ECONOMICS OF TAR SANDS
Canadian Provincial GDP

Alberta Tar Sands Dependent; Quebec/Ontario – manufacturing/diverse

Canadian 2013 GDP: Quebec, Ontario, Alberta, British Columbia – Four Largest (86%)
<table>
<thead>
<tr>
<th>Industry</th>
<th>By % of Nation GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Estate</td>
<td>13%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>11%</td>
</tr>
<tr>
<td>Mining Oil and Gas</td>
<td>8%</td>
</tr>
<tr>
<td>Construction</td>
<td>7%</td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td>7%</td>
</tr>
<tr>
<td>Health Care</td>
<td>7%</td>
</tr>
<tr>
<td>Public Administration</td>
<td>7%</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>6%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>5%</td>
</tr>
<tr>
<td>Professional, Services</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Oil Sands (Pt of Mining, Oil &amp; Gas)</strong></td>
<td><strong>2%</strong></td>
</tr>
</tbody>
</table>
## Benefits (+) and Costs (-)

### Strong Tar Sands Industry

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Oil Industry Grows</td>
<td>- Diminishes Diversification</td>
</tr>
<tr>
<td>+ Alberta Thrives (26% GDP)</td>
<td>- Crowds out other exports</td>
</tr>
<tr>
<td>+ Govt. Revenues Up</td>
<td>- Drives up business costs</td>
</tr>
<tr>
<td>+ Capital Spending Rises</td>
<td>- Distorts value of currency</td>
</tr>
<tr>
<td>+ Strong currency – cheap imports and travel</td>
<td>- Govt. spending rises unrealistically</td>
</tr>
</tbody>
</table>
BROADER ECONOMIC DYNAMICS
Current Trends & Nature of Dilemma

• Major Price Drop for Oil Sands and oil generally
• GDP still grows slow, but exceeds expectations
• Oil Sands grows in production
• Oil Sands negative for GDP – price decline, profits lag, export decline
• Manufacturing shows signs of improvement, maintains growth – despite international competition
Gross domestic product and final domestic demand

quarterly % change, chained (2007) dollars

- Real gross domestic product at market prices
Chart 2
Production by type of crude oil

- Heavy crude oil
- Light and medium crude oil
- Synthetic crude oil
- Crude bitumen

[Bar chart showing production in millions of cubic metres for November 2013 and November 2014 for each type of crude oil.]

- November 2013
- November 2014
Chart 5
Main industrial sectors' contribution to the percent change in gross domestic product, December 2014

All industries
- Agriculture and forestry
- Mining and oil and gas extraction
- Utilities
- Construction
- Manufacturing
- Wholesale
- Retail
- Transportation and warehousing
- Finance and insurance
- Public sector
- Others

percentage points
Chart 1
Manufacturing sales increase in December

billions of dollars

WHAT TO WATCH FOR, WHAT TO CHANGE?
Reading Headlines

Oil slump won’t prevent Canadian economy from growing: Harper

(True, not simple. There will be hardship. Pols. Take advantage of growth areas, vulnerable to decline)

Canada's economy slows, but still beat analyst expectations

(True inherent strengths of diversified economy, still shoes to drop)

Manufacturing drives the Canadian economy to a strong finish in 2014

(Despite competitive pressures, inherent strength, risks)
Canadian Economics when Oil Sands Grow Slowly – What to Watch for?

• Impact of slower growth on Alberta, provincial finances, federal finances.
  – Relative strength of fossil fuels and rest of Alberta Economy.
• Impact of slower growth on other economic sectors.
  – Short term problems/strengths, longer term potentials
• Growth in manufacturing and other sectors
  – Relative Growth of BC, Ontario and Quebec.
  – U.S., China and European Economy
• Building new lines of business everywhere: Energy planning key area
• Governmental Response: Gimmicks vs. Leadership
Prospects for Clean Energy

• Since 2009, 8% increase in capacity of renewables – largest growth solar and wind.
• Since 2009, $24 billion invested.
• Since 2009, 2200 direct jobs.
• One 2012 comparison of employment:
  – Clean Energy 23,700
  – Oil Sands 22,340
How does Canada Grow with less robust fossil fuel industry?

• Strengths in Diversified Economy
• Development Choices made now are crucial
  – Transitions
  – Broader Goals
• Energy
  – Changing use in Canada
  – Smaller part of economy
• U.S. - What not to do on Energy Policy?
  – Hint: Don’t deny reality.