Argentina 2004: A Gas Crisis?

Anouk Honore
Gas Research Programme

anouk.honore@oxfordenergy.org
www.oxfordenergy.org/gasprog.shtml

OIES Seminar June 29, 2004
Outline

• Introduction
• Origins of the current crisis
• Response of the government: back to state intervention
• Set back in the Southern Cone energy integration?
• Conclusions
1. Introduction

- The Argentine gas market
- The natural gas deregulation and privatization reforms of the 1990s
Gas reserves

- Abundant proven reserves
- 778 bcm in 2001
- 11% of Latin America
- 19 sedimentary basins
- E&P in only 5
- Potential for additional reserves to be discovered
Gas production and demand

- In 2002:
  - Production: 39 bcm
  - Demand: 34.3 bcm
  - R/P ratio: 19 years
  - Share TPES: 49.3%
  - Share TFC: 36.4%

Source: International Energy Agency
Gas demand by sector

- Industry 34.7%
- Power 28%
- Residential 22.4%
- Transport 8.6%
- Commercial 3.3%

- Exports: 15%

Source: Enargas
Gas market

- Fully privatized
- Well-developed
- Upstream: high concentration
- Midstream: TGN & TGS
- Downstream: 8 companies
1990s reforms in the gas market

- Deregulation and privatization
- YPF => Repsol YPF
- 1992: Natural Gas Act
  - GdE => 10 companies
  - Enargas
  - Unbundling
  - TPA
  - Removal of wellhead and wholesale price controls
  - Definition of eligible customers
Impacts of the reforms

• Investment
• Liberalization of gas market
• BUT:
  – No fresh exploration
  – No major investment in network infrastructure

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>+ 99%</td>
<td>+ 106%</td>
</tr>
<tr>
<td>Consumption</td>
<td>+ 62%</td>
<td>+ 92%</td>
</tr>
</tbody>
</table>

Source: International Energy Agency
2. Origins of 2004 gas crisis:
Economic and financial crisis since 1990s

• The 2001-2002 financial crisis

• Contributory factors

• 2004 events: a gas crisis?
Back to the 1990s reforms

- 1990s: Austerity measures + liberalization
- 1991: Convertibility Law & Currency Board

$\Rightarrow$ 1994: Return of GDP growth and low inflation

**BUT:**
- Fail to tackle fiscal problem $\Rightarrow$ debt increase
- Overvaluation of exchange rate

$\Rightarrow$ 1998: prolonged recession

$\Rightarrow$ 2001-2002: financial crisis
December 2001- January 2002

- Dec. 2001: default on US$155 bn debt
- Jan. 2002: Public Emergency Law
  - Freeze on bank deposits
  - Abandon of the currency board
  - Devaluation of the peso
Impacts of the 2001-2002 financial crisis on the energy sector

- Restrictions on bank accounts withdrawal and transfer of money abroad
- Peso devaluation by 65%
  - Lower value of bank deposits in US$
  - Distribution companies: high financial losses

<table>
<thead>
<tr>
<th>Wholesale prices US$/MBtu</th>
<th>2001</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>1.88</td>
<td>0.66</td>
</tr>
<tr>
<td>Industry</td>
<td>1.15</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Source: International Energy Agency

June 29, 2004
Freeze on tariffs: wrong market signals

- Further revenue losses
- Low investments in E&P and in transmission network
- Increase in demand

<table>
<thead>
<tr>
<th>Period</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-2001</td>
<td>-8%</td>
</tr>
<tr>
<td>2001-2002</td>
<td>-3%</td>
</tr>
<tr>
<td>2002-2003</td>
<td>+10%</td>
</tr>
<tr>
<td>Q1 2003 – Q1 2004</td>
<td>+19%</td>
</tr>
</tbody>
</table>

Source: Enargas
Contributory factors

• Seasonality of the demand

<table>
<thead>
<tr>
<th>(2003)</th>
<th>Residential</th>
<th>Industry</th>
<th>Power</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mcm</td>
<td>%</td>
<td>mcm</td>
<td>%</td>
</tr>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>216.5</td>
<td>11.3</td>
<td>801.5</td>
<td>41.8</td>
</tr>
<tr>
<td>July</td>
<td>1,148.2</td>
<td>36.4</td>
<td>851.8</td>
<td>27</td>
</tr>
</tbody>
</table>

Source: Enargas

• Dry year

June 29, 2004

Anouk Honore / OIES Seminar
2004 events: a gas crisis?

- Gas shortages
- Power cuts and voltage lowered
- Reduction of gas and power exports

What went wrong?

- 1990s reforms $\Rightarrow$ overvaluation & foreign debt $\Rightarrow$ 2001-2002 crisis $\Rightarrow$ Public Emergency Law $\Rightarrow$ 2004 crisis
- $\Rightarrow$ Economic crisis $\Rightarrow$ energy crisis
3. Response of the government: back to state intervention

- Greater state intervention
- Gas prices hikes
- Enarsa: a new YPF?
Greater state intervention

• National Energy Plan 2004-2008
• Gas prices hikes
• Creation of Enarsa
• Resolution 265
• Creation of trust fund

- US$3.85bn investment program
- Natural gas transportation (+55 mcm/d capacity by 2007)
- Power transmission
- Power generation (better energy mix)
- Gas-use rationalization plan
- Emergency gas and power imports

- **Biggest challenge: how to secure the financing?**
Gas prices hikes

- Agreement April 2004

- Increase wellhead gas prices in stages to US$1/MBtu
  - July 2005: Industry, power plants and CNG
  - December 2006: Households

- Popular discontent
Enarsa: a new YPF?

• New state-owned company
• Help secure investment in E&P
• But: no assets and lack of capital

• Key question: how will it be financed?
Kirchner measures: appropriate answer or political response?

- Time to take actions to attract investment
- 1990s economic and/or gas deregulation: too far too fast?
- New solutions needed
- Greater state intervention may be one
- *Take care of investors’ rights*
4. Argentine crisis: a setback in the Southern Cone energy integration?

- Political tensions
- New markets / energy agreements
Chile

- 100% dependent on Argentine gas
- Cut in gas exports up to 47%

- Power cuts
- Switching to other fuel => expensive
- Better diversification: hydro, coal for power and LNG imports => medium – long-term measures

- Diplomatic tensions on the short term
Uruguay

• 1/5 electricity comes from Argentina
• Cut in power exports
• Imports from Brazil
• Diplomatic tensions on the short term
Bolivia

- Imports of 4 mcm/d of gas from Bolivia
- Initial period of 6 months
- Higher price than domestic price

- Short-term relief for Argentina
- Revenues for Bolivia

- 20 mcm/d from 2006?
Brazil

- Power imports from Brazil on an interruptible basis
- From June to August 2004
- Higher price than domestic price
Venezuela

- Food for fuel deal: swap gasoil and fuel oil against food and agricultural products
- Triangular relation with Brazil
- High price for Argentina
A set back in energy integration?

• Argentine crisis is spreading, reflecting energy integration
• Gas and power trans-border interconnections helped alleviate crisis

• Conclusion of Argentine crisis: even greater integration needed in the Southern Cone
Conclusions

• 2004 Argentine crisis: economic vs energy crisis

• Kirchner’s measures: good or wrong?

• What lessons?
Thank you