaningful recovery, but they do arrest the downward spiral.



# COVID-19 Triggers 1<sup>st</sup> Ever Services Sector Driven Recession

- ◆ It is important to recognize that COVID-19 has triggered the first recession ever caused by a contraction in the services sector of the economy.
- ◆ All prior recessions stemmed from the good producing sector. For example, the Great Recession beginning in 2008 was caused by an excess supply of housing stimulated by faulty financing and speculation.
- ◆ Unlike a goods-based recession, a service sector recession does not generate excess inventory of goods that must be absorbed before recovery can begin.
- ◆ Instead, a service-based recession causes a very sharp loss of employment and income and devastates restaurants, retail, service, entertainment, tourism and travel. Many of these businesses are relatively small and have small capital bases. Most of their workers are relatively lower paid and lack healthcare and other safety nets or much savings.



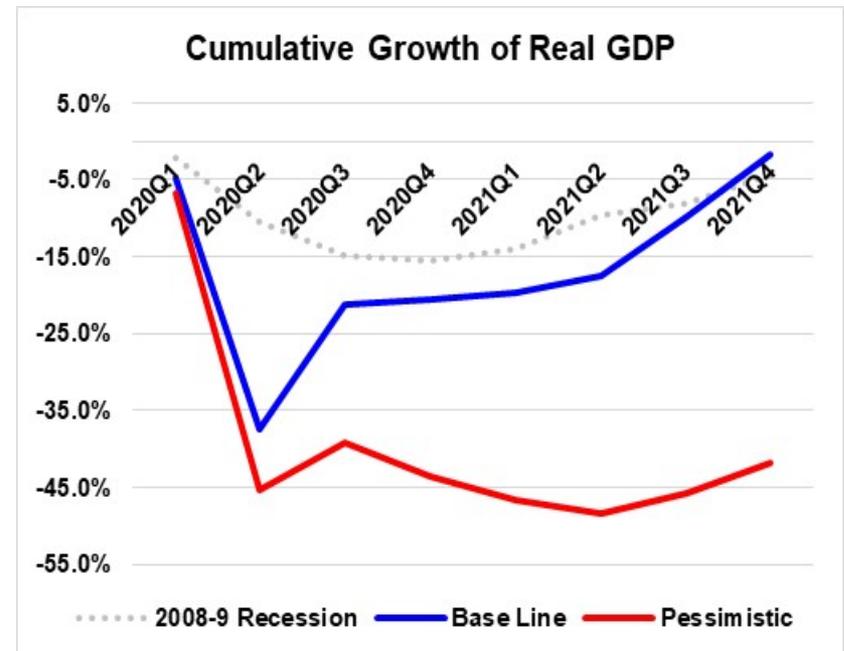
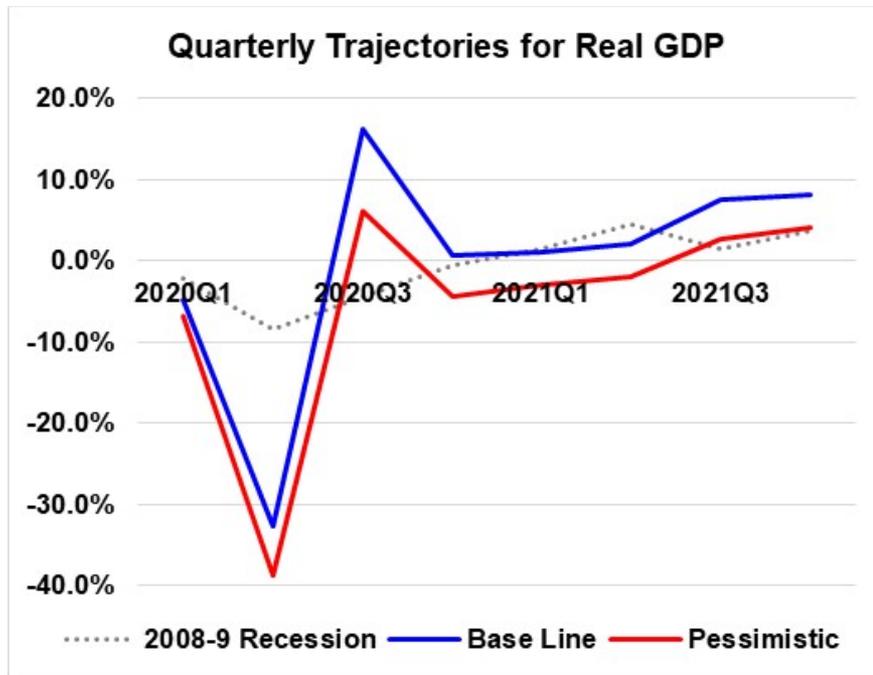
# Consequences of a Services Sector Recession on the Business Cycle

- ◆ Since a services sector recession is not burdened by excess inventory, the recovery is expected to occur more quickly.
- ◆ However, in this instance with COVID-19, recovery depends upon: (a) a decline in the rate of new infections and (b) sharp increase in testing, tracing, and quarantines.
- ◆ Taiwan, Hong Kong, Singapore, and South Korea avoided massive closures of their economies with robust testing and strict quarantine of those infected. However, even in these countries disruptions occurred when infection rates spiked.
- ◆ We cannot begin to reopen our economy safely until these conditions occur, which is happening now. But, without social distancing and testing there will be a rebound in infections.
- ◆ Unprecedented monetary policies and massive fiscal stimulus including \$3T including direct cash grants to families, and credit support to businesses are expected to avert another depression. But, fiscal stimulus cannot avoid a sharp recession nor a huge surge in bankruptcies and in unemployment.



# Impact of COVID-19 on Real GDP

The COVID-19 recession expected to be the deepest and one of the shortest since WWII.





## Comparison of COVID-19 Recession to Past Recessions

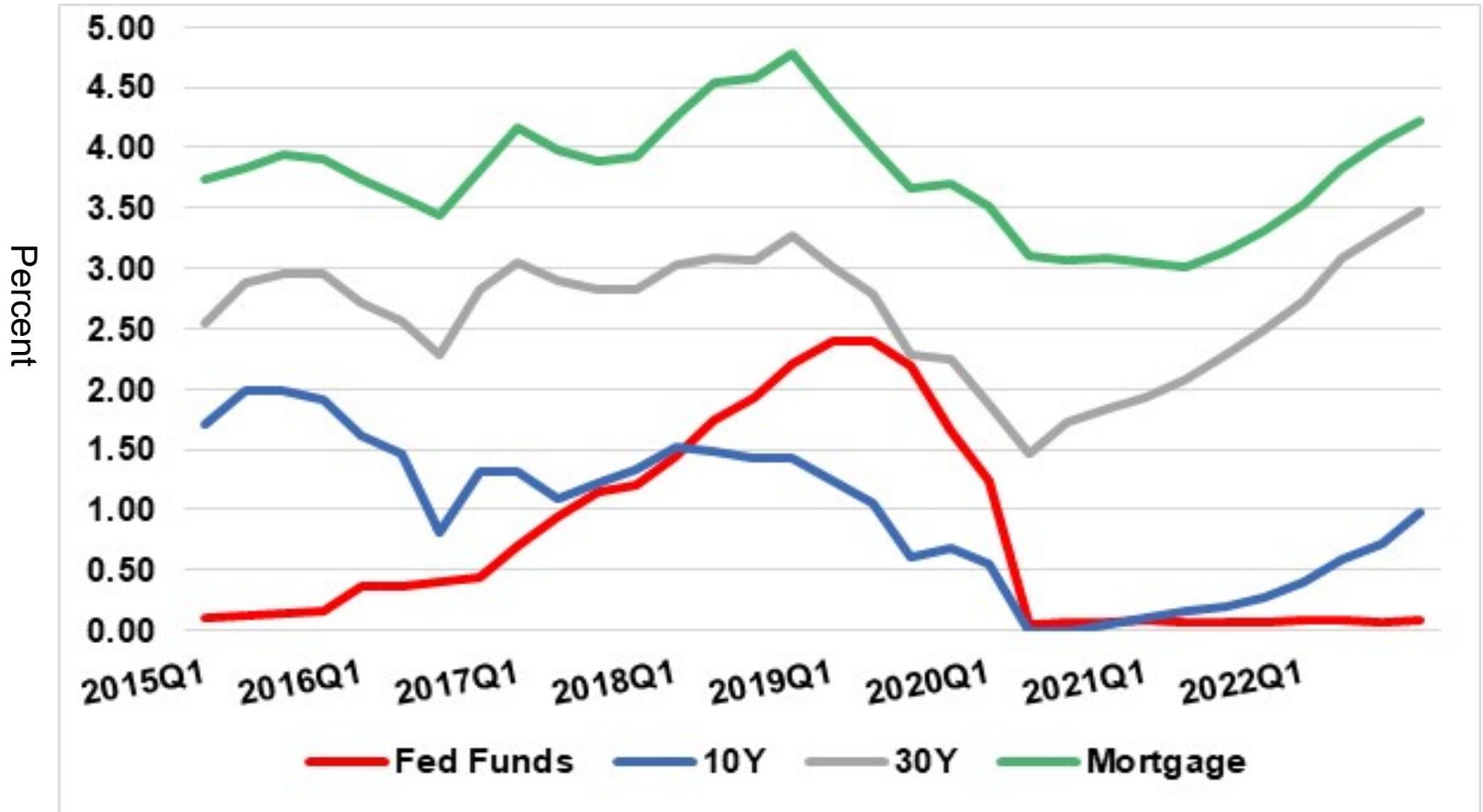
Recession	Months of Duration	Fall in GDP	Peak Unemployment Rate
Great Depression	43	-30.0%	25%
2008-2009	18	-4.3%	13%
COVID-19	6	-10.5%	15%

- The COVID-19 recession is unique, because it is primarily a services sector recession caused by an epidemic.
- Although the COVID-19 recession is expected to be short in duration, it will likely cause a spike in the unemployment rate higher than in the Great Recession of 2008-9. Again, this is because this recession strikes at the services sector of the economy.
- Strong actions by the Federal Reserve and the \$3T federal stimulus package (equal to 15% of GDP) are likely to prevent cascading sequence of business failures and layoffs from morphing into a financial crises and a depression.

Sources: Moody's Economy.com and NBER



# Key Interest Rates



Source: Moody's Economy.com,



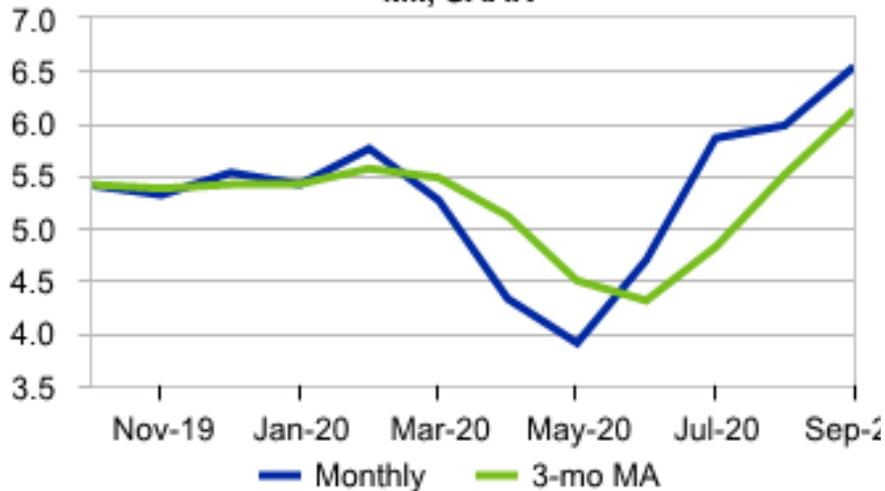
**DATA TO FOCUS ON IN THE NEAR TERM**



## Residential Construction

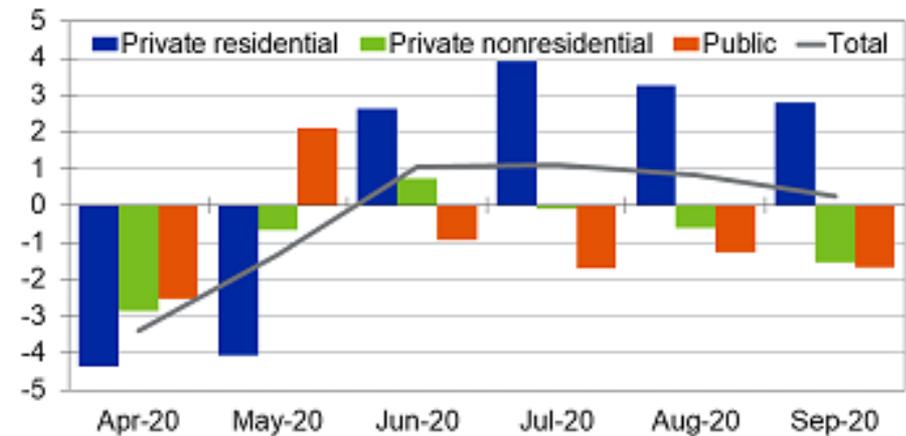
- Residential Construction is very strong
- Work from home and “K” shaped recovery

Existing Home Sales  
Mil, SAAR



## Homebuilding Drives Construction Outlays

Construction spending, % change

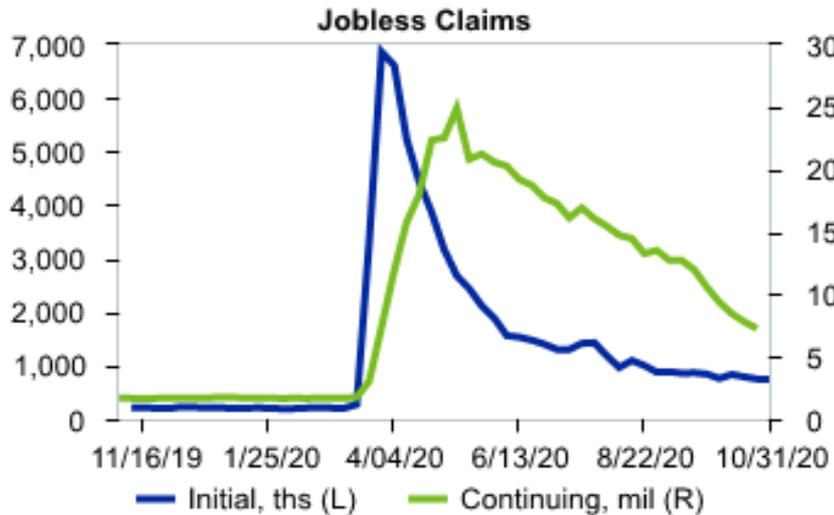


Sources: Census Bureau, Moody's Analytics



## Labor Market

**Employment is still down by 10 million from February and there are 11 million workers without jobs**

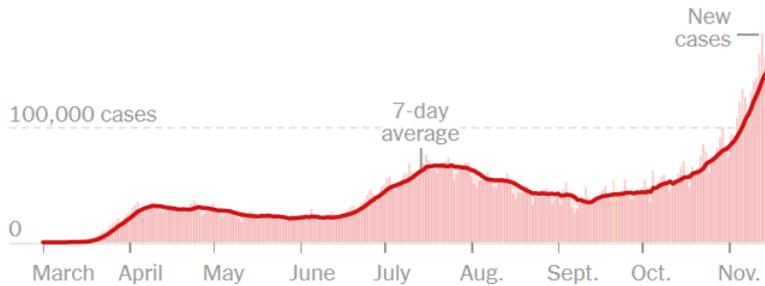




# New Covid19 Cases in the U.S. and Florida

- ◆ New cases are surging to all time highs in the U.S.
- ◆ Florida cases are again on the rise as well

## U.S.



	TOTAL REPORTED	ON NOV. 15	14-DAY CHANGE
<b>Cases</b>	11.1 million+	135,187	+81% →
<b>Deaths</b>	246,083	623	+39% →
<b>Hospitalized</b>		69,987	+44% →

## Florida



	TOTAL REPORTED	ON NOV. 15	14-DAY CHANGE
<b>Cases</b>	885,193	10,105	+44% →
<b>Deaths</b>	17,517	29	+10% →
<b>Hospitalized</b>		3,118	+32% →

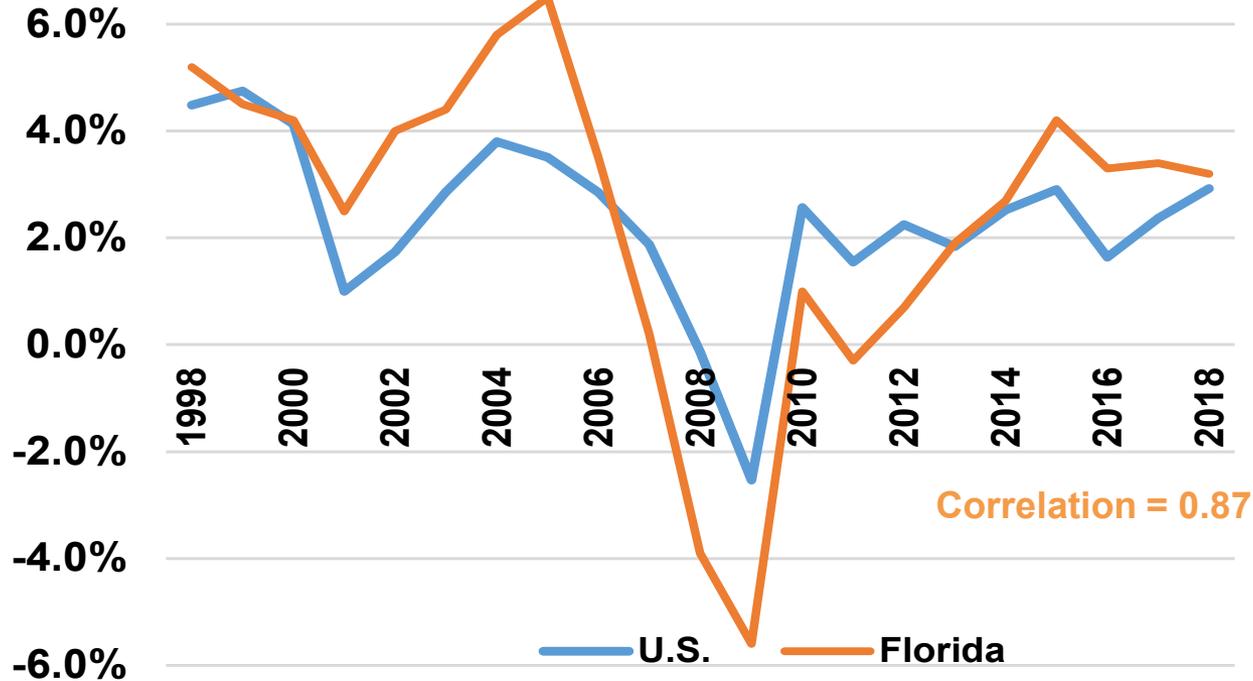


# IMPACT ON FLORIDA



# Why Care About GDP? Where GDP Goes, so Goes Florida' Gross State Product to a Large Extent

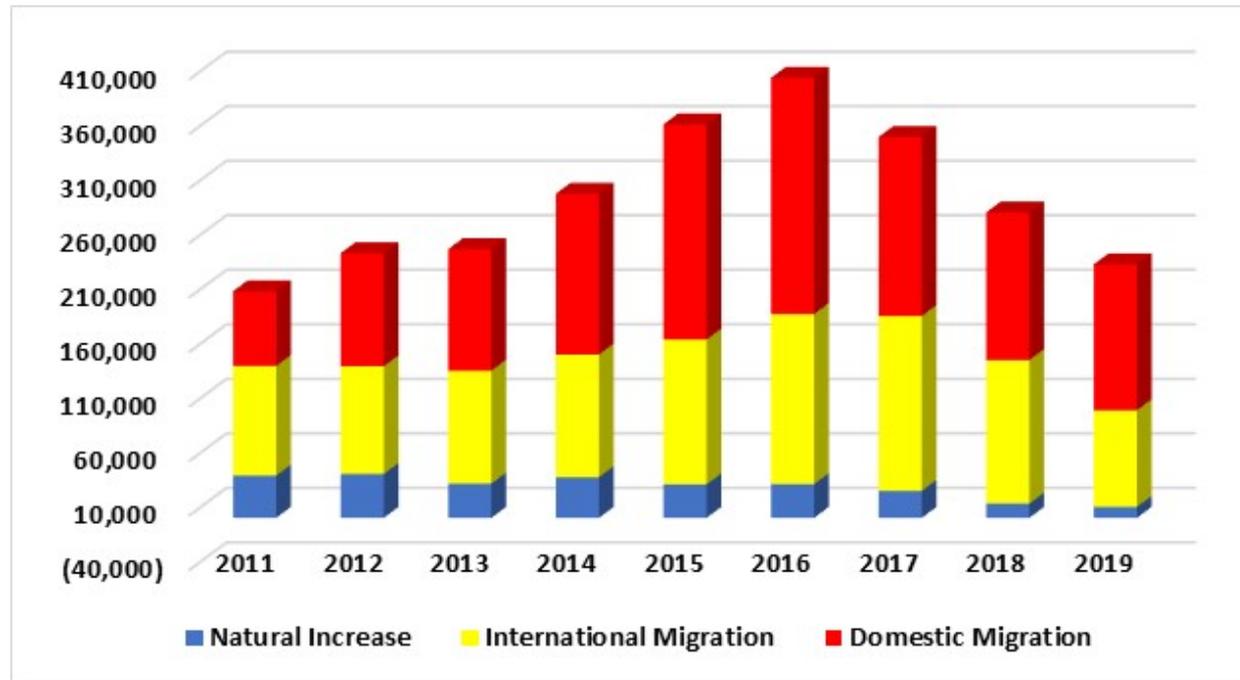
## GDP v Florida GSP





## Florida's Population Growth Peaked in 2016 Well Before the COVID-19 Recession

- ◆ Domestic migration into Florida has slowed 38% over the last 3-years
- ◆ International migration dropped 43% since 2016

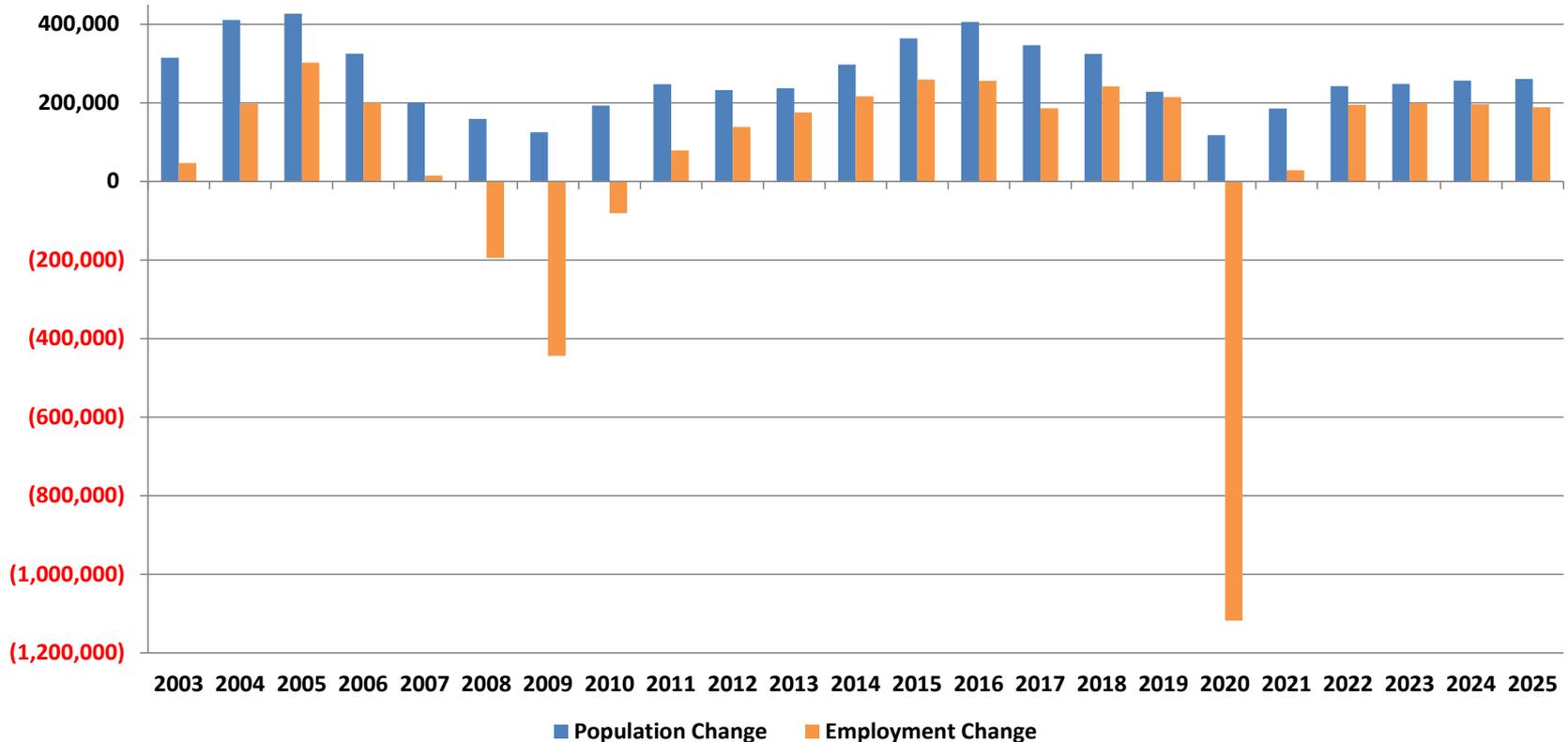


Source: U.S. Census Bureau



# Impact of COVID-19 Recession on Florida: Baseline

## Growth in Population and Employment



● The COVID-19 Recession is expected to hit Florida particularly hard, because it is a services-based recession.

● Florida's economy is heavily concentrated in tourism, trade, and retirement migration — all sectors vulnerable to the COVID-19 Recession.

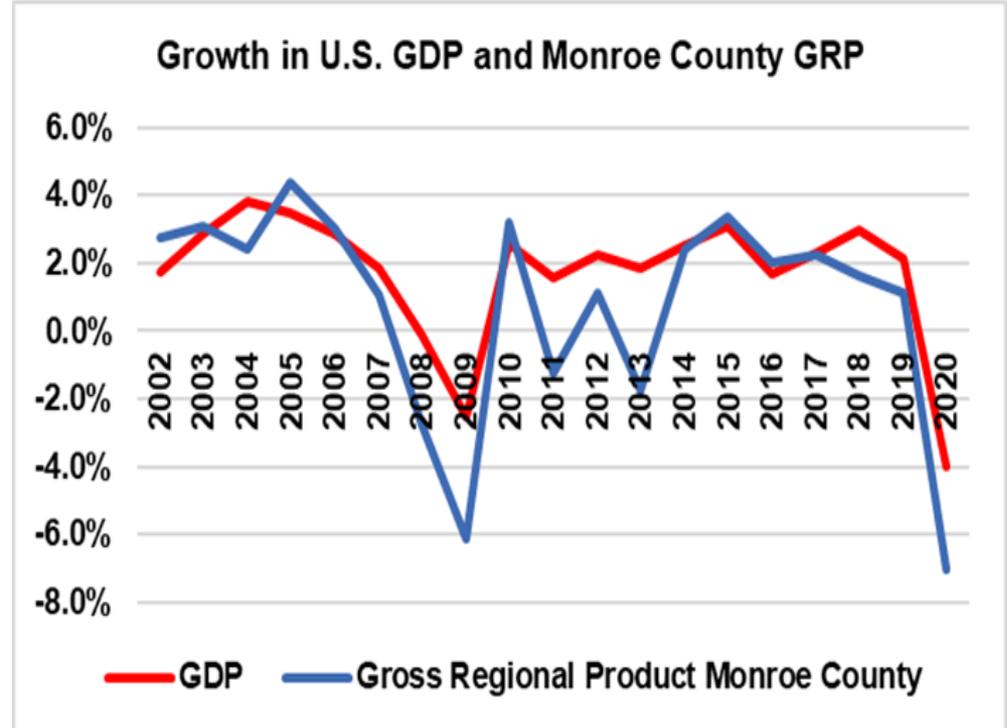


# Implications for Monroe County



## Monroe County's Economy is also closely linked to U.S. GDP

- The correlation between the trajectories for Monroe's gross regional product and GDP is 0.80. So, 93% of the variation in Monroe's GRP can be explained by U.S. GDP.
- Importantly, the amplitude for Monroe's GRP is higher than for the U.S. during times of overall market highs and lows (e.g. Housing Bubble and Great Recession). Given the nature of the COVID-19 pandemic, it's expected that Monroe's GRP will be impacted significantly until the vaccine is widely distributed in mid-2021.

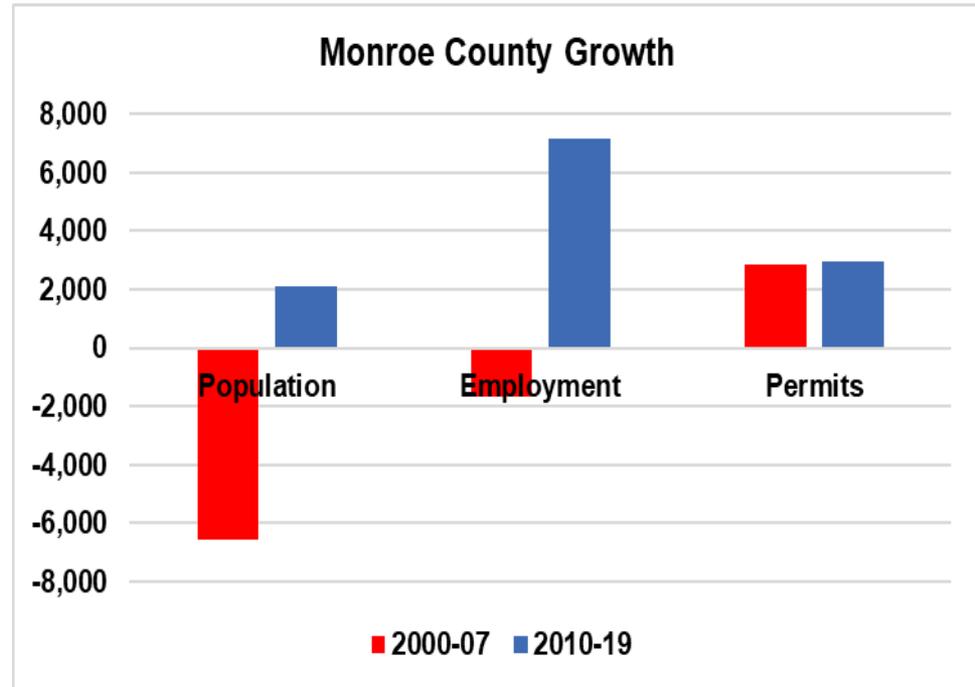


Source: U.S. Bureau of Economic Analysis



## Monroe County's Economy Recovered Strongly this Cycle

- Monroe County's economy endured a difficult period from 2000-07
- Both population and employment contracted during this period
- The 2010-19 period brought renewed economic growth.
- Population and employment rebounded.
- Residential building permits were as strong as in the housing boom
- Some of this was rebuilding after the hurricane, but much reflects rebuilding of older dwellings as demand increased from 2010-19

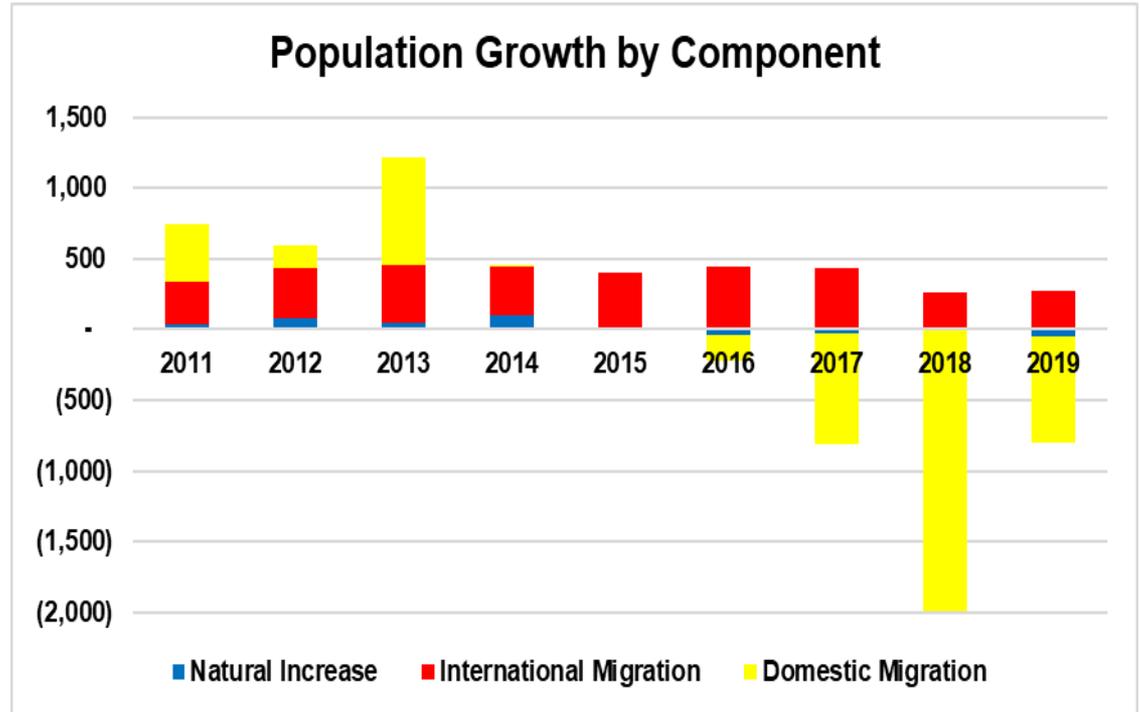


Source: U.S. Bureau of Economic Analysis



# Monroe County Population Growth Components

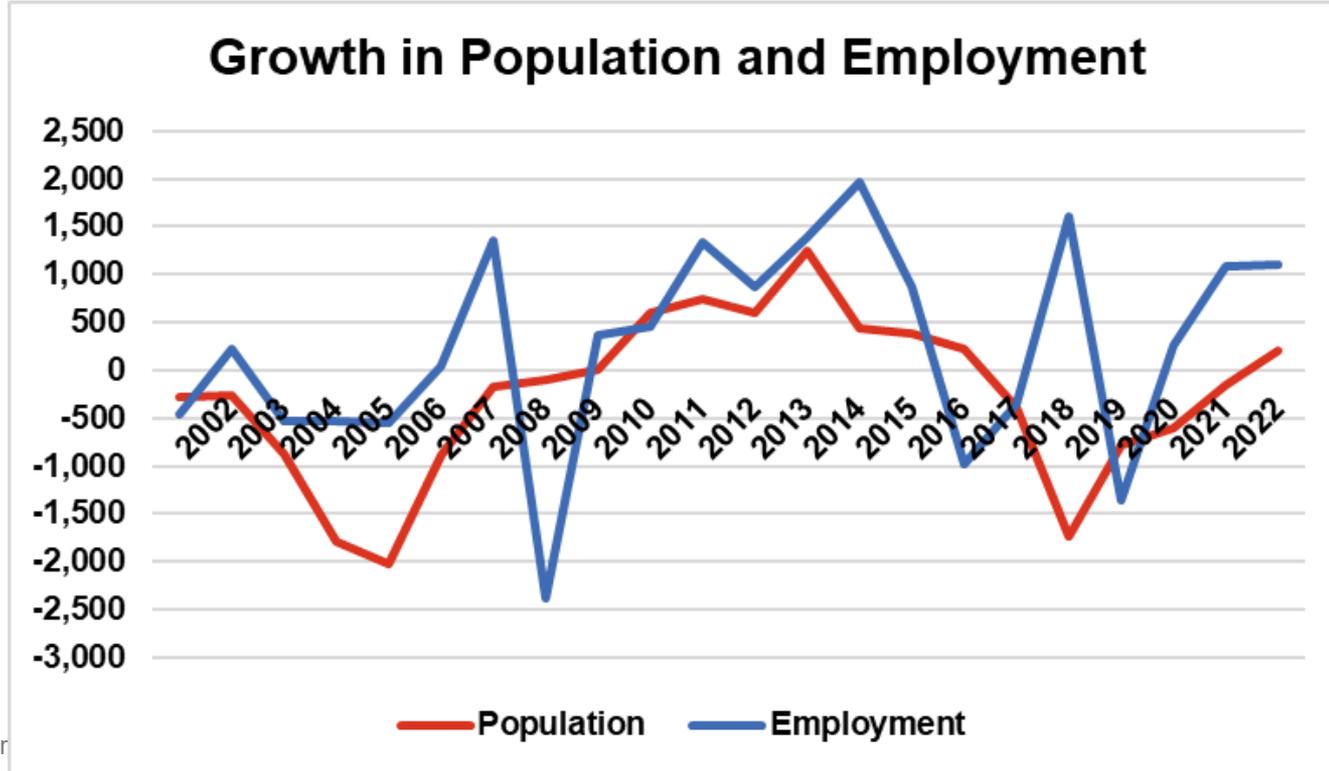
- Monroe's population grew from 2011-2017. However, Irma struck 9-10-17 causing wide destruction triggering an outmigration of local residents.
- Monroe remains highly attractive, but high real estate prices accommodate primarily higher income households and 2<sup>nd</sup> homes.
- Given the large tourist component of the county, Monroe is subject to more pronounced impacts of the COVID-19 Recession.
- Yet, the attractiveness of the Keys has provided some comparative outperformance.





## Impact of COVID-19 Recession on Monroe County – Baseline

- The COVID-19 Recession is likely to have a big impact on employment given the concentration of tourist and service sector jobs in Monroe. But recovery comes quickly starting in 2021.
- Population growth will also continue to contract until 2023.

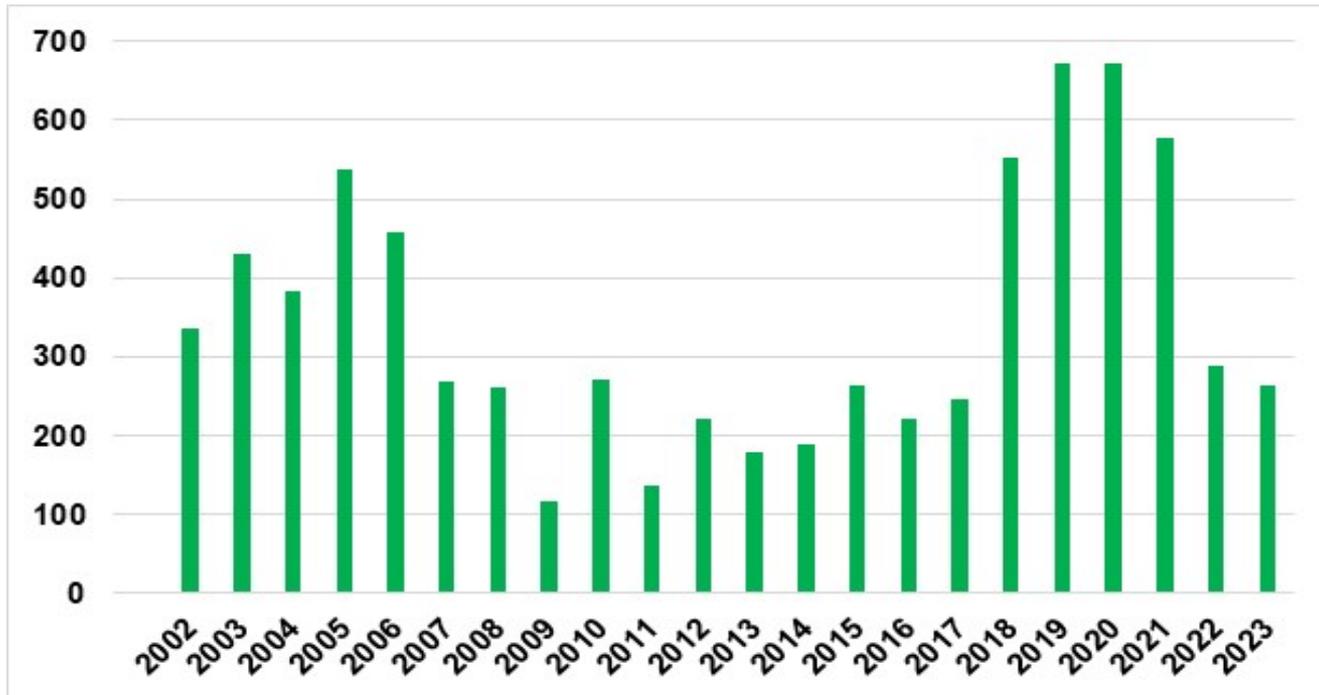


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## Residential Building Permits

- Residential building permits spiked in the aftermath of Irma as rebuilding rebounded.
- This strength is supported by low interest rates, work from home, and the attractiveness of the Keys.
- But ROGO and the rebound after the hurricane dissipate over time





# Methodology to Forecast Key Revenues



# Methodology to Forecast Key Revenues

- ◆ Monroe County identifies key revenues of interest
- ◆ County provides historical data to PFM
- ◆ PFM obtains data and forecasts for independent variables to used to drive forecasts for County's key revenues
- ◆ PFM develops econometric equations to explain trajectory for key revenues as a function of logically related economic drives
- ◆ Example: growth in infrastructure sales tax is explained by growth in County retail sales, population growth and a dummy for structural change.

<i>Regression Statistics</i>	
Multiple R	0.9995
R Square	0.9991
Adjusted R Square	0.9988
Standard Error	0.0028
Observations	14.0000

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>
Intercept	(0.0098)	0.0009	(10.5244)
Growth Co. Retail Sales	1.1854	0.0211	56.2001
Population Growth	1.9941	0.0807	24.7221
Dummy	1.0038	0.0141	71.2190

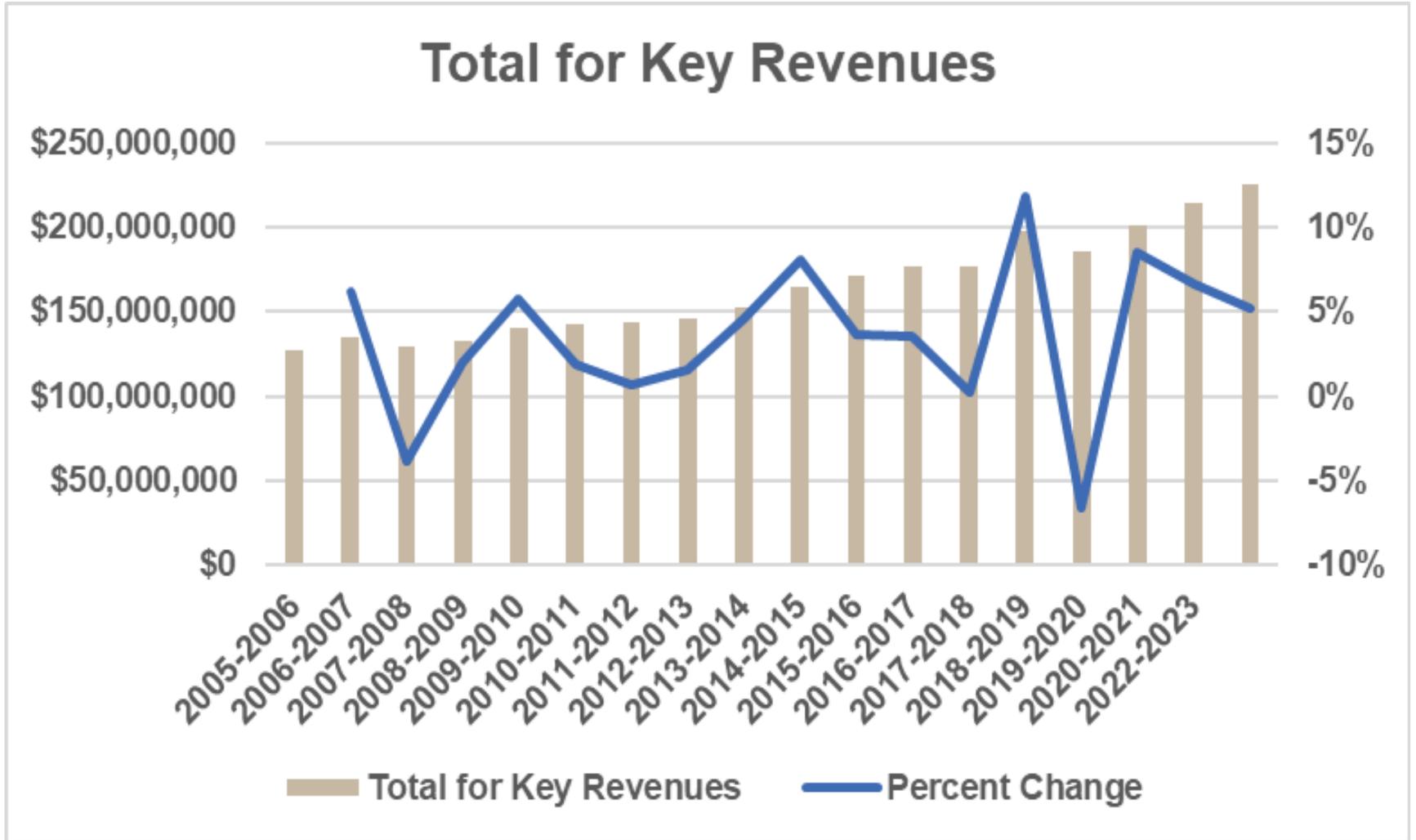


# **FORECASTS FOR SELECTED KEY REVENUES**

## **Baseline Case**

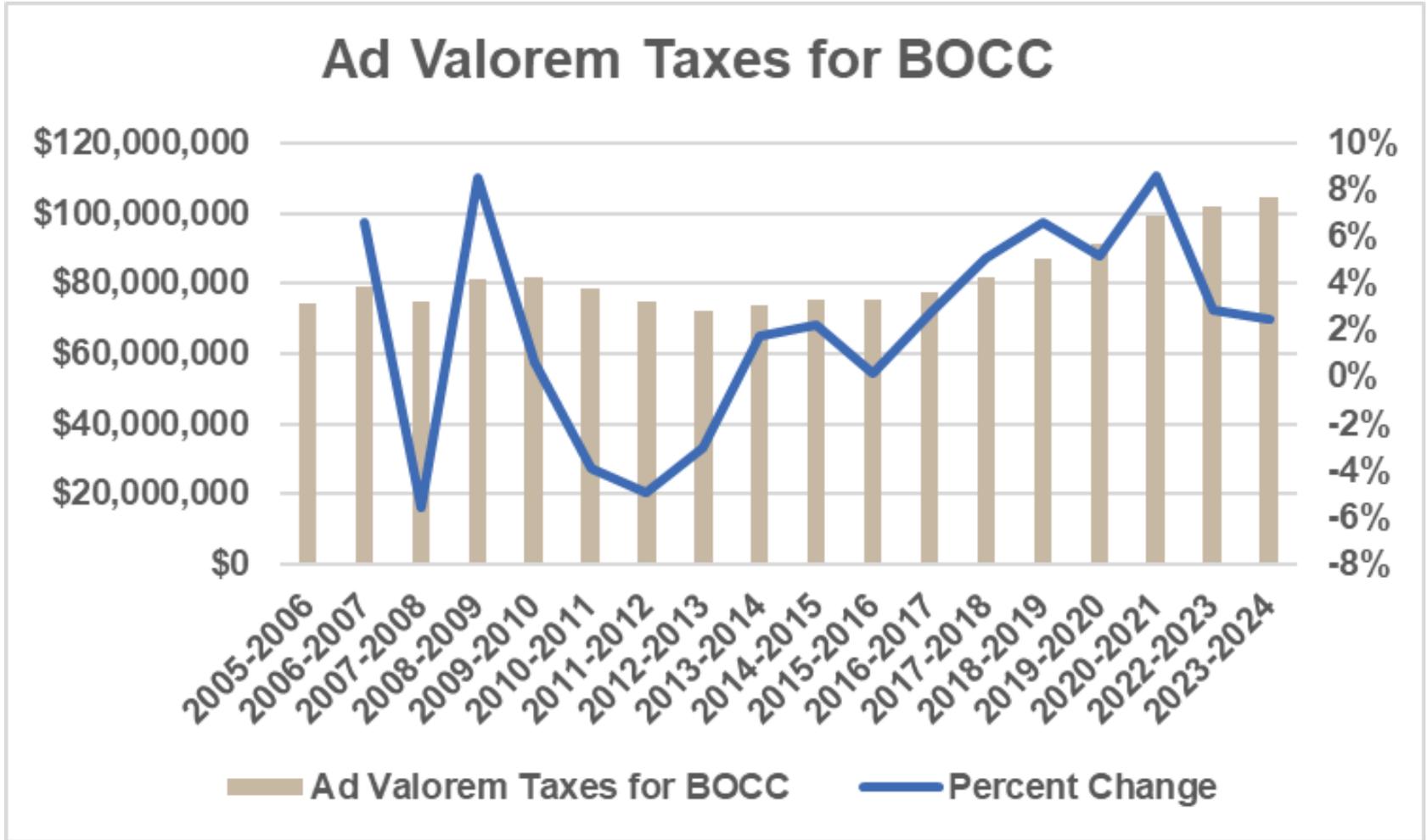


# Base Case



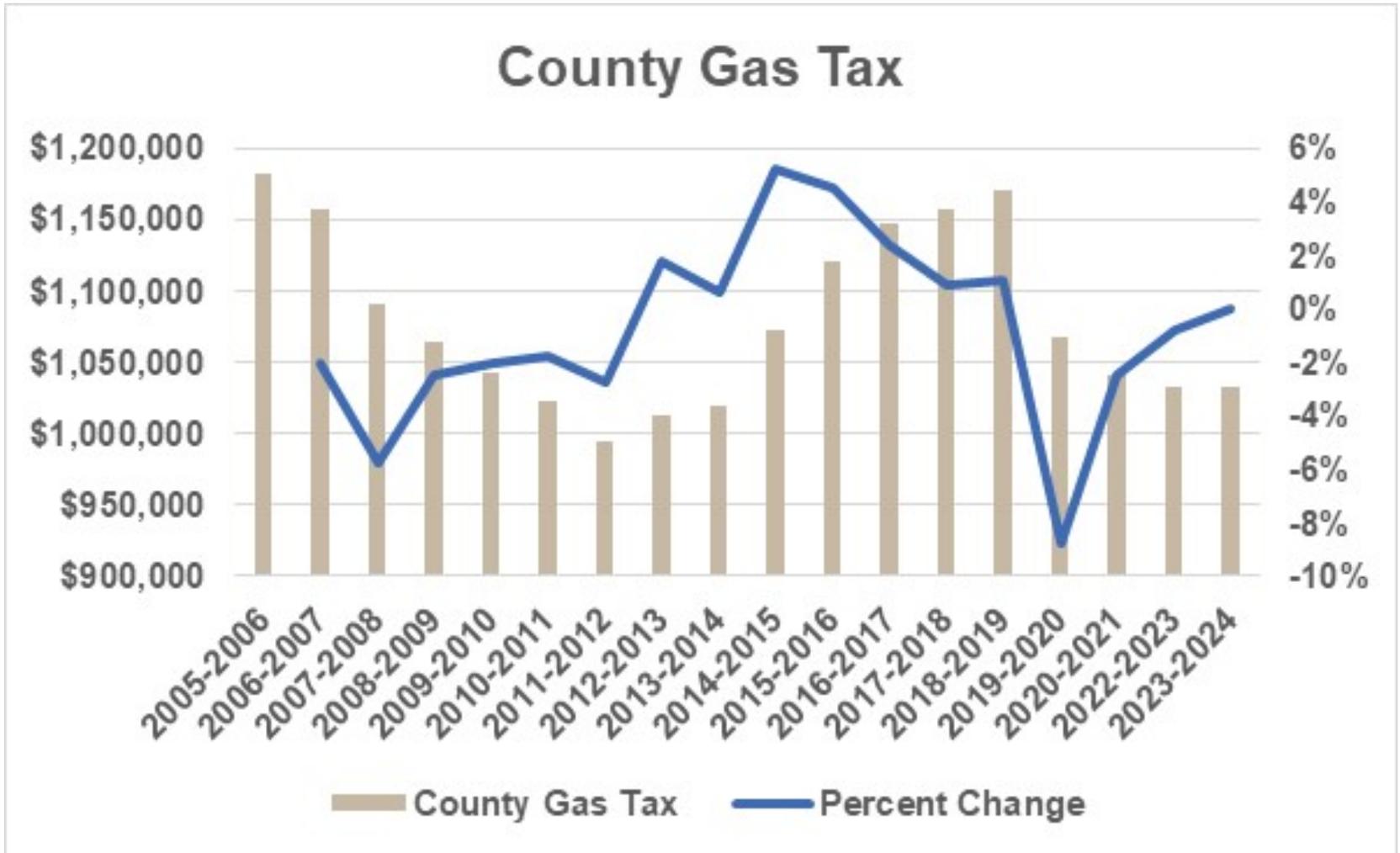


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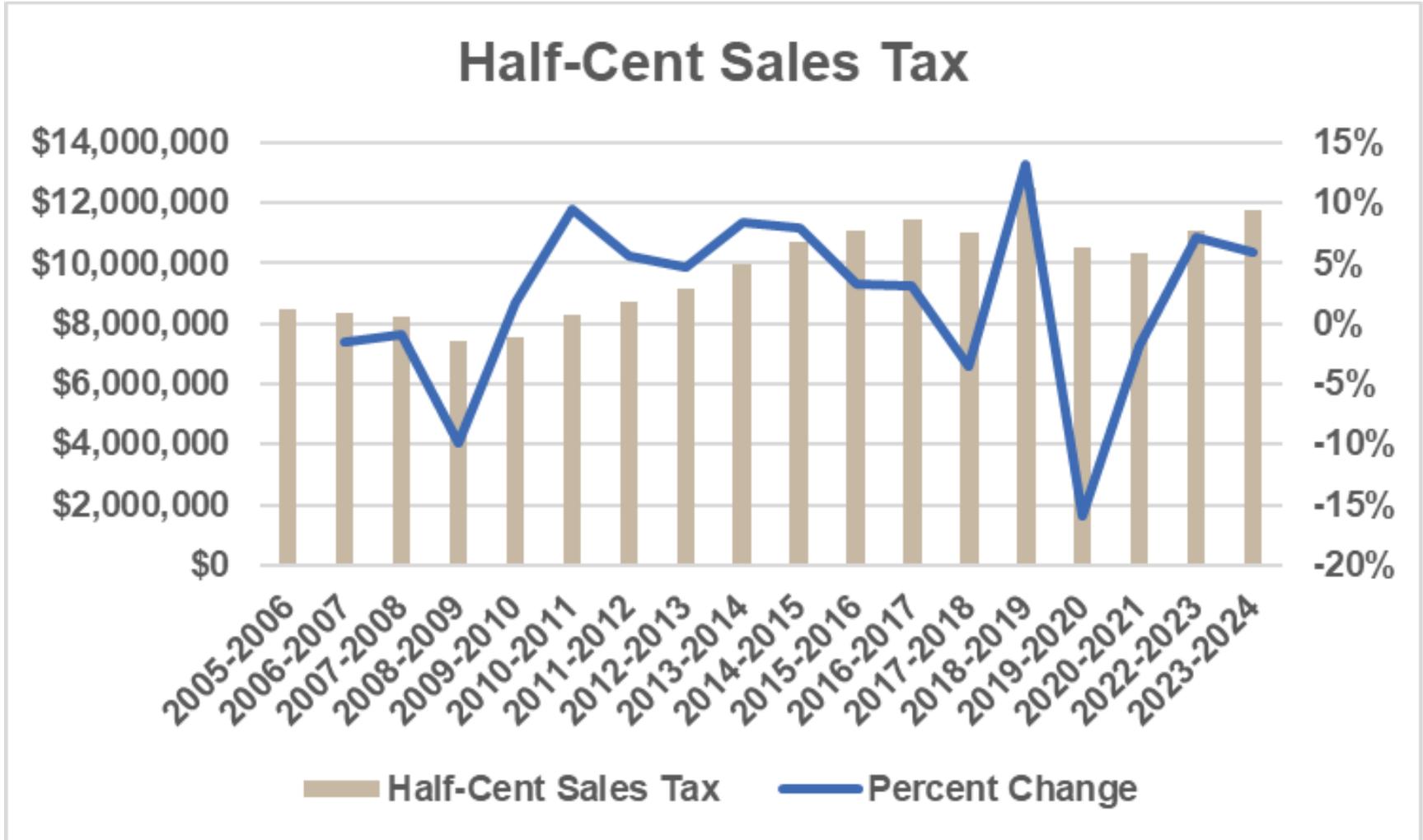


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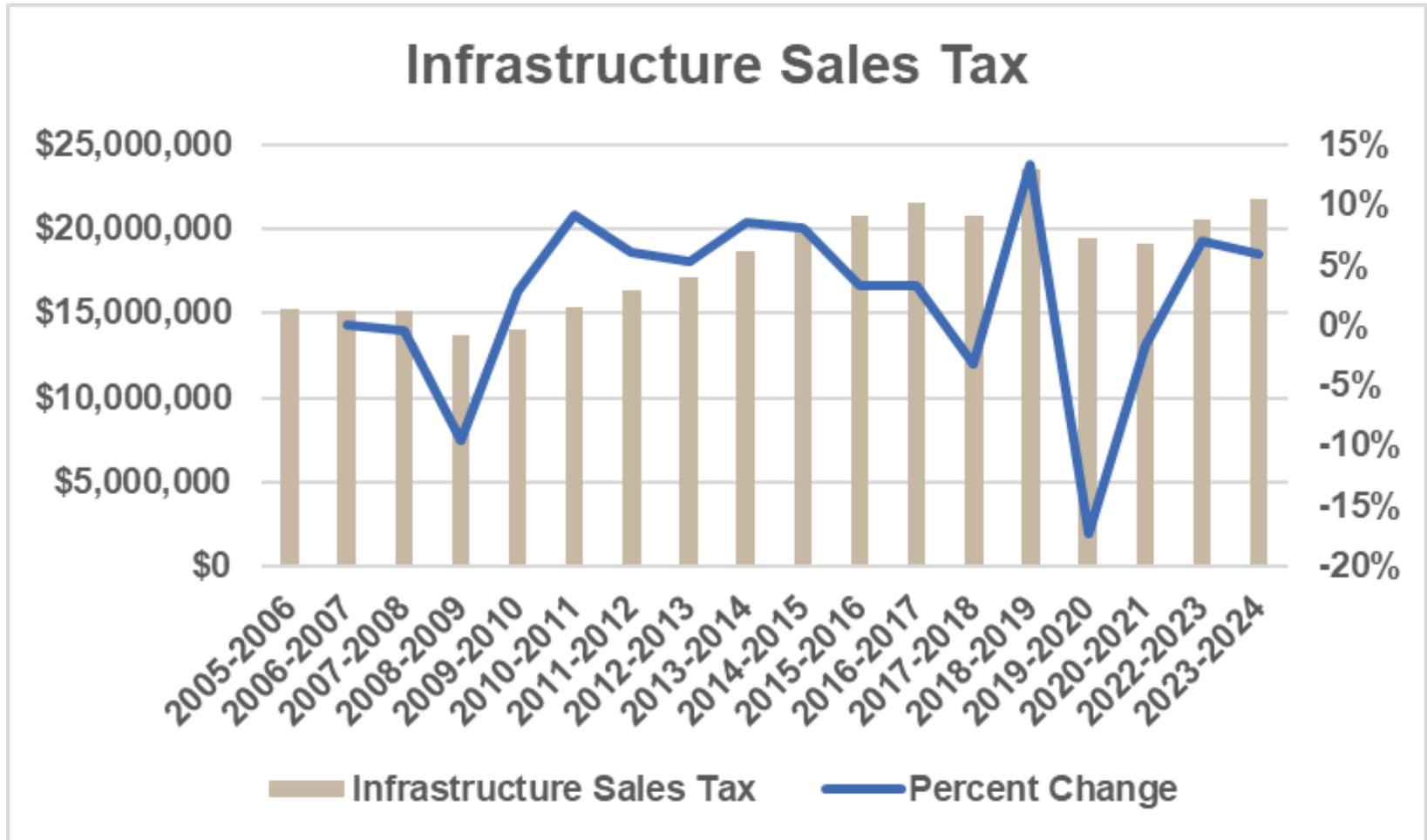


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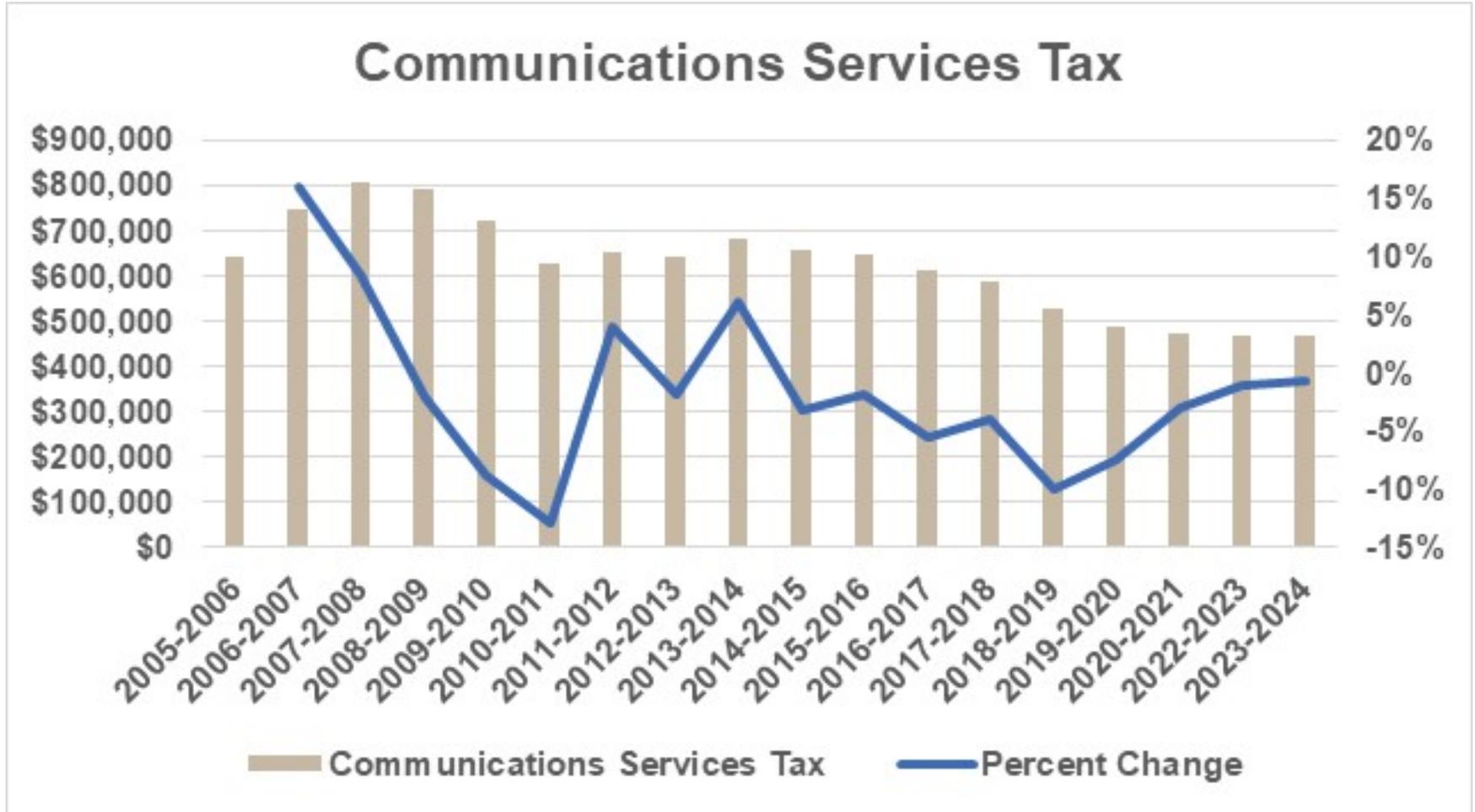


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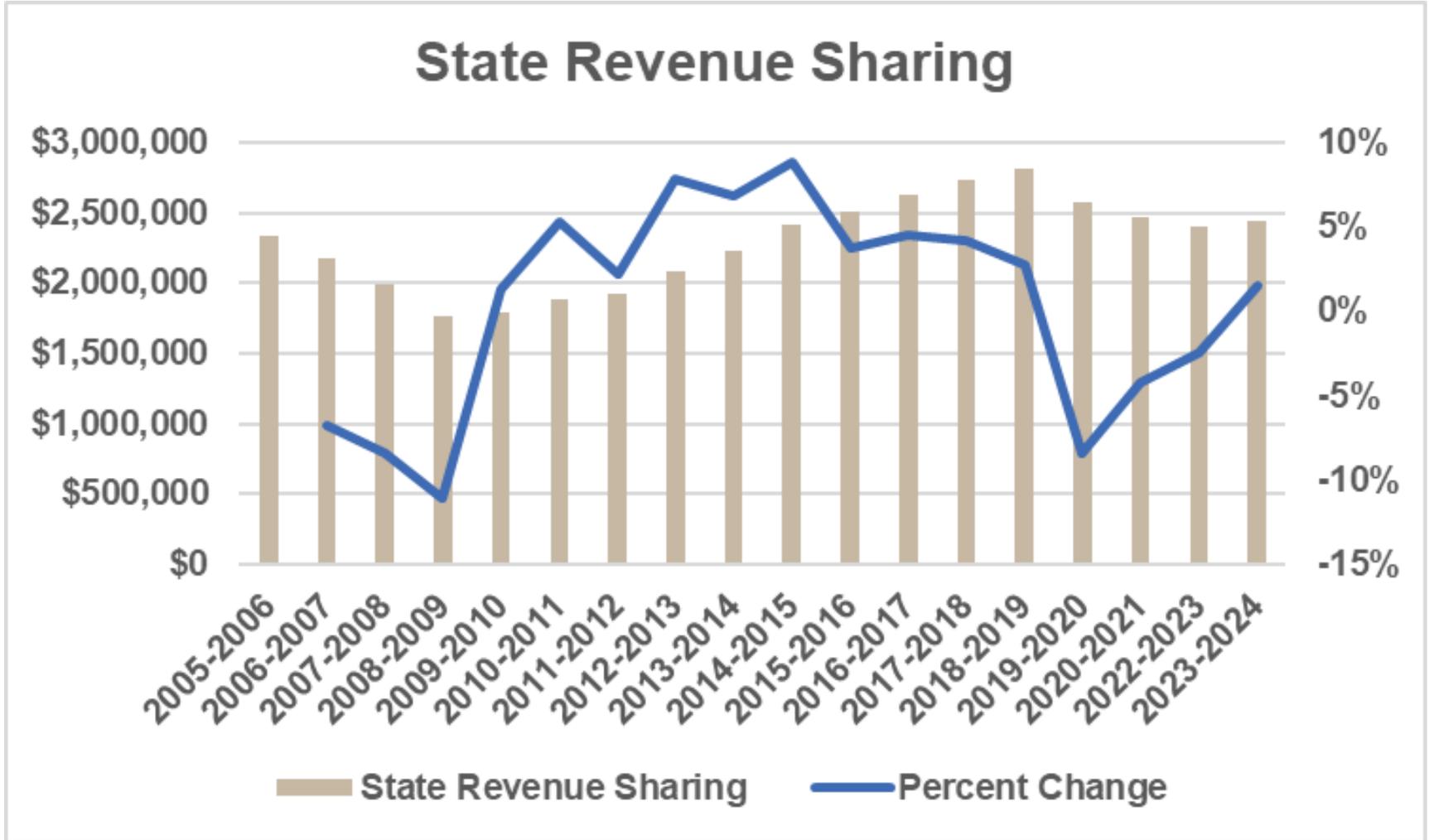


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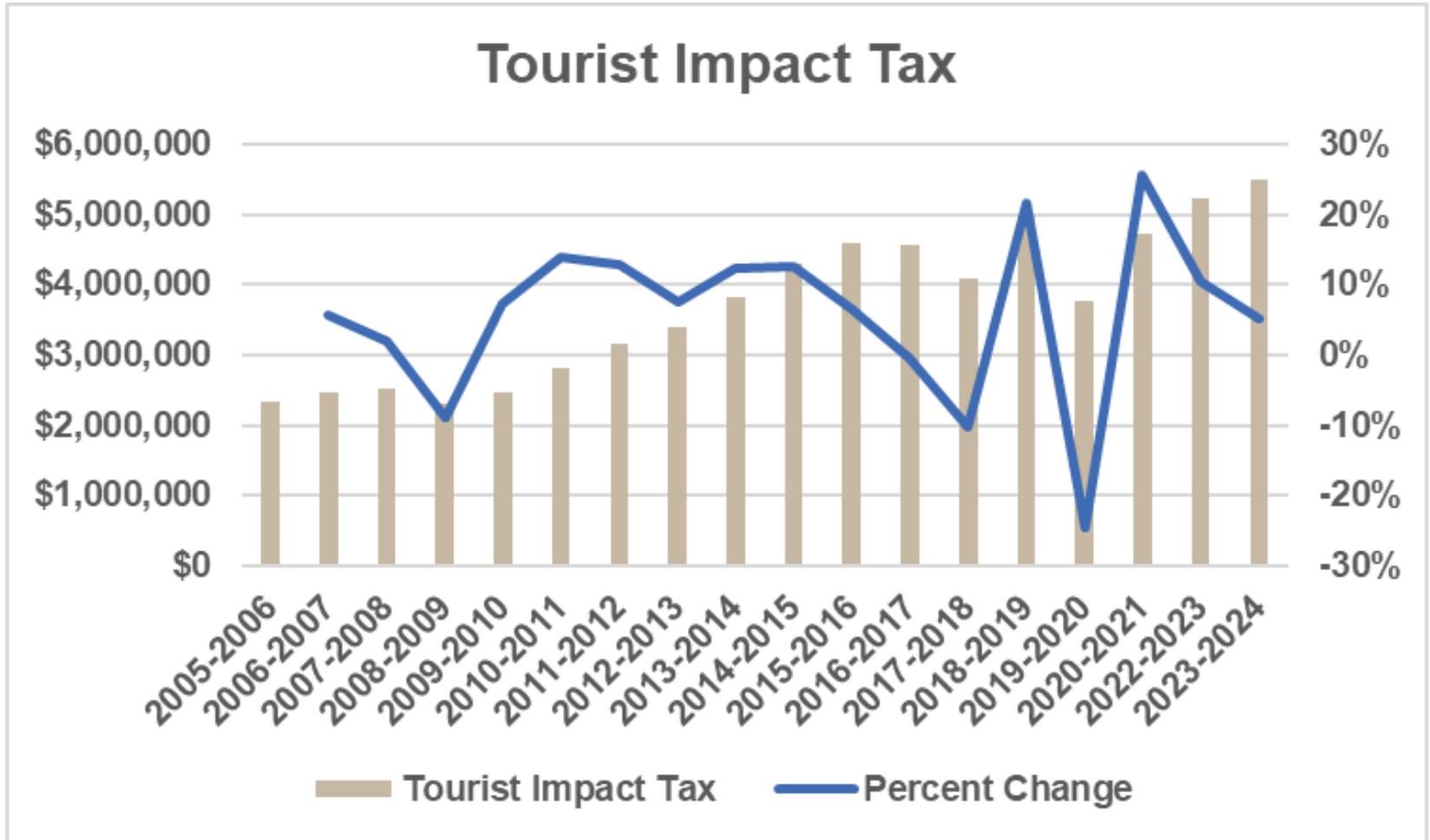


# Base Case





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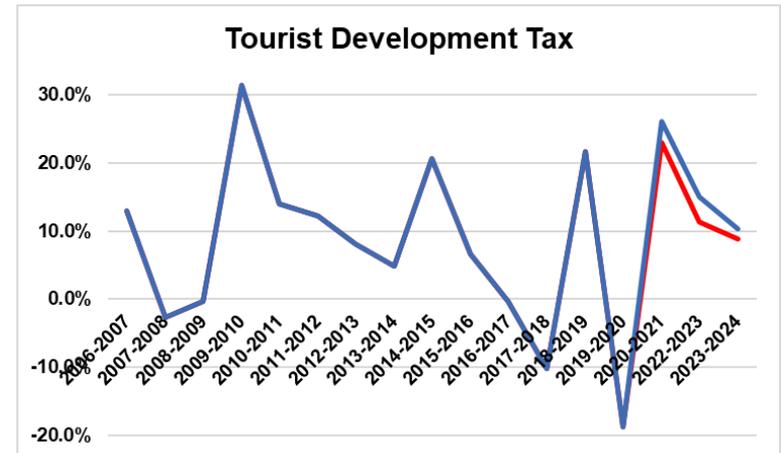
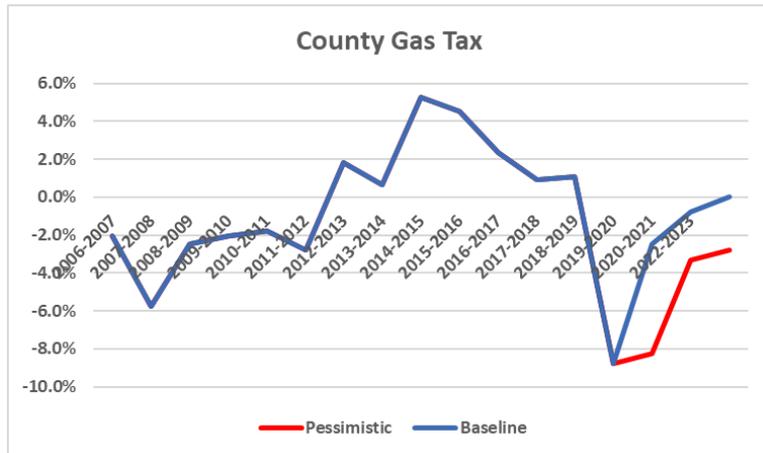
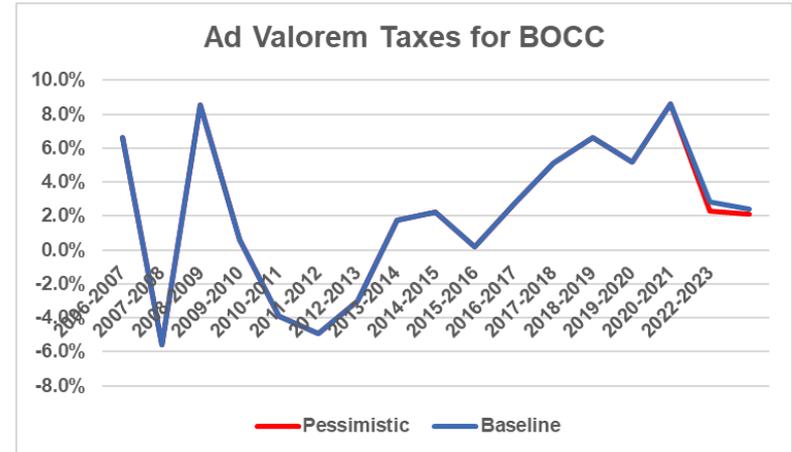
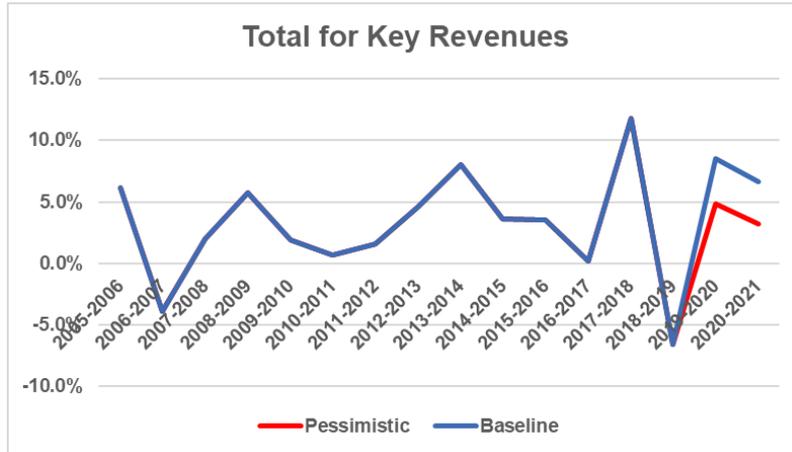




# **FORECAST FOR SELECTED KEY REVENUES – PESSIMISTIC CASE**

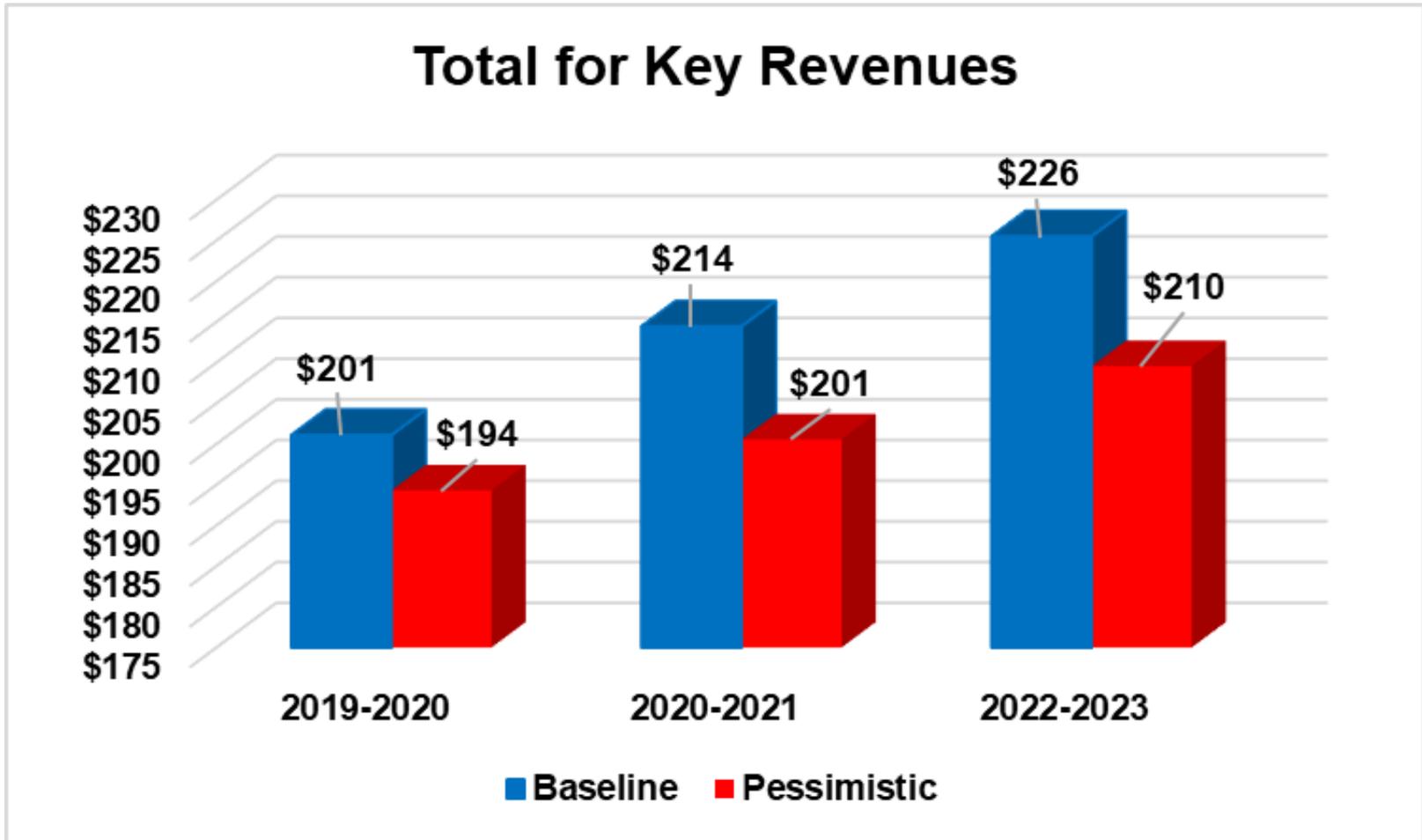


# Examples Comparing Base Case to Pessimistic Case





## Comparing Base Case to Pessimistic





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