OBSERVATIONS ON THE LOUISIANA ECONOMY

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Quick disclaimer:

Any opinions expressed in this presentation do not necessarily represent my employer, the Louisiana Office of Planning & Budget, the Louisiana Division of Administration, any other state agency of the State of Louisiana or the current administration of the state. Such opinions are mine and only mine.
Some quick facts:

- 64 parishes (counties)
- Total population: 4.65 million
- OMB divides Louisiana into 9 different Metropolitan Statistical Areas (MSAs):
  - Alexandria
  - Baton Rouge
  - Hammond
  - Houma-Thibodaux area
  - Lafayette
  - Lake Charles
  - Monroe
  - New Orleans/Metairie/Kenner/Mandeville/Slidell area
  - Shreveport-Bossier area
Quick facts (continued):

- total State GDP (2013): $253.5 billion
- thus, GDP per capita: $54.5 thousand
- Real Personal Income (2012): $190.7 billion
- thus, Real Personal Income per capita ($ of 2008): $41.4 thousand
- labor force is 2.03 million people
- current unemployment rate 6.5%
- current number of employed (establishment survey): 1.985 million
- Louisiana has 11 ports – New Orleans the most important one
- Gramercy, Baton Rouge, Lake Charles and Morgan City being other significant ports
- 110 running drilling rigs (Baker-Hughes count)
A few more facts...

SELECTED LOUISIANA ENERGY STATISTICS

Among the 50 states, Louisiana’s rankings (in 2013, unless otherwise indicated) were:

**PRIMARY ENERGY PRODUCTION**
(Including Louisiana OCS*)
- 2nd in crude oil
- 1st in OCS crude oil
- 1st in OCS natural gas
- 1st in OCS revenue generated for federal government
- 1st in mineral revenues from any source to the federal government
- 1st in LNG terminal capacity
- 2nd in natural gas
- 2nd in crude oil proved reserves
- 3rd in dry natural gas proved reserves
- 4th in total energy from all sources

**PRIMARY ENERGY PRODUCTION**
(Excluding Louisiana OCS)
- 7th in crude oil
- 3rd in natural gas
- 5th in dry natural gas proved reserves
- 10th in crude oil proved reserves
- 17th in coal
- 17th in nuclear electricity

**ENERGY CONSUMPTION (2012)**
- 2nd in industrial energy
- 2nd in per capita energy
- 3rd in natural gas
- 3rd in petroleum
- 4th in total energy
- 24th in residential energy

Note: Louisiana OCS or Outer Continental Shelf is federal offshore territory adjacent to Louisiana’s coast beyond the three mile limit of the state’s offshore boundary.
<table>
<thead>
<tr>
<th>Category</th>
<th>Rank</th>
<th>TBTU</th>
<th>#1 State (TBTU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>24</td>
<td>339.2</td>
<td>Texas (1,599.0)</td>
</tr>
<tr>
<td>Commercial</td>
<td>21</td>
<td>277.5</td>
<td>California (1,553.9)</td>
</tr>
<tr>
<td>Industrial</td>
<td>2</td>
<td>2,628.2</td>
<td>Texas (6,258.4)</td>
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<tr>
<td>Transportation</td>
<td>13</td>
<td>663.7</td>
<td>California (2,943.2)</td>
</tr>
<tr>
<td>Coal</td>
<td>25</td>
<td>238.8</td>
<td>Texas (1,498.9)</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>3</td>
<td>1,576.0</td>
<td>Texas (3,992.0)</td>
</tr>
<tr>
<td>Petroleum</td>
<td>3</td>
<td>1,740.5</td>
<td>Texas (6,015.3)</td>
</tr>
<tr>
<td>Electricity</td>
<td>17</td>
<td>289.1</td>
<td>Texas (1,247.0)</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>3,908.6</td>
<td>Texas (12,281.9)</td>
</tr>
<tr>
<td>Per Capita (MBTU)</td>
<td>2</td>
<td>854.9</td>
<td>Wyoming (945.4)</td>
</tr>
</tbody>
</table>
GDP Sectoral Shares for Year 2012

- Oil-Gas Extraction-Petrochemical: 24%
- Government (all levels): 12%
- Trade and Leisure (Wholesale, Retail, Leisure & Hospitality) Services: 15%
- High Skilled Serv (Information, Ed & Health, Professional Serv, Financial Activ): 31%
- Total Manufacturing (except Petrochemical): 4%
- Construction: 5%
- Transportation (except Pipeline), Communic, Utilities: 6%
- Agriculture: 1%
- Other services: 2%
- Agriculture: 1%

Source: Bureau of Economic Analysis - Regional Data
Year 2012 is the last year for which detailed sectoral information is available.
Louisiana Real GDP
1990 - 2013 Historical; 2014 - 2018 Moody's Projection
Louisiana Real GDP Growth Rates
Historical and Expected

Percentage


Historical

Expected
Louisiana Real Personal Income
1990-2013 Historical - 2014-2018 Projected

Billions of 2009 Dollars
Louisiana Total and Private Non-Farm Employment
1990-2013 Historical - 2014-2018 Projected
Louisiana Total Non-Farm Employment - Annual Change
1990-2013 Historical - 2014-2018 Projected
A quick comparison…

I know, I know…. problems with data…. do not criticize too much… 😊

Note the Petrochemical Sector – 24% of GDP, but only 6% of Employment (which speaks to how productive it is)

**GDP Sectoral Shares for Year 2012**

- **Oil-Gas Extraction-Petrochemical**: 24%
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- **Construction**: 5%
- **Transportation (except Pipeline), Communic, Utilities**: 6%
- **Agriculture**: 1%
- **High Skilled Serv (Information, Ed & Health, Professional Serv, Financial Activ)**: 31%
- **Other services**: 2%

**Employment by Sector 2013**

- **Trade and Leisure (Wholesale, Retail, Leisure & Hospitality) Services**: 26%
- **High Skilled Serv (Information, Ed & Health, Professional Serv, Financial Activ)**: 32%
- **Government**: 18%
- **Construction**: 7%
- **Manufacturing (except Petrochemical)**: 4%
- **Transportation Utilities**: 4%
- **Other Services**: 3%
- **Other services**: 2%

**Source:** Bureau of Economic Analysis - Regional Data

Year 2012 is the last year for which detailed sectoral information is available.
Total Exports through Louisiana's 11 Ports

Source: WiserTrade.org
Exports from the Five Major Ports of Louisiana

Source: WiserTrade.org
Challenges and trends affecting the State of Louisiana

• price of crude oil
• price of natural gas
• US economy
• budgetary challenges
• education challenges
Price Oil:

• affects drilling
• affects severance and royalty collection
• basically 2/3 of mineral revenue is crude oil based
• it also affects the oil services industry (Lafayette, Houma areas)
• affects drilling decision in the Tuscaloosa Marine Shale
Louisiana
Tuscaloosa Marine Shale Play

Tuscaloosa Marine Shale Play
(After LSU Basin Research Institute)
Approximately 8 Million Acres

Parishes Associated With The
Tuscaloosa Marine Shale Play
Approximately 6.6 Million Acres
(Portion of Parishes Within the TMS Play Area)

Source: Louisiana Department of Natural Resources
Price of Crude Oil
Monthly Averages from Daily Spot Settlement Prices
Last seven years
Crude Oil Price Expectations
July 1, 2014 and February 4, 2015

July 1 settlement prices

February 4 settlement prices

historical prices

Dollars per Barrel
Crude Oil Price Projections from Moody's, EIA and the futures markets at NYMEX

Price of Natural Gas:

• important input and/or fuel for the chemical industry (cheaper better)

• affects drilling, especially in the Haynesville Shale (Shreveport/Bossier area) (cheaper not good…)

• with some lag effect, affects severance tax collection (severance tax on natural gas is a volume tax based on a lag of the prices)
Price of Natural Gas per mmBTU

Monthly averages based on daily settlement prices

Last seven years
Natural Gas Price Projections from Moody's, EIA and the futures markets at NYMEX (prices for $/mmBTU)
<table>
<thead>
<tr>
<th></th>
<th>As of 12/01/2013</th>
<th>Appropriated</th>
<th>Appropriated</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>STATE GENERAL FUND, DIRECT</td>
<td>$8,431.5</td>
<td>$8,682.1</td>
<td>$250.6</td>
<td>2.97%</td>
</tr>
<tr>
<td>STATE GENERAL FUND BY:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEES AND SELF-GENERATED REVENUES</td>
<td>$2,282.0</td>
<td>$2,516.3</td>
<td>$234.3</td>
<td>10.27%</td>
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<tr>
<td>STATUTORY Dedications</td>
<td>$4,489.7</td>
<td>$4,290.4</td>
<td>($199.2)</td>
<td>-4.44%</td>
</tr>
<tr>
<td>INTERIM EMERGENCY BOARD</td>
<td>$.9</td>
<td>$.0</td>
<td>($.9)</td>
<td>-100.00%</td>
</tr>
<tr>
<td>TOTAL STATE FUNDS</td>
<td>$15,204.0</td>
<td>$15,488.8</td>
<td>$284.8</td>
<td>1.87%</td>
</tr>
<tr>
<td>FEDERAL FUNDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$10,410.6</td>
<td>$10,030.5</td>
<td>($380.1)</td>
<td>-3.65%</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>$25,614.5</td>
<td>$25,519.3</td>
<td>($95.3)</td>
<td>-0.37%</td>
</tr>
</tbody>
</table>

This number changed. It is now $8,408.1
Major Components of Domestic Revenue
Fiscal Year 1981-1982 and Fiscal Year 2013-2014

Courtesy: Louisiana Legislative Fiscal Office – Greg Albrecht

Min Rev + Sales + Pers Inc Tax = 72.6%

Min Rev + Sales + Pers Inc Tax = 69%
Area in Yellow:
New Orleans MSA
(8 parishes)

Area in Purple:
Baton Rouge MSA
(9 parishes)
Quick remarks on two MSAs: New Orleans and Baton Rouge

New Orleans area:
• 8 parishes
• total population: 1.2 million
• big industrial construction boom
• between projects announced and under way, total of $13.7 billion
• projects under way:
  • Dyno Nobel – ammonia production
  • Marathon Refinery – refinery update and modernization
  • TCI plastics – logistics facility
New Orleans MSA cont’d:

• projects announced:
  • Nucor iron plant in St. James Parish
  • Marathon is planning a major expansion of its refinery
  • South Louisiana Methanol – plans an ethanol plant also in St. James Parish

In addition:
• huge medical center is being built in New Orleans to replace the old Charity Hospital
• the New Orleans airport will undergo a big expansion
• the Port of New Orleans is busy as ever
Baton Rouge MSA:

• 9 parishes
• total population is under 1 million (820 thousand)
• the dominant parish is East Baton Rouge parish
• there is also an industrial construction boom
• about $16 billion is projects announced and under way
• projects under way:
  • Dow Chemical upgrades its facilities
  • BASF is building two plants
  • Methanex Corporation is expanding into Louisiana (south of BR)
Baton Rouge MSA cont’d:

• projects announced:
• Stepan Company, a chemical company from Illinois, is exploring a project
• Avalon Rare Metals announced a project in Ascension Parish
• Shintech Corporation (PVC manufacturer) is close to start a project in Iberville Parish
In conclusion: What is the outlook?

• I would say “cautiously optimistic”
• We have good news on the investment front
• We have challenges on the budgetary and education front
Thank you for inviting me!