# OFFICIAL REVENUE ESTIMATES KRS 48.120 (2)

A PRESENTATION TO THE CONSENSUS FORECASTING GROUP

### Office of State Budget Director

GREG HARKENRIDER DECEMBER 8, 2023

# Tree-Tops Viewpoint

### □ General Fund Comparison

- General Fund growth was 7.4% YTD when we met in September
- General Fund has grown by 5.6% YTD through October
- Conclusion: Revenue growth has lost some pace, but year-to-date growth and levels continue to exceed earlier expectations

### Economic Comparison

- KY Wages and Salaries, Control Scenario (Growth rates):
  - Better in FY24, Growth slightly worse in FY25 and FY26; but levels better in all years and scenarios
- Real GDP, Control Scenario (Growth rates compared):
  - Better in FY24, Worse in FY25, Better in FY26; but levels have improved in all years and all scenarios
- Higher economic levels produce higher revenue forecasts

# General Fund Update

- □ FY24 receipts have continued to show strength
  - September had growth of 6.1%. October grew 1.9%
  - General Fund has grown by 5.6% through October
    - Sales tax is up 6.3%
    - Individual Income tax has grown 4.5%
      - \$255.4 million collected in the Pass-through entity tax (PTET)
      - Withholding is down 4.4%
    - Major Business taxes have fallen 4.6%
    - Income on investments has grown \$73.5 million
- □ To hit the target of the preliminary estimate of \$15,394.2 million rendered in September, General Fund growth for the final 8 months of FY24 would need to be 0.2%

# Road Fund Update

- □ Road Fund receipts increased 7.9% in October and growth stands at 9.6% for the first 4 months of FY24
  - Motor fuels increased by 10.7% in October and 13.2% YTD
  - Motor vehicle usage rose 7.6% in October and now stands 4.4% higher through the first 4 months of the fiscal year
- □ To hit the target of the preliminary estimate of \$1,879.8 million rendered in September, Road Fund growth would need to be 6.1% between November 2023 and June 2024

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### INDIVIDUAL INCOME TAX

(CONSENSUS FORECASTING GROUP)

THOMAS JONES, PH.D. DECEMBER 8, 2023

Office of State Budget Director

# Individual Income Tax Receipts History

(\$ millions, nominal)

	IIT	% chg
FY20	4,765.2	4.9
FY21	5,143.8	7.9
FY22	6,047.5	17.6
FY23	5,843.9	-3.4
FY24 Q1	1,505.2	10.0
Oct 2023	485.7	-9.3

# Methodology

Withholding = f(KY Wages and Salaries)

Range: 2001 Q1 to 2023 Q3

- \* Seasonally Adjusted
- \* First Differences
- \* Corrected Serial Correlation
- \* WITH history adjusted for FY23 legislation (90%)

### Methodology cont.

### **Declarations:**

- \* 3 Quarter MA
- \* 10% of legislative adjustments

### NetReturns:

- \* 3 Quarter MA
- \* Adjustments for PTE bill scores
- \* 20% shift for normal FY24 PTE processing

### Fiduciary:

\* 3 Quarter MA

### Legislative Adjustments

(\$ millions)

IIT WITH DECL

FY23 -\$345.2 -\$310.7 -\$34.5

FY24 -\$988.7 -\$889.8 -\$98.9

FY25 -\$1,301.6 -\$1,171.4 -\$130.2

FY26 -\$1,302.1 -\$1,171.9 -\$130.2

### PTE Legislation Adjustments

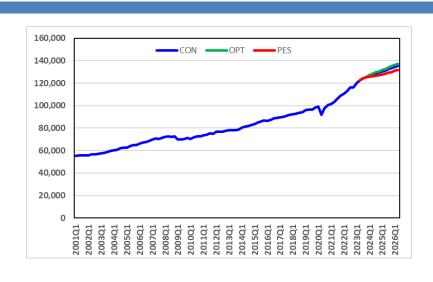
(\$ million)

 FY24
 FY25
 FY26

 NETR
 -13.0
 -13.5
 -14.0

# Kentucky Wages and Salaries

(\$ millions, SAAR)



# Withholding Forecasts

(\$ millions, nominal)

	FY24	% chg	FY25	% chg	FY26	% chg
CON	5,026.5	-1.6	4,916.8	-2.2	5,107.6	3.9
PES	5,005.6	-2.0	4,819.6	-3.7	4,965.6	3.0
OPT	5,049.6	-1.2	4,968.4	-1.6	5,178.8	4.2

# PTE Assumptions

- $\ensuremath{^{*}}$  PTEs are currently paying in for TY22 and TY23 PTE payments.
- \* Payments (and credits) in FY25 will decline, as PTEs will be primarily paying for TY24 liability.
- $^{*}$  Assume 25% reduction in both FY25 PTE payments & credits compared to FY24.
- \* Similarly for FY26, filers will be paying for and receiving credits primarily for their TY25 liability.
- \* 100% of FY24 credits estimated at -\$328.4 million.
- \* 80% of FY24 credits will be processed in FY24. (-\$262.7 million)
- \* 20% of FY24 credits will be processed in FY25. (-\$65.7 million)

### Net Returns Adjustments

(\$ millions)

DATE	NETR model	PTE Credits	PTE Payments
FY24Q1	15.2	0.0	187.4
FY24Q2	21.8	-87.6	113.0
FY24Q3	-112.3	-87.6	0.0
FY24Q4	201.0	-87.6	15.0
FY25Q1	9.0	-128.2	140.5
FY25Q2	27.1	-62.5	84.8
FY25Q3	-109.2	-62.5	0.0
FY25Q4	224.3	-62.5	11.3
FY26Q1	10.4	-62.6	140.5
FY26Q2	29.5	-62.6	84.8
FY26Q3	-114.3	-62.6	0.0
FY26Q4	201.9	-62.6	11.3
TOTAL	•	-829.0	788.5

788.5 -40.5 829.0

# Net Returns Summary

(\$ millions)

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		PTE		
	MODEL	<b>PAYMENTS</b>	CREDITS	NETR
FY23	105.5	0.9	0.0	106.4
FY24	125.7	315.4	-262.7	178.4
FY25	151.2	236.6	-315.7	72.0
FY26	127.5	236.6	-250.6	113.5

### **Declarations Forecast**

(\$ millions, nominal)

	DECL	% chg
FY23	634.5	-19.9
FY24	580.7	-8.5
FY25	583.5	0.5
FY26	557.2	-4.5

# Fiduciary Forecast

(\$ millions, nominal)

FID % chg
FY23 -5.7 NA
FY24 -4.5 NA
FY25 -2.8 NA
FY26 -4.3 NA

### **IIT Forecasts**

(\$ millions, nominal)

	CON	% chg	OPT	% chg	PES	% chg
FY23	5,843.9	-3.4	5,843.9	-3.4	5,843.9	-3.4
FY24	5,781.1	-1.1	5,804.1	-0.7	5,760.2	-1.4
FY25	5,569.5	-3.7	5,621.1	-3.2	5,472.3	-5.0
FY26	5,774.0	3.7	5,845.2	4.0	5,631.9	2.9

# Forecast Comparison to September

(\$ millions, nominal)

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	CON - DEC	CON - SEP	Diff
FY24	5,781.1	5,600.4	180.7
% chg	-1.1	-4.2	
FY25	5,569.5	5,527.8	41.7
% chg	-3.7	-1.3	
FY26	5,774.0	5,674.9	99.1
% chg	3.7	2.7	

# IIT Differences from Sept 2023

(\$ million)

	FY24	FY25	FY26
WITH	115.1	108.7	100.7
DECL	-11.2	-3.7	-5.0
NETR	81.0	-60.5	6.9
FID	-4.2	-2.7	-3.4
IIT	180.7	41.8	99.1

### **COAL SEVERANCE TAX**

(CONSENSUS FORECASTING GROUP)

THOMAS JONES, PH.D. DECEMBER 8, 2023

Office of State Budget Director

### **Fun Coal Facts**

- · KRS 143.020, enacted July 1, 1978
- · 4.5% tax on gross value of severed coal
- · KY is the fifth largest producer of coal
- · In FY23, KY severed 30.5 million tons of coal
- · Eastern KY coal is part of the Central Appalachian coal region
- · Western KY coal is part of the Illinois Basin coal region
- · Last quarter, Union Co, KY was the largest producer in KY

# Coal Receipts History

(\$ millions, nominal)

23

•	COAL	% chg
FY20	58.8	-36.7
FY21	56.1	-4.7
FY22	70.7	26.0
FY23	96.6	36.7
FY24Q1	22.7	2.4
Oct 23	-1.0	NA

### **Coal Severed Tons**

(million tons)

	TONS	% chg
FY20	30.4	-28.4
FY21	20.4	-33.0
FY22	24.3	19.2
FY23	30.5	25.6
FY24Q1	6.9	-19.5

### **Coal Prices**

\$ / ton

23

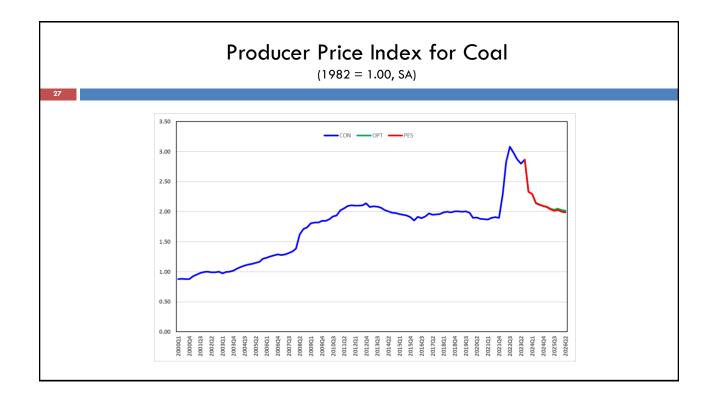
	CAP	NAP	IB	PRB	UB
10-20-23	71.25	50.50	48.50*	14.00	29.85
10-27-23	71.25	50.50	48.50	14.00	29.85
11-03-23	71.25	52.05	51.00	14.00	29.85
11-10-23	71.25	52.05	51.00	14.00	29.85
11-17-23	73.45*	53.65*	51.00	13.95	29.75

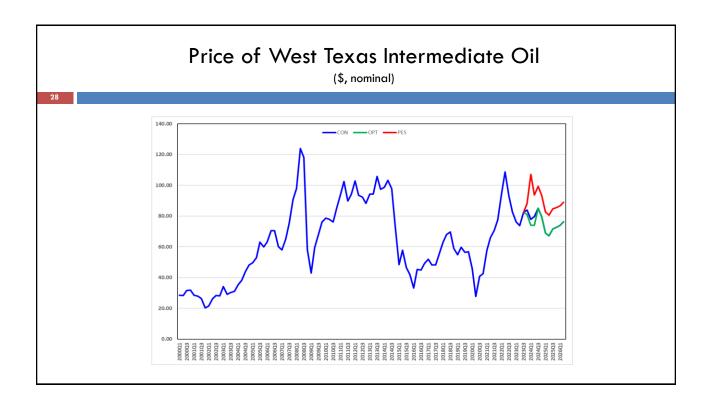
# Methodology

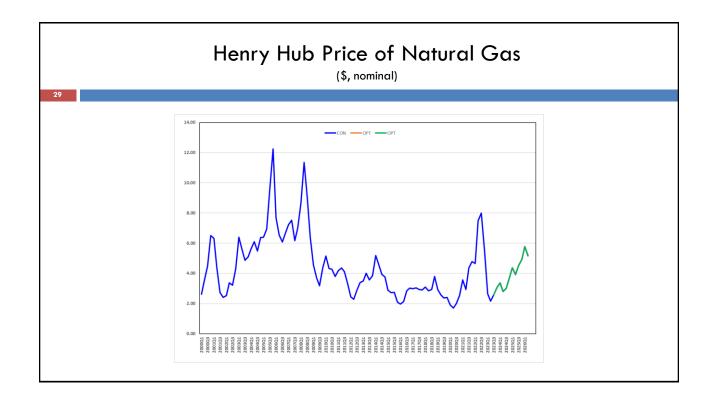
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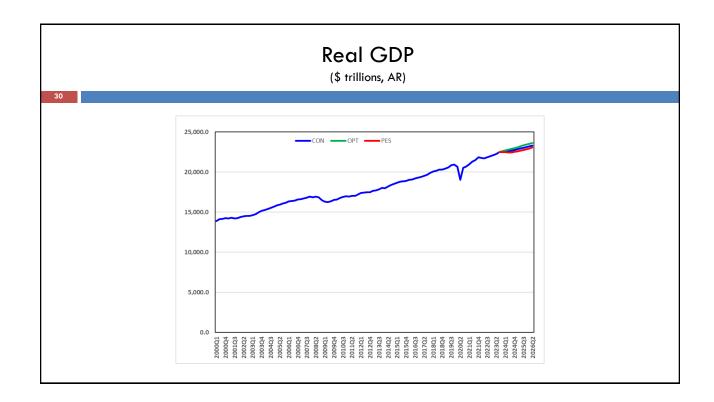
Coal Receipts = f(PPI Coal, West Texas Intermediate Price of Oil, Henry Hub Price of Natural Gas, Real GDP)

- \* Range: 2000 Q1 to 2023 Q3
- \* Seasonally-Adjusted Variables
- \* First Differences
- \* Post model adjustment for October 2023 refunds









### **Coal Forecasts**

(\$ millions, nominal)

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	FY24	% chg	FY25	% chg	FY26	% chg
CON	84.7	-12.3	71.8	-15.2	55.4	-22.8
PES	85.4	-11.6	82.1	-3.9	64.7	-21.2
OPT	84.3	-12.7	68.5	-18.8	51.9	-24.3

# Forecast Comparison to September

(\$ millions, nominal)

	CON - SEP	CON - DEC	Diff
FY24	81.4	84.7	3.3
% chg	-15.7	-12.3	
FY25 % chg	57.9 -28.9	71.8 -15.2	14.0
FY26 % chg	49.4 -14.6	55.4 -22.8	6.0

### **SALES TAX**

CONSENSUS FORECASTING GROUP

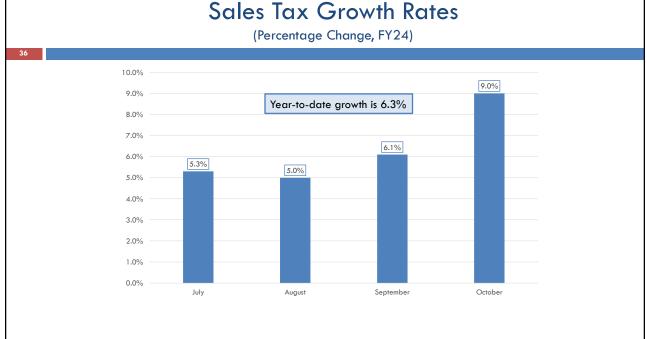
### Office of State Budget Director

GREG HARKENRIDER **DECEMBER 8, 2023** 



# What Has Changed Since September

- □ FY24 receipts have continued to show strength with 6.3 percent year-to-date growth through October
- □ Calculated revenue needed for the remainder of FY24 to hit the September sales tax estimate: 2.5 percent
- □ New S&P IHS Global and Kentucky MAK forecasts
- □ New ARIMA specification
- □ New VAR specification
- Re-evaluated fiscal impacts
- Most of the new calculations point to the need for an upward revision to the sales tax



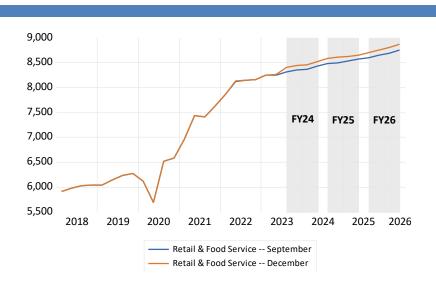
# Model Specifications, Sales Tax

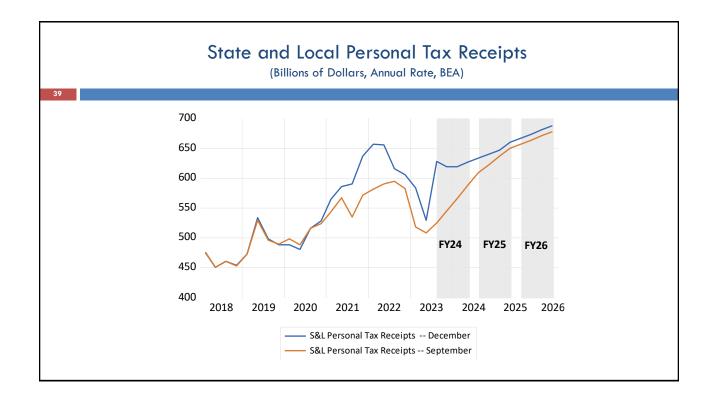
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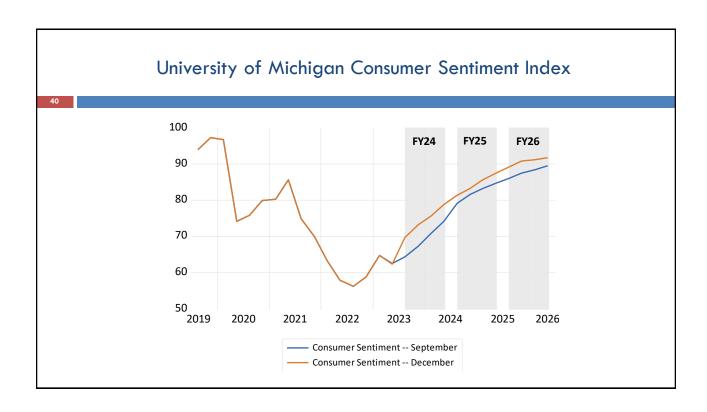
- □ Time Series for Estimation: 2010q1 to 2023q3
  - Have data back to 1990q1
- All models use seasonally-adjusted data and differences
- Arima 3,1,3 {AR (1,3); 1<sup>st</sup> difference; MA (1,3)}
- □ VAR (Sales and KY Personal Income, with exogenous retail sales)
- □ Structural Models Blend of these 5 models
  - SRTAFS (Nominal Retail Sales);
  - JSCMICH (Consumer Sentiment Index)
  - TXPGSL (State and Local Personal Taxes)
  - CDO (Consumer Durables)
  - KYWS (Kentucky Wages and salaries)

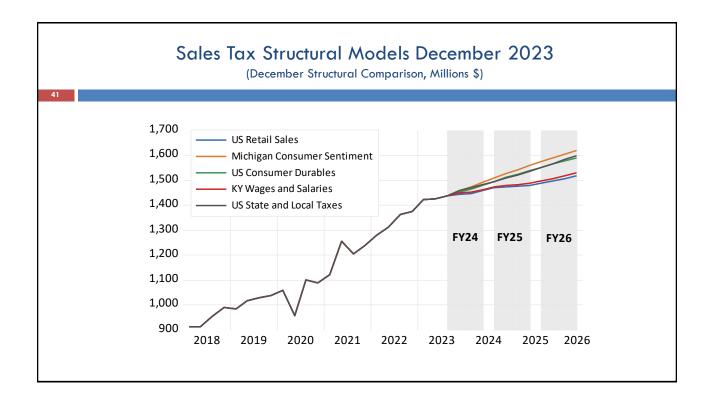
### Retail Sales – Including Food Service

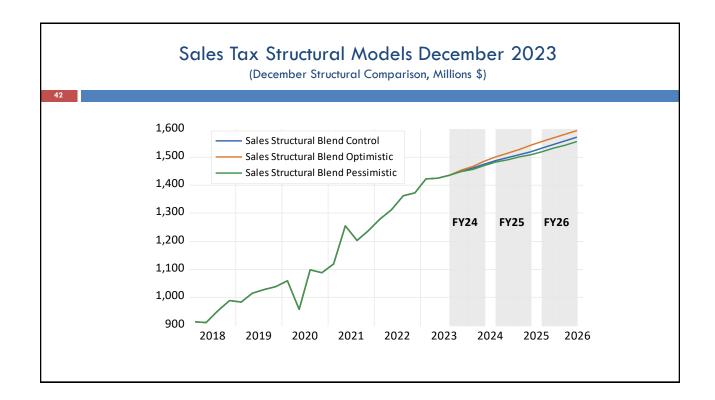
(Billions of Dollars, Annual Rate, BEA)

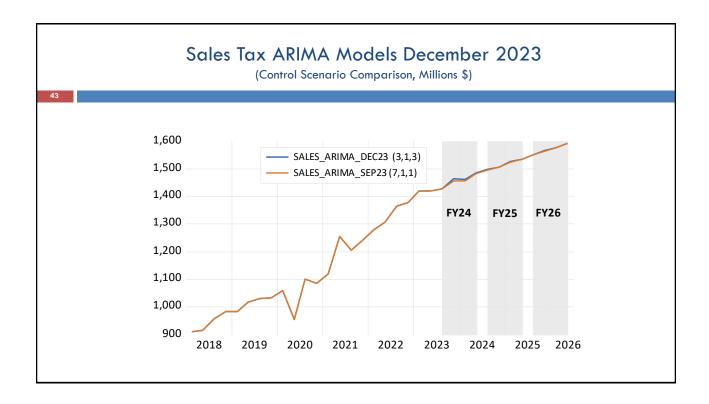


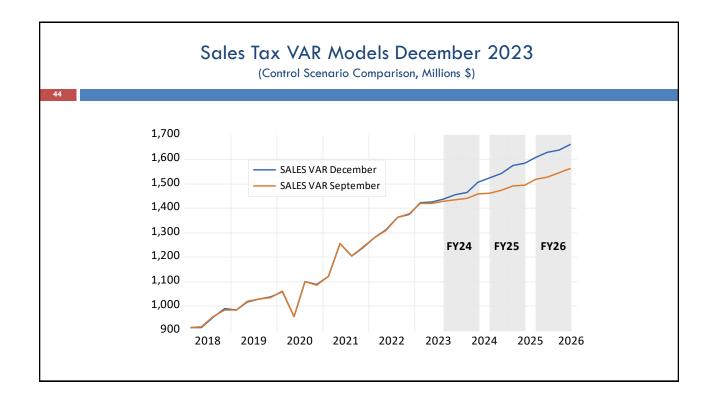


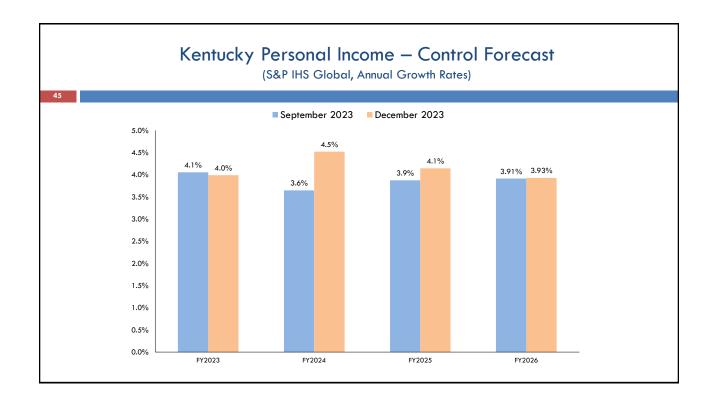


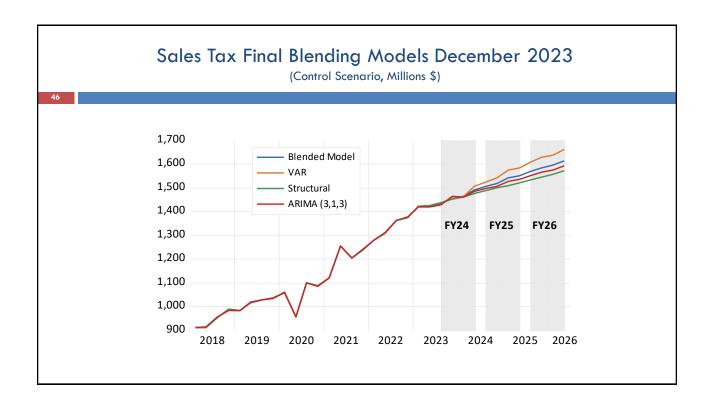












# Fiscal Impacts and Loose Ends

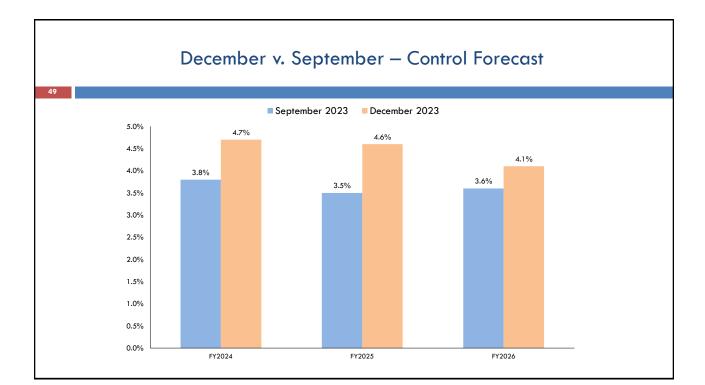
- 47
- $\ \square$  The fiscal impacts of past legislation was reviewed during the period between September  $25^{\text{th}}$  and now.
- □ FY24 through FY26 control were each lowered by \$20 million
  - Optimistic assumed a further \$25 million improvement over control
  - Pessimistic assumed a \$25 million larger negative than control

	<u>Pessimistic</u>	Control	<u>Optimistic</u>
FY2024	(72.8)	(47.8)	(22.8)
FY2025	(140.5)	(115.5)	(90.5)
FY2026	(129.7)	(104.7)	(79.7)

# Sales Tax Projections

(Millions \$)

Fiscal Year	Control	Optimistic	Pessimistic
FY 2024	\$5,838.1	\$5,876.0	\$5,786.8
	4.7%	5.4%	3.8%
FY 2025	\$6,107.8	\$6,207.1	\$5,972.5
	4.6%	5.6%	3.2%
FY 2026	\$6,355.9	\$6,495.0	\$6,1 <i>5</i> 2.9
	4.1%	4.6%	3.0%



### Sales Tax "Needs"

(Growth needed to hit an estimate)

- □ Year-to-date growth is 6.3% through October
- □ September 2023 preliminary estimate was \$5,788.3 million
- □ Growth needed in November 2023 through June 2024 would be 2.5% to hit the preliminary estimate
- □ Control scenario for the December Official estimate is \$5,838.1 million
- □ Growth needed in November 2023 through June 2024 would be 3.9%
- □ Comparable growth (November-June) in FY23 was 9.2%

# Sales Tax Projected Differences from September

(Millions \$)

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Fiscal Year	Control	Optimistic	Pessimistic
FY 2024	\$49.8	\$49.7	\$33.6
FY 2025	\$116.9	\$170.4	\$62.1
FY 2026	\$148.2	\$254.0	\$49.2

### MAJOR BUSINESS TAX FORECAST

(CONSENSUS FORECASTING GROUP)

GENE ZAPARANICK-BROWN

**DECEMBER 8, 2023** 

Office of State Budget Director

### Overview of the Major Business Tax Estimate

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- □ Revision to the September forecast
  - Why revise the estimate?
  - What was the problem?
  - What is the revised forecast?
- December forecast
  - S&P IHS Global corporate profits forecast
  - September and October revenue receipts
  - December major business tax forecast

### Why was the September Estimate Revised?

- □ The December forecast was at odds with the underlying data
  - December corporate profits forecast increased compared to September
  - But the forecast was significantly lower
    - FY24 estimate was \$90M to \$113M lower
    - FT25 estimate was \$120M to \$150M lower
    - FT26 estimate was \$165M to \$250M lower

### What was the Problem with the September Forecast?

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- $\hfill\Box$  The model was not correctly specified
  - Serial correlation was not completely eliminated

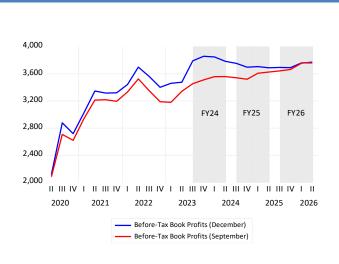
# **Revised September Forecast**

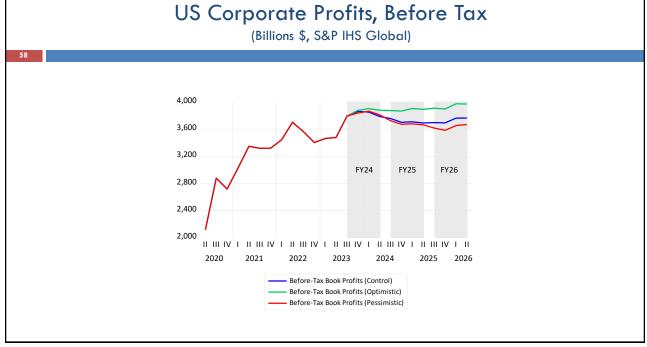
Millions \$

	FY24		FY25		FY26	
Original September Estimate	Estimate	%Chg	Estimate	%Chg	Estimate	%Chg
Control	\$1,365.1	11.7	\$1,430.7	4.8	\$1,524.5	6.6
Optimistic	\$1,381.9	13.1	\$1,498.8	8.5	\$1,608.8	7.3
Pessimistic	\$1,388.8	13.7	\$1,394.6	0.4	\$1,454.9	4.3
Revised September Estimate						
Control	\$1,236.3	1.2	\$1,266.4	2.4	\$1,325.9	4.7
Optimistic	\$1,244.5	1.9	\$1,299.5	4.4	\$1,366.9	5.2
Pessimistic	\$1,247.8	2.1	\$1,248.9	0.1	\$1,292.1	3.5



(Billions \$, S&P IHS Global, Control Scenario)





### September and October Receipts

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- □ August YTD receipts were up 88 percent over FY23
- However, September and October receipts combined to fall 16 percent
  - □ Declarations were down \$65M
  - □ Net returns were down \$8M
  - □ LLET receipts were up \$20M
- □ YTD major business taxes now stand at -4.6 percent

### Major Business Taxes Forecast

Millions \$

	FY	23	FY2	4	FY2	5	FY2	6
December Estimate	Actual	%Chg	Actual	%Chg	Estimate	%Chg	Estimate	%Chg
-								
Control	1,221.6	3.0	1,276.1	4.5	1,279.6	0.3	1,313.1	2.6
Optimistic	1,221.6	3.0	1,284.7	5.2	1,316.9	2.5	1,358.8	3.2
Pessimistic	1,221.6	3.0	1,276.1	4.5	1,273.2	-0.2	1,291.3	1.4
September Estimate	(Revised)							
Control			1,236.3		1,266.4		1,325.9	
Optimistic			1,244.5		1,299.5		1,366.9	
Pessimistic			1,247.8		1,248.9		1,292.1	
Difference								
Control			39.8		13.2		-12.8	
Optimistic			40.2		17.4		-8.1	
Pessimistic			28.3		24.3		-0.8	

### PROPERTY TAX FORECAST

(CONSENSUS FORECASTING GROUP)

GENE ZAPARANICK-BROWN

DECEMBER 8, 2023

Office of State Budget Director

# No Change to Property Tax Forecast FY24-FY26

- □ Not enough information to make meaningful adjustments
  - □ Timing of collection cycle
  - Three of the four largest accounts receive the majority of the revenue during the November January period
    - Real property
    - Tangible
    - Public service
  - The three accounts made up 72 percent of total property tax revenue in FY23

# Property Tax Forecast

	FY23		FY24		FY25		FY26	
	Actual	%Chg	Estimate	%Chg	Estimate	%Chg	Estimate	%Chg
REAL	338.8	4.1	351.7	3.8	365.0	3.8	378.9	3.8
TANGIBLE	136.6	9.8	142.8	4.5	144.5	1.2	147.4	2.0
MOTOR VEHICLE	197.5	10.2	211.9	7.3	223.6	5.5	230.7	3.2
DELINQUENT	6.6	7.7	6.0	-9.7	6.0	0.0	6.0	0.0
OMITTED TANGIBLE	10.6	-6.1	11.0	4.1	11.0	0.0	11.0	0.0
PUBLIC SERVICE	80.9	8.4	81.8	1.1	83.6	2.2	84.4	1.0
OTHER	<u>3.4</u>	<u>18.2</u>	<u>3.4</u>	<u>-1.1</u>	<u>3.5</u>	<u>2.9</u>	<u>3.5</u>	0.0
TOTAL	774.4	7.0	808.6	4.4	837.2	3.5	861.9	3.0

### **CIGARETTE TAX** CONSENSUS FORECASTING GROUP

**GREG HARKENRIDER** 

**DECEMBER 8, 2023** 

Office of State Budget Director

# Cigarette Trends

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FY 2020	FY2021	FY2022	FY2023
0.4%	-1.4%	-7.3%	-7.8%

- □ FY21 cigarette tax revenue was 1.4% lower than FY20
- □ FY22 cigarette tax revenue was down 7.3%
- □ FY23 saw a steepening of the downward trend to -7.8%
- Higher vendor's compensation of 1.5 cents per pack began in FY23 (Negative 3.4 million estimated fiscal impact)
- □ Monthly receipts in FY24 are down 11.7% through October
- No reason to inject positive momentum or a turnaround into the forecast

### Cigarette Tax Forecast

(Millions \$)

Fiscal Year	Control
FY 2024	\$272.2 -9.0%
FY 2025	\$249.5 -8.3%
FY 2026	\$231.7 -7.1%

# KENTUCKY LOTTERY CONSENSUS FORECASTING GROUP

**GREG HARKENRIDER** 

DECEMBER 8, 2023

Office of State Budget Director

# **Kentucky Lottery Summary**

- OSBD works very closely with the Kentucky Lottery executive staff to develop the forecast
- □ FY23 was an extraordinary year for the lottery dividend, growing \$23 million to \$370.3 million, fueled by a record \$2 billion Powerball jackpot
- □ FY24 is off to a great start and is trending ahead of the pace set in FY23 and ahead of budgeted amounts

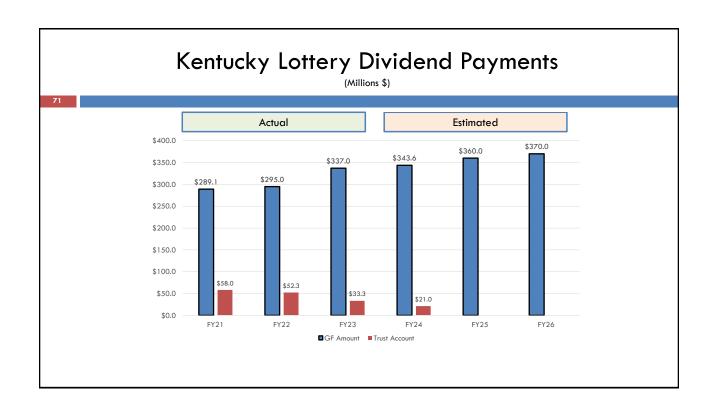
### FY24 Year-to-Date Lottery Trends

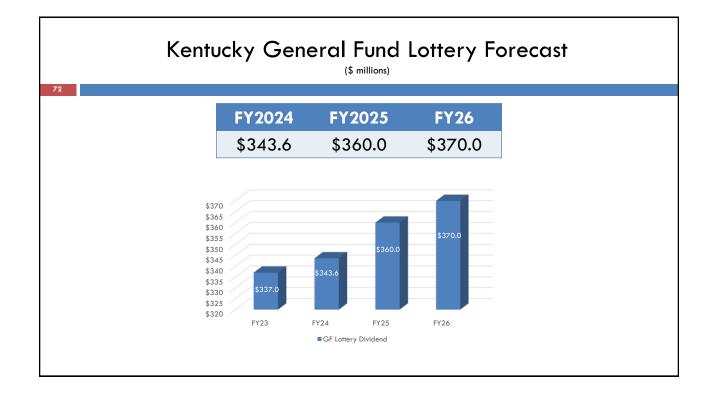
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- □ FY24 has started off very strongly
  - The highest three months in KY lottery sales history were in three of the first four months of FY24. October was the highest month ever with sales of \$178.9 million
  - Two product lines are doing exceptionally well
    - iLottery instant play sales are up 74.6% year-to-date over last year and 27.4% compared to budget
    - Record and near record Mega Millions and Powerball jackpots fueled a combined increase of 33.1% for those games over last year and 94.6% compared to budget
  - However, scratch off products are only up 1.2% year-to-date and down 5.6% compared to budget
  - Prize expenses year-to-date were 71.4% compared to 69.1% in the prior year, a reflection of player preference for higher payout games

### **Explanation of Lottery Forecast for FY24**

- □ Budget Bill Language (HB1 2022 Regular Session):
  - If lottery receipts received by the Commonwealth, excluding any unclaimed prize money received, exceed
    - **\$292,000,000** in fiscal year 2022; or
    - \$333,974,700 in fiscal year 2023; or
    - **\$340,574,700** in fiscal year 2024
  - Then the first \$3,000,000 of excess funds in each fiscal year shall be transferred to the Kentucky Higher Education Assistance Authority and appropriated in accordance with KRS 154A.130(4)(b)
  - Any additional excess shall be transferred to a trust and agency account and shall not be expended or appropriated without the express authority of the General Assembly.





### MISCELLANEOUS "OTHER" TAXES

(CONSENSUS FORECASTING GROUP)

**GREG HARKENRIDER** 

DECEMBER 8, 2023

Office of State Budget Director

### Other General Fund Revenues

- □ The "Other" category of revenues contains roughly 60 accounts that are not otherwise classified into the major accounts
- Insurance premiums taxes, alcohol taxes, telecommunication taxes, inheritance taxes, and abandoned property receipts are the five largest ongoing accounts
  - Pari-Mutuel taxes has surpassed abandoned property in the forecast
  - Income on investments was \$150.5 million in FY23 {(344,153) in FY21 and 585,342 in FY22}
- Many of these revenue sources are estimated with annual data instead of quarterly data given the irregular collection cycles
- Approximately 12 revenue sources were adjusted since September based on year-to-date receipts
- □ No optimistic and pessimistic estimates for the other taxes

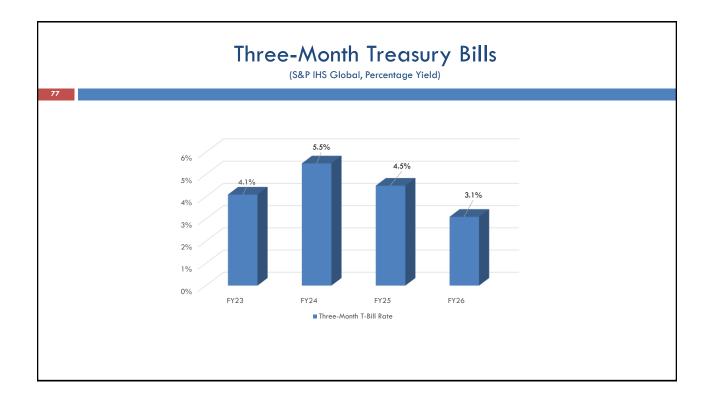
### Forecast for Income on Investments

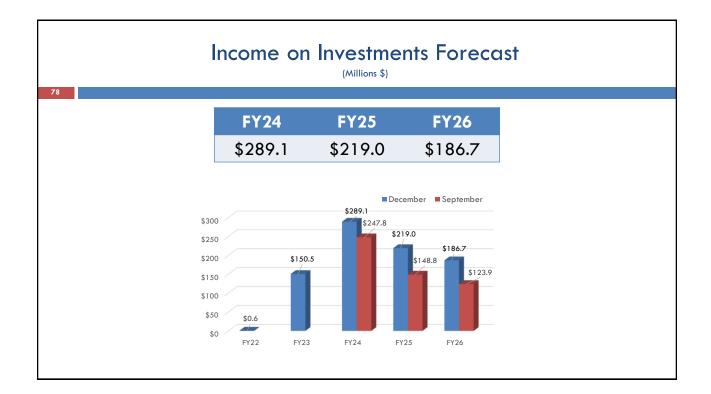
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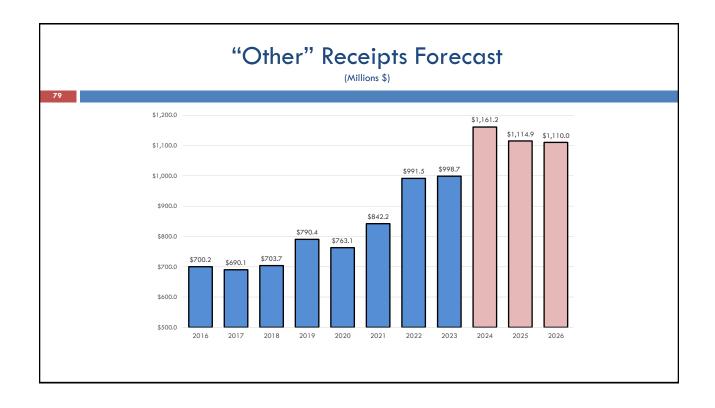
- □ Income from investments, while not a perennial source of significant income, recorded receipts of \$150.5 million in FY23 and is still rising
- □ In FY24, income from investments is expected to be 25 percent of the "other" General Fund receipts
- □ The dramatic increase on the income on investments stems from prior year surpluses that were deposited into the State's "Rainy Day Fund"
- □ That fund is invested in a short-term pool that has benefited from increased interest rate on short-term investment instruments

### Income on Investments

- □ Income from Investments has two major components:
  - Investable balances (Average monthly balances)
    - General Fund component of the short-term pool
      - Higher balances in FY24 compared to FY23
      - Declining in FY25 and held constant in FY26
    - The investable balances change throughout the course of a fiscal year (hence, a monthly forecast)
  - Interest rates used to determine income from investing the General Fund component of the short-term pool
    - Higher rates in FY24 than in FY23
    - Declining rates in FY25 and FY26





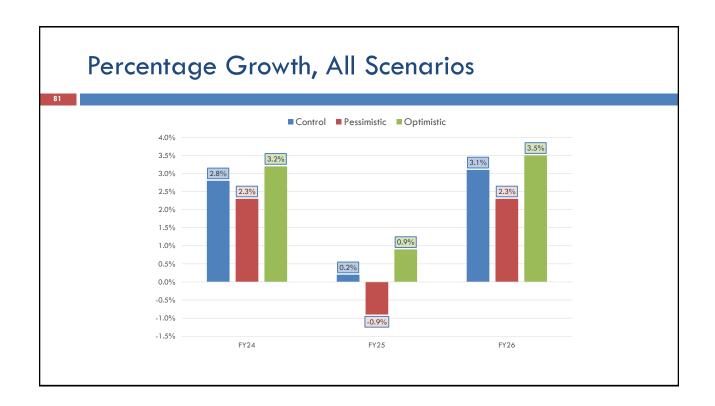


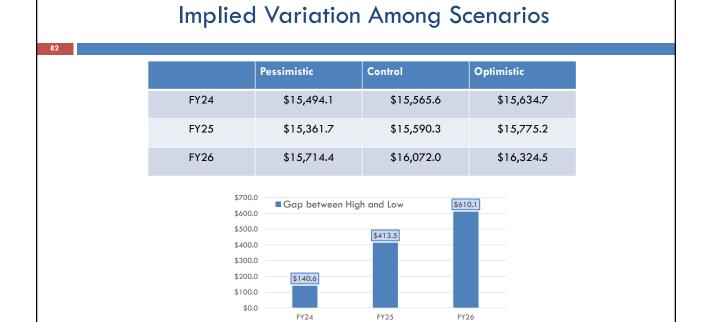
# GENERAL FUND REMARKS (CONSENSUS FORECASTING GROUP)

**GREG HARKENRIDER** 

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# Explanation of the Variation between C-O-P

□ Taxes with Alternative Scenarios

- □ Individual Income Tax
- Sales and Use Tax
- Major Business Taxes
- Coal Severance

### □ No Alternative Scenarios for the Remaining Revenue Sources

- Modeling methodology for many taxes do not fit equations equations with a forecast from either MAK or S&P IHS Global
- No meaningful way to assess optimistic or pessimistic risks to the control forecast without structural equations