Plunging Crude Prices: Impact on U.S. and State Economies

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Oil and gas prices plunge

![Graph showing oil and gas prices from 2006 to 2015.](image)

Nominal price, $, weekly

- **Oil Price**
  - $47.91

- **Natural Gas Price** *
  - $2.85
Outline

• How did we get here?
  – World oil supply/demand balance
• Impact on U.S. economy
• Impact on state economies
• Where do we go from here?
World Consumption and Non-OPEC Production Growth
(Year-over-year)

Million barrels per day


World oil consumption growth
Non-OPEC production growth

Source: Energy Information Administration.
World Oil Consumption and Production Growth
(Year-over-year)

Million barrels per day

- World oil consumption growth
- Non-OPEC production growth
- OPEC production growth

Source: Energy Information Administration.
Production of crude up since January 2014

Million barrels per day
change since January 2014

- U.S.
- Saudi Arabia
- Iraq

IMPACT ON U.S. ECONOMY
U.S. Oil and Gas Production

Million barrels per day

Billion cubic feet per day

Source: Energy Information Administration.

July 2015 Estimates
U.S. Crude Oil Production From Shale

Source: Energy Information Administration
U.S. imports of crude oil have fallen below production

Source: Energy Information Administration
Rig count plunges, oil production levels

Source: Oil and Gas Journal; Baker Hughes.
Drilling investment falls with rig count

Private Fixed Investment in Mining/Exploration

Investment in Mining/Exploration

U.S. Rig Count

OPEC Decision

SOURCES: Bureau of Economic Analysis; Baker Hughes.

Federal Reserve Bank of Dallas
Impact on U.S. Economy

• The U.S. benefits from lower oil prices
• Boosts consumer disposable income
  – The decline in gasoline prices adds $675 to household budgets in 2015
• Reduces the cost of energy to firms
• Reduces profitability of producing oil
  – Layoffs and Capex declines in energy firms
• A 50% fall in oil prices may lead to a 0.3% to 1.0% increase in GDP (depending on the model)
• Headline inflation falls
IMPACT ON STATE ECONOMIES
Regional Effects

• Increased energy activity brings oil and gas extraction and oil-field support jobs
• Local areas:
  – lease and royalty payments,
  – infrastructure construction and
  – increased spending on retail, leisure and hospitality, and health services.
• Local governments: greater sales taxes
• State governments: increased severance tax revenues
Low oil prices benefit most states
(Effect of a 50% decline in oil prices on employment)
Texas posted third-fastest job growth among states in 2014

Percent Change (Dec/Dec)

In 2015, Texas ranks a distant 34th in job growth so far.

NOTE: Year-to-date is through June and rate is annualized.

Rig count bottoming out?

Note: Last data point is June 5th.
Source: Baker Hughes.
Initial jobless claims may be peaking

Index, Jan.'06=100, SA

Some states rely heavily on oil and gas severance taxes

(Share of state tax revenues)

Sources: U.S. Census Bureau, 2013 annual survey of state government tax collections; EIA.
Texas job growth outpaces the U.S., especially during energy booms

Texas nonfarm payroll employment

Year-over-year rate (%)

TX average = 2.7%

mid-1970s to early 1980s oil boom

2006- recent energy boom

NOTE: Shaded bars indicate U.S. recessions.
SOURCES: Bureau of Labor Statistics; Texas Workforce Commission; authors' calculations.
Texas job growth outpaces the U.S., especially during energy booms

Year-over-year rate (%)

'71  '74  '77  '80  '83  '86  '89  '92  '95  '98  '01  '04  '07  '10  '13

mid-1970s to early 1980s oil boom

2006- recent energy boom

U.S. nonfarm payroll employment

Texas nonfarm payroll employment

NOTE: Shaded bars indicate U.S. recessions.
SOURCES: Bureau of Labor Statistics; Texas Workforce Commission; authors' calculations.
Oil price impact on the Texas economy

• Oil price declines hurt Texas
  – In Texas, oil price decline benefits:
    • consumers, refiners
  – Oil price decline hurts:
    • oil producers and all industries that benefitted from the oil boom
  – 50% sustained oil price decline leads to a 1.2% decline in Texas employment => 140,000 jobs

• State severance taxes will decline
WHERE DO WE GO FROM HERE?
Crude Price Forecast

Dollars per barrel

- Historical Spot Price
- STEO Price Forecast
- NYMEX Futures Price
- 95% NYMEX Futures Confidence Interval

Source: Energy Information Administration.
Outlook

• Market is adjusting
  – Lower prices are leading to a contraction of supply and increase in demand
• Global GDP growth is expected to rise over time
• U.S. supply response will be swifter than in the past
• Uncertainties abound
• Oil price risks more on the downside in the short run
• Overall U.S. economy should continue to benefit from lower oil prices.
**Gasoline consumption strong**

Million barrels per day

**SOURCE:** Energy Information Administration.
Outlook

• Market is adjusting
  – Lower prices have led to a contraction of supply and increase in demand
• Global GDP growth expected to rise over time
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Oil and Gas Share of Tax Revenue

Source: Texas Comptroller