Why Data Transparency is Essential for Energy Market Research

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Outline

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- Increasing need for energy-related data
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- Energy data transparency efforts – JODI
- Use of JODI data in OPEC’s research
- Importance of data transparency for all energy commodities
- Challenges to energy data transparency and remedies
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Energy markets & research

- **Research**: systematic inquiry/study to address a situation or a problem, establish facts and reach new conclusions
  - Significant reliance on data

- **Energy markets**: trade and supply of energy

- **Energy market research**: analysis of various factors related to energy markets to support investors, consumers and producers decisions
  - analyzing the evolution of the fundamentals - supply, demand, stocks, etc.
  - assessing trends and potential risks in the presence of various factors (economy, policies, technology, etc.)

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Countries continuously reassessing energy policies (investments in upstream, downstream) and new measures (alternative fuels, taxes, subsidies…).

This requires in-depth studies on efficiency, environment, supply/demand balance, which require accurate, timely, complete and detailed data to illustrate and compare national trends, evaluate international statistics and make guidelines to formulate energy policies in countries.

Energy-related data are the backbone of a comprehensive information system to support relevant decisions.

Increasing need for energy-related data
Data transparency

- Data transparency - timely availability of complete and accurate data on essential market fundamentals to all industry players
- Includes data accessibility - both technical and legal aspects involved

Advantages

- Promotes market stability and spurs industry growth through better targeted investments
- Contributes to reducing uncertainties, improving predictability and facilitating project planning
Energy data transparency efforts - JODI

The Joint Organizations Data Initiative (JODI) – a global response to energy data transparency

7th IEF Meeting in Riyadh 2000

- OPEC as one of the participating organizations
- Strong support from the very early days of the Initiative
- Efforts to increase oil data transparency for producer & consumers

Launching of Joint Oil Data Exercise (JODE)

- Designing the original oil data questionnaire a challenge
- Substantial contribution to the methodology & overall design
- OPEC - one of the founder organizations

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Energy data transparency efforts – JODI-oil

JODI-oil world database created in 2004 and launched in 2005; has been expanded to cover all fundamental oil flows since then

- Complete oil balance
- Main oil products
- Major oil flows
- 2 months reporting lag
- 100+ countries

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Energy data transparency efforts – JODI-gas

JODI-gas world database created in 2009 and launched in 2014; has been expanded to cover all fundamental oil flows since then.

- Complete gas balance
- LNG trade
- Major gas flows
- 2 months reporting lag
- 85+ countries

General definitions/guidelines
Metadata
Manuals

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Energy data transparency efforts - JODI

- JODI encompasses cooperation, collaboration and communication among all players towards transparent, timely and reliable energy data
- JODI as an essential tool for improving overall transparency in the energy markets
- OPEC will continue to play an important role in JODI
Use of JODI data in OPEC’s research

- The JODI-oil & JODI-gas databases
  - Rich & official monthly data publicly available
  - Metadata on methodology; harmonization efforts on reporting methodology
  - Increasing data transparency over the years
  - For several countries no other genuine information than JODI is available
- Extensive usage of JODI data in OPEC for assessing oil & gas markets
  - **Oil**
    - Upstream: Crude & NGLs production data
    - Midstream: Trade for primary & secondary oil by main petroleum product category
    - Downstream: Refinery & demand by main petroleum product category
    - Stocks, trade & refinery: Unique information for main non-OECD countries
  - **Gas**
    - All main flows for the current year; special emphasis on LNG
- Methodology & metadata are considered as key attributes of JODI data
Importance of data transparency for all energy commodities: Increasing interaction

- Natural gas & oil
  - Primary side (NGLs)
  - Secondary side (all products, especially lighter - LPG, naphtha, NGLs)
  - Petrochemical industry
- Renewables & oil
  - Commingled with petroleum products
- Coal & oil
  - Feedstocks & oxygenates
- Oil, coal & gas with electricity generation

[Graph showing world energy demand from 1971 to 2017 with oil, gas, coal, nuclear, hydro, and renewables]
Challenges to energy data transparency

- Intra-country cooperation
- Inclusion of smaller energy producers & consumers
- Large reporting lag
- Resources
- Cost
- Confidentiality
- Data quality
- Timely & complete release of data
- Not available/scattered data

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Challenges to energy data transparency: Remedies

Challenges can be surmounted, or at least have their effects moderated, with:

- Strong high-level political support continuing to encourage energy data transparency through dialogue, cooperation and commitment
- Frequent collaboration among all energy industry stakeholders
- Appropriate portrayal of the importance/value of data transparency
- Strong awareness drive to educate about the accrued collective gain – e.g., access to other countries’ data to enable benchmarking
- Users of the data – companies, researchers and analysts - should play their part by working closely with the data custodians (feedbacks, support, etc.)
- Visibility of direct incentives and/or benefits of data transparency
- Active participation of more economies will encourage and foster further contributions

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Conclusion

Data transparency
Data accuracy
Forecast accuracy
Understanding energy markets
Decisions and investments

Better data
Better decisions
Thank You.