“IN TERMS OF THE HISTORY OF OIL MARKET ANALYSIS, THERE IS BEFORE JODI AND THERE IS AFTER JODI”.

JOEL COUSE
TOTAL SA – TRADING AND SHIPPING DIVISION
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1. JODI-OIL UPDATE

During the first half of 2013, the IEF’s focus on JODI-Oil to a large extent targeted two key stakeholder segments: data users and data providers (specifically those in Latin America). The IEF endeavoured to better understand who uses JODI-Oil data and how, to ensure that related resources were allocated in line with market needs. Accordingly, the IEF launched its Fourth JODI-Oil User Survey, which gathered feedback from 95 respondents representing 43 countries and economies. Regarding the focus on data providers, the IEF strengthened engagement with statisticians through a joint workshop organised with the Latin American Energy Organization (Olade). Given the complexity of the JODI data supply chain, which involves the monthly coordination of hundreds of actors worldwide, face-to-face contact to solidify working relationships and to efficiently clarify doubts concerning data quality are of paramount importance.

Though JODI-Oil has been operational for over a decade, it would be a mistake to assume that the initiative is self-sustaining or on “auto-pilot”. To underscore this point, sustainability of participation and timeliness measures from the July-December 2012 JODI-Oil participation assessment declined slightly from 84 to 82 countries/economies and from 64 to 61 countries/economies, respectively, versus the prior assessment. These numbers speak to the need for all involved stakeholders to redouble their commitment to JODI-Oil, and more broadly to data transparency.

1.1 Understanding Market Needs: The Fourth JODI-Oil User Survey

The IEF Secretariat assumed the responsibility of JODI coordinator in January 2005, following an endorsement by Ministers. In line with this role, the IEF has to date conducted four JODI-Oil User Surveys, designed to periodically gather comprehensive feedback from market actors and to help ensure that the IEF’s strategic vision for JODI is aligned with user needs and opinions.

The table below highlights key topics addressed in the Fourth JODI-Oil User Survey, along with related findings and observations. Results from the latest Survey, which was conducted from 23 March through 22 June, were in some cases analysed against results from the Third JODI-Oil User Survey (conducted in September 2011).

<table>
<thead>
<tr>
<th>Question / Topic</th>
<th>Fourth JODI-Oil Survey Findings</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>JODI User Profile</td>
<td>Nearly 70% of JODI users come from the energy industry, finance or consulting.</td>
<td>Expected outcome, and consistent with anecdotal user feedback.</td>
</tr>
<tr>
<td>JODI Awareness</td>
<td>48% of respondents said they had known about the JODI data base for less than one year, with media, word of mouth and the JODI website cited as how users first heard about JODI. In the September 2011 survey, 44% of respondents noted that they had been aware of JODI-Oil for less than one year.</td>
<td>The rise in awareness in both this survey and the prior one imply that JODI's profile is growing, but more could be done if nearly half of respondents in both surveys had only known about JODI for less than one year.</td>
</tr>
<tr>
<td>Most referenced data by product and flow</td>
<td>Crude oil is the most frequently accessed product featured in the JODI-Oil database, and demand, production and stocks are the most used flows.</td>
<td>Expected outcome, and consistent with anecdotal user feedback.</td>
</tr>
</tbody>
</table>
### Accessing JODI

| Accessing JODI | Over 50% of users access the JODI-Oil database at least once a month, though just 31% access it as soon as it is updated. | The finding that only 31% of users access JODI-Oil as soon as it is updated is a function of the time it takes for JODI-Oil to be published, which is on average 45-50 days after the end of the reference month. |

### Use of JODI-Oil Data

| Use of JODI-Oil Data | 84% of respondents noted that they use JODI data to conduct analysis or research, with 52% using JODI-Oil data to compare against other data sources and 32% using JODI-Oil data to fill gaps or missing data. | As no database is perfect or complete, it comes as little surprise that analysts compare JODI data against other sources. |

### Preferred Data by Region

| Preferred Data by Region | 60% of users said they most frequently reference JODI data from OPEC countries and from non-OECD, non-OPEC countries. | The fact that JODI features data for some countries and economies that are tough to find elsewhere (non-OECD, non-OPEC) implies a need to ensure that those data are as comprehensive and accurate as possible. |

### Rating JODI-Oil

| Rating JODI-Oil | Compared to the Third JODI-Oil User Survey, most respondents rated JODI roughly the same in terms of Timeliness and Coverage. On Completeness and Accuracy, the middle ranking of “fair” shrank versus the last survey, with more respondents labelling JODI-Oil as either good or poor in these two categories. | The need to maintain a focus on completeness and accuracy is reinforced by the greater poor ratings seen in both categories. |

## 1.2 IEF-Olade Workshop: Face-to-Face Engagement among JODI Partners and Statisticians to Help Ensure Smooth Coordination

At the beginning of 2013, the IEF’s JODI team analysed JODI submissions on a regional basis and identified an opportunity to deepen ties with both Olade and statisticians in its member countries, with the objective of ensuring the on-going submission of reliable JODI data. Recognising the value of face-to-face interaction between the JODI Partners and statisticians from national administrations, the IEF and Olade set out to organise a joint workshop to strengthen the working relationship and to promote better understanding of the JODI data reporting practices among Olade member countries. After months of planning and logistics coordination, the workshop took place from 29 April through 1 May in Quito, and benefitted from the participation of senior statisticians from the International Energy Agency (IEA).

The first day involved a lengthy meeting of professionals from the IEA, IEF and Olade, in which Olade explained in great detail the specifics of its data collection techniques, submission cataloguing methods and internal checks performed. One key outcome of this day’s meeting was an agreement to comprehensively assess the compatibility between Olade’s monthly hydrocarbon data questionnaire and the JODI-Oil and JODI-Gas questionnaires.
The broader workshop began on 30 April, wherein representatives from 22 Olade member countries gathered to discuss data quality and reporting methods.

**The following Olade countries were represented:**

- Argentina
- Barbados
- Brazil
- Colombia
- Costa Rica
- Cuba
- Dominican Republic
- Ecuador
- El Salvador
- Grenada
- Guatemala
- Haiti
- Honduras
- Jamaica
- Mexico
- Nicaragua
- Panama
- Paraguay
- Peru
- Suriname
- Trinidad and Tobago
- Uruguay

Olade professionals provided a briefing on their JODI data collection mechanism and clarified their approach towards JODI data quality assessments. During the afternoon, the IEF presented slides featuring selected data points from each country’s JODI data, and the country representatives discussed, one by one, their data reporting practices and clarified pending questions. These informal yet direct discussions play a fundamental part in addressing gaps in the JODI database, as at times it can be difficult to resolve matters by phone or e-mail. In the spirit of JODI, only the national administrations that submitted the data are permitted to update their data submissions.

On the second day, the IEF spoke about the importance of JODI data to market actors and analysts, using examples of how JODI data are featured in investment bank reports and how JODI data are cited by news services such as Bloomberg. Prior to concluding the proceedings, all Olade country representatives engaged in an impromptu brainstorming exercise to identify practical steps they could take to improve the quality and reporting of their JODI data (see photo below). Virtually all country participants jointly pledged in writing to follow up on numerous points related to their data submissions and data transparency overall (see page 14).
Concrete Outcomes of the Quito Workshop To Date

In addition to the unexpected and inspiring “commitment pledge” signed by numerous Olade member country statisticians, other concrete outcomes of the IEF-Olade Workshop logged to date include the following:

- Argentina started submitting JODI-Gas data
- Nicaragua resumed its submission of JODI-Oil data
- Suriname submitted JODI-Oil data for the first time ever, and started submitting JODI-Gas data

This workshop would not have been possible without funding from the Government of Japan, whose extraordinary financial contributions to support JODI have provided invaluable support towards capacity building. Moreover, the JODI Partners can all attest to the fact that the submission of data from their member countries tends to improve after workshops and face-to-face meetings. As JODI is a constant work in progress, sustaining these in person interactions is tantamount to sustaining JODI and greater financial support would undoubtedly strengthen the Initiative.

2. JODI-GAS UPDATE

Over the last 14 months, the IEF, shoulder to shoulder with the other JODI Partners, has reinvigorated JODI-Gas and instilled the Initiative with new momentum. At the Second Gas Data Transparency Conference (May 2012, Doha), the JODI Partners found consensus in seeking the conversion of JODI-Gas from an exercise (which began in October 2009) to a permanent reporting initiative. By October 2012, the JODI Partners had received approval from their respective executives and boards. As of the following month, there were 52 countries and economies submitting gas data, representing around 2/3 of global gas supply and demand. The IEF launched a beta version of JODI-Gas on 16 January 2013, which was expected to pique interest and attract more countries and economies to participate in the Initiative. This expectation proved correct, as by June 2013 71 countries were participating in JODI-Gas, representing around 80% of global gas supply and demand. The IEF continues its efforts to expand participation in JODI-Gas, and in that regard it has been in close contact with the Gas Exporting Countries Forum (GECF).
Amidst that backdrop, the IEF organised the Third Gas Data Transparency Conference, which was graciously hosted by the Government of Indonesia in Bali from 4-5 June 2013. The primary objective of the Conference was to clearly define the remaining tasks and milestones prior to the public launch of JODI-Gas. Among others, these milestones include conducting a quality assessment of JODI-Gas data, which will be carried out by the JODI Partners, and finalising the JODI-Gas Manual (the United Nations Statistics Division is leading the process). Further underscoring the growing momentum, at the time of writing Morocco and Singapore had just confirmed their participation in JODI-Gas.

2.1 GECF-IEF Workshop on Gas Data and Cooperation

On 2 April 2013, the IEF’s JODI team travelled to nearby Doha for a workshop with the GECF, wherein professionals from both international organisations discussed avenues for future cooperation. Conversations focused on technical topics, including the submission of gas data and interest in ensuring that the gas data definitions used by the GECF and featured in the JODI-Gas Manual are aligned and harmonised. In addition to the technical meeting, the IEF team had the chance to chat with GECF Secretary General Leonid Bokhanovskiy to discuss the shared interest in deepening the working relationship.

Building on the theme of strengthening ties noted above, and especially of promoting greater country participation in JODI, IEF Secretary General Aldo Flores delivered remarks at the 1 July 2013 GECF Summit in Moscow, which was chaired by President Vladimir Putin of the Russian Federation (see photo below). During this meeting Secretary General Flores encouraged all GECF members to support JODI while recognizing those that are already doing so. As he emphasising “better information helps to mitigate price volatility; it helps in the planning and execution of investments and it contributes to the promotion of global energy security.” The IEF very much looks forward to maintaining its dialogue with the GECF, and likewise towards further cooperation on the data sharing front.
2.2 Third Gas Data Transparency Conference

As noted above, the IEF’s main objective in organising the Third Gas Data Transparency Conference was to clearly define the remaining tasks prior to launching JODI-Gas. In the lead up towards that goal, the agenda and flow of the Third Gas Data Transparency Conference were structured as follows:

Session One began with a summary of the key insights from the Second Gas Data Transparency Conference, and covered how gas markets have evolved in the last 12 months. The conversations in Session One were intended to help participants clearly see the link between the Second and Third Conferences, and to help all delegates understand how JODI-Gas data can benefit market actors and improve transparency.

Session Two featured presentations by various JODI Partners, in which they provided updates on the JODI-Gas data that their respective member countries have been reporting, and shared findings and feedback obtained since the beta launch of the JODI-Gas database in January.

Session Three was designed to highlight selected challenges that some countries have faced in collecting monthly gas data, and to showcase how they overcame those obstacles—with the hope that other nations and economies might gather relevant insights from the case studies presented. Seven experts hailing from five continents shared their experiences, and focused on how they have approached gathering JODI-Gas data.

Session Four involved a detailed, technical discussion of selected aspects of the JODI-Gas Manual, a vital component of the Initiative, as statisticians must understand how to collect the data correctly.

During Session Five, representatives from the JODI Partners identified the remaining milestones on the road towards launching JODI-Gas, and pledged to tackle them to facilitate the opening of the database as soon as feasible. The remaining tasks and milestones prior to launching JODI-Gas are listed below:

- JODI Partners to conduct a data quality assessment and assign colour codes to JODI-Gas data
- Finalise the JODI-Gas Manual
- Keep key stakeholders engaged to help ensure sustained political support for JODI-Gas
- Continue outreach to countries and economies to improve participation in JODI-Gas
- Design a JODI-Gas training and capacity-building strategic plan (JODI-Oil and JODI-Gas training sessions will be held jointly)
- Launch a JODI-Gas website with information and resources to support data providers and users
- Identify the right venue/setting to launch JODI-Gas to obtain maximum visibility for the Initiative
3. JODI-RELATED G20 ENGAGEMENT AND OUTREACH

3.1 G20 Energy Sustainability Working Group (ESWG)
Face-to-Face Meeting | 19-20 February 2013 in Moscow, Russia

At this meeting, the IEF was invited to provide an update on JODI, and the group’s conversations focused on an exchange of ideas related to making energy and commodity markets more transparent, and potentially more predictable. The discussants agreed that JODI is a powerful tool to improve transparency, and found consensus on the need to increase participation in JODI and to support its expansion to cover gas. An absence of annual revised data was highlighted as one of JODI’s key deficiencies.

The group’s discussion identified a range of different possibilities, and emphasised three main avenues for further work:

- Ensure that the way data are presented takes into account the needs of market participants. To achieve this, dialogue with market players, academia and governments should be deepened;
- Increase the focus on data comparability and gaps in current market information, drawing on feedback from market participants to identify any additional information that might make a tangible difference for market transparency;
- Ensure that any potential forward-looking work fully recognises the practical challenges of the forecasting process, and takes into account the risks of initially over-promising only to under-deliver.

3.2 Joint IEA-IEF-OPEC Paper Entitled “Practical Recommendations for Increasing Transparency in International Gas and Coal Markets” | Presented to G20 Finance Ministers in May 2013

In June 2012, the IEA, IEF and OPEC responded to a request from the G20 Finance Ministers to continue work on gas and coal market transparency. They jointly submitted a report entitled “Increasing Transparency in International Gas and Coal Markets”, which provided recommendations to the G20 Finance Ministers on several fronts. Regarding gas markets, the June 2012 report emphasised the importance of the JODI-Gas database as a step towards reducing uncertainty, improving predictability, facilitating project planning and enhancing market transparency.
The communiqué from the meeting of G20 Finance Ministers and Central Bank Governors held on 5 November 2012 in Mexico City welcomed the Report and asked the three international organisations to propose practical steps by mid-2013 that G20 countries could take to implement them, which prompted the preparation of the May 2013 report. The practical recommendations in the May 2013 report focus on improvements to the JODI-Gas database, in light of the fact that the international organisations consider data availability to be one of the cornerstones of a more transparent and better functioning gas market. Specific recommendations regarding JODI-Gas are as follows:

- **Participation**: Increase the number of countries and economies participating in JODI-Gas, as greater participation will position JODI-Gas as a leading platform for natural gas data and will contribute toward gas market transparency;
- **Data**: Improve the timeliness, coverage and sustainability of submitted data, which could be advanced through the creation of a similar evaluation system to the one utilised in JODI-Oil;
- **Capacity Building**: Focus on training statisticians who submit JODI-Gas data, and work to garner financial support for capacity building initiatives;
- **User Feedback**: Ensure that users of JODI-Gas are encouraged to provide feedback on the quality of the database;
- **Political Support**: Work to ensure that top-level political support for JODI-Gas, and more broadly data transparency, reaches the front-line actors working to collect and analyse JODI data.

In addition, the three international organisations that authored the report noted that they were “open to considering the extension of JODI to cover coal data if provided with the necessary resources.”

### 3.3 G20 Energy Sustainability Working Group (ESWG) Outreach Seminar on Transparency in Commodity Markets | 28 May 2013 in Geneva, Switzerland

As part of the ESWG’s outreach activities, the Swiss Federal Department of Finance hosted an expert outreach seminar that was chaired by the Russian Co-Chair of the ESWG and co-facilitated by the French Treasury. The roughly 55 participants included G20 government officials from Ministries of Finance and Energy, representatives from banks, commodity trading firms, and international organisations (including the IEF). Among other topics, seminar participants discussed JODI’s relevance and potential for development.

The seminar discussants concurred that the timeliness, sustainability and completeness of JODI-Oil data play a key role in ensuring the reliability and relevance of the JODI database. Given the importance that front-line actors (statisticians) play in collecting and disseminating JODI data, and given the challenges that many of them face (ranging from inadequate training to insufficient information technology resources available), it is also important that top-level political support for JODI translates in the provision of the necessary resources. Those necessary resources will help improve the commitment to JODI at the statistician level, which will in turn help to improve the reliability of JODI data.
The public launch of JODI-Gas by the end of 2013 was confirmed, consistent with the G20 mandate. Two remaining milestones stand out from the rest: the need to harmonise definitions and data (which is to a large extent being addressed through the preparation of the JODI-Gas Manual, a process being led by the United Nations Statistics Division), and the expansion of the number of countries and economies participating in JODI-Gas (which currently stands at around 80% of global gas supply and demand, similar to the level of participation in JODI-Oil when it was launched).

Some industry executives mentioned that they were not familiar with JODI, but they presumed that analysts within their organisations were likely JODI users. This discussion point raised the question of whether or not access to JODI data was as widely-available as possible. Though JODI data are free to download from the JODI website, many market actors access data through platforms such as Bloomberg and Thomson Reuters, where JODI data are currently not yet available. Making JODI data available through such platforms would undoubtedly expand JODI’s reach.

Participants noted the importance of revised oil data, and commented specifically on JODI-Oil, as some submitting countries never make revisions while others make numerous revisions. Both practices create concerns for market actors, who would like to better understand the process of revising JODI data. Not all countries submit revised data. A pledge by G20 members to submit aggregated and revised data to JODI once a year would help to fill in gaps in the JODI database, making JODI more relevant for analysts when they are making forecasts.

4. JODI DATABASE IMPROVEMENTS

Though more than one valued IEF stakeholder has openly embraced the notion that “JODI is not a database, JODI is a commitment”, the IEF must nevertheless ensure that the necessary information technology resources are in place to keep the JODI database operational. On that note, the IEF made a number of database enhancements during the first half of 2013:

- **JODI-Oil Update Procedure**: The IEF Secretariat recently implemented a new JODI-Oil data update procedure, streamlining the process and reducing the update time from four and one-half hours to two hours. This shorter run-time will allow the IEF to update the database more frequently, as additional data submissions come in;

- **JODI-Gas Update Procedure**: The IEF implemented an additional JODI-Gas World Database update procedure to accommodate data submissions from some participating countries that currently send the questionnaire directly to the IEF;

- **Alert Function**: The IEF enriched the JODI-Oil database update alert function with the latest news on the database, such as the inclusion of major data revisions, the addition of new reporting countries and economies, and updates to country notes. This functionality improves communication with JODI data users and helps draw their attention to recent developments;

- **Country Notes**: Together with the JODI Partners, the IEF is working to harmonise the country notes format. The Fourth JODI-Oil User Survey confirmed the interest many JODI users have in reviewing the country notes, which help to highlight possible definitional differences in the JODI data.
5. WHAT’S AHEAD DURING THE SECOND HALF OF 2013

The first half of 2013 was busy indeed, and the trend is expected to continue through the rest of the year:

- The IEF will continue working on revamping the JODI-Oil monthly report, which should be launched before year-end;
- The JODI-Oil website will receive an overhaul, and work on an interactive JODI Forum that would enable market actors to engage with JODI experts will continue;
- The JODI-Gas Manual is on track to be finalised, and the team of JODI Partners that will assess the gas data is already taking shape.
- Expect the launch of the JODI-Gas website prior to the opening of the JODI-Gas database;
- A regional oil and gas capacity-building workshop in Asia is already in the works for the final quarter of the year;
- The IEA, IEF and OPEC are currently sorting out the planning details related to the Second IEA-IEF-OPEC Symposium on Gas and Coal Market Outlooks, which will be held at IEA headquarters in Paris.
JODI Oil and Gas in Latin America and the Caribbean: Evaluation and Follow up

OLADE's COMMITMENT

- Review the correspondence of the flows and calculations between the OLADE and JODI formats and its dissemination among the countries. 2 months.
- Consider to incorporate "Other Products" in the OLADE's terms monthly. 1 month.
- Send the IEF the metadata submitted by the countries. Ongoing.
- Analyze the request of the countries in the implementation of a tool to perform quality control of the data before sending the forms to OLADE. 2 weeks.
- OLADE will do the follow up, review and update of the monthly data of Oil and Gas together with the countries based on the IEF report by country. 3 months.
- Implement the color code allocation mechanism in the report that is sent to the IEF by using growth rates, 3 months.
- Arrange the joint historical series for the three types of form (standard, extended and OLADE), December 2013.
- Send the reference forms to the countries for their approval and then forward them to IEF. 3 months.

IEF's COMMITMENT

- IEF will continue monitoring data quality of the Latin American and Caribbean region as well as communicating any findings from the data monitoring process.
- While OLADE is on a delay, a process to establish a comprehensive methodology to maintain compatibility between OLADE, monthly hydrocarbon data questionnaire and JODI (MIO) questionnaires, IEF will facilitate the process in the collaborative methodology.
- IEF will ensure updating the JODI World Database with all revisions of data as well as revisions/modifications of country notes (irevnotes) submitted by the OLADE member countries.

- JODI Oil and Gas in Latin America and the Caribbean: Evaluation and Follow up

COUNTRIES' COMMITMENT

- The countries will receive the information and make the necessary changes according to the observations presented by the IEF in a maximum period of 5 months (until October 31). The results of the review will be forwarded through OLADE.
- The countries will provide JODI information within a maximum of 10 days from the month that is being reported.
- In the JODI-V08.1 form, submit the metadata for the energy sources and fuels that identify eventualities related to the data sent such as a refinery closure, change in methodology, occasional import and export of products, etc.
- Perform a wide dissemination of JODI within the countries.

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Pledge Signed by Representatives from Olade, its Member Countries, and the IEF During the IEF-Olade Workshop.

30 April - 1 May 2013
Quito, Ecuador