Brazil: basic data

- Territory: 8.5 million km²
- Population: 200 million
- GDP: US$ 1.3 trillion
- Growth rate: 3.7%
- GDP per capita: US$ 6,844
- Inflation: 3.1%
- Unemployment: 7%
Income distribution: a work in progress

Source: Fundação Getúlio Vargas, in Arsago 2010
By 2050 Brazil will become one of the world’s 5 largest economies with some 50million people with a per capita income of $30,000 dollars.
- 500,000 graduates and 10,000 PhD per year
- 2008: 2.7% share of the world’s scientific papers
- World class research:
  - tropical medicine
  - Bioenergy
  - plant biology
- Research expenditure: 1% of GDP
Brazil and Canada: commonalities and particularities

- Continental size
- Natural resources
- Diversity
- True “melting-pots”

- Size of population
  - a 2nd Italy, Japan, Lebanon, Africa
  - many over 1 million people metropolis
The mainstream view: Petrobras’ dominance

- Former monopolist (1953-1997)
- Dominance: reserves, production, investment
- Federal budget versus Petrobras budget
- Institutional clout
- Bid rounds performance
EVLUTION OF PETROBRAS PROVEN RESERVES (BRAZIL)

14.1 billion boe
Pre-salt not included

SPE oil and gas proven reserves
Brazil’s upstream: other viewpoints

- National Petroleum Agency (ANP)
- The challengers’ view
- The “secondary” market
ANP’s view: the official narrative and timeline

- 1997: Petroleum Law and creation of ANP
- 1998: Round Zero
- 1999-2006: Bid Rounds (from Round 1 to 8)
- 2006: First pre-salt discovery, October
- 2007-2008: Rounds 9 & 10 (with no pre-salt areas)
- 2010: the Pre-salt regime
The pre-salt regime: rationale

- To redistribute wealth on social spending and other priorities;
- To avoid a “single focus” economy development based on solely oil and gas by ensuring a diversified and competitive economy;
- To use the scale and demand power to ensure technology transfer, technology development, and offset programs in procurement processes;
- To ensure optimal balance between incentives to investors and rents for the Brazilian government.
The view of the “challengers”

1997: Petroleum Law and creation of ANP

1998: Round Zero

1999-2004: Bid Rounds One to Six: no or low competition

2005: Round Seven: PETRA ENERGIA

2007: Round Nine: OGX
PETRA: ACREAGE POSITION

- Largest onshore player in Brazil: 143,231 km² (net 103,410 km²)
- 53 blocks spread in four strategic basins: Amazonas, Parnaíba, São Francisco and Solimões
- First mover advantage: acreage position cannot be replicated
The onshore abandoned: the W. Link Report
Offshore blessing: onshore curse?
Beyond the pre-salt
The Walter Link Report (1960)
Offshore as the sole alternative: a “path dependent” track
The neglect of the onshore
Brazil’s upstream: onshore underexplored

U.S.: 3.5 million wells since the Drake well
China: 1 million wells since 1949

Brazil: 23,000 wells in 50 years
Canada: 25,000 wells/year
The OGX case
- Private placement (November 2007): US$1.3 billion
- Round Nine (2007): 21 offshore blocks (6,400 km²)
- Initial Public Offering (June 2008): US$ 3.5 billion

Farm-in with OGX- PETRA (April 2009): 7 onshore blocks
- Three world class discoveries in two first wells, with ~2 tcf contingent and ~15 tcf prospective
  ✓ Well 2 with accumulation of gas in the Lower Devonian age in two zones with net pay of 96 meters combined.
  ✓ Drillstem test performed in one of the sections resulted in 3.4 million cubic meters per day AOF with wellhead pressure of 1,950 psi.

- 100 success rate: 3rd well to be spud soon
  ✓ Well TD @ 3,200m
  ✓ Cost estimates: R$30million
PETRA’S ASSETS
PARNAÍBA: 30% OF 7 BLOCKS

• Three world class discoveries in two first wells, with ~2 tcf contingent and ~15 tcf prospective
  ✓ Well 2 with accumulation of gas in the Lower Devonian age in two zones with net pay of 96 meters combined.
  ✓ Drillstem test performed in one of the sections resulted in 3.4 million cubic meters per day AOF with wellhead pressure of 1,950 psi.

• 100% success rate: 3rd well to be spud soon
  ✓ Well TD @ 3200m
  ✓ Cost estimates: R$30m
The “secondary” market: the case of HRT

- **Secondary market concept:**
  - Market where non-ANP and non-Petrobras equity or working interests are traded

- **HRT IPO**
  - IPO (end of October 2010): US$ 1.1 billion raised
  - Market cap: US$ 4.4 billion
  - Market value risen approx. 40% since first closing
  - Current multiple of about US$3/boe for Brazilian certified resources
The “secondary” market: other transactions

- SINOPEC’s acquisition of relevant stake of Repsol
  - US$ 7.1 billion consideration
  - 40% stake in Repsol Brazil
  - New company worth US$ 17.8 billion

- Karoon IPO in Brazil postpone to year-end 2011
  - Interesting portfolio
  - Management with limited knowledge about Brazil
  - Communication strategy with wrong focus

- OGX ongoing Farm-Out process
  - April 15, 2010: a farm-out transaction announced with an expected closing date by the end of 2010
  - Chinese companies Sinopec and CNOOC were rumored to be in very advanced stage of analysis
  - December 6, 2010: process has been put on hold and to be restated in 2011

- Queiroz Galvão IPO
  - Roadshow now underway
  - US$ 1 billion capitalization
Petrobras will definitely keep its dominant position
- emphasis on pre-salt exploration and development
- 72% of the pre-salt to be explored by Petrobras along with partners.

Bid Rounds
- Suspended in the past three years
- Likely to be resumed
- Time frame still unknown

Secondary market
- Diverse and dynamic now
- OGX: farm down
- PETRA: private placement for raising US$ 1 billion dollar
- Scarcity value as result of suspension of Rounds
Brazil: still a non-mature upstream market
- range or classes of exploration projects still limited
- yet reasonable number of opportunities
- different types of time and return schedules

Defining feature of Brazil’s upstream market:
- onshore was forgotten and underexplored

Main message:
- Brazil is not limited to the pre-salt
- there is a horizon beyond the pre-salt; in the ONSHORE
- recent world-class discoveries in the onshore

A new frontier for unconventional gas