



# *Promoting Cooperation & Transparency of Oil Data Management through JODI*

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Head Data Services Department  
OPEC*



*Stability in the oil market*

# *OUTLINE*



- **Transparent oil data essential for market stability**
- **Data management in OPEC**
- **Joint Oil Data Initiative (JODI)**

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# *TRANSPARENT OIL DATA ESSENTIAL FOR MARKET STABILITY*



## **Why is good data essential for oil market stability?**

- **Support sound decision making**
- **Encourage investments**
- **Reduce market volatility**
- **Facilitate improved short-term forecasts**
- **Ensure oil market stability**

# *TRANSPARENT OIL DATA ESSENTIAL FOR MARKET STABILITY*



**OPEC's production decisions – significant impact on the oil market**

**Decisions based on**

- **Economic forecast**
- **World oil demand**
- **Non-OPEC supply**
- **Inventories**
- **Refinery utilization and margins**
- **Oil and product prices**

# *TRANSPARENT OIL DATA ESSENTIAL FOR MARKET STABILITY*



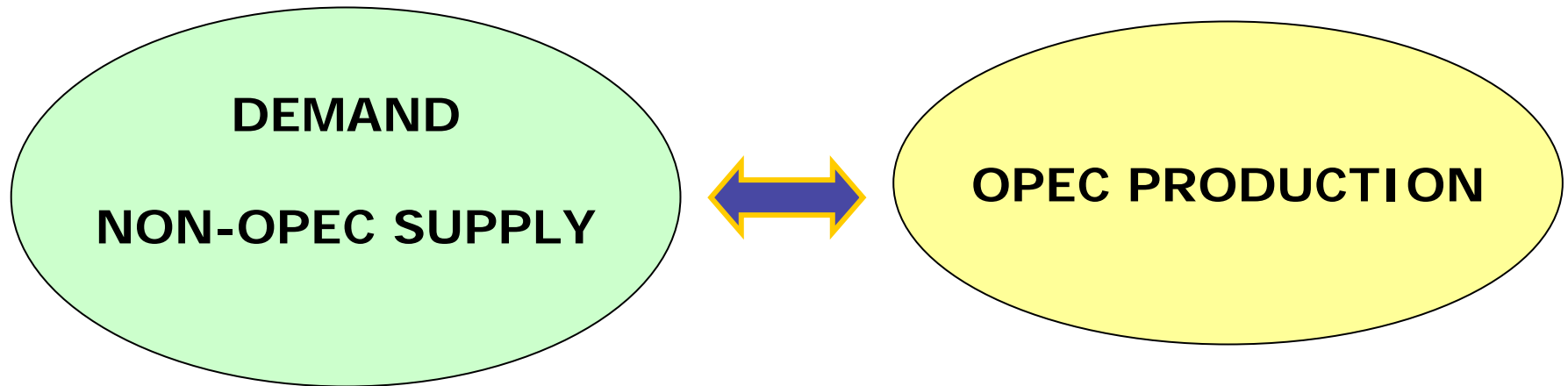
## **Challenges in assessing oil data**

- **Unreliable - poor quality data**
- **Unavailability of certain data**
- **Revision of historical data**
- **Uncertainty about market outlook**

# *TRANSPARENT OIL DATA ESSENTIAL FOR MARKET STABILITY*



## **Market Fundamentals**

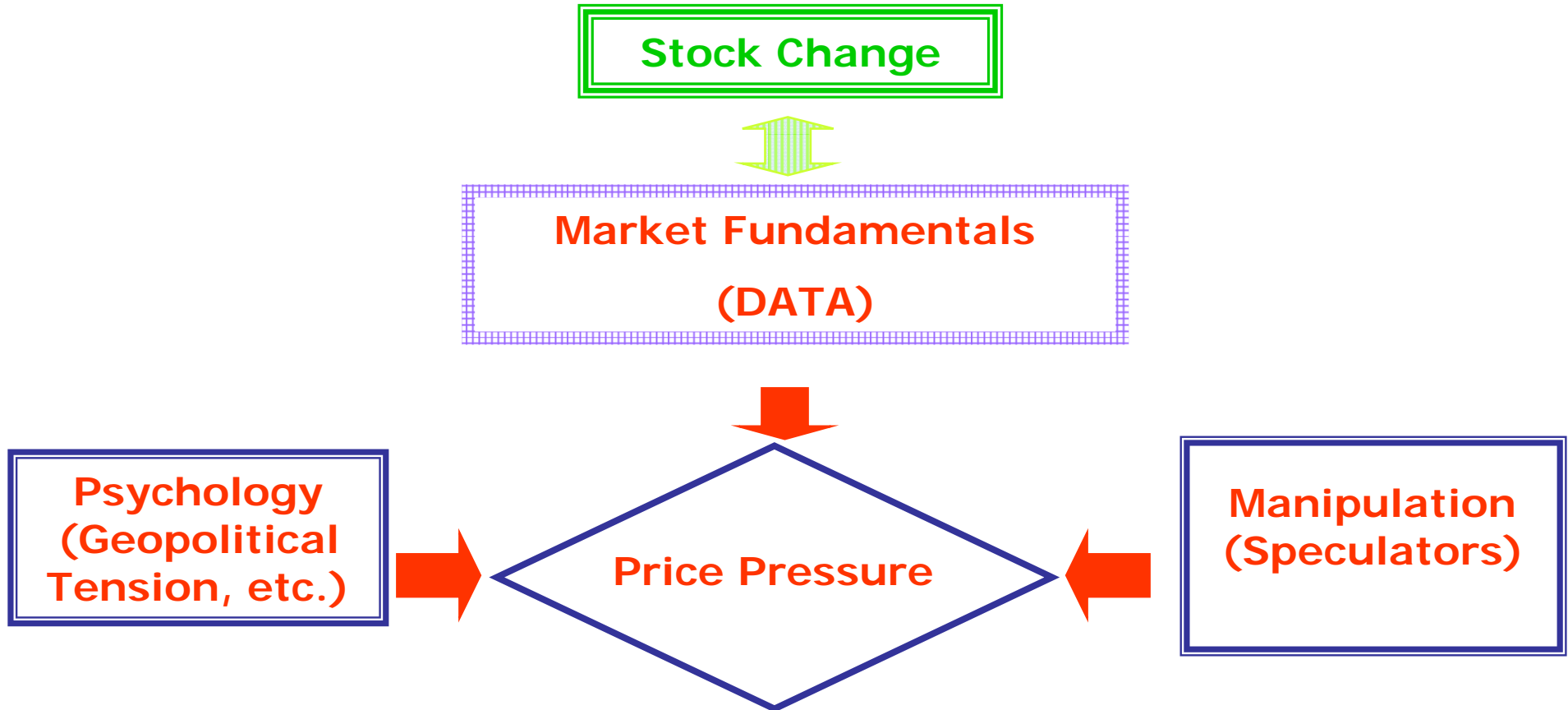


**Expectation of fundamentals is a tool  
to predict inventory movements**

# TRANSPARENT OIL DATA ESSENTIAL FOR MARKET STABILITY



## Oil Price & Market Fundamentals



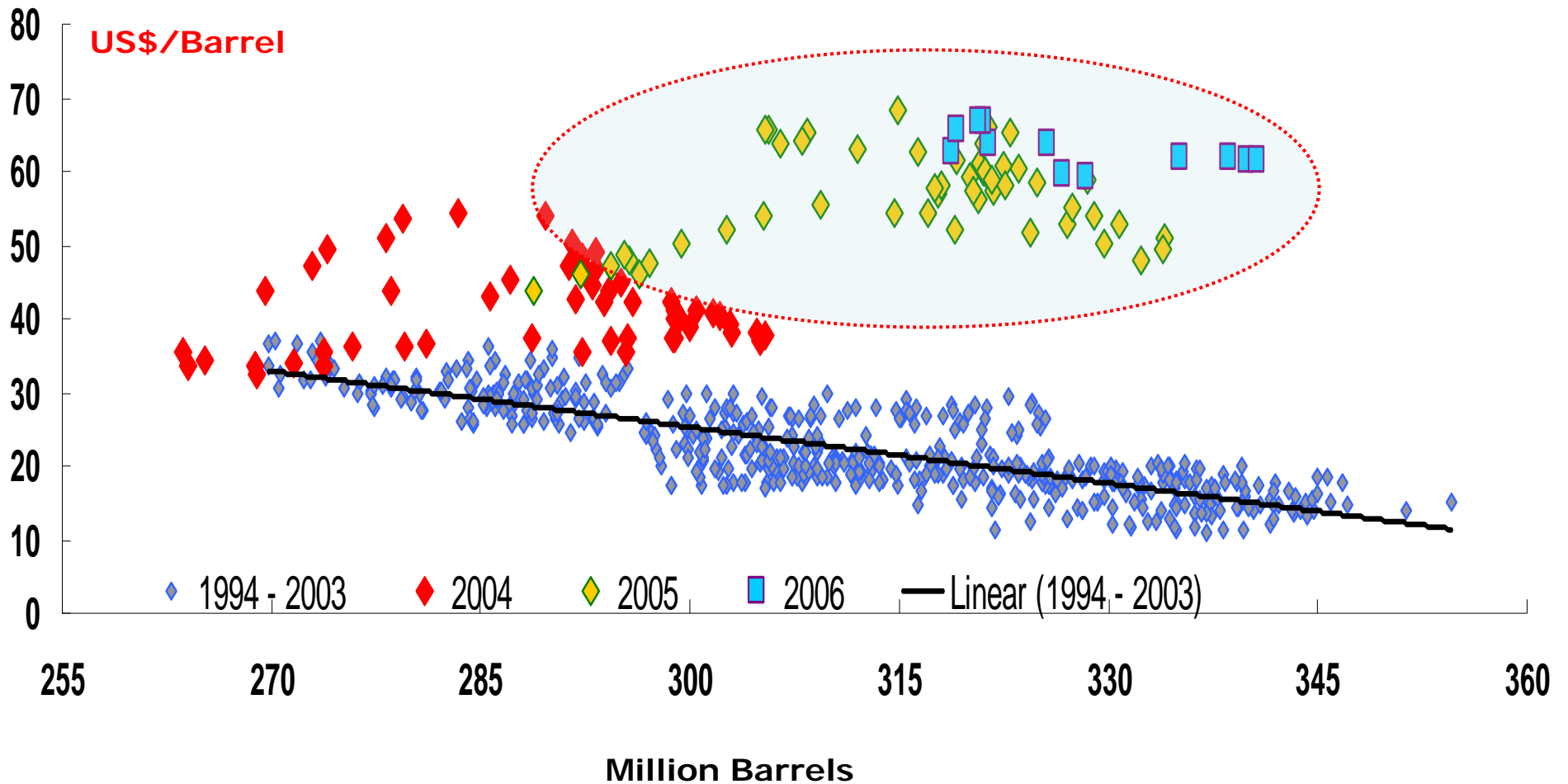
Expectation of inventory movements, among other factors, drives the direction of crude oil prices.



# TRANSPARENT OIL DATA ESSENTIAL FOR MARKET STABILITY



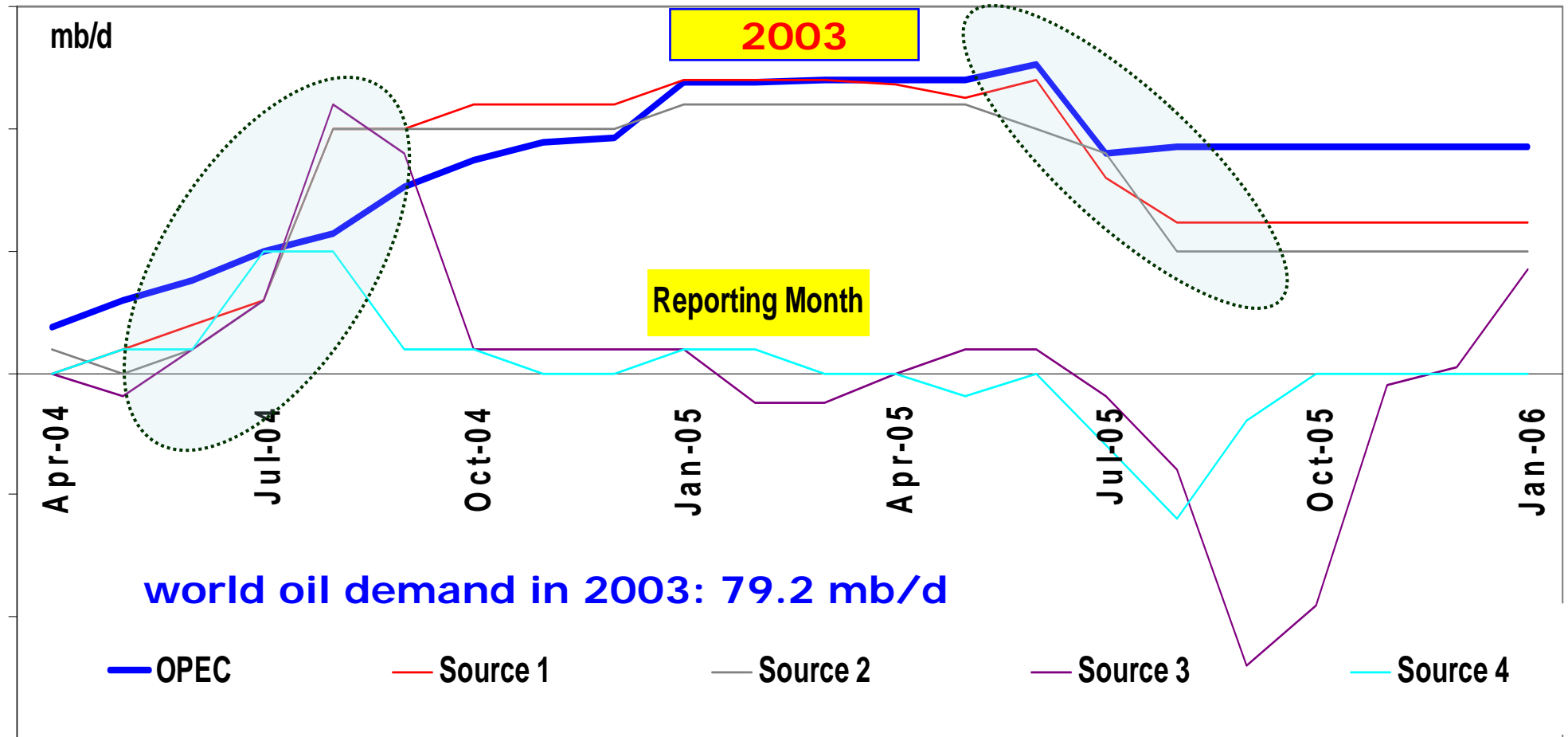
## WTI versus US Crude Stocks



# TRANSPARENT OIL DATA ESSENTIAL FOR MARKET STABILITY



## Continued revisions of historical oil demand



# *OUTLINE*



- Transparent oil data essential for market stability
- **Data management in OPEC**
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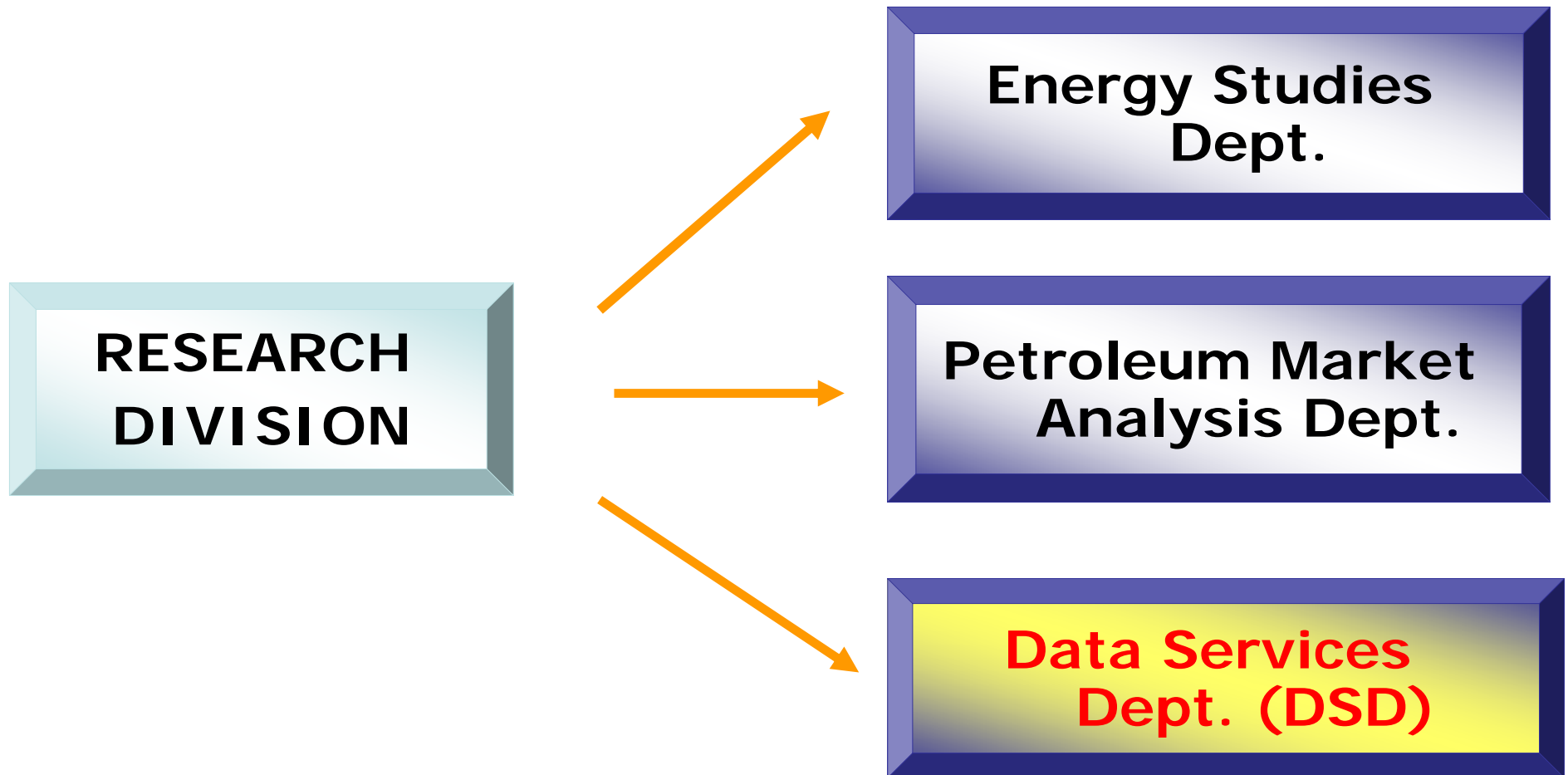
# *DATA MANAGEMENT IN OPEC*



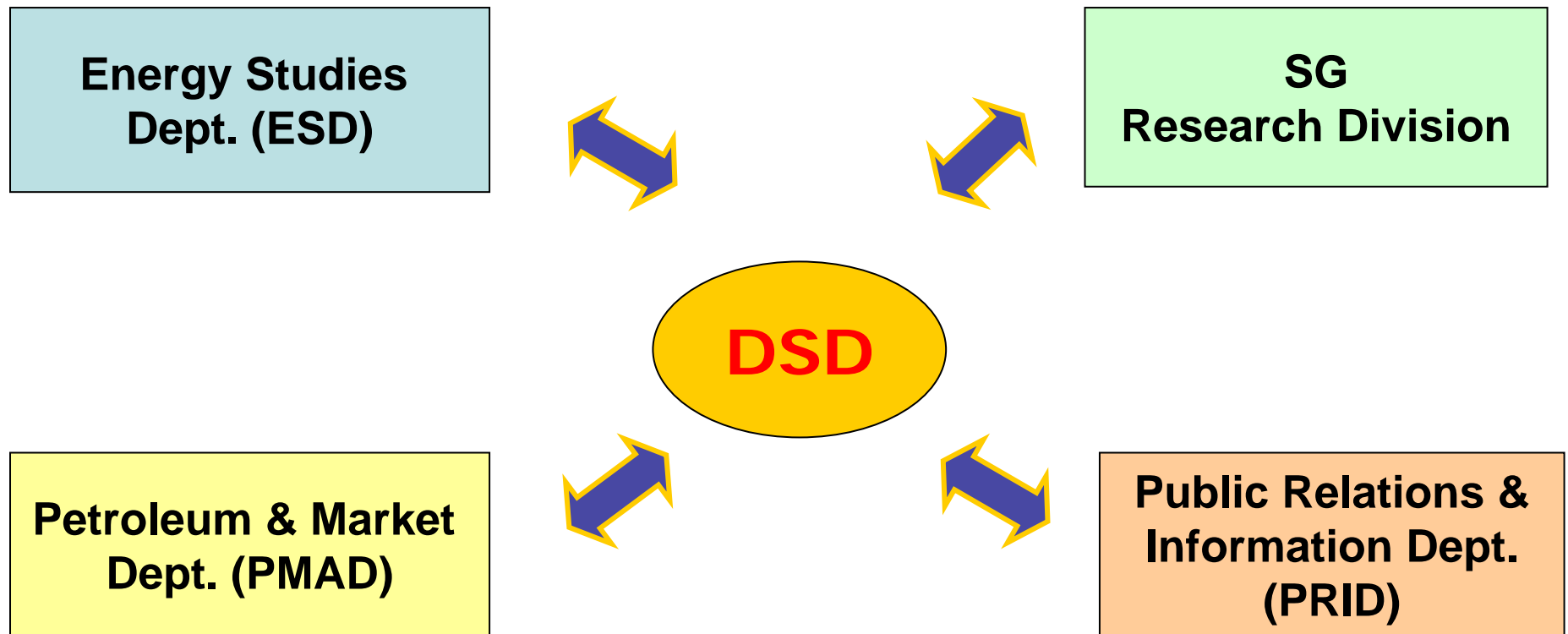
# *DATA MANAGEMENT IN OPEC*



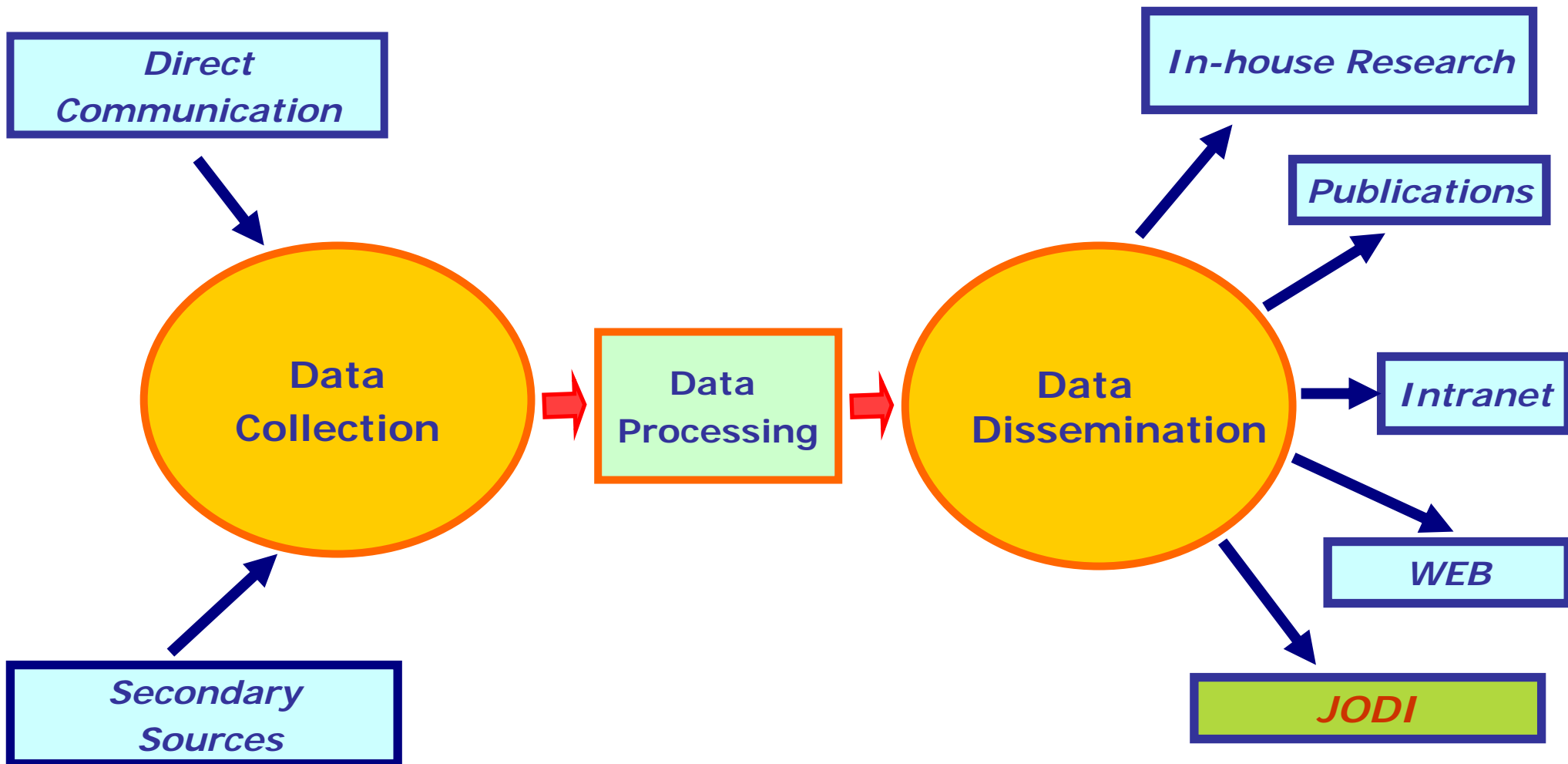
## **Data Management an Integral Part of Research Activities in OPEC**



# *DATA MANAGEMENT IN OPEC*



# DATA MANAGEMENT IN OPEC



# *DATA MANAGEMENT IN OPEC*

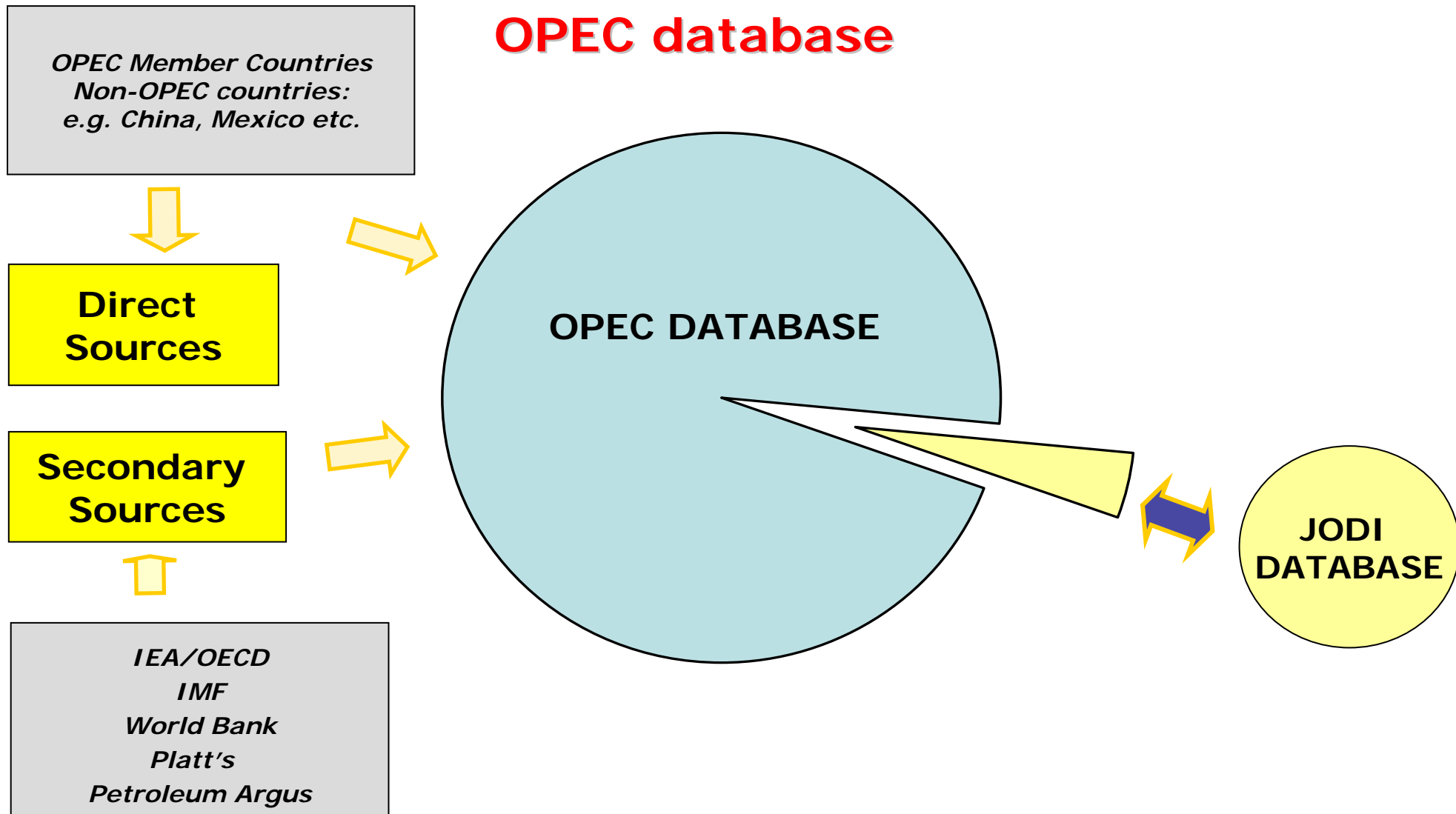


## **OPEC Database**

- **Macroeconomic Components**
- **Reserves, Capacity**
- **Energy Statistics and Balances**
- **Oil Supply**
- **Oil Demand**
- **Refinery Operations**
- **Prices**
- **JODI**



# DATA MANAGEMENT IN OPEC



# DATA MANAGEMENT IN OPEC



OPEC webpage - [www.opec.org](http://www.opec.org)



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141<sup>ST</sup>  
EXTRAORDINARY  
MEETING

▶ Watch OPEC Meetings and exclusive interviews

1 June 2006  
Caracas Venezuela



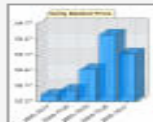
Third OPEC International Seminar  
*OPEC in a New Energy Era:  
Challenges & Opportunities*

Hofburg Palace, Vienna, Austria, 12 Sept. – 13 Sept. 2006

**OPEC's mission** is to coordinate & unify the petroleum policies of Member Countries & ensure the stabilization of oil prices in order to secure an efficient, economic & regular supply of petroleum to consumers, a steady income to producers & a fair return on capital to those investing in the petroleum industry.

## OPEC BASKET PRICE

05/05/2006: **\$65.06** ▼ (\$1.04)



The price of OPEC basket of eleven crudes stood at 65.06 dollars a barrel on Friday 5/5/06, compared with 66.10 dollars the previous day (Revised), according to OPEC Secretariat calculations.

## SPECIAL FEATURE



Initial data for 2006 shows the world economy continues to experience strong growth, despite disappointing GDP growth in the final quarter of last year, according to the OPEC Monthly Oil Market Report. "Consensus forecasts have been revised up and the world economy is

## LATEST PRESS RELEASES

- ▶ [Statement by OPEC Conference President](#)
- ▶ [Resolutions adopted by the 140th Meeting of the OPEC Conference](#)

## LATEST PUBLICATIONS \ REPORTS

- ▶ [OPEC Long-Term Strategy](#)
- ▶ [Monthly Oil Market Report \(Apr.06\)](#)
- ▶ [Market Indicators](#)
- ▶ [OPEC Bulletin \(Mar-Apr. 06\)](#)
- ▶ [Annual Statistical Bulletin 2004](#)

## RECENT SPEECHES

- ▶ [Oil market stability and its importance to](#)



# DATA MANAGEMENT IN OPEC



OPEC webpage - [www.opec.org](http://www.opec.org)



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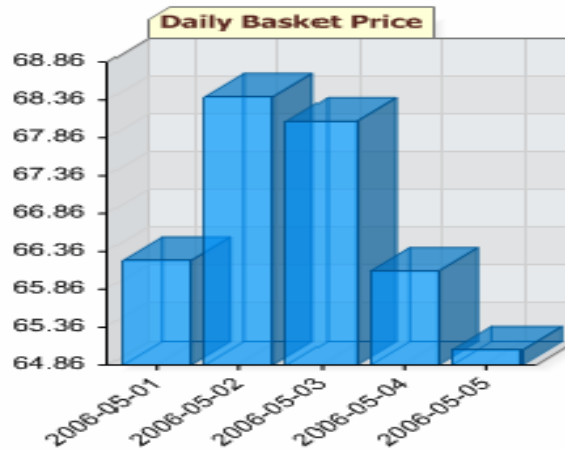
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REFERENCE PRICES

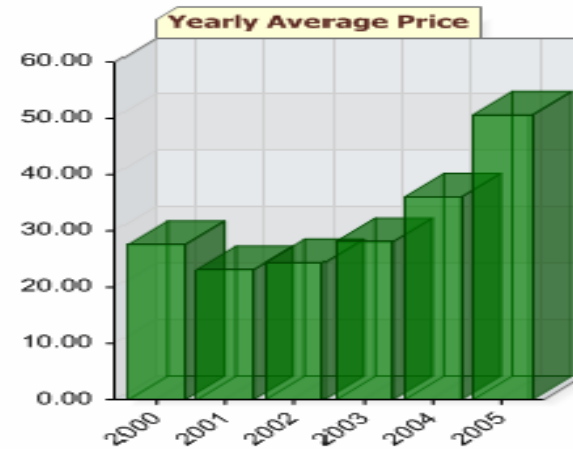
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## OPEC Basket Price



	Daily Basket Price
2006-05-01	66.24
2006-05-02	68.4
2006-05-03	68.08
2006-05-04	66.1
2006-05-05	65.06



	Yearly Average Price
2000	27.6
2001	23.12
2002	24.36
2003	28.1
2004	36.05
2005	50.64

The new OPEC Reference Basket (ORB) is made up of the following: Saharan Blend (Algeria), Minas (Indonesia), Iran Heavy (Islamic Republic of Iran), Basra Light (Iraq), Kuwait Export (Kuwait), Es Sider (Libya), Bonny Light (Nigeria), Qatar Marine (Qatar), Arab Light (Saudi Arabia), Murban (UAE) and BCF 17 (Venezuela).

# DATA MANAGEMENT IN OPEC



OPEC webpage - [www.opec.org](http://www.opec.org)

563.61 a barrel Tuesday, 11 April 2006 OPEC President addresses the 2006 World Economic Forum

**OPEC** ORGANIZATION OF THE PETROLEUM EXPORTING COUNTRIES

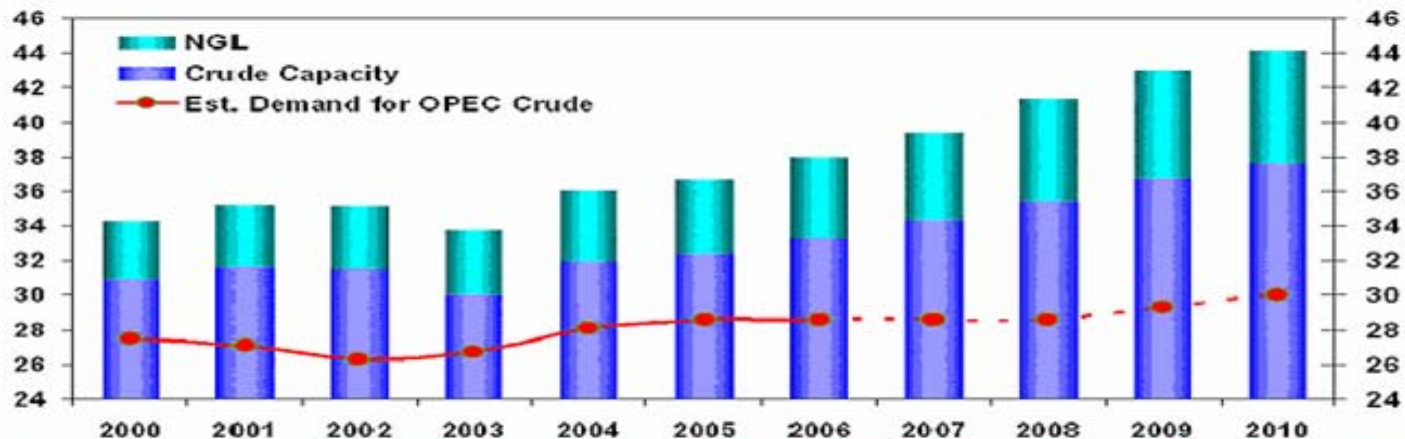
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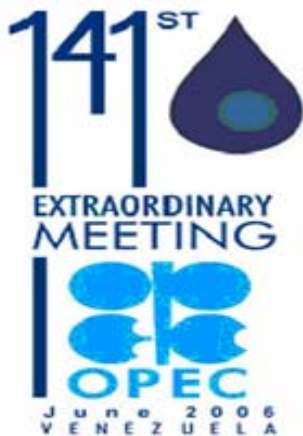
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## OPEC FACTS AND FIGURES

### OPEC Upstream Capacity Plans (mb/d)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crude Capacity	30.9	31.6	31.5	30.0	31.9	32.4	33.3	34.4	35.4	36.8	37.6
NGL	3.3	3.6	3.6	3.7	4.1	4.3	4.6	5.1	5.9	6.3	6.6
Total	34.3	35.2	35.2	33.8	36.0	36.7	38.0	39.4	41.4	43.0	44.2



OPEC Member Countries have embarked upon substantial investments, both upstream and downstream, to ensure that the world economy benefits from regular and secure oil supplies. Crude oil production capacity is projected to increase to around 38 mb/d by 2010.

[Explanatory Notes](#)

Similarly, production capacity of NGL and other liquids will be expanded by over 2 mb/d. In addition,

# *OUTLINE*



- Transparent oil data essential for market stability
- Data management in OPEC
- **Joint Oil Data Initiative (JODI)**



# *JOINT OIL DATA INITIATIVE (JODI)*

- **Consumer-producer dialogue dates back to the 1980's**
- **Common interest of producers and consumers**
  - **Stable oil market**
  - **Reliable and transparent oil data**



**JODI**



# *JOINT OIL DATA INITIATIVE (JODI)*

## **Objective of JODI**

- JODI launched in 2001 by six organizations - OPEC, APEC, Eurostat, IEA, OLADE and UNSD
- Response to a directive from Ministers at the 7th International Energy Forum (IEF) Nov. 2000, who saw the need for an initiative that would enhance *“cooperation among relevant international organizations, as well as participating countries, in improving timely access to energy data”*

# JOINT OIL DATA INITIATIVE (JODI)



7<sup>th</sup> IEF Meeting → in Riyadh 2000

- High volatility in oil prices
- Lack of transparent reliable statistics
- Efforts to increase data transparency
- Ministers at IEF support better data

## Birth of Joint Oil Data Exercise



- Raise awareness for oil data
- Transparent consumer-producer oil data



# THE JOINT OIL DATA INITIATIVE (JODI)



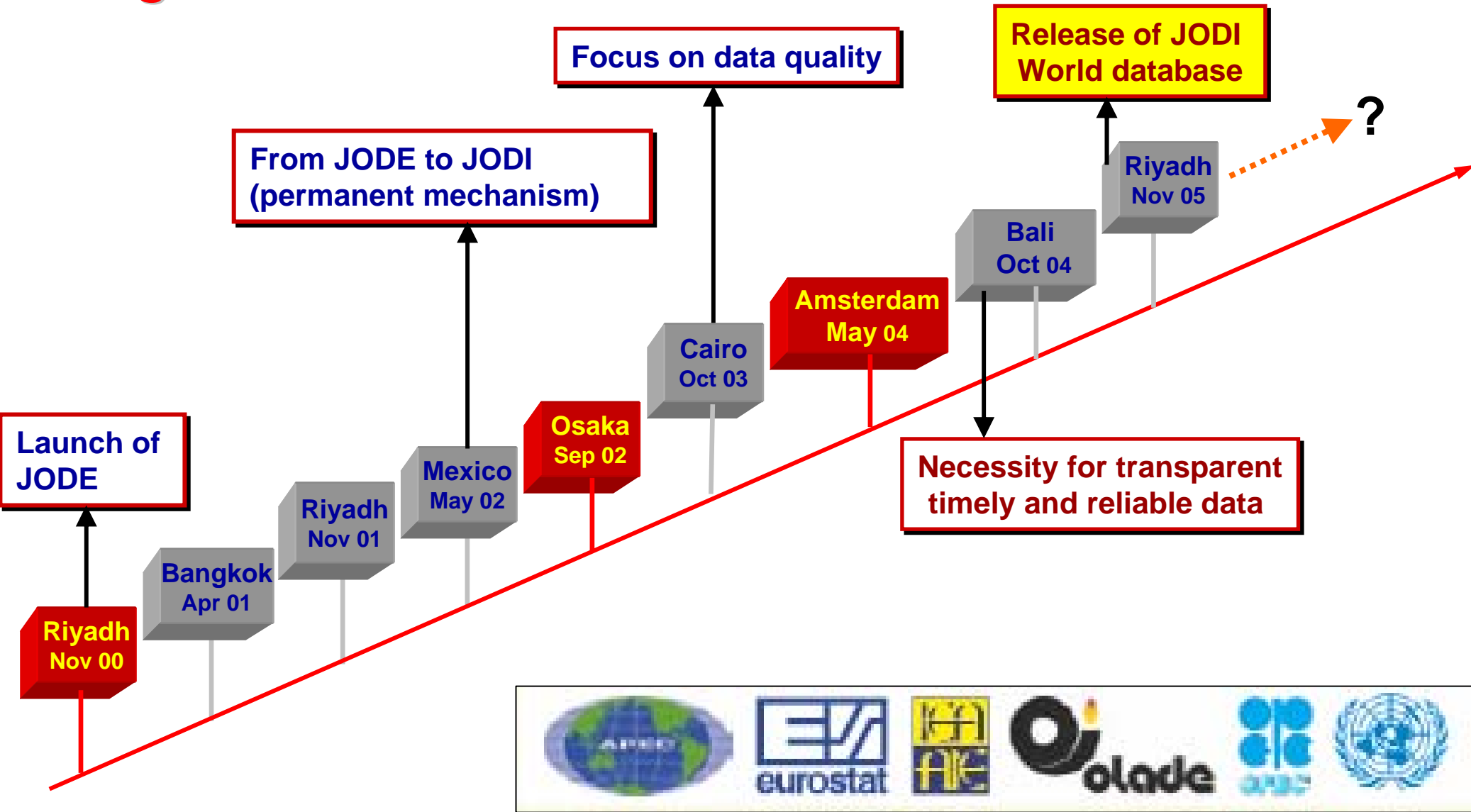
[www.jodidata.org](http://www.jodidata.org)





# THE JOINT OIL DATA INITIATIVE (JODI)

## Background





# THE JOINT OIL DATA INITIATIVE (JODI)

## Launch of JODI world database



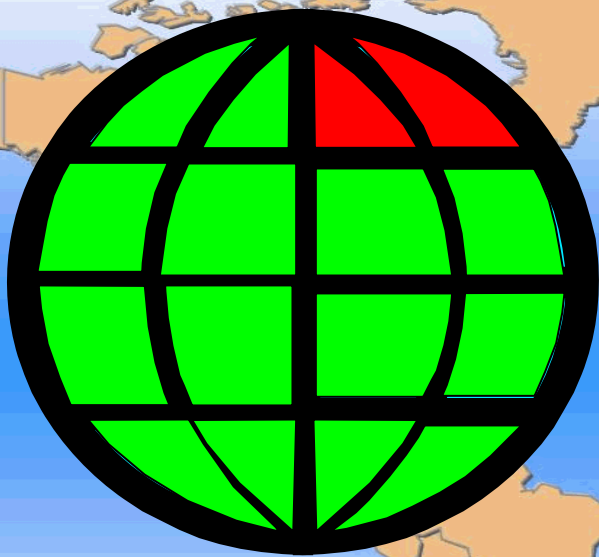




# THE JOINT OIL DATA INITIATIVE (JODI)

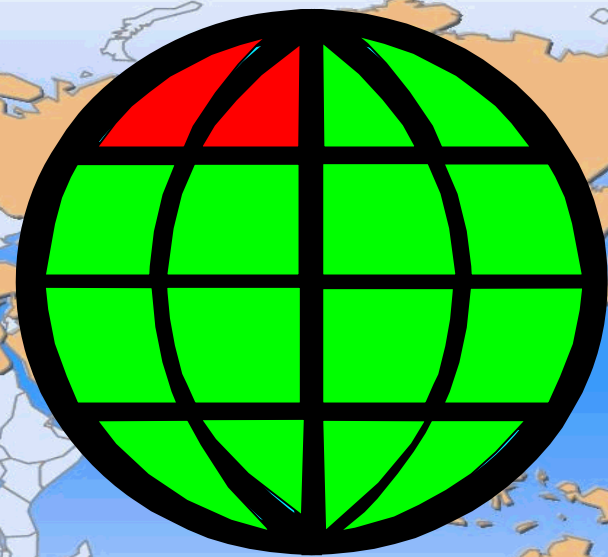
## Participating countries

Global Oil Production



90%

Global Oil Consumption



90%



92 Countries



# *THE JOINT OIL DATA INITIATIVE (JODI)*

## **Achievements of JODI**

- **Political awareness in data reliability**
- **Improved attitude toward data confidentiality**
- **Strengthened producer-consumer dialogue**
- **Cooperation**

# *THE JOINT OIL DATA INITIATIVE (JODI)*



## **Cooperation**

- **Establishment of a joint review committee**
- **Broader cooperation on data issues**
- **Joint workshops**



## **Data management - knowledge in JODI**

- **Broader data accessibility**
- **Enhanced awareness of statistical data**
- **Improved oil data quality**

# THE JOINT OIL DATA INITIATIVE (JODI)



## Broader data accessibility

kb			
Algeria	2,859	Jamaica	940
Argentina	4,407	Kazakhstan	33,235
Brunei Darussalam	2,273	Lithuania	1,986
Brazil	25,643	Nicaragua	639
Bulgaria	2,074	Nigeria	10,212
Chile	6,926	Peru	2,368
Chinese Taipei	28,984	Philippines	9,676
Costa Rica	464	Romania	2,552
Cyprus	219	Russian Federation	500,241
Ecuador	9,037	Saudi Arabia	167,644
El Salvador	705	South Africa	14,134
		Venezuela	44,910

**Reported Non-OECD crude oil stocks in 2004 = 873 mb**



# *THE JOINT OIL DATA INITIATIVE (JODI)*



## **Increased awareness**

- **Acknowledgement of IEFS role**
- **Participation of oil industry**
- **Coverage by media**
- **Interest in JODI world database**



## Increased awareness of JODI at high level meetings and in the media

- Meeting of G8 energy ministers (Moscow, March 2006)  
*G8 statement on energy security:*  
*“Ministers confirm our support for appropriate international initiatives such as the Joint Oil Data Initiative aimed at greater accessibility and transparency of data...”*
- 10<sup>th</sup> International Energy Forum (Doha, April 2006)  
*“Ministers reaffirmed their commitment to providing timely and accurate data to JODI and envisaged co-operation in expanding, in due course, the initiative to include data of other sources of energy that are important in the world energy mix.”*
- International oil

# *THE JOINT OIL DATA INITIATIVE (JODI)*



## **Collected information**

### **Monthly crude/product data (M-1) on**

- **Production**
- **Import**
- **Export**
- **Closing Stocks/Stocks Change**
- **Refinery Intake**
- **Refinery Output**
- **Demand**



# THE JOINT OIL DATA INITIATIVE (JODI)

## JODI Questionnaire

**A Simple Format (42 data points)**

**Country:** \_\_\_\_\_  
**Month:** \_\_\_\_\_

**Unit:** \_\_\_\_\_

		Crude Oil
<b>Month -1 and Month -2</b>		
Imports		
Exports		
Stocks	Closing Change	
Refinery Intake		

		Petroleum Products					
		LPG	Gasoline	Kerosene	Gas/Diesel Oil	Fuel Oil	Total Oil
Refinery Output							
Imports							
Exports							
Stocks	Closing Change						
Demand							

**Choice of units left to organisations**

**Simple Definitions**

# *THE JOINT OIL DATA INITIATIVE (JODI)*



## **Contents of JODI world database**

- **Monthly crude/product data (M-1)**
- **Production**
- **Closing Stocks/Stocks Change**
- **Demand**
- **[www.jodidb.org](http://www.jodidb.org)**



# *THE JOINT OIL DATA INITIATIVE (JODI)*

## **The JODI world database**

**Open to the public since**

**19 November 2005**

**[www.jodidb.org](http://www.jodidb.org)**

# THE JOINT OIL DATA INITIATIVE (JODI)



Beyond 20/20 WDS - Table View - Microsoft Internet Explorer

Address: http://www.jodidb.org/IEFS/TableViewer/tableView.aspx

Select Items to View  
 Reset Default View  
 Display Totals/Percentages  
 View Printable Version  
 Print Setup...  
 Save Report to My Reports...  
 Download report data...  
 Activate Saved Profiles...

Beyond 20/20 table format (\*.ivt)  
 Microsoft Excel format (\*.xls)

## Data Available in Different Formats

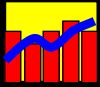
	per day (kb/d)								Product - Total Products				Balance - Demand							
	2004	May2004	Jun2004	Jul2004	Aug2004	Sep2004	Oct2004	Nov2004	Dec2004	Jan2005	Feb2005	Mar2005	Apr2005	May2005	Jun2005	Jul2005	Aug2005			
Brazil	233	231	238	239	247	249	236	245	242	257	258	238	242	239	246	0	0			
Brunei Darussalam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Bulgaria	66	75	78	78	72	86	97	95	220	98	96	90	87	75	83	93	91			
Canada	2,046	2,091	2,072	1,945	1,931	2,111	2,056	2,079	2,103	2,040	2,136	2,182	2,129	2,116	2,057	1,902	1,992			
Chile	195	196	206	205	209	206	213	198	196	192	198	0	0	0	0	0	0			
China	5,913	6,331	5,836	6,526	5,560	6,596	5,807	5,614	5,557	5,642	6,650	6,413	5,523	6,212	5,890	5,895	5,422			
Chinese Taipei	1,242	1,057	1,237	1,103	1,199	1,254	959	1,163	1,202	1,088	1,173	1,117	1,328	1,010	1,083	1,097	1,252			
Colombia	187	76	101	193	197	197	201	195	192	204	199	207	197	203	198	206	201			
Costa Rica	41	45	46	43	41	38	42	39	39	41	42	46	42	47	45	49	41			
Cuba	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Cyprus	51	53	48	45	49	53	57	54	56	50	52	56	54	56	50	46	50			
Czech Republic	144	167	195	191	209	222	194	218	227	216	211	185	185	185	183	206	213			
Denmark	176	190	186	176	162	175	153	170	177	176	183	189	175	192	174	182	171			
Dominican Republic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Ecuador	100	107	100	102	100	99	129	131	137	129	124	143	141	142	169	138	140			
Egypt (Arab Rep.)	1,123	1,068	1,123	1,090	1,105	1,093	1,073	1,117	1,099	1,087	1,134	1,199	1,216	1,130	1,168	1,211	1,207			
El Salvador	42	42	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Estonia	18	17	18	36	12	15	29	18	22	23	32	27	25	30	21	20	20			
Finland	198	208	204	193	185	195	187	204	211	205	215	211	184	216	213	192	188			
France	2,058	2,101	2,066	2,046	1,735	1,982	1,995	1,814	2,118	2,013	1,979	2,050	1,947	2,193	2,132	1,901	1,880			
Gabon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Germany	2,421	2,647	2,734	2,633	2,294	2,592	2,650	2,622	2,795	2,629	2,809	2,782	2,415	2,641	2,471	2,499	2,560			

(3 items remaining) Downloading picture http://www.jodidb.org/IEFS/Common/Images/SortTopArrow.gif...

Internet



# THE JOINT OIL DATA INITIATIVE (JODI)



Built-in graph function

You can move dimensions

You can merge dimensions

You can access Metadata

Product	Balance	May2004	Jun2004	Jul2004
Crude Oil				
Liquid Petroleum Gases				
Motorgasoline (incl aviation gasoline)				
Kerosene (incl jetkero/other kero)				
Gas/Diesel Oil				
Residual Fuel Oil				
Total Products				



# THE JOINT OIL DATA INITIATIVE (JODI)



Beyond 20/20 Visual Builder - [Joint Oil Data Initiative Global data (Read-only):2]

File Edit View Dimension Item Data Source Tools Window Help

TIME

Unit: Thousand Barrels per day (kb/d)

## Demand for Total Products

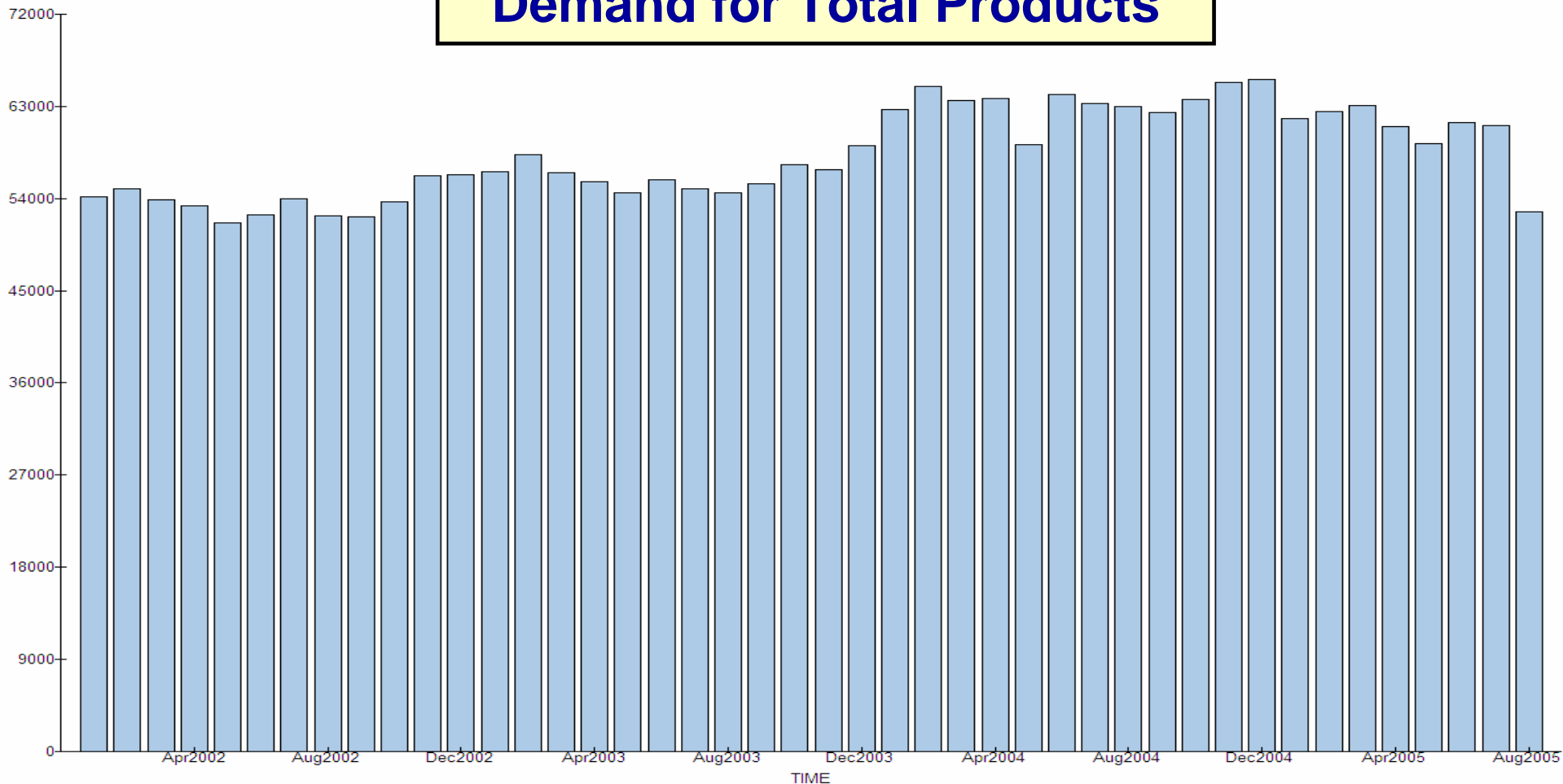


Table: world\_Aug05.ivt - Joint Oil Data Initiative Global data

# THE JOINT OIL DATA INITIATIVE (JODI)



Beyond 20/20 WDS - Table View - Microsoft Internet Explorer

Address: http://www.jodidb.org/IEFS/TableViewer/tableView.aspx

Reports: Joint Oil Data Initiative Global data | Help

Unit - Thousand Barrels (kbb) | Product - Total Products | Balance - Demand

TIME	Mar2004	Apr2004	May2004	Jun2004	Jul2004	Aug2004	Sep2004	Oct2004	Nov2004	Dec2004	Jan2005	Feb2005	Mar2005	Apr2005	May2005	Jun2005	Jul2005	Aug2005
Country																		
Haiti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Honduras	1,304	1,281	1,197	1,248	1,323	1,177	1,180	1,097	1,135	1,014	1,355	912	0	1,545	1,201	0	1,094	0
Hong Kong China	10,199	10,490	9,736	9,330	9,978	9,737	9,818	8,795	10,067	10,087	10,810	8,426	8,513	8,279	9,435	8,322	8,320	8,917
Hungary	3,815	4,343	3,757	3,619	3,982	4,018	4,087	4,388	4,318	4,482	3,758	3,118	4,188	4,128	4,528	4,178	4,627	4,120
Iceland	588	485	533	378	648	1,118	533	518	638	185	653	345	615	283	548	518	688	8
India	75,762	71,505	73,759	69,746	71,116	61,773	67,294	70,736	68,626	78,457	71,314	67,096	77,376	65,649	70,127	68,086	64,537	67,088
Indonesia	34,875	34,388	0	31,178	38,837	36,178	0	37,883	38,818	0	37,820	0	35,650	36,360	37,696	34,290	31,093	0
Iran (Islamic Rep.)	0	36,000	35,588	35,160	33,294	37,262	35,340	35,340	35,700	37,603	38,068	36,960	43,338	35,310	36,828	0	40,424	41,819
Iraq	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ireland	3,884	3,187	4,748	4,417	4,787	4,788	5,191	3,472	4,881	3,678	5,111	3,228	3,848	3,848	3,848	3,848	3,848	5,241
Italy	58,187	52,948	52,948	52,948	52,948	52,948	52,948	52,948	52,948	52,948	52,948	52,948	52,948	52,948	52,948	52,948	52,948	52,948
Jamaica	1,286	1,030	0	0	0	995	1,170	1,204	124	1,145	1,145	0	0	0	0	0	0	0
Japan	183,851	173,755	173,755	173,755	173,755	173,755	173,755	173,755	173,755	173,755	173,755	173,755	173,755	173,755	173,755	173,755	173,755	173,755
Kazakhstan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Korea	78,285	84,525	84,525	84,525	84,525	84,525	84,525	84,525	84,525	84,525	84,525	84,525	84,525	84,525	84,525	84,525	84,525	84,525
Kuwait	6,293	6,630	7,874	8,730	10,230	11,067	8,640	8,928	7,710	8,029	6,820	6,272	7,440	7,620	9,486	10,560	11,377	12,183
Latvia	782	899	719	1,188	704	837	829	1,048	1,024	1,384	1,196	1,298	1,243	1,353	1,306	1,181	1,134	1,212
Libya	6,045	4,680	6,324	6,120	5,983	6,293	5,550	6,634	6,660	6,386	7,533	6,356	7,285	7,080	7,006	6,780	0	0
Lithuania	1,533	1,462	1,564	1,673	1,775	1,947	1,939	1,837	1,697	1,861	1,533	1,548	1,736	1,689	1,775	1,767	1,814	1,986
Luxembourg	2,883	1,895	1,828	1,887	1,985	1,818	1,985	2,883	1,888	2,883	1,818	1,825	2,138	2,828	1,825	1,858	2,828	1,817
Malaysia	15,366	12,780	12,528	16,675	16,436	15,968	16,204	16,634	16,728	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,399
Malta	399	551	647	620	528	657	735	423	637	3	3	3	3	3	3	3	3	0
Mexico	58,438	55,683	58,798	58,628	58,188	55,765	58,288	55,288	58,703	58,703	58,703	58,703	58,703	58,703	58,703	58,703	58,703	58,703
Myanmar	1,168	1,355	1,698	1,557	1,395	942	979	970	956	1,095	1,104	1,797	1,105	985	0	0	0	0
Netherlands	28,842	28,798	28,323	28,188	28,148	28,177	28,188	28,123	28,571	28,442	28,881	27,181	31,881	31,988	31,881	31,198	30,178	31,173
New Zealand	4,988	4,811	4,233	4,862	4,585	4,588	4,278	4,785	4,847	4,577	4,723	4,585	5,123	4,431	4,333	4,485	4,618	4,777
Nicaragua	693	604	597	560	583	587	575	552	595	663	568	557	1,638	571	0	0	0	0
Nigeria	0	0	0	0	0	0	0	8,866	0	0	0	0	0	0	0	0	0	0
Norway	7,871	4,714	6,128	6,418	6,988	5,674	6,946	7,388	7,888	6,437	6,452	6,088	6,855	6,188	6,821	6,822	6,125	5,137

Consult Metadata

Not Assessed

Reasonable levels of comparability



## **Future Outlook of JODI**

- **Continue to promote JODI**
- **Continue to improve the quality of JODI World database and its expansion**
- **JODI training and manual**
- **6<sup>th</sup> JODI Conference -Nov06 Riyadh**

# *CONCLUSION*



- **Transparency of oil data is vital for market stability**
- **Enhanced management of oil data at OPEC**
- **JODI is fundamental for cooperation between producers and consumers**



*Stability in the oil market*