



Commonwealth of Pennsylvania

ECONOMIC & BUDGET UPDATE

Marcellus Shale Coalition

March 31, 2022

Overview

A sizable budget surplus this year

- Revenues significantly outperform estimates
- Approximately \$6 billion in federal relief supports current year budget
- Proposed for FY 22-23: Minimum wage increase | corporate tax changes

Main economic issues

- What happened to the labor force?
- Inflation for 2022 | wage-price spiral taking hold?

Natural gas trends

- National and regional prices remain high | impact fee is elevated
- Will international demand impact PA production?

FYTD Revenues (Adjusted for Delayed Due Dates)

	Actual Revenues (\$ millions)		Notes on Adjustments
	Amount (e)	Growth	
General Fund	\$34,129	12.7%	
Corporate Net Income	3,237	28.7	due date shift
Sales - Non-Motor	8,936	14.6	due date shift
Sales - Motor Vehicle	1,349	2.0	
PIT – Withholding	9,043	10.4	extra deposit + transfer
PIT – Other	2,175	23.5	due date shift
Inheritance	1,159	29.5	delayed receipts
All Tobacco	839	-1.5	
Realty Transfer	624	34.1	
All Other	6,766	4.2	fed funds/transfer

Note: Dollars in millions. Revenues through March 2022. PIT is personal income tax. Adjusted growth rate controls for due date shifts, one-time transfers and extra deposit day for withholding.

Initial Revenue Estimate for FY 2022-23

	Revised 2021-22	Initial 2022-23	Dollar Change	Percent Change	Adjusted Growth or Notes
General Fund	\$45,322	\$43,319	-\$2,003	-4.4%	-0.8%
Corporate Net Income	4,866	4,654	-212	-4.4	no stimulus, wages
Sales - Non-Motor	11,668	11,300	-368	-3.2	no stimulus
Sales - Motor Vehicle	1,802	1,281	-521	-28.9	new transfer
PIT - Withholding	11,790	12,355	565	4.8	
PIT - Other	4,501	4,698	197	4.4	
Inheritance	1,516	1,462	-54	-3.6	
All Tobacco	1,040	1,015	-24	-2.4	
Realty Transfer	770	786	16	2.1	
All Other	7,370	5,768	-1,602	-21.7	0.9%

Note: Dollars in millions. PIT is personal income tax. Adjusted growth rate controls for a \$2.19 billion one-time transfer.

Federal and State Pandemic Relief Programs

	CY 2020	CY 2021	CY 2022	Total
Payments to Individuals and Businesses				
State Unemployment Compensation	\$5.2	\$0.8	\$0.0	\$6.0
Fed. Pandemic Unemployment Comp (FPUC)	16.2	8.8	0.0	25.0
Pandemic Unemployment Assistance (PUA)	7.0	4.1	0.0	11.2
LWA and UC Extensions	3.1	3.2	0.0	6.3
SNAP Benefits	0.9	1.8	1.0	3.7
Economic Impact Payments	11.0	21.0	0.2	32.2
New Child Tax Credit Awards	--	3.4	0.1	3.5
Rental and Homeowner Assistance	--	1.8	0.0	1.8
Paycheck Protection Program (PPP)	<u>20.7</u>	<u>10.0</u>	<u>0.0</u>	<u>30.7</u>
Total	64.2	54.9	1.3	120.4
Other Federal Programs				
Direct State Support	5.9	20.2	0.1	26.1
Direct Local Support	2.6	8.1	0.0	10.7
Other Support	<u>6.8</u>	<u>3.0</u>	<u>0.0</u>	<u>9.8</u>
Total	15.2	31.3	0.1	46.5

Note: Figures in dollar billions.

General Fund Financial Statement

	19-20	20-21	21-22	22-23
Beginning Balance (adj.)	\$30	-\$2,715	--	--
Current Year Revenues	32,276	40,392	\$45,322	\$43,319
Less Refunds	<u>-1,150</u>	<u>-1,262</u>	<u>-1,325</u>	<u>-1,300</u>
Net Revenues	31,126	36,414	43,997	42,019
State Expenditures	-34,090	-34,013	-37,478	-41,320
Current Year Balance	-2,934	2,402	6,519	699
Plus Prior Year Lapses	<u>200</u>	<u>2,622</u>	<u>264</u>	<u>110</u>
Prelim Ending Balance	-2,734	--	6,783	809

Note: Millions of dollars. Prior year lapses include transfers to the Budget Stabilization Reserve Fund.

Minimum Wage Proposal: Increase to \$15 by 2028

Phase in Minimum Wage Increase

- Hourly minimum wage increase to \$12 in July 2022
- Annual \$0.50 increase to \$15 in 2028 (CPI adjustment thereafter)
- Tipped cash wage increased to regular minimum wage

Preliminary Analysis

- Strong wage growth | smaller labor force than pre-Covid
- Fewer workers impacted compared to prior analyses
- ~640,000 non-tipped workers make < \$12/hr
- Smaller potential loss in jobs (mostly not filling vacant positions)
- Moderate gains to General Fund revenues

CNIT Proposal: Broaden Base and Phase in Reduced Rate

Broaden CNIT Base

- Broaden current addback provision (+\$500M for full year)
- Codify Economic Nexus (scored with market-based sourcing)
- Adopt market-based sourcing for intangibles (+\$194M by FY 27-28)

Phase in Reduced CNIT Rate

- 7.99% for tax years 2023-2025
- 6.99% for tax year 2026 | 5.99% for tax year 2027

Overall Net Tax Cut

Pennsylvania Demographics - Decennial Census Update

Age Cohort	Number (000s)			Change (000s)		Avg. Ann. Growth	
	2010	2020	2030	10-20	20-30	10-20	20-30
0 to 19	3,173	3,005	2,879	-168	-126	-0.5%	-0.4%
20 to 64	7,566	7,506	7,188	-60	-318	-0.1%	-0.4%
65 to 79	1,343	1,862	2,200	520	338	3.3%	1.7%
80+	<u>620</u>	<u>629</u>	<u>823</u>	<u>9</u>	<u>194</u>	<u>0.1%</u>	<u>2.7%</u>
Total	12,701	13,003	13,090	301	87	0.2%	0.1%

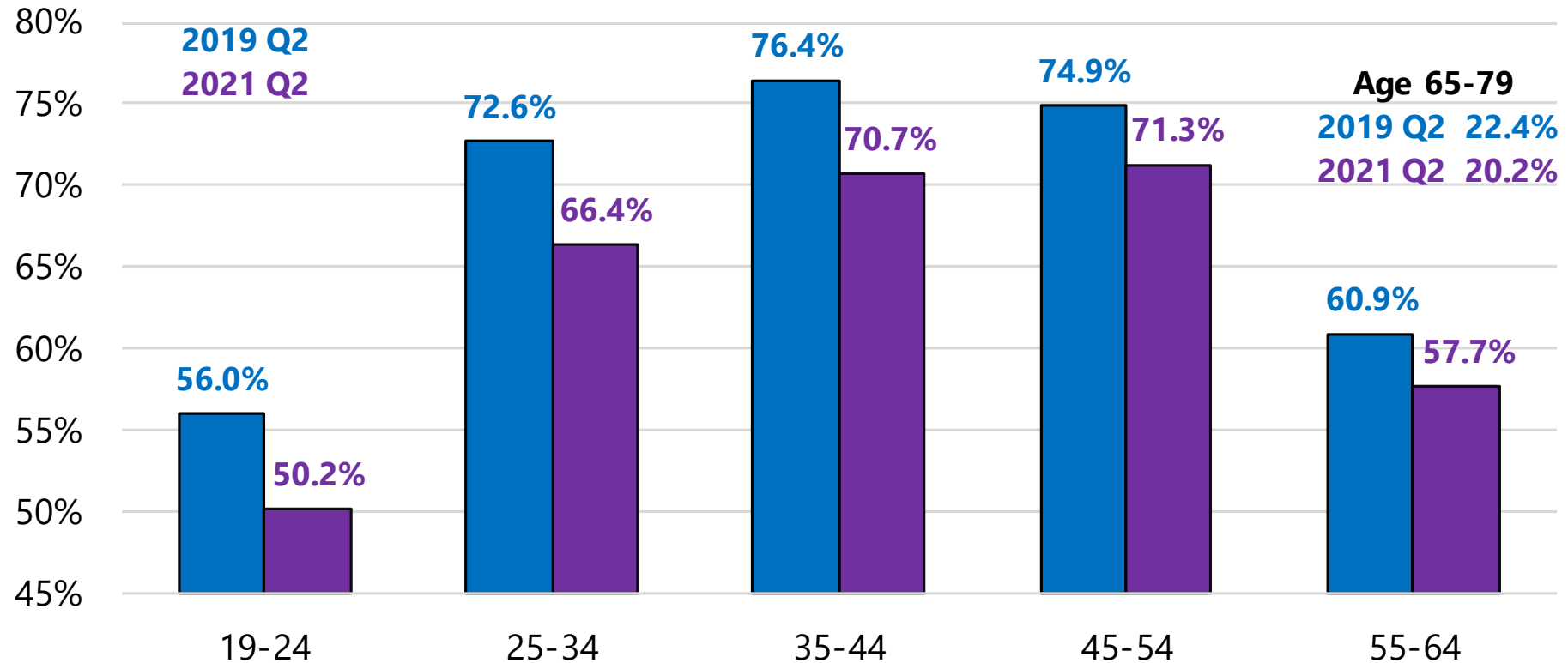
Source: U.S. Census Bureau. Forecast by IFO.

Recent Quarterly Trends for PA Economics

	Year-Over-Year Growth Rate or Change					
	2020.4	2021.1	2021.2	2021.3	2021.4	2022.1
Real GDP	-3.4%	-0.3%	11.5%	4.1%	Mar 31	--
Wages-Salaries	1.9%	1.0%	12.6%	9.5%	8.0%	9.5%
Philadelphia CPI-U	0.9%	1.0%	4.2%	4.6%	6.1%	7.3%
Unemployment Rate	8.0%	7.3%	6.7%	6.1%	5.5%	5.3%
Change From Two Years Prior (Pre-COVID)						
Job Loss (000s)	--	-378	-337	-285	-262	-222
Labor Force (000s)	--	-123	-115	-168	-212	-168
<p>Note: All growth rates relative to same quarter in prior year. Job Loss and Labor Force data not seasonally adjusted. Source: U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis.</p>						

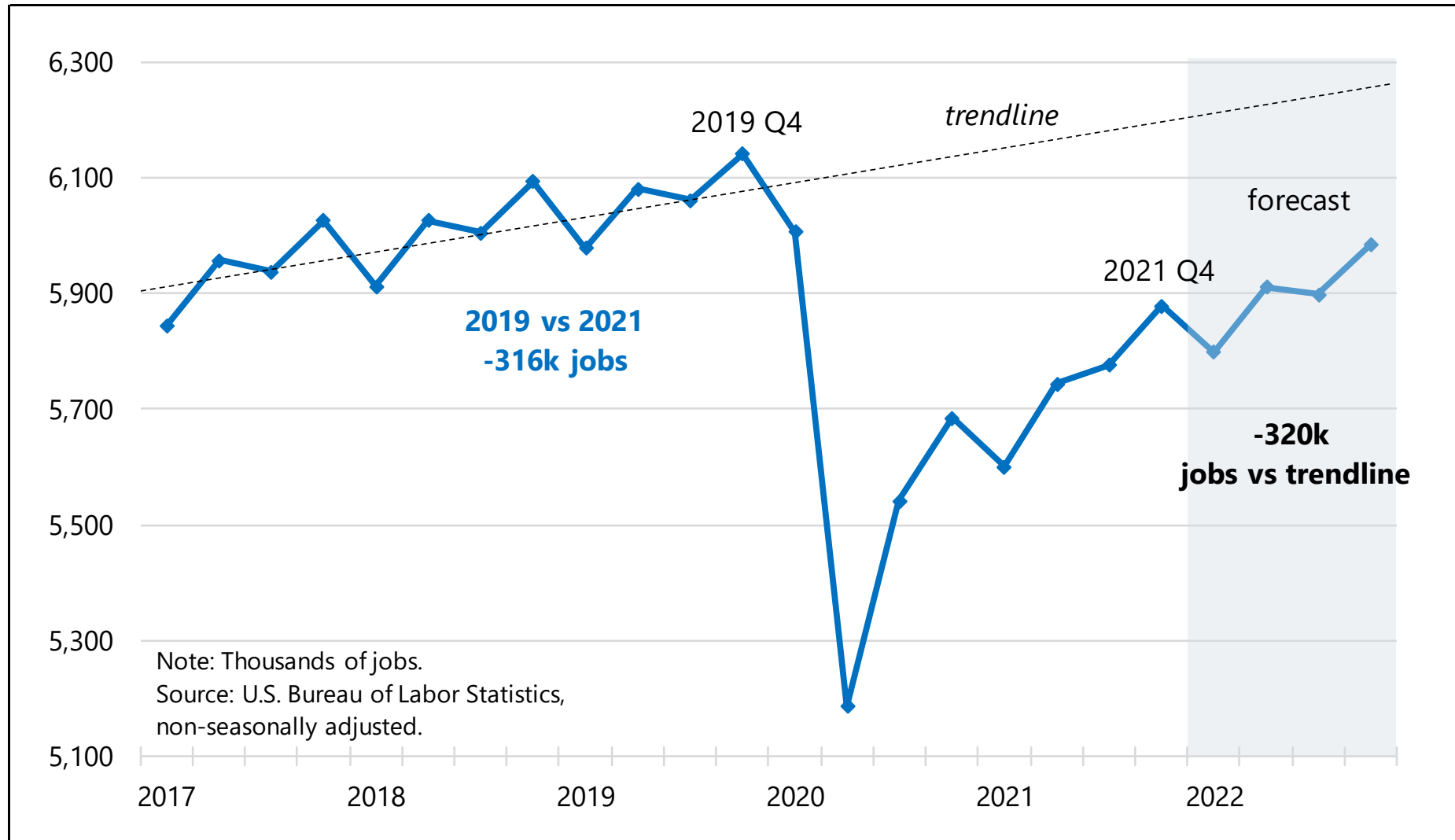
All Age Groups Working Less

PA Employment / Population Ratio by Age Group

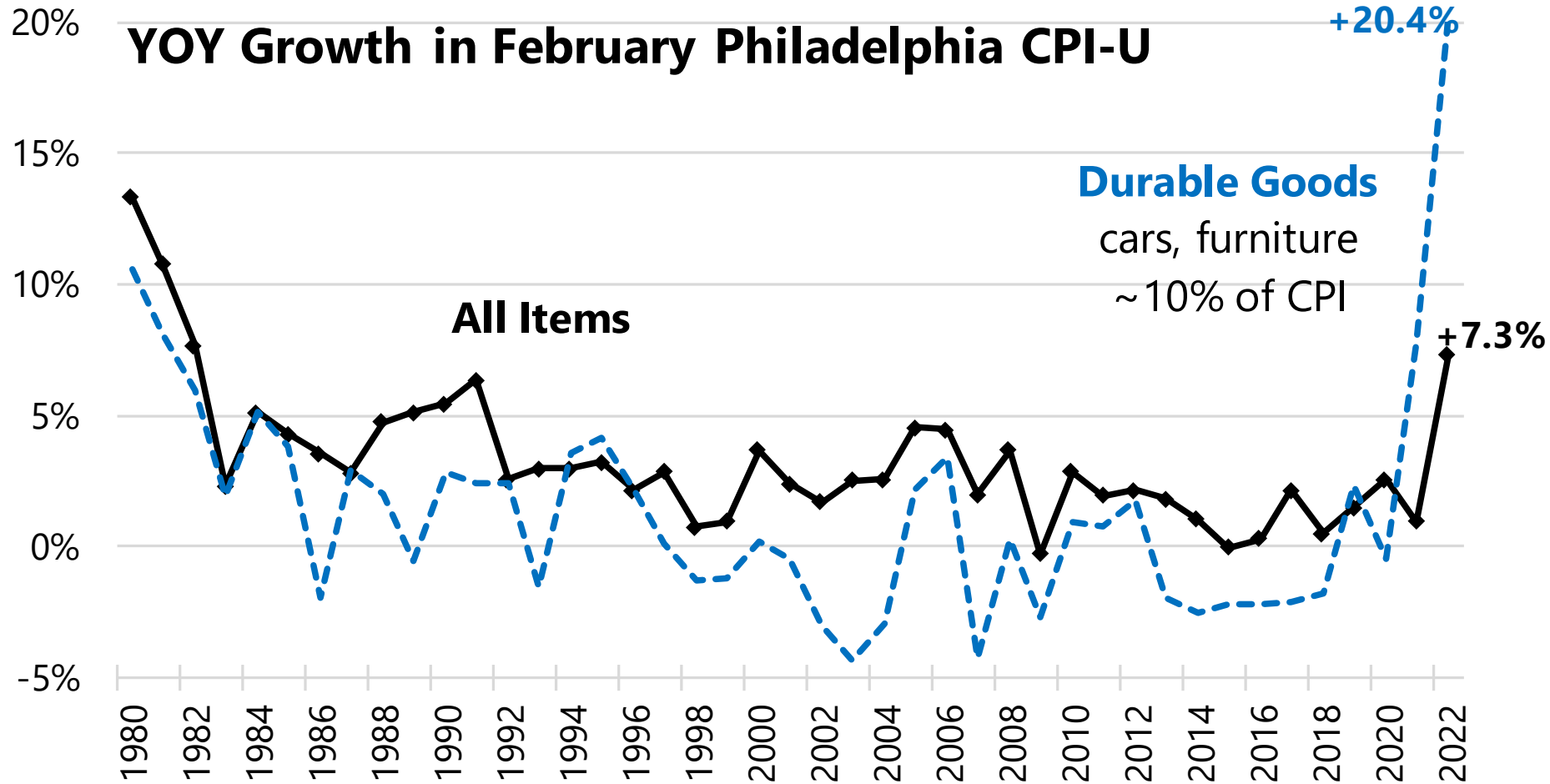


Source: Quarterly Workforce Indicators, U.S. Census Bureau.

Payroll Jobs Contract



Recent Rapid Acceleration of Inflation



Very High (Feb 22)

- Used Cars +42.7%
- Gasoline +31.6%
- Energy +25.1%
- New Cars +22.2%

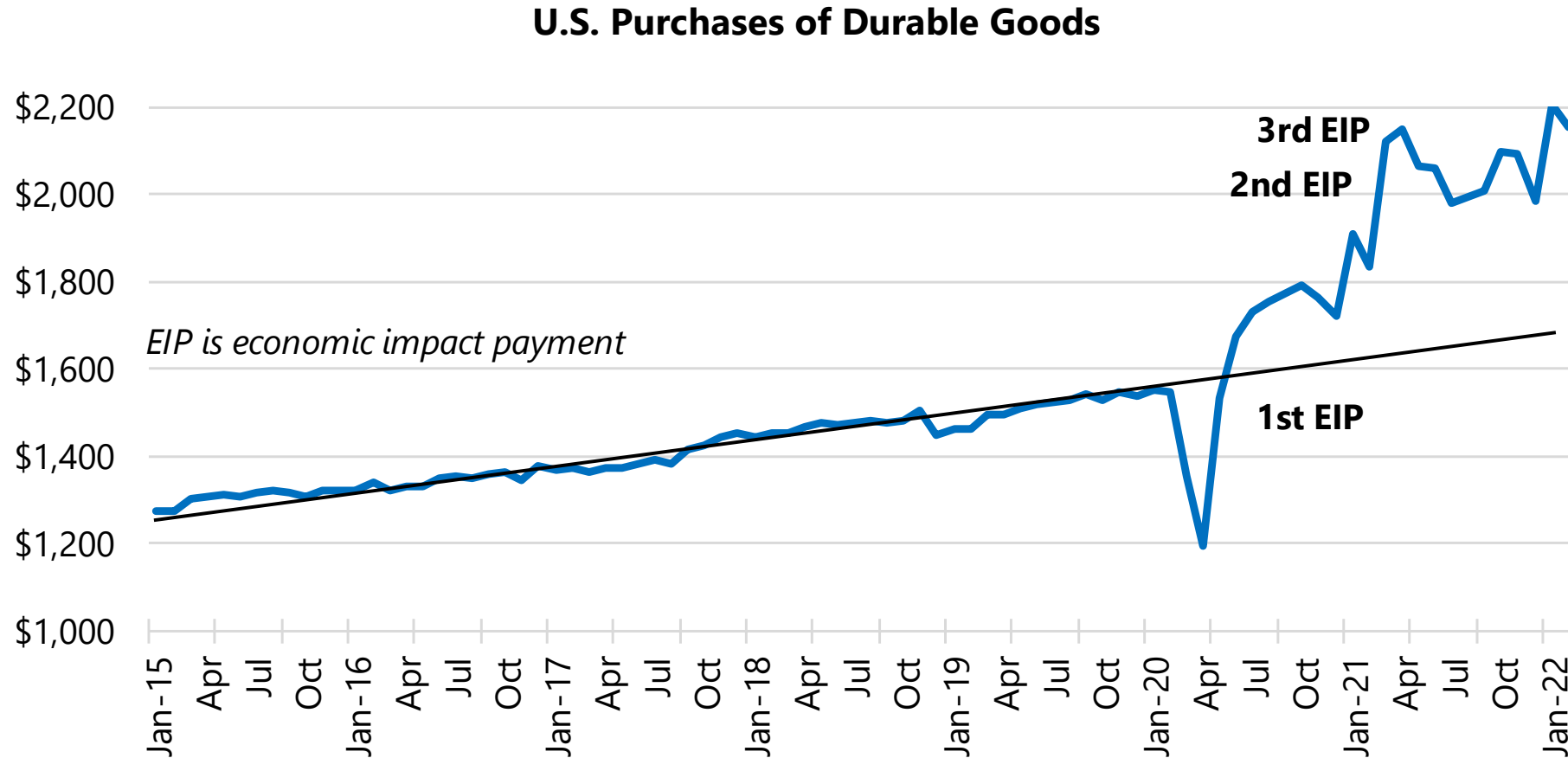
Durable Goods

cars, furniture
~10% of CPI

Relatively Low (Feb 22)

- Medical Care -0.2%
- Education-Comm +1.3%
- Rent Primary Res +4.2%

U.S. Durable Goods Purchases Still Very High



Note: Billions of dollars. Nominal dollars.

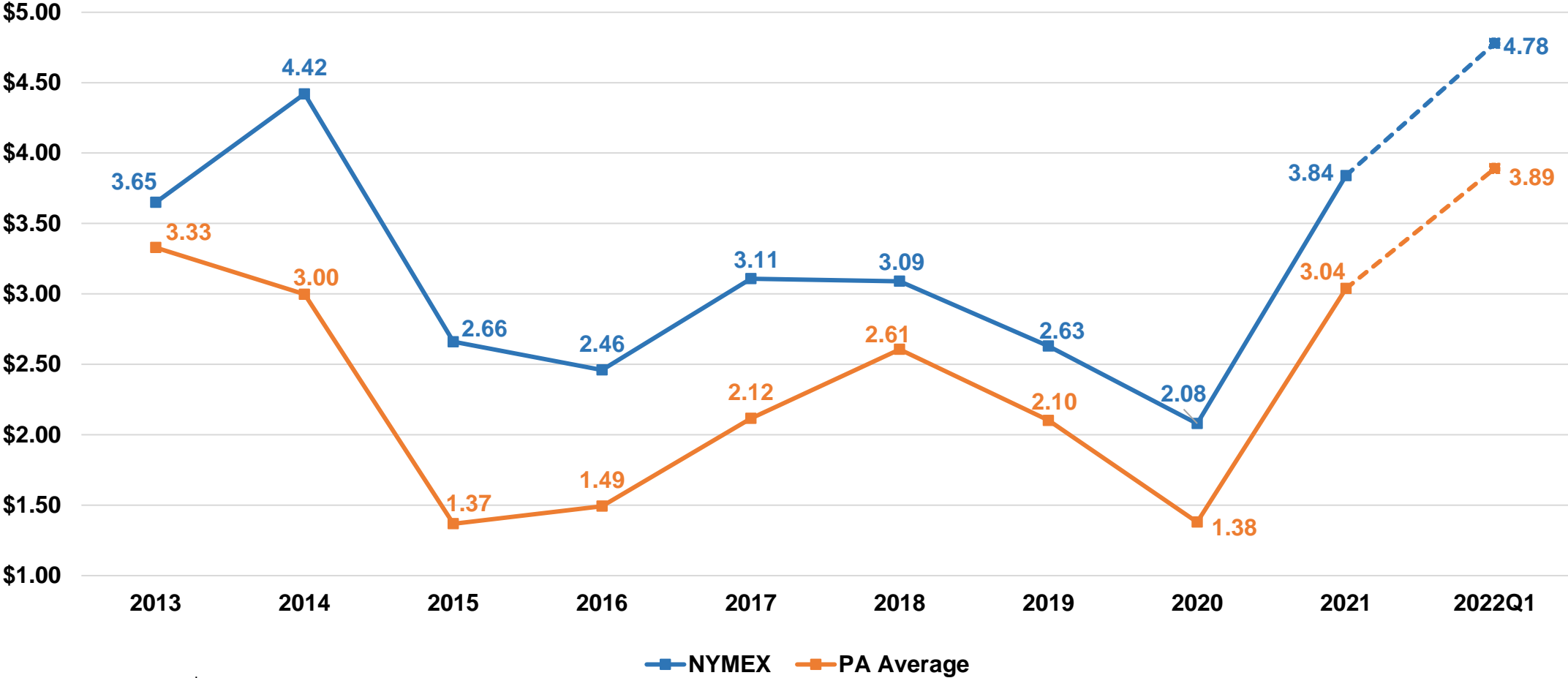
Source: U.S. Bureau of Economic Analysis, Table 2.8.5.

Natural Gas Trends

	2016	2017	2018	2019	2020	2021
PA Production (bcf)	5,096	5,364	6,123	6,815	7,090	7,567
Growth Rate	10.8%	5.3%	14.1%	11.3%	4.0%	6.8%
New Horizontal Wells Drilled	501	811	777	614	475	518
Growth Rate	-36.1%	61.9%	-4.2%	-21.0%	-22.6%	8.8%
PA Natural Gas Spot Price	\$1.47	\$2.10	\$2.59	\$2.10	\$1.38	\$3.03
NYMEX Natural Gas Price	\$2.46	\$3.11	\$3.09	\$2.63	\$2.08	\$3.84
Impact Fee Collections	\$173.3	\$209.6	\$251.8	\$200.4	\$144.9	\$233.8
Wells Paying Impact Fee	8,121	8,518	10,164	10,112	10,438	10,851
Average Fee Per Well	\$21,340	\$24,607	\$24,774	\$19,818	\$13,882	\$21,546

Notes: Production and drilling amounts from DEP. PA spot price is a weighted annual average at major Pennsylvania hubs. NYMEX price is the annual average price of natural gas near-month settlements on the New York Mercantile Exchange, upon which the Impact Fee schedule is based. Impact Fee collections in millions of dollars, reported by the PUC, with 2021 estimated by the IFO. Average Fee Per Well computed by the IFO.

Price Trends: 10-Year History



Note: Prices in \$/MMBtu

Impact Fee Overview

Calendar Year	Impact Fee Revenues ¹	Unconventional Production (bcf) ²	Price of Gas (mcf) ³	Market Value ⁴	Annual ETR
2016	\$173.3	5,096	\$0.75	\$3,844.9	4.5
2017	\$209.6	5,364	\$1.40	\$7,505.0	2.8
2018	\$251.8	6,123	\$1.90	\$11,653.3	2.2
2019	\$200.4	6,815	\$1.38	\$9,407.6	2.1
2020	\$146.3	7,090	\$0.63	\$4,478.6	3.3
2021	\$233.8	7,567	\$2.35	\$17,835.4	1.3

Notes:

1 Fees in millions of dollars, reported by the PUC. 2021 is estimated by the IFO.

2 Production data from DEP, in billion cubic feet.

3 Weighted average of spot prices at major PA hubs. Net of post-production costs, assumed to be \$0.80 per mcf based on investor presentations for several regional producers.

4 Does not include natural gas liquids, millions of dollars.

PA Oil and Gas Employment Trends

	2016	2017	2018	2019	2020	2021	Total Change
Oil and Gas Extraction	5,423	4,568	4,496	4,751	4,300	3,815	
Change	-901	-855	-72	255	-451	-485	-1,608
Natural Gas Pipeline	1,617	1,746	1,857	1,804	1,758	1,742	
Change	69	129	111	-53	-46	-16	125
Electric Power Generation – Fossil Fuels	3,030	2,805	2,742	2,599	2,367	2,218	
Change	-278	-225	-63	-143	-232	-149	-812
Natural Gas Distribution	4,787	4,866	4,940	4,774	4,836	4,948	
Change	139	79	74	-166	62	112	161

Notes: Electric power generation is related to all fossil fuels; no further detail is available. 2021 employment is as of September. Includes direct jobs only and excludes indirect jobs supported by the industry such as independent contractors.
Source: Bureau of Labor Statistics.

PA Leads Nation in Electricity Exports

- Pennsylvania is the leading exporter of electricity to other states by a significant margin.
- PA exports are 77% higher than the second highest state (Alabama, not shown).
- The share of PA electricity generated that is exported has grown significantly in recent years. From 24% in 2018 to 35% in 2022.

State	Net Generation				Total	Total Consumption	Net Exports
	Nat. Gas	Coal	Nuclear	Other			
Pennsylvania	127.3	29.3	75.9	9.1	241.6	156.2	85.5
West Virginia	2.7	59.6	--	3.4	65.6	35.3	30.3
Connecticut	24.5	0.2	17.2	2.1	44.1	30.0	14.1
North Carolina	47.1	20.4	43.1	20.6	131.3	145.6	-14.3
New Jersey	29.3	1.0	28.1	2.9	61.4	78.0	-16.6
Maryland	14.7	5.8	15.0	4.1	39.7	63.5	-23.8
New York	57.1	--	31.1	37.0	125.2	150.8	-25.6
Ohio	54.2	45.8	17.5	5.9	123.3	157.5	-34.1
Massachusetts	14.9	--	--	4.5	19.4	54.1	-34.7
Virginia	54.1	3.1	28.6	8.5	94.3	133.2	-38.8

Note: Amounts in millions of megawatt hours. Total consumption includes 2020 amounts for direct use and line losses, which are not yet available for 2021.
Source: U.S. Energy Information Administration.

Emissions from Electricity Generation

- Pennsylvania CO² emissions from electric generation down 41% from 2007 to 2021
- Stronger reduction than the average among regional states shown (-32%).
- Attributable to large shift from coal to natural gas. Natural gas now accounts for 53% of PA generation.

Table 3 - Electricity Generation Carbon Dioxide Emissions

State	Generation		Emissions		Emissions per Unit	
	2007	2021	2007	2021	2007	2021
New York	145.9	125.2	53.7	28.7	0.37	0.23
New Jersey	62.7	61.4	20.8	14.5	0.33	0.24
Connecticut	33.2	44.1	10.5	10.6	0.32	0.24
Virginia	78.4	94.3	47.2	27.3	0.60	0.29
North Carolina	130.1	131.3	79.4	40.5	0.61	0.31
Pennsylvania	226.1	241.6	129.3	81.0	0.57	0.34
Maryland	50.2	39.7	31.5	15.2	0.63	0.38
Massachusetts	47.1	19.4	25.8	8.4	0.55	0.43
Ohio	155.2	123.3	132.0	68.7	0.85	0.56
West Virginia	93.9	65.6	87.3	58.4	0.93	0.89

Note: Generation in million megawatt hours. Emissions in million metric tons.

Source: U.S. Energy Information Administration. 2021 Emissions are estimated by the IFO based on 2021 generation and 2020 emissions per unit.

Natural Gas Outlook

Prices remain high, no sign of reversion in near term

- NYMEX is \$5.05 through April, \$2.50 higher than last year
- Regional prices are not far behind, currently near \$4.00

International supply and demand dynamics are a factor

- Some analysts expect increase in U.S. production in response to growing export demand for LNG
- Pennsylvania is 3rd largest net exporter of energy to other states | behind Texas (oil and gas) and Wyoming (coal)
- What role will Pennsylvania production play moving forward?

Questions

Presentation posted on the IFO website

<http://www.ifo.state.pa.us/>

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Independent Fiscal Office
Rachel Carson State Office Building
400 Market Street
Harrisburg, PA 17105
(717) 230-8293