Pennsylvania Economic & Revenue Update

Independent Fiscal Office

House and Senate Appropriations Committees

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INDEPENDENT FISCAL OFFICE

Matthew Knittel, Director

Testimony Before the House Appropriations Committee

February 22, 2016

Chairman Adolph, Chairman Markosek and members of the Appropriations Committee, thank you for the opportunity to testify before you today. For my opening remarks, I would like to briefly discuss the outlook for the Pennsylvania economy, General Fund revenues and the long-term budget outlook.

<u>2016 Economic Outlook</u>

Recent economic indicators provide different perspectives on the state and national economies. Some national indicators suggest an increasing risk of recession. Those indicators include: (1) an S&P 500 Index that has declined roughly 10 percent since the start of December, (2) a manufacturing index that has declined in 10 of the past 12 months and (3) declining corporate profits. However, many underlying economic fundamentals remain solid. For Pennsylvania, positive fundamentals include:

- A stable labor market. For 2015, the Pennsylvania economy generated 54,800 additional payroll jobs, up from 45,800 in 2014.
- Relative to income, consumer debt levels have declined dramatically during the past decade. Moreover, growth in student loan debt shows recent signs of slowing.
- A solid housing market. Data suggest that existing home sales increased by 10 to 12 percent in 2015.

Due to these solid fundamentals, the forecast does not anticipate that the state or national economies will enter into a recession in the near future. However, downside risks have increased in the past month, and many national forecasts now place the risk of a mild recession at 15 to 20 percent.

<u>FY 2015-16 General Fund Revenues</u>

For the mid-year revenue update released in January, the Independent Fiscal Office (IFO) increased its General Fund revenue estimate for FY 2015-16 by $200 million, and the revised amount is $50 million higher than the corresponding amount in the FY 2016-17 Executive Budget. Three factors motivate the upward revision to revenues:

- Very strong growth in PIT estimated payments. Through the first seven months of the fiscal year, these payments are up 17.0 percent over the prior year.
- Gains in realty transfer taxes, which are up 18.1 percent from the prior year.

- Gains in escheats. While claim payments are meeting estimate, deposits continue to run higher than projections.

For FY 2016-17, the IFO projects a General Fund growth rate of 2.0 percent. Technical factors, such as the complete phase-out of the capital stock and franchise tax, restrain revenues and reduce the underlying base growth rate from 3.3 to 2.0 percent.

Long-Term Budget Outlook

The IFO recently released its five-year economic and budget outlook report as required by statute. Due to the budget impasse, the report was re-released in late January and was updated with certain expenditures as appropriated by the General Assembly and approved by the Governor. Similar to past reports, the updated report finds a modest deficit for the current fiscal year, and much larger deficits for succeeding fiscal years. Prior budgets have employed various temporary measures to address funding shortfalls. For example, the unexpectedly large revenue gain from reducing the escheats holding period generated $380 million in new revenues last fiscal year, and contributed to a carryforward balance of $266 million that could be applied against the projected shortfall this year.

The report assumes that temporary measures will also be used this fiscal year. They include changing the timing of reimbursements for school employees' Social Security and county child welfare payments ($260 million savings) and changes to the state reimbursement for school construction and renovation projects (PlanCon, $306 million). Although these measures significantly close the projected funding gap, the report found a residual shortfall of roughly $300 million for this fiscal year.

Factors that contribute to the long-term structural deficit include the following:

- A decline in General Fund support from special funds, such as the Lottery Fund and the Oil and Gas Lease Fund.
- Service populations that expand at a faster pace than the labor force that supports the tax base.
- Healthcare inflation that outpaces general inflation and many sources of revenue. The report assumes that trend will continue into the future.

After this fiscal year, the expenditure projections are based on reasonable assumptions regarding growth of service populations and inflation. Based on those assumptions, the report found that long-term revenue growth fell short of the expansion of service populations and inflation that motivate long-term expenditure growth. Whether those future expenditure levels are sufficient to adequately address program needs is a subjective determination that the report did not address. Ultimately, policymakers will determine the level of expenditures that are necessary and appropriate to serve the needs of residents.

Thank you. I would be happy to answer any questions that you might have.

Independent Fiscal Office - Overview

Background

The office was created by Act 120 of 2010. Matthew Knittel has served as director since the inception of the office in September 2011, and he currently supervises a staff of seven. The FY 2016-17 Executive Budget proposes an appropriation of $1.756 million for the office, which is an increase of $64,000 (3.8 percent) over the amount appropriated for the current fiscal year.

Mission Statement

The Independent Fiscal Office (IFO) provides revenue projections for use in the state budget process along with impartial and timely analysis of fiscal, economic and budgetary issues to assist Commonwealth residents and the General Assembly in their evaluation of policy decisions. In that capacity, the IFO will not support or oppose any policy it analyzes, and will disclose the methodologies, data sources and assumptions used in published reports and estimates. The IFO will seek to establish collaborative relationships with the General Assembly, executive agencies and various non-governmental organizations that have an interest in the policy making process.

Role in the Budget Process

The statute creating the IFO outlines several points at which the office is required to provide budget-related information to policy makers. They are as follows:

November 15	Prepare an assessment of the state's fiscal condition for the current fiscal year and subsequent five fiscal years by taking account of the state economy, demographics, revenues and expenditures.
January 31	Convene a revenue conference with the chairs of the Appropriations Committees, the Secretary of the Budget and the Secretary of Revenue to discuss economic trends and revenue performance.
May 1	Provide an initial revenue estimate for the current fiscal year and subsequent fiscal year.
June 15	Provide a final revenue estimate for the current fiscal year and subsequent fiscal year.

Other Services

When possible, the IFO also provides economic and revenue analysis to members of the General Assembly. The office does not intend to duplicate services provided by the standing committees, but it seeks to use available state, federal and private data sources to expand the types of information and analysis available to policy makers.

IFO Reports and Analyses

Regular Reports

- *Monthly Trends Report*. Provides a summary of recent economic trends for the U.S. and Pennsylvania. Displays monthly and fiscal year-to-date revenues and compares them to the same period for the prior year.
- *Annual Impact Fee Update*. Provides detail regarding impact fee revenues including the number of wells subject to the fee and their vintage.
- *Quarterly Natural Gas Production Report*. Provides unconventional production volumes and well counts on a quarterly basis. Top producing counties also listed.
- *Quarterly Revenue Review*. Published after each quarter to compare the IFO's revenue estimates to actual revenues.

Published Reports and Analyses *(since January 1, 2015)*

- Pennsylvania Gaming Trends (February 2015)
- Impact Fee Update (February 2015)
- State and Local Taxes: A Comparison Across States (March 2015)
- Analysis of Revenue Proposals in the Executive Budget (April 2015)
- Preliminary Revenue Estimate (May 2015)
- Official Revenue Estimate (June 2015)
- Impact Fee Update and Outlook (June 2015)
- Quarterly Revenue Estimates (September 2015)
- Natural Gas Production Report (October 2015)
- Quarterly Revenue Review (October 2015)
- Raising the Minimum Wage in Pennsylvania (November 2015)
- Shared Risk Pension Analysis (December 2015)
- Economic and Budget Outlook: Fiscal Years 2015-16 to 2020-21 (January 2016)
- Quarterly Revenue Review (January 2016)
- Mid-Year Revenue Update (January 2016)

All reports published by the office are available on its website at www.ifo.state.pa.us.

Outlook Summary

Economic and Consumer Outlook	Page(s)
• The U.S. economy shows signs of a possible slowdown.	1
• For 2015, Pennsylvania recorded solid job gains (+54,800) and very low inflation.	2
• Relative to income, consumer debt levels continue to fall. Student debt increases, but at a slower rate.	3-4
• On average, all goods decline in price, while services, notably healthcare, increase.	5
• Dramatic movements in gasoline prices and stock markets add to uncertainty.	6
• Compared to the U.S. and most contiguous states, the Pennsylvania economy expands at a slower rate.	7

Revenue Outlook	
• Through January, PIT estimated payments show very strong growth; CNIT estimated payments decline.	8
• The forecast assumes 5.5% growth in PIT final payments, but a weak CNIT final payment.	9
• The IFO and Department of Revenue General Fund estimates for FY 2015-16 differ by $50 million.	10
• Technical factors restrain the FY 2016-17 General Fund growth rate to 2.0%.	11

Demographic Outlook	
• The 65 and older age cohort will expand at a rate of 2.8% per annum over the next decade.	12
• Compared to nearly all surrounding states, Pennsylvania has a higher share of older residents.	13

Natural Gas Outlook	
• According to the DEP, unconventional production increased by 12.5% in calendar year 2015. Production growth during the first half of the calendar year (15.9%) exceeded the second half (9.5%). The average price of natural gas for calendar year 2015 declined by 55.0% (Dominion South hub).	14
• A modest amount of new pipeline capacity became operational in calendar year 2015.	15
• Impact Fee Update. The IFO projects $185.5 million impact fee for calendar year 2015.	

The U.S. Economy: Recent Trends

- Although certain financial indicators suggest a potential recession, the forecast assumes modest expansion.
- Corporate domestic profits continue to decline.
- A dramatic decline in energy prices and appreciation of the U.S. dollar drive very low inflation.

	Annual Growth Rate							
	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2
Real Gross Domestic Product	4.3%	2.1%	0.6%	3.9%	2.0%	0.7%	2.4%	3.0%
Consumption	3.5%	4.3%	1.8%	3.6%	3.0%	2.2%	2.9%	3.0%
Investment	7.4%	2.1%	8.6%	5.0%	-0.7%	-2.5%	0.7%	3.7%
Gov't Spending	1.8%	-1.4%	-0.1%	2.6%	1.8%	0.7%	5.1%	0.7%
Exports	1.8%	5.4%	-6.0%	5.1%	0.7%	-2.5%	0.8%	3.8%
Imports	-0.8%	10.3%	7.1%	3.0%	2.3%	1.1%	5.2%	1.7%
Corporate Domestic Profits	6.1%	4.3%	7.5%	1.1%	-4.0%	-11.6%	-2.6%	0.6%
S&P 500 Index	17.3%	11.4%	10.4%	5.2%	-2.6%	-0.7%	-9.8%	n.a.
Industrial Production Index	4.2%	4.5%	3.5%	1.5%	1.2%	-0.9%	-1.0%	-0.5%
Consumer Price Index	1.8%	1.2%	-0.1%	0.0%	0.1%	0.4%	0.7%	0.2%
Price of Oil (WT Intermediate)	-8.3%	-25.0%	-50.7%	-43.7%	-52.2%	-42.3%	-37.1%	-40.5%
Henry Hub Natural Gas	10.6%	-2.2%	-44.6%	-40.7%	-30.2%	-44.1%	-22.4%	-18.4%
Trade Weighted Dollar Index	1.3%	6.5%	11.2%	12.1%	15.2%	11.9%	9.1%	n.a.

Note: Corporate profits exclude foreign profits and the Federal Reserve, but includes S corporations. The S&P 500 Index measured last trading day of quarter. The value for 2016 Q1 is through February 15, 2016. Industrial Production Index is published by the Federal Reserve Board and measures output of the mining, manufacturing and utility sectors. Trade Weighted Dollar Index is the broad index published by the Federal Reserve Board (monthly average).
Growth rates for Real GDP and components are quarterly annualized growth rates, all others are year-over-year annual rates.
Source: Historical data from the U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics and Federal Reserve Board. Forecasts by IHS Global Insight.

The Pennsylvania Economy

- The Pennsylvania economy generated 54,800 payroll jobs in 2015 (annual average), a solid gain.
- The Philadelphia CPI-U decreased by -0.1% in 2015 (annual average); the Pittsburgh CPI-U increased by 0.7%.
- All sectors recorded employment expansion in 2015, except local government (generally school districts).

	Annual Growth Rate										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Real Gross Dom. Product	1.5%	1.3%	0.2%	-2.0%	2.3%	1.3%	0.7%	0.7%	1.5%	1.8%	2.0%
Wages and Salaries	5.3%	5.3%	2.7%	-2.2%	2.1%	3.9%	3.7%	1.8%	4.0%	3.5%	3.8%
Average Wage	4.2%	4.6%	2.7%	1.0%	2.0%	2.7%	3.0%	1.5%	3.2%	2.5%	2.9%
Philadelphia CPI-U	3.9%	2.2%	3.4%	-0.4%	2.0%	2.7%	1.8%	1.2%	1.3%	-0.1%	1.6%
Pittsburgh CPI-U	3.1%	3.0%	4.9%	0.4%	1.5%	4.5%	3.5%	1.3%	1.3%	0.7%	1.6%

	Annual Average Change (000s)										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Payroll Employment	**55.3**	**42.2**	**1.5**	**-183.9**	**5.1**	**64.8**	**40.3**	**14.7**	**45.8**	**54.8**	**52.6**
Manufacturing	-8.9	-11.5	-15.3	-69.6	-14.1	5.2	2.2	-2.8	2.7	0.6	1.4
Wholesale-Retail	-2.6	2.4	-7.7	-36.9	-2.8	5.5	4.8	-1.3	3.4	8.8	5.8
Transportation	8.4	5.6	-0.6	-8.1	1.2	6.6	3.5	2.2	6.3	6.6	5.1
Professional-Business	25.1	20.3	3.6	-34.7	15.2	26.8	16.5	15.1	10.5	7.4	11.6
Healthcare-Social	23.7	17.3	20.8	13.8	11.2	14.6	14.1	6.8	14.7	10.7	12.8
Leisure-Hospitality	7.1	8.1	3.4	-9.1	6.2	10.8	13.2	8.0	6.1	11.2	8.2
State and Federal Gov't	-0.6	-1.1	1.6	1.8	3.4	-8.9	-4.4	-4.4	-1.1	0.6	-0.4
Local Gov't	2.1	1.0	3.4	6.9	-1.4	-9.9	-14.9	-7.4	-7.9	-5.3	-2.3
All Other Sectors	1.2	0.1	-7.7	-47.9	-14.0	14.1	5.3	-1.5	11.1	14.2	10.4

Note: Average wage equal to Wages-Salaries divided by Payroll Employment. Includes impact of change in average workweek.
Data for 2015 GDP based on growth rate through 2015 Q2. For wages, data are through 2015 Q3. CPI-U and Payroll Employment through December 2015.
Source: Historical data from the U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics. Forecasts by IFO.

Pennsylvania Consumers

- Debt for 2015 ($ billions): auto ($39.6), home ($286.2), credit card ($30.6), student loan ($57.2), other ($14.1).
- Auto loan debt continues to expand rapidly. Home mortgage debt (includes home equity loans) is flat.
- Pennsylvania student loan debt growth decelerates to 2.9%.
- The ratio of total debt to personal income is at the lowest level in the past decade.
- Consumer spending on services easily outpaces spending on goods. Services now comprise 70% of total spending.

	Annual Growth Rates									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Type of Debt										
Auto Loans	1.0%	0.5%	-2.2%	-5.7%	0.8%	5.5%	6.1%	6.3%	9.2%	8.9%
Home	10.5%	8.2%	4.8%	-0.6%	-0.8%	-0.2%	-2.1%	0.3%	2.1%	0.4%
Credit Card	2.7%	7.7%	0.2%	-8.2%	-7.1%	-1.8%	-2.2%	2.3%	0.8%	5.5%
Student Loan	27.9%	14.4%	14.1%	12.3%	10.5%	7.9%	7.0%	11.8%	5.9%	2.9%
Personal and Other	-9.8%	45.6%	2.4%	-27.5%	-15.1%	-29.1%	-2.7%	-11.9%	8.9%	8.6%
Total	8.5%	10.2%	4.3%	-2.6%	-1.0%	-0.5%	-0.5%	1.8%	3.3%	2.1%
Debt / Personal Income	0.759	0.794	0.794	0.786	0.755	0.714	0.681	0.689	0.687	0.678
Personal Cons. Expenditures	4.8%	4.5%	3.4%	-0.9%	3.5%	4.3%	2.7%	2.3%	3.1%	3.1%
All Goods	3.2%	3.2%	2.2%	-3.7%	4.8%	6.0%	2.0%	1.2%	1.5%	0.3%
All Services	5.6%	5.2%	4.0%	0.3%	2.8%	3.5%	3.0%	2.8%	3.8%	4.4%
Service Share of Expenditures	67.0%	67.4%	67.8%	68.7%	68.3%	67.7%	67.9%	68.3%	68.8%	69.7%

Note: Other debt includes personal loans and credit cards for specific stores. Data pertain to debt at the end of the calendar year.
Source: Consumer debt from Federal Reserve Bank of New York. Personal income and consumption expenditures from U.S. Bureau of Economic Analysis. Personal consumption forecast for 2015 from IHS Global Insight.

Student Loan Debt

- For 2014, Pennsylvania ranked third in per capita student loan debt (only those with debt).
- These data are tabulated based on the location of the institution, not the student's state of residence.
- The share of students with debt has declined slightly since 2013.

	School Year Ending									Avg Ann
	2006	2007	2008	2009	2010	2011	2012	2013	2014	Growth
Top Five in 2014: Average Debt for Graduates w/ Debt										
1 Delaware	17,477	17,510	16,912	17,200	n.a.	n.a.	33,649	32,571	33,808	8.6%
2 New Hampshire	24,950	24,483	27,420	29,443	31,048	32,440	32,698	32,795	33,410	3.7%
3 Pennsylvania	22,709	24,072	25,274	27,066	28,599	30,025	31,677	32,528	33,264	4.9%
4 Rhode Island	19,946	23,714	25,831	26,573	26,340	29,097	30,483	31,561	31,841	6.0%
5 Minnesota	23,888	24,958	25,583	27,467	29,058	30,100	31,497	30,894	31,579	3.6%
U.S. Average	19,351	20,300	21,157	22,526	23,540	24,863	25,903	26,418	27,022	4.3%
Top Five in 2014: Share of Graduates w/ Debt										
1 New Hampshire	71%	71%	73%	72%	74%	75%	74%	76%	76%	
2 Idaho	68%	67%	n.a.	n.a.	66%	66%	65%	68%	72%	
3 Pennsylvania	69%	71%	71%	72%	70%	70%	71%	71%	70%	
4 Wisconsin	62%	64%	64%	66%	67%	67%	68%	70%	70%	
5 Minnesota	73%	72%	73%	73%	71%	71%	70%	70%	70%	
U.S. Average	58%	57%	58%	58%	58%	59%	60%	61%	61%	

Note: Debt levels for graduates only and based upon the state of the institution attended, not the student's state of residence.
Source: The Institute for College Access & Success, College InSight, http://www.college-insight.org.

Philadelphia Consumer Price Index Falls

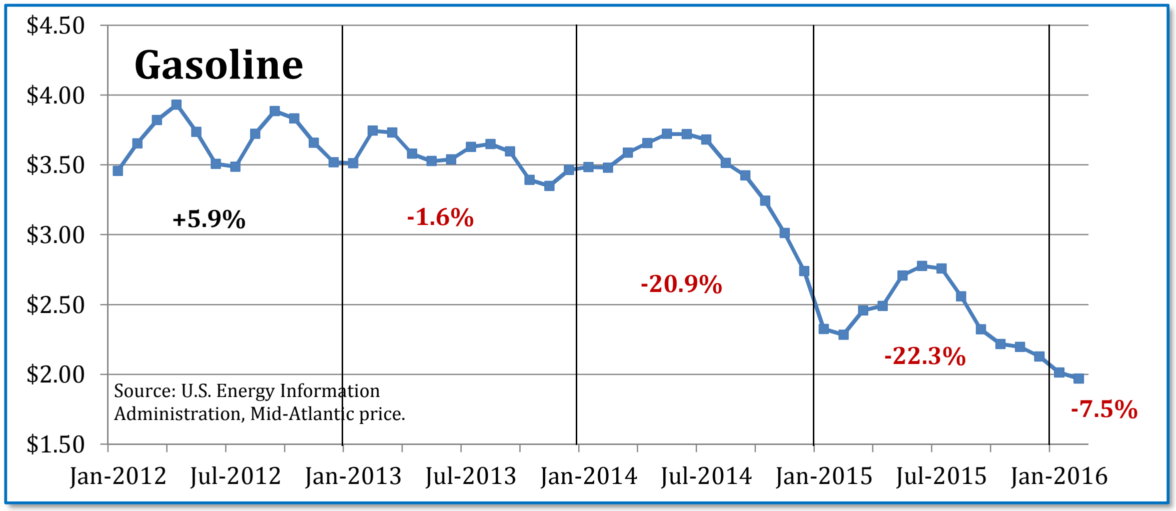
- Average consumer prices in the Philadelphia metro region fall in December 2015.
- Due to low energy prices and a strong dollar, which restrains the cost of imports. The great majority of imports are goods, not services.
- The All Goods category declines during entire year; All Services continues to grow.
- Medical Care inflation exceeds general inflation by two to three percentage points. Budget projections assume that trend persists into the future.

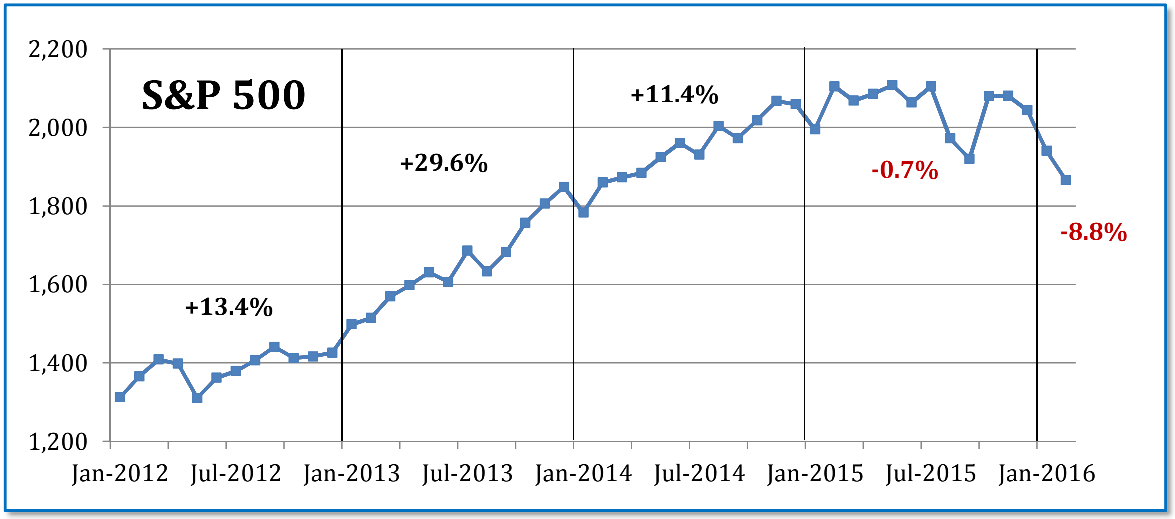
	Year-Over-Year Growth Rates			CPI-U
	Dec 2014	**Jun 2015**	**Dec 2015**	**Weight**
Philadelphia CPI-U: All Items	0.6%	0.2%	-0.2%	100.0%
Food and Beverage	3.6%	2.3%	0.6%	14.2%
Housing	1.1%	0.7%	0.2%	45.5%
Apparel	-1.0%	-8.3%	-2.9%	3.1%
Transportation (includes gas)	-5.6%	-6.7%	-5.1%	13.2%
Medical Care	**3.5%**	**5.5%**	**2.9%**	**7.3%**
Recreation	-1.3%	0.1%	0.2%	5.6%
Education-Communication	0.6%	1.2%	1.1%	7.8%
Other Goods and Services	6.9%	8.1%	1.1%	3.3%
All Goods	-1.8%	-3.3%	-2.9%	34.4%
All Services	1.9%	2.1%	1.2%	65.6%
Core: All Items Less Energy	2.0%	1.9%	0.9%	91.9%

Source: U.S. Bureau of Labor Statistics.

Other Factors That Affect Consumers

- Impact of lower gasoline prices on SUT revenues is weaker than anticipated.
- Forecast assumes gasoline prices remain at current levels for rest of year.
- Recent decline in stock market has not yet impacted consumer confidence, but may do so.





State Economic Growth Rate Comparison

- Most listed states' Real Gross Domestic Product grew slower than the U.S. in 2015.
- Slower demographic growth in Northeast and Mid-Atlantic regions is a primary factor.
- For 2005, Pennsylvania employment growth is slower than most contiguous states.
- Pennsylvania manufacturing employment expands at a tepid rate.

	Real Gross Domestic Product			Wages and Salaries		
	2013	2014	2015	2013	2014	2015
Delaware	-1.6%	2.9%	2.7%	2.5%	4.6%	3.3%
Maryland	-0.2%	1.2%	2.1%	0.8%	3.4%	4.3%
New Jersey	0.4%	1.3%	2.1%	2.6%	2.9%	4.1%
New York	-0.5%	2.7%	1.9%	2.0%	6.4%	4.3%
Ohio	0.5%	1.4%	1.6%	2.1%	4.4%	3.6%
Pennsylvania	0.7%	1.5%	2.0%	1.8%	4.0%	3.6%
West Virginia	1.0%	4.4%	1.7%	0.1%	2.0%	1.0%
United States	**1.5%**	**2.4%**	**2.4%**	**2.7%**	**5.1%**	**4.8%**

	Total Payroll Employment			Manufacturing Employment		
	2013	2014	2015	2013	2014	2015
Delaware	2.2%	2.2%	1.6%	-0.7%	1.0%	0.0%
Maryland	0.9%	0.9%	1.8%	-2.8%	-2.4%	-1.0%
New Jersey	1.2%	0.7%	1.2%	-0.8%	-0.4%	1.3%
New York	1.5%	1.7%	1.6%	-0.7%	-0.8%	-0.5%
Ohio	1.2%	1.3%	1.3%	1.0%	1.6%	2.2%
Pennsylvania	0.3%	0.8%	0.9%	-0.5%	0.5%	0.1%
West Virginia	-0.2%	-0.4%	-1.1%	-1.4%	-1.4%	1.0%
United States	**1.6%**	**1.9%**	**2.1%**	**0.8%**	**1.4%**	**1.1%**

Note: Real GDP for states based on data through 2015 Q2. For wages and salaries, growth rates based on data through 2015 Q3.
Source: U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics.

Revenue Performance Through January

- Through January, CNIT estimated payments running weak; CNIT finals and PIT quarterlies running strong.
- Based on trends through January, the IFO recently increased its official revenue estimate by $200 million.
- Estimate anticipates weak CNIT final payment, and modest growth in March and June estimated payments.
- Estimate assumes 5.5% growth in PIT final payment received March to May.
- PIT withholding full-year growth rate higher than rate through January due to extra withholding date in June.

	Amounts through January				Full-Year Amounts			
	2014-15	2015-16	$ diff	growth	2014-15	2015-16	$ diff	growth
Total General Fund	**$15,698**	**$15,900**	**$202**	**1.3%**	**$30,593**	**$30,922**	**$329**	**1.1%**
CNIT - Estimated	1,006	905	-100	-10.0%	1,705	1,660	-45	-2.6%
CNIT - Finals	343	462	119	34.8%	1,106	1,079	-27	-2.5%
Financial Institutions	28	23	-4	-15.1%	294	328	34	11.5%
Insurance Premiums	18	21	3	14.9%	454	468	14	3.0%
Other Corporate	160	139	-21	-13.0%	1,557	1,456	-101	-6.5%
SUT - Non-Motor	4,874	5,048	174	3.6%	8,167	8,467	300	3.7%
SUT - Motor Vehicle	772	782	9	1.2%	1,326	1,363	37	2.8%
Cigarette	539	529	-10	-1.8%	927	912	-15	-1.6%
Inheritance	595	515	-79	-13.3%	1,002	926	-76	-7.6%
PIT - Withholding	5,229	5,388	158	3.0%	9,072	9,467	396	4.4%
PIT - Quarterly/Annual	1,093	1,279	186	17.0%	3,036	3,305	269	8.9%
Realty Transfer	247	292	45	18.1%	414	473	59	14.2%
All Other Tax	316	306	-10	-3.2%	432	449	18	4.1%
Liquor Store Profits	80	50	-30	-37.5%	80	100	20	25.0%
Licenses and Fees	61	63	1	2.0%	110	107	-3	-2.9%
Escheats, Treasury, Fines	337	98	-239	-71.0%	910	362	-549	-60.3%

Note: Millions of dollars. Full-year amount for current fiscal year is IFO estimate from January 2016.

Recent and Projected Revenue Trends for FY 2015-16

- Large revenue sources show very different recent trends based on year-over-year growth rates.
- CNIT estimated payments have been declining, and the revised forecast projects a weak final payment.
- PIT quarterlies have shown very strong growth. The IFO assumes that roughly half is due to safe harbor payment rules. It is not clear what drives the residual strength.
- PIT withholding showed weakness in the fourth quarter, partly due to weak bonuses. The forecast projects a rebound.
- Realty Transfer taxes also show strong growth. The 3-5% annual decline in cigarette tax revenues has recently abated.

	Tax Year 2015 Payments, Annual Growth Rates					Tax Year 2016	
	1st Est. Payment	2nd Est. Payment	3rd Est. Payment	4th Est. Payment	Final Payment	1st Est. Payment	2nd Est. Payment
CNIT Payments	-3.9%	-5.6%	-6.6%	-14.4%	-20.2%	6.8%	4.6%
PIT - Quarterlies/Annuals	14.3%	17.3%	11.9%	20.4%	5.5%	4.2%	3.3%

	Calendar Year 2015, Annual Growth Rates				Calendar Year 2016	
	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2
PIT - Withholding	4.1%	3.7%	3.1%	2.6%	3.6%	3.7%
SUT - Non-Motor	3.1%	2.6%	2.9%	3.1%	4.9%	3.9%
SUT - Motor Vehicle	7.7%	2.0%	0.4%	4.1%	1.6%	5.1%
Realty Transfer	15.3%	12.4%	20.4%	18.8%	5.8%	10.3%
Cigarette	-8.1%	0.5%	0.5%	-0.1%	-2.1%	-1.6%

Notes: The CNIT estimated payments include estimated deposits for the following months: first (March to May), second (June to August), third (September to November), and fourth (December to February). Final payment is regular payments received February to April 2016.
The PIT quarterly estimated payments include estimated deposits for the following months: first (February to April), second (May to July), third (August to October), and fourth (November to January). Final payment is regular payments received March to May 2016. Other revenues based on normal quarterly designations.
The PIT withholding computation controls for extra due dates that may occur in a particular quarter.

General Fund Revenue Comparison

- Independent Fiscal Office (IFO) and Department of Revenue (DOR) nearly identical for current fiscal year.
- Technical factors restrain IFO General Fund revenue growth rate for next fiscal year.
- Factors include: (1) one less PIT withholding due date (-$110 million), (2) complete phase-out of CSFT (-$136 million) and (3) higher escheats payouts from shortening the holding period (-$76 million).
- If technical factors had been excluded, the underlying growth rate would be 3.3%.

	FY 2015-16			FY 2016-17			Growth Rates	
	IFO	DOR	diff	IFO	DOR	diff	IFO	DOR
Total General Fund	**$30,922**	**$30,871**	**$50**	**$31,525**	**$31,772**	**-$247**	**2.0%**	**2.9%**
Corporate Net Income	2,739	2,812	-73	2,775	2,877	-102	1.3%	2.3%
Gross Receipts	1,276	1,238	38	1,282	1,214	67	0.5%	-1.9%
Financial Institutions	328	333	-5	334	345	-12	1.7%	3.6%
Insurance Premiums	468	484	-16	451	499	-48	-3.7%	3.0%
Other Corporate	181	164	16	46	60	-14	-74.5%	-63.3%
Sales and Use	9,830	9,793	37	10,178	10,214	-36	3.5%	4.3%
Cigarette	912	916	-4	891	877	15	-2.3%	-4.3%
Inheritance	926	945	-19	960	998	-38	3.7%	5.6%
Personal Income	12,772	12,728	44	13,213	13,234	-21	3.5%	4.0%
Realty Transfer	473	481	-8	496	530	-34	4.9%	10.2%
All Other Tax	449	437	13	461	439	22	2.6%	0.5%
Liquor Store Profits	100	100	0	80	100	-20	-20.0%	0.0%
Licenses and Fees	107	106	1	109	131	-22	2.1%	23.3%
Escheats, Treasury, Fines	362	334	27	249	254	-5	-31.0%	-23.9%

Note: Millions of dollars. DOR estimates exclude all policy initiatives.

Source: IFO forecast from January 26, 2016 Mid-Year Update. DOR forecast from Executive Budget.

Technical Factors Restrain Revenue Growth

- Shortening of escheats holding period yields $380 million of extra revenues in FY 2014-15.
- Forecast assumes one half of gain paid out in this and next fiscal year. Claims are close to forecast.
- FY 2016-17: final phase-out year for CSFT; one less PIT withholding due date (-$110 million).
- Reduction in transfers (-$27 million) and liquor store profits (-$20 million).

	Fiscal Year, Dollar Amounts					
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Corporate Net Income	2,022	2,423	2,502	2,812	2,739	2,775
Capital Stock and Franchise	837	602	320	242	136	0
Other Corporate	2,104	2,164	2,077	2,064	2,116	2,112
Sales and Use	8,772	8,894	9,130	9,493	9,830	10,178
Personal Income	10,801	11,371	11,437	12,107	12,772	13,213
All Other Tax	2,612	2,613	2,633	2,775	2,760	2,809
Non-Tax Revenue	530	580	509	1,100	569	439
Transfers	0	0	0	227	47	0
Escheats	125	196	151	544	197	113
All Other	404	384	358	329	325	326
Total General Fund	**27,678**	**28,647**	**28,607**	**30,593**	**30,922**	**31,525**

	Fiscal Year, Growth Rates					
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Corporate Net Income	-5.1%	19.8%	3.2%	12.4%	-2.6%	1.3%
Capital Stock and Franchise	2.2%	-28.1%	-46.8%	-24.5%	-43.6%	-100.0%
Other Corporate	8.4%	2.9%	-4.0%	-0.6%	2.5%	-0.2%
Sales and Use	2.1%	1.4%	2.7%	4.0%	3.5%	3.5%
Personal Income	3.5%	5.3%	0.6%	5.9%	5.5%	3.5%
All Other Tax	2.7%	0.0%	0.8%	5.4%	-0.5%	1.8%
Non-Tax Revenue	-48.9%	9.5%	-12.2%	116.1%	-48.3%	-22.9%
Total General Fund	**0.7%**	**3.5%**	**-0.1%**	**6.9%**	**1.1%**	**2.0%**

Source: IFO forecast from January 26, 2016 Mid-Year Update.

Pennsylvania Demographic Trends

- Over the next decade, the working age population will contract by roughly 222,000 residents.
- Over the next decade, the number of retirees will increase by roughly 673,000 residents.
- U.S. Census data reveal that 18.6% of residents age 65 or older are part of the labor force.

	Number of Residents (000s)			Change (000s)		Avg. Annual Growth	
	2005	2015	2025	2005-15	2015-25	2005-15	2015-25
Age 0-9	1,468	1,457	1,441	-12	-15	-0.1%	-0.1%
Age 10-19	1,758	1,606	1,606	-153	1	-0.9%	0.0%
Age 20-29	1,552	1,720	1,704	168	-16	1.0%	-0.1%
Age 30-39	1,570	1,519	1,674	-51	155	-0.3%	1.0%
Age 40-49	1,941	1,645	1,515	-296	-130	-1.6%	-0.8%
Age 50-59	1,681	1,900	1,592	219	-307	1.2%	-1.7%
Age 60-69	1,068	1,485	1,761	418	276	3.4%	1.7%
Age 70-79	832	853	1,240	21	387	0.2%	3.8%
Age 80-89	493	507	589	14	82	0.3%	1.5%
Age 90+	87	112	117	25	5	2.5%	0.4%
Total Population	**12,450**	**12,803**	**13,239**	**353**	**436**	**0.3%**	**0.3%**
Students: Age 0-19	3,226	3,062	3,048	-164	-14	-0.5%	0.0%
Workers: Age 20-64	7,337	7,603	7,381	267	-222	0.4%	-0.3%
Retired: Age 65+	1,887	2,137	2,810	250	673	1.3%	2.8%
Total Population	**12,450**	**12,803**	**13,239**	**353**	**436**	**0.3%**	**0.3%**

Sources: U.S. Census Bureau and Pennsylvania State Data Center.

State Demographic, Income and Coverage Comparison

- Except for West Virginia, Pennsylvania has a higher share of residents age 65+ than all contiguous states.
- Except for West Virginia, Pennsylvania has a lower share of residents age 19 or younger.
- Census data for 2014 show that 8.5% of Pennsylvania residents did not have health insurance.
  The administration estimates a rate of 8.0% for 2015.

	2014 Number of Residents (000s)				Share of Residents			
	0-19	20-64	65+	Total	0-19	20-64	65+	Total
Delaware	230	548	154	932	24.7%	58.8%	16.5%	100.0%
Maryland	1,508	3,617	822	5,947	25.4%	60.8%	13.8%	100.0%
New Jersey	2,234	5,381	1,314	8,929	25.0%	60.3%	14.7%	100.0%
New York	4,760	12,062	2,898	19,720	24.1%	61.2%	14.7%	100.0%
Ohio	2,947	6,838	1,799	11,584	25.4%	59.0%	15.5%	100.0%
Pennsylvania	3,058	7,587	2,135	12,780	23.9%	59.4%	16.7%	100.0%
West Virginia	426	1,095	329	1,849	23.0%	59.2%	17.8%	100.0%
United States	**82,067**	**189,321**	**46,243**	**317,631**	**25.8%**	**59.6%**	**14.6%**	**100.0%**

	Share of Adj. Gross Income (000s, 2013)				Share of Residents Uninsured (2014)			
	<50	50-100	100-200	200+	0-17	18-64	65+	All
Delaware	20.6%	28.1%	28.4%	22.9%	5.7%	10.5%	0.3%	7.8%
Maryland	16.0%	24.1%	29.8%	30.1%	3.2%	11.0%	1.2%	7.9%
New Jersey	13.2%	20.6%	26.9%	39.2%	4.6%	15.4%	1.3%	10.9%
New York	14.4%	20.6%	21.5%	43.4%	3.3%	12.3%	1.0%	8.7%
Ohio	25.0%	30.3%	23.1%	21.7%	4.8%	11.6%	0.6%	8.4%
Pennsylvania	20.1%	27.4%	25.3%	27.1%	5.2%	11.7%	0.5%	8.5%
West Virginia	27.2%	34.1%	23.8%	14.9%	3.0%	12.9%	0.1%	8.6%
United States	**19.1%**	**25.0%**	**24.4%**	**31.6%**	**6.0%**	**16.3%**	**0.9%**	**11.7%**

Sources: Population data are from the U.S. Census Bureau. Adjusted Gross Income data are from the Internal Revenue Service.
The share of residents uninsured are from the American Community Survey 1-year estimates, U.S. Census Bureau.

Natural Gas Outlook

- Recent production data from DEP show a 12.5% increase for 2015.
- Year-over-year production growth in the first half of year (15.9%) exceeds second half (9.5%).
- The production forecast from BENTEK Energy projects annual growth from 5% to 10%.
- Prices at all regional hubs declined dramatically in 2015.

	Calendar Year Totals (bcf)								
	2012	2013	2014	2015	2016	2017	2018	2019	2020
PA Production[1]	2,043	3,103	4,071	4,581	5,016	5,430	5,813	6,116	6,445
Growth Rate		51.9%	31.2%	12.5%	9.5%	8.2%	7.1%	5.2%	5.4%
PA Consumption[1]	918	959	1,043	1,097	n.a.	n.a.	n.a.	n.a.	n.a.
Growth Rate		4.4%	8.7%	5.2%	n.a.	n.a.	n.a.	n.a.	n.a.

	Average Calendar Year Hub Prices ($ per mmbtu)								
	2012	2013	2014	2015	2016	2017	2018	2019	2020
Henry Hub[2]	2.75	3.72	4.34	2.61	2.54	3.01	3.25	3.72	4.21
Dominion South Hub[2]	2.77	3.51	3.27	1.47	1.64	2.16	2.53	3.07	3.61
Difference	0.02	-0.22	-1.06	-1.14	-0.90	-0.86	-0.72	-0.64	-0.60
New York Hub[3]	3.25	5.12	6.25	3.78	2.71	3.34	3.67	4.20	n.a.
Massachusetts Hub[3]	3.94	6.97	7.99	4.73	3.41	4.18	4.31	4.71	n.a.
Connecticut Hub[3]	3.92	6.79	8.10	4.58	3.32	4.07	4.19	4.58	n.a.
New Jersey Hub[3]	2.99	4.04	6.81	3.27	2.88	3.47	3.73	4.13	n.a.

Notes

[1] Unconventional production only. Conventional production increases total by 4.4% in 2014.
Growth in production forecast after 2016 from BENTEK Energy. Consumption data from U.S. Energy Information Administration.

[2] Henry Hub and Dominion South historical prices and forecasts from BENTEK Energy.

[3] State regional hubs are as follows: NY (Transco z6 NY); MA (Algonquin Citygates); CT (TGP z6) and NJ (Transco z6 x-NY).

New Pipeline Capacity

Operational Projects	Operational Year	Volume Capacity[1]	Projected Markets
Niagara Expansion	2015	150	New York
REX East-to-West Reversal	2015	1,200	Ohio, Indiana, Illinois (Chicago)
TCO East Side Expansion	2015	300	New Jersey, Maryland, Virginia (NYC, DC)
Tuscarora Lateral	2015	50	New York (NYC)
Uniontown to Gas City Expansion	2015	425	Ohio, Indiana
Total		**2,125**	

Approved Projects	Operational Year	Volume Capacity[1]	Projected Markets
Constitution Pipeline	2016	650	New York, New England
Leidy Southeast Expansion	2016	525	Eastern Seaboard, Maryland to Alabama (HH network)
Northern Access 2016	2016	500	New York (NYC)
Rock Springs Lateral	2016	200	Maryland
Gulf Markets Expansion	2017	350	West Virginia to Texas
Total		**2,225**	

Planned Projects	Operational Year	Volume Capacity[1]	Projected Markets
REX Zone 3 Capacity Enhancement	2016	800	Ohio, Indiana, Illinois (Chicago)
Access South Project	2017	300	West Virginia to Mississippi
Adair Southwest Project	2017	200	West Virginia to Kentucky
Atlantic Sunrise	2017	1,700	Eastern Seaboard, Maryland to Alabama (HH network)
Garden State Project	2017	120	New Jersey
Leidy South Project	2017	150	Maryland, Virginia
PennEast Project	2017	1,000	New Jersey
Appalachia to Market Project	2018	1,000	New Jersey, Gulf Coast
Diamond East Project	2018	1,000	New Jersey
Northeast Energy Direct	2018	1,200	New York, New England
TEAL Project	2018	950	Ohio
Total		**8,420**	

[1] Millions of cubic feet. Data are from BENTEK Energy, U.S. Energy Information Administration and Federal Energy Regulatory Commission.

Impact Fee Update

In June 2015, the Independent Fiscal Office (IFO) issued Research Brief 2015-3, which reported unconventional gas well impact fee collections for calendar year (CY) 2014 along with three potential scenarios for CY 2015 collections (to be remitted in April 2016). This research brief uses recent data published by the Department of Environmental Protection to project CY 2015 collections.[1] The research brief also translates the impact fee into an annual average effective tax rate (ETR) based on recent natural gas price and production data. The ETR is a metric that quantifies the implicit tax burden imposed by the impact fee in a given year.

Since 2012, Pennsylvania has imposed an annual impact fee on unconventional natural gas wells that were drilled or operating in the previous calendar year. To date, the impact fee has generated approximately $856 million in revenues, which were distributed to local governments and state agencies to offset the impact from unconventional natural gas extraction. The proceeds are used to provide for infrastructure, emergency services, environmental initiatives and various other programs. (See Table 1.)

The annual impact fee for an unconventional natural gas well is determined according to a bracketed schedule, based on the number of years since a well became subject to the impact fee (operating year), the type of well (horizontal or vertical) and, to a limited extent, the average annual price of natural gas.[2] Wells that produce less than 90 Mcf (thousand cubic feet) per day on average are known as "stripper wells." Horizontal wells in operating years four or greater qualify for exemption from the impact fee if their production does not exceed the stripper well threshold. Vertical wells that produce below the threshold also are exempt from the fee, as well as all plugged wells after remitting the fee in the first year.

The projected amount of the impact fee for CY 2015 is $185.5 million, which is $38.0 million lower than the amount collected for the prior year. This projection generally corresponds to the "Current Trends" scenario outlined in the June 2015 research brief (2015-3). Table 2 on the next page details the well count, fee schedule and projected collections by operating year.[1] The primary reasons for the projected decline in collections are as follows:

- Lower fee schedule. The 2015 impact fee schedule will decrease by $5,000 per well for wells in operating years one, two, four and five. This is the result of the annual average price of natural gas on the New York Mercantile Exchange ($2.66) moving below the $3.00 per MMbtu threshold.[2] Estimated impact: -$32.7 million.
- Fewer new wells. Wells pay the highest impact fee for their first operating year. The estimated 785 wells spud in 2015 represent a 42.9 percent decline compared to the prior year. Estimated impact: -$25.3 million.
- All other. Includes the net effect of: (1) additional collections from more wells becoming subject to the impact fee (new wells less new stripper wells); and (2) reduced fees from existing wells as they age and migrate down the fee schedule. For example, the per-well impact fee decreases by $10,100 for operating year two, $5,000 for operating year three and $15,100 for operating year four. Estimated net impact: +$20.0 million.

Table 1: Impact Fee Revenues and Distributions

	2011	2012	2013	2014	2015
Total Revenues	$204,210	$202,472	$225,752	$223,500	$185,500
Counties, Municipalities and HARE Fund[1]	108,726	107,683	123,151	123,300	100,500
Marcellus Legacy Fund	82,484	79,289	84,601	82,200	67,000
Commonwealth Agencies	10,500	10,500	10,500	10,500	10,500
Conservation Districts/Commission	2,500	5,000	7,500	7,500	7,500

Note: Dollar amounts in thousands.
Source: Pennsylvania Public Utility Commission. CY 2015 estimates by the Independent Fiscal Office.
[1] Housing Affordability and Rehabilitation Enhancement Fund.

Table 2: Well Count and Estimated Collections for 2015					
Operating Year[1]	**Number of Wells[2]**	**Number of Exempt Wells[3]**	**Number of Wells Subject to Fee**	**Fee Amount[4]**	**Estimated Collections**
1	785	-	785	$45,300	$35,500,000
2	1,374	5	1,369	35,200	47,800,000
3	1,216	13	1,203	30,200	35,900,000
4	1,352	288	1,064	15,100	15,800,000
5	4,887	1,436	3,451	15,100	50,500,000
Total	**9,614**	**1,742**	**7,872**	**n.a.**	**185,500,000**

[1] Wells spud before 2011 are considered to have been spud in 2011 (operating year 5) for the purposes of the impact fee.
[2] Represents the number of wells that have been spud, including both horizontal and vertical wells.
[3] Includes wells qualifying as "stripper wells," and those designated as shut in, plugged, and spud but not completed.
[4] Represents the fee for horizontal wells. Vertical wells are subject to 20 percent of the fee levied on horizontal wells.

The impact fee does not directly respond to the price of natural gas or the volume of production, and it does not provide a measure of tax burden relative to natural gas sales. For the latter purpose, this research brief computes an annual average ETR. The ETR is equal to the annual impact fee revenues divided by the total market value of unconventional natural gas production. The market value is equal to the product of (1) the annual average regional price of natural gas net of post-production costs and (2) the total production of all unconventional wells.[3,4] The ETR represents an average for all wells in operation during the year.[5]

For 2015, the ETR is estimated to be 5.5 percent, an increase of 3.4 percentage points from 2014. The annual ETR for 2011 to 2014 declined in each successive year. (See Table 3.) The main cause of that trend was the dramatic increase in production over the time period. The 2015 increase is predominantly motivated by the sharp decline of natural gas prices (54.2 percent prior to the deduction of post-production costs).

Endnotes

1. Data collected from Pennsylvania Department of Environmental Protection's oil and gas production reports from 2011 to 2015 (last accessed February 16, 2016) and spud well reports (last accessed February 10, 2016).
2. Pursuant to 58 Pa.C.S. §§ 2301 *et seq.*, the average annual price is the annual average of the settled prices for near-month contracts on the New York Mercantile Exchange. The fee schedule is adjusted downward if the price of gas falls between $2.25 and $2.99, and downward again if it falls below $2.25. See 46 Pa.B. 632 for the published fee schedule.
3. The price used for this calculation is the average Dominion South spot price for the calendar year, converted to dollars per thousand cubic feet ($1.56 for 2015) using Pennsylvania-specific heat content, net of post-production costs ($0.82). Prices are from BENTEK Energy. Post-production cost estimates are based on a Range Resources investor presentation from January 6, 2016, adjusted for wet and dry gas production.
4. Total production was obtained by an IFO analysis of DEP production reports (see note 1).
5. An alternative to the annual average ETR is the lifetime ETR, which is the average tax burden over the lifetime of a single new well; this measure is best used to quantify the prospective tax burden on new wells across states. (See the IFO's previous publication, *Effective Tax Rate Comparisons - Severance Taxes*, for a further description of the lifetime ETR concept.)

Table 3: Impact Fee Annual Effective Tax Rates					
Calendar Year	**Impact Fee Revenues**	**Unconventional Production (MMcf)**	**Price of Gas ($/Mcf)[1]**	**Market Value[2]**	**Annual ETR**
2011	$204,210	1,064,000	$3.60	$3,830,400	5.3%
2012	202,472	2,042,700	2.14	4,371,400	4.6
2013	225,752	3,102,900	2.89	8,967,400	2.5
2014	223,500	4,070,700	2.60	10,583,800	2.1
2015	185,500	4,581,100	0.74	3,390,000	5.5

Note: Dollar amounts in thousands. MMcf is million cubic feet.
[1] Net of post-production costs.
[2] Does not include natural gas liquids (condensate).