Canada
Canada is a Trading Nation
Canada-U.S. Trade

- $461 billion per year
- $1.3 billion per day
- 5.2 million U.S. jobs
Canada is a Trading Nation
Canada – Mexico Trade

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Exports</th>
<th>Total Imports</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>1,779</td>
<td>7,829</td>
<td>9,608</td>
</tr>
<tr>
<td>2002</td>
<td>1,541</td>
<td>8,115</td>
<td>9,656</td>
</tr>
<tr>
<td>2003</td>
<td>1,578</td>
<td>8,698</td>
<td>10,276</td>
</tr>
<tr>
<td>2004</td>
<td>2,301</td>
<td>10,321</td>
<td>12,622</td>
</tr>
<tr>
<td>2005</td>
<td>2,691</td>
<td>12,044</td>
<td>14,735</td>
</tr>
</tbody>
</table>

Source: Statistics Canada
Units: Value in Millions of U.S. dollars

- Mexican President Vicente Fox official visit to Ottawa in October 2004
- Canadian Consulate in Monterrey, Mexico became full Consulate General Office in January 2004
  - States of Nuevo Leon, Coahuila, and Tamaulipas
Canadian Consulate General
South Central Region

• Territory (5 states)
  ✓ Arkansas
  ✓ Kansas
  ✓ Louisiana
  ✓ Texas
  ✓ Oklahoma

• Foster Canada-U.S. relations
• Promote trade, investment & S&T
• Monitor political & economic events
• Assist Canadians
Canada-U.S. South Central
$32.6 billion

Exports $16.3 billion
Imports $16.3 billion

- Chemicals: 23%
- Energy: 7%
- Equipment: 11%
- Forest Products: 4%
- Machinery: 7%
- Metals: 7%
- Telecommunications: 13%
- Transportation: 20%
- Other: 8%

Arkansas, Kansas, Louisiana, Oklahoma, Texas
Winnipeg, Manitoba
Province of Manitoba

- Population: 1.2 Million, Major city Winnipeg
- Major Industries: Aerospace, agri-food, biotechnology, information technology, transportation/logistics, oil & gas, mining & minerals, etc.

2005 Exports to U.S. by industry sector
- Motor vehicle body & trailer manufacturing ($472 M, 7.5%)
- Oil & gas extraction ($454 M, 7.3%)
- Metal smelting & refining ($356 M, 5.7%)

2005 Imports from U.S. by industry sector
- Construction machinery manufacturing ($546 M, 6.9%)
- Agriculture ($423 M, 5.4% of total)
- Engine, turbine and power transmission equipment manufacturing ($295 M, 3.7%)

Note: All figures in U.S. dollars
Source: Statistics Canada/U.S. Census Bureau
Winnipeg as a trade corridor hub

By truck
- 100 km (62 miles) to U.S. border. FAST border crossing at Pembina, ND (U.S. I-29 connects with CDN Highway 75). Situated on East-West Trans Canada Highway (Highway 1).

By rail
- Canadian National and Canadian Pacific Railway

By sea
- Port of Churchill (northern Manitoba) offers 4 deep sea berths and direct access to the sea via Hudson Bay

By air
- Winnipeg International Airport: 24 hour unrestricted airport, 13 air cargo carriers, authorized (September 2004) air cargo transshipment facility

Did you know?
- Of all major Canadian cities, Winnipeg has the highest proportion of people employed in the transportation sector (29,000)
Regina, Saskatchewan
Province of Saskatchewan

- Population: 1 Million, Major cities Regina & Saskatoon
- Major Industries: Advanced technology, agri-food, forestry, manufacturing, minerals, and oil & gas
- 2005 Exports to U.S. by industry sector
  - Oil & gas extraction ($3.9 B, 49.9% of total provincial exports)
  - Mineral mining & quarrying ($1.25 B, 15.9%)
  - Engineered wood products ($273 M, 3.5%)
- 2005 Imports from U.S. by industry sector
  - Construction manufacturing ($478 M, 10.9%)
  - Agricultural implement manufacturing ($288 M, 7.1%)
  - Heavy-duty truck manufacturing ($255 M, 6.3%)

Note: All figures in U.S. dollars
Source: Statistics Canada/U.S. Census Bureau
Regina as a trade corridor hub

By truck
- 160 km (100 miles) to U.S. border. FAST border crossing at Portal, ND (U.S. Highway 52 connects with CDN Highway 39). Situated on East-West Trans Canada Highway (Highway 1).

By rail
- Canadian National and Canadian Pacific Railway

By air
- Regina International Airport: Airport Authority working to expand cargo & logistic opportunities through measures such as foreign free trade zone programs. Also embarking on a $15 M re-development and expansion project (January 2004)

Did you know?
- Per the 2004 KPMG Competitive Alternatives Study, Regina has the 5th lowest overall business costs of 27 cities (population range 150,000-500,000) examined in 11 countries (Canada, U.S., U.K., France, Germany, Italy, Iceland, Luxembourg, the Netherlands, Japan and Australia)
Province of Alberta

- Population: 3 Million, Major cities Calgary & Edmonton
- Major Industries: Oil & gas, agri-food, biotechnology, building products, petrochemical, forestry, IT, and medical/health services
- 2005 Exports to U.S. by industry sector
  - Oil & gas extraction ($45.6 B, 76.2% of total)
  - Resin & synthetic rubber manufacturing ($2.1 B, 3.5%)
  - Petroleum refining ($2.0 B, 3.3%)
- 2005 Imports from U.S. by industry sector
  - Aerospace products & part manufacturing ($861 M, 9.0%)
  - Oil & gas extraction ($786 M, 8.2% of total)
  - Iron & steel mills & ferro-alloy manufacturing ($441 M, 4.6%)

Note: All figures in U.S. dollars
Source: Statistics Canada/U.S. Census Bureau
Calgary, Alberta

Calgary as a trade corridor hub

By truck
- Crossroads of East-West Trans Canada Highway (Highway 1) and North-South CANAMEX Corridor. FAST border crossing at Sweet Grass, MT (U.S. I-15 connects with CDN Highway 4).

By rail
- Canadian National and Canadian Pacific Railway

By air
- Calgary International Airport: 24 hour unrestricted airport, Cargo Airport of the Year: North America (2002), CargoLux (Europe), Korean Air Cargo (July 2004), and Asiana Airlines Cargo (November 2004)

Did you know?
- Calgary will host the 2006 International Air Cargo Forum
Vancouver, British Columbia
Province of British Columbia

- Population: 4.2 Million, Major cities Vancouver & Victoria
- Major Industries: Forestry, mining, and oil & gas
- 2005 Exports to U.S. by industry sector
  - Forestry ($4.3 B, 22.7% of total)
  - Oil & gas extraction ($3.3 B, 17.3%)
  - Engineered wood products ($1.0 B, 5.6%)
- 2005 Imports from U.S. by industry sector
  - Petroleum refining ($954 M, 8.2%)
  - Heavy-duty truck manufacturing ($543 M, 4.6%)
  - Aerospace products & parts manufacturing ($344 M, 3.5%)

Note: All figures in U.S. dollars
Source: Statistics Canada/U.S. Census Bureau
Vancouver, British Columbia

Vancouver as a trade corridor hub

By truck

By rail
- Canadian National, Canadian Pacific Railway, British Columbia Rail, and Burlington Northern

By sea
- Port of Vancouver (2003): 66.7 million tons of cargo, 2,643 foreign vessel arrivals, 25 major marine terminals

By air
- Vancouver International Airport: 40 air carriers to 20 international destinations, closest North American city to Asia (10,268 km to Hong Kong as opposed to 11,126 km from San Francisco and 11,663 km from Los Angeles), fuel tax and cargo landing fee incentives

Did you know?
- Vancouver ranks second only behind Zurich, Switzerland in Quality of Life (Mercer Consulting Group, 2003)
### Industry Capital Spending

**US$ billions**

The oil & gas industry will invest over US$36 billion in capital in Canada in 2006.

<table>
<thead>
<tr>
<th>Region</th>
<th>'03</th>
<th>'04</th>
<th>'05E</th>
<th>'06F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Canada</td>
<td>$0.2</td>
<td>$0.2</td>
<td>$0.4</td>
<td>$0.4</td>
</tr>
<tr>
<td>International</td>
<td>$4.0</td>
<td>$8.0</td>
<td>$4.1</td>
<td>$5.9</td>
</tr>
<tr>
<td>Oil Sands</td>
<td>$3.5</td>
<td>$4.8</td>
<td>$8.3</td>
<td>$9.5</td>
</tr>
<tr>
<td>WCSB</td>
<td>$15.3</td>
<td>$18.9</td>
<td>$23.4</td>
<td>$24.7</td>
</tr>
<tr>
<td>East Coast Offshore</td>
<td>$1.5</td>
<td>$1.5</td>
<td>$1.0</td>
<td>$0.9</td>
</tr>
</tbody>
</table>

**Note:**
Spending in Canada excludes spending associated with mergers & acquisitions. International are acquisitions net of divestures.
Top 10 World Natural Gas Producers in 2005

Canada is the 3rd largest producer of natural gas in the world.

Source: Oil & Gas Journal & CAPP
Top 10 World Crude Oil Producers in 2005

Russia
Saudi Arabia
USA
Iran
China
Mexico
Norway
Canada 2005
UAE
Venezuela

Oil sands growth will move Canada from #8 to #4 in the world by 2015

Source: EIA & CAPP
Industry in the North American Energy Economy

- Canada is the world’s 3rd largest natural gas producer
- Canada is the world’s 8th largest crude oil producer
  - and moving up the list quickly with oil sands production increasing
- Canada is the largest supplier of energy to the United States

<table>
<thead>
<tr>
<th>2005</th>
<th>Natural Gas</th>
<th>Petroleum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranking of importers to U.S.</td>
<td>#1</td>
<td>#1</td>
</tr>
<tr>
<td>Share of U.S. consumption</td>
<td>17%</td>
<td>10%</td>
</tr>
<tr>
<td>Share of U.S. imports</td>
<td>85%</td>
<td>16%</td>
</tr>
</tbody>
</table>
Canada, is the largest (#1) supplier of crude oil and of crude oil and petroleum products to the US.
Total Wells Drilled in Canada

1990’s Avg = 10,000 Wells

2000’s Avg = 20,500 Wells

2005 = 23,500

Based on Rig Release
Global Crude Oil Reserves by Country

Canada, with 175 billion barrels in oil sands reserves, ranks 2nd only to Saudi Arabia in global oil reserves.

- Canada: 179 billion barrels
- Saudi Arabia: 264 billion barrels
- Iran: 133 billion barrels
- Iraq: 115 billion barrels
- Kuwait: 102 billion barrels
- Abu Dhabi: 92 billion barrels
- Venezuela: 80 billion barrels
- Russia: 60 billion barrels
- Libya: 39 billion barrels
- Nigeria: 36 billion barrels
- United States: 21 billion barrels

Source: Oil & Gas Journal Dec. 2005
Oil Sands Projects in Three Deposits

- Oil sands production now exceeds one million barrels per day
- US$32 billion built from 1996 - 2005
- US$51 billion in new oil sands projects expected in 2006-2010
Oil Sands Production Technologies

- **Mining & Upgrading**
  - Recoverable resource = 35 billion barrels
  - 20% less than 50 m deep

- **In-situ**
  - Recoverable resource = 140 billion barrels
  - 80% more than 50 m deep

- **20% less than 50 m deep**
  - Source: Syncrude
  - Source: Shell Canada

- **80% more than 50 m deep**
  - Source: Imperial Oil
  - Source: Petro-Canada

- **Cyclic Steam Process**

- **Steam Assisted Gravity Drainage**

- **Cyclic Steam Process**

- **Stage 1 Steam Injection**

- **Stage 2 Soak Phase**

- **Stage 3 Production**

- **Steam Chamber**

- **Oil Production**

- **Steam Injection**
**Canadian Oil Production**

Conventional, Oil Sands and Offshore

**Canadian Production:**
- 2005 = 2.5 million b/d
- 2015 = 4.6 million b/d
- 2020 = 4.9 million b/d

Source: CAPP
Natural Gas Use in Oil Sands Declining

Natural Gas consumed per barrel of oil sands production

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Thousand cubic feet per barrel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994 - 1997</td>
<td>0.60</td>
</tr>
<tr>
<td>1998 - 2000</td>
<td>0.55</td>
</tr>
<tr>
<td>2001 - 2003</td>
<td>0.50</td>
</tr>
<tr>
<td>2004 - 2006</td>
<td>0.45</td>
</tr>
</tbody>
</table>

New Technologies
Western Canadian Gas Resources
Conventional and New Sources

Northern Canada, 70 Tcf

Coalbed Methane, 167 Tcf

WCSB Conventional Gas - PRODUCED to date, 146 Tcf

WCSB Conventional Gas Resources REMAINING, 145 Tcf

Source: National Energy Board, CERI
Canada’s Q1 2006 increase in natural gas production is equivalent to 4% of US residential natural gas consumption.
Coalbed Methane – Wells Drilled and Production Forecast

Source: FirstEnergy & CAPP
Northern Natural Gas: Ultimate Potential and Proposed Gas Routes

Mackenzie Valley Pipeline:
- Regulatory Application
  - NEB application October 7, 2004
  - 22 regulatory agencies
  - cooperation agreement in place
  - regulatory process underway
- Project
  - Costs: C$7.0 billion
  - Base Capacity - 1.2 bcf/d
  - Range - 0.8 to 1.8 bcf/d
  - On-stream date: 2010-2011

Alaska Natural Gas Pipeline:
- Costs: US$20 billion
  (Alaska – Chicago)
- Capacity: 4.5 - 6.0 bcf/d
- On-stream: 2012-2015

For illustrative purposes only.
Canada