

## Outlook for the World Oil Market and Crude Oil Prices in 2004



# 384<sup>th</sup> Regular Research Meeting

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Dec. 22, 2003

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# Conclusions



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- Many uncertainties are expected in the international oil market in 2004
- Supply and demand fundamentals may soften gradually in the latter part of 2004
- Crude oil (WTI) price trends in 2004 will differ greatly according to developments in major factors, including the Iraqi situation
  - Reference case: \$26–27 (annual average)
  - High price case: \$30–32 (annual average)
  - Low price case: \$20–22 (annual average)
- Wide fluctuation and high volatility are inevitable

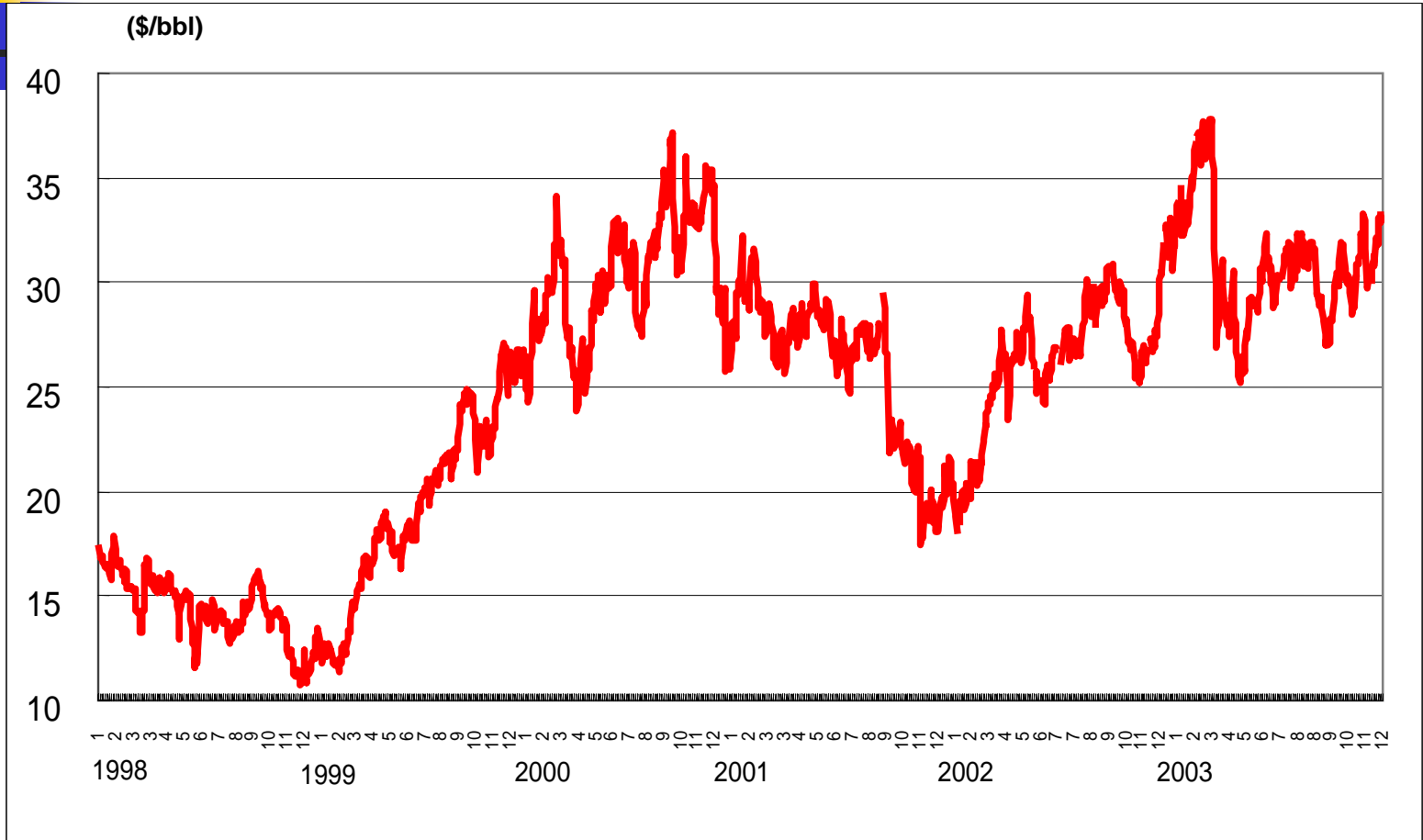
# Structure of this Report



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- World oil market in 2003
  - Recent supply and demand trends in the world oil market and background of high crude oil prices in 2003
  
- Outlook for the world oil market and crude oil prices in 2004
  - Major factors that influence supply and demand trends
  - Three cases concerning crude oil prices

# Trend of WTI Crude Oil Futures Prices



(Source: Prepared by IEEJ from NYMEX data)

# Special Factors in World Oil Market in 2003



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## ■ Supply side

- Disturbance in supply due to the war in Iraq
- Disturbance in supply in Venezuela, Nigeria, and other countries
- Delayed return of Iraq to the oil market

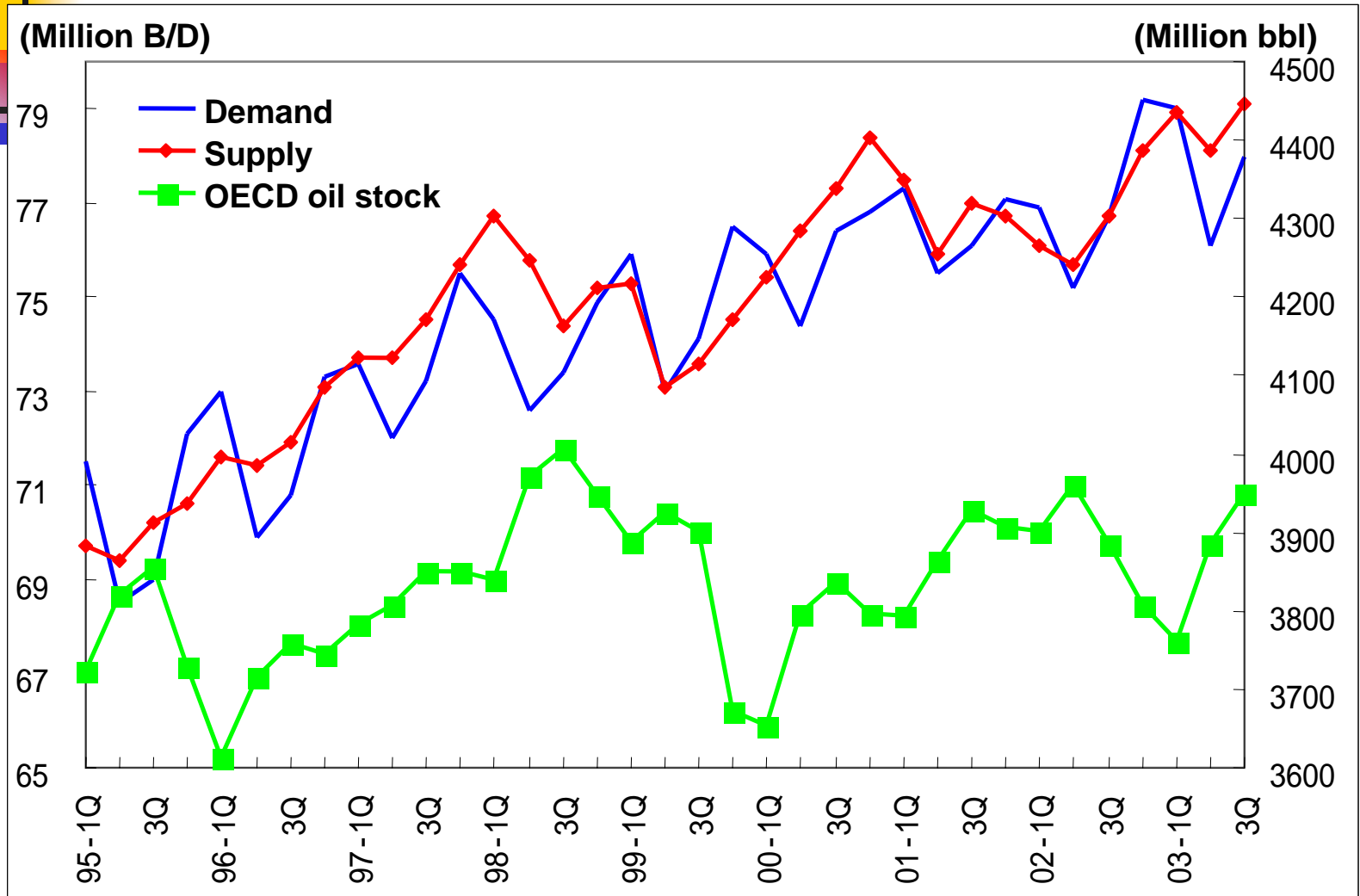
## ■ Demand side

- Severe winter
- Stock build (especially in Asia) to prepare for the war in Iraq
- Shut down of nuclear power generation in Japan

## ■ Other

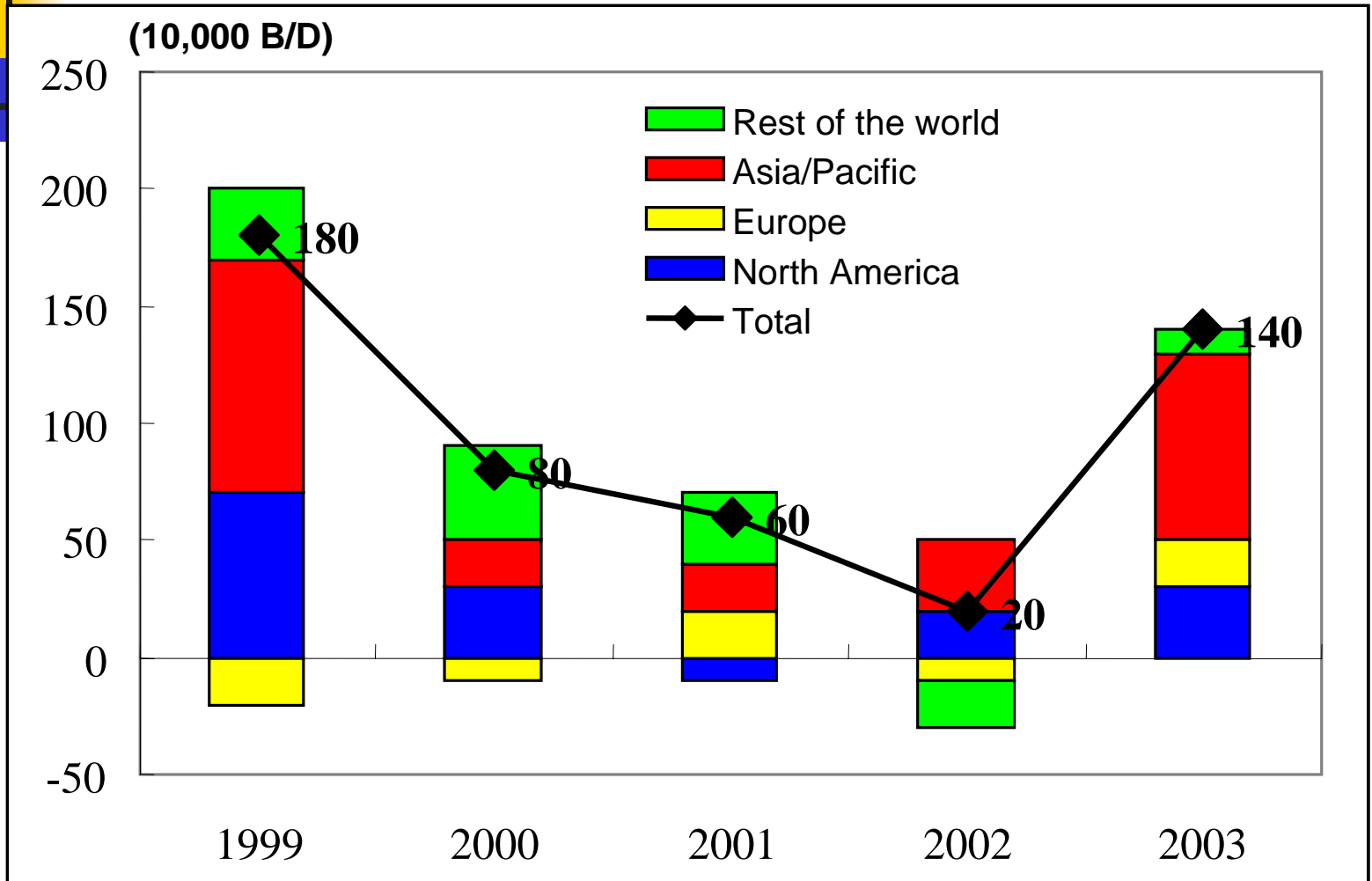
- Basically continued low stock situation
- Deterioration of security in Iraq and concerns over the expansion of terrorism
- Elevated natural gas prices in the U.S.

# Trends of World Oil Supply and Demand Balance



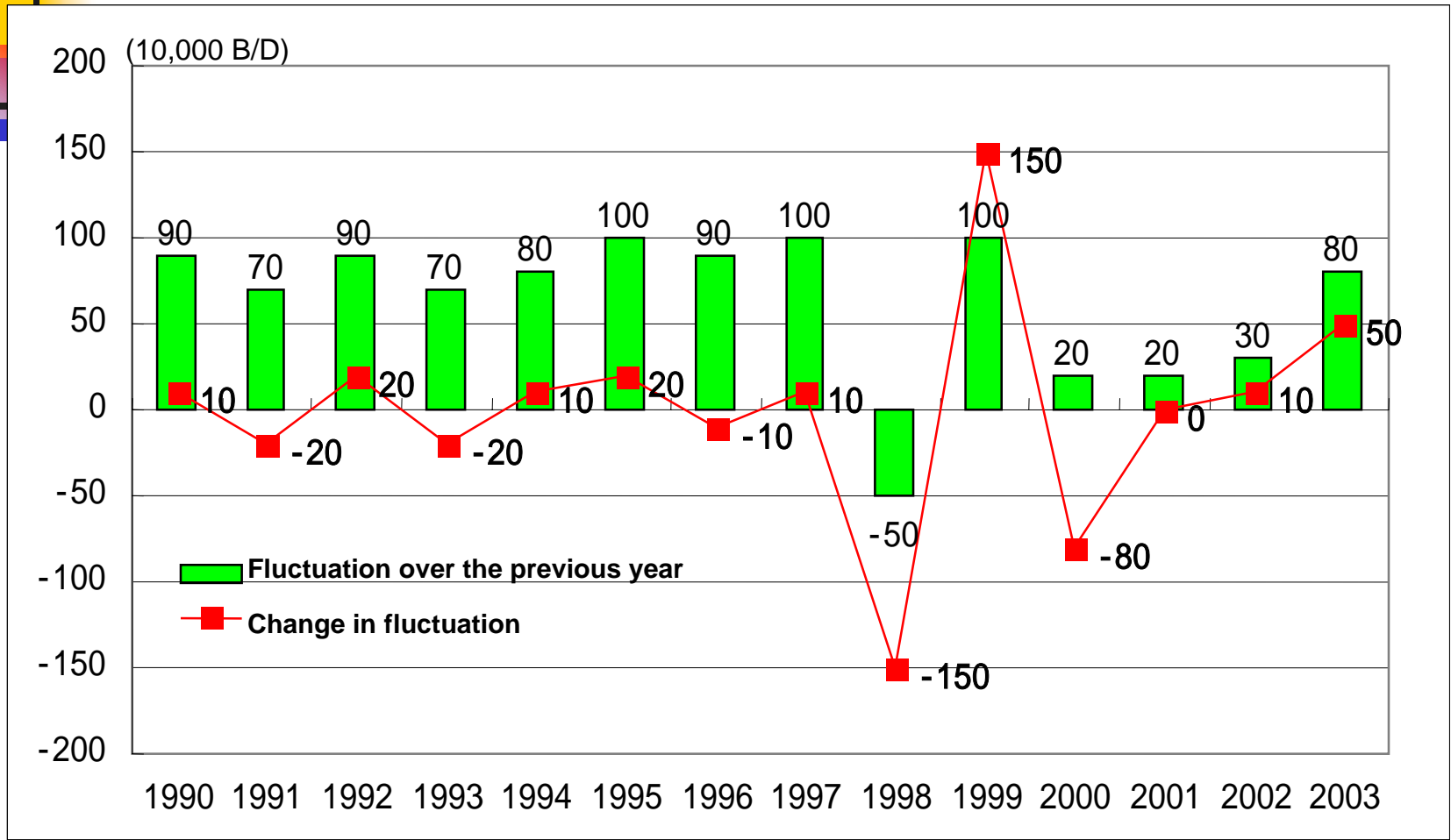
(Source: Prepared by IEEJ from IEA, "Oil Market Report")

# Trend of Oil Demand Growth by World Region



(Source: Prepared from IEA, "Oil Market Report")

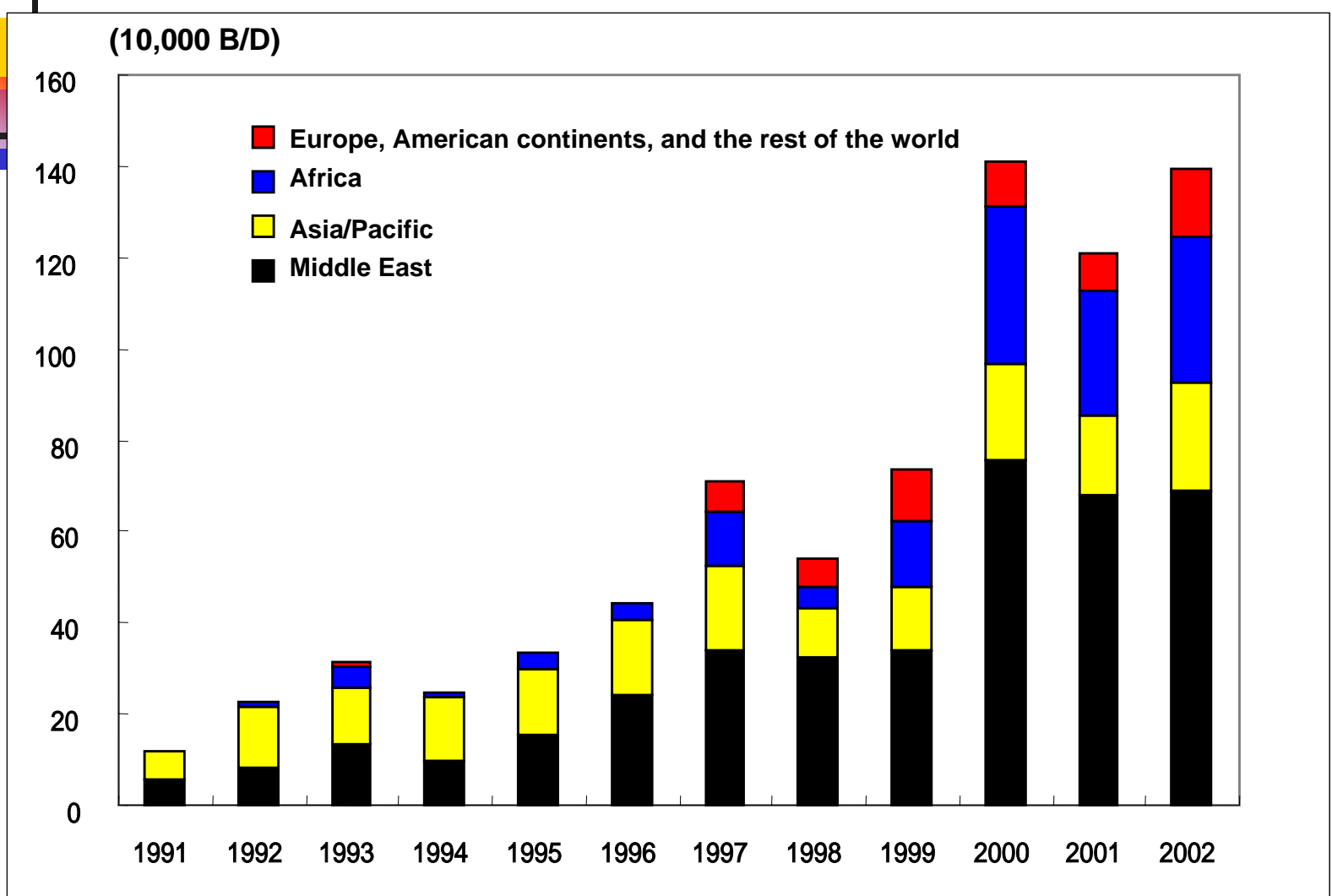
# Fluctuations and Changes in Asian Oil Demand



(Source: Prepared from IEA, "Oil Market Report")

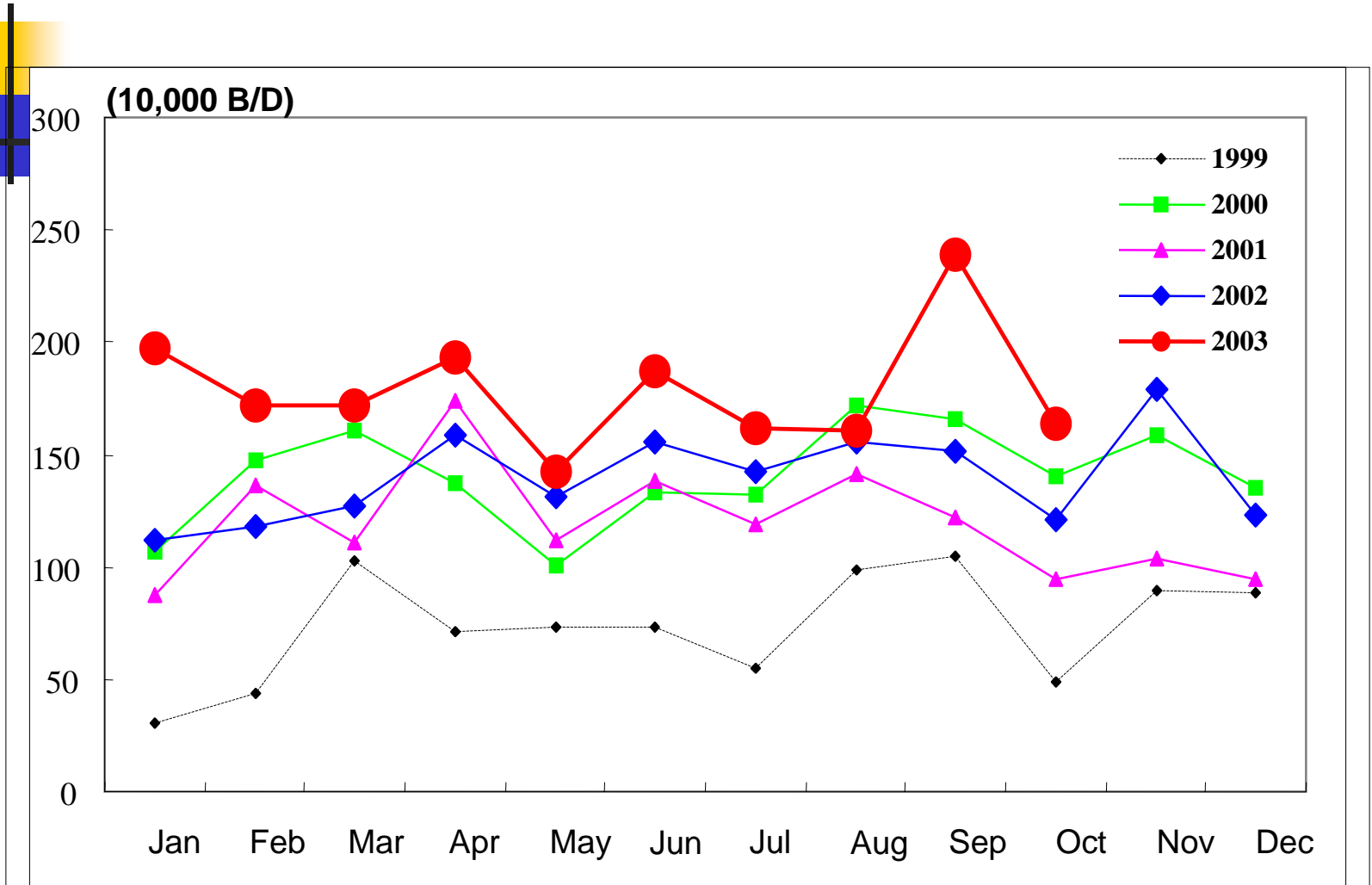


# Chinese Crude Oil Import Trends



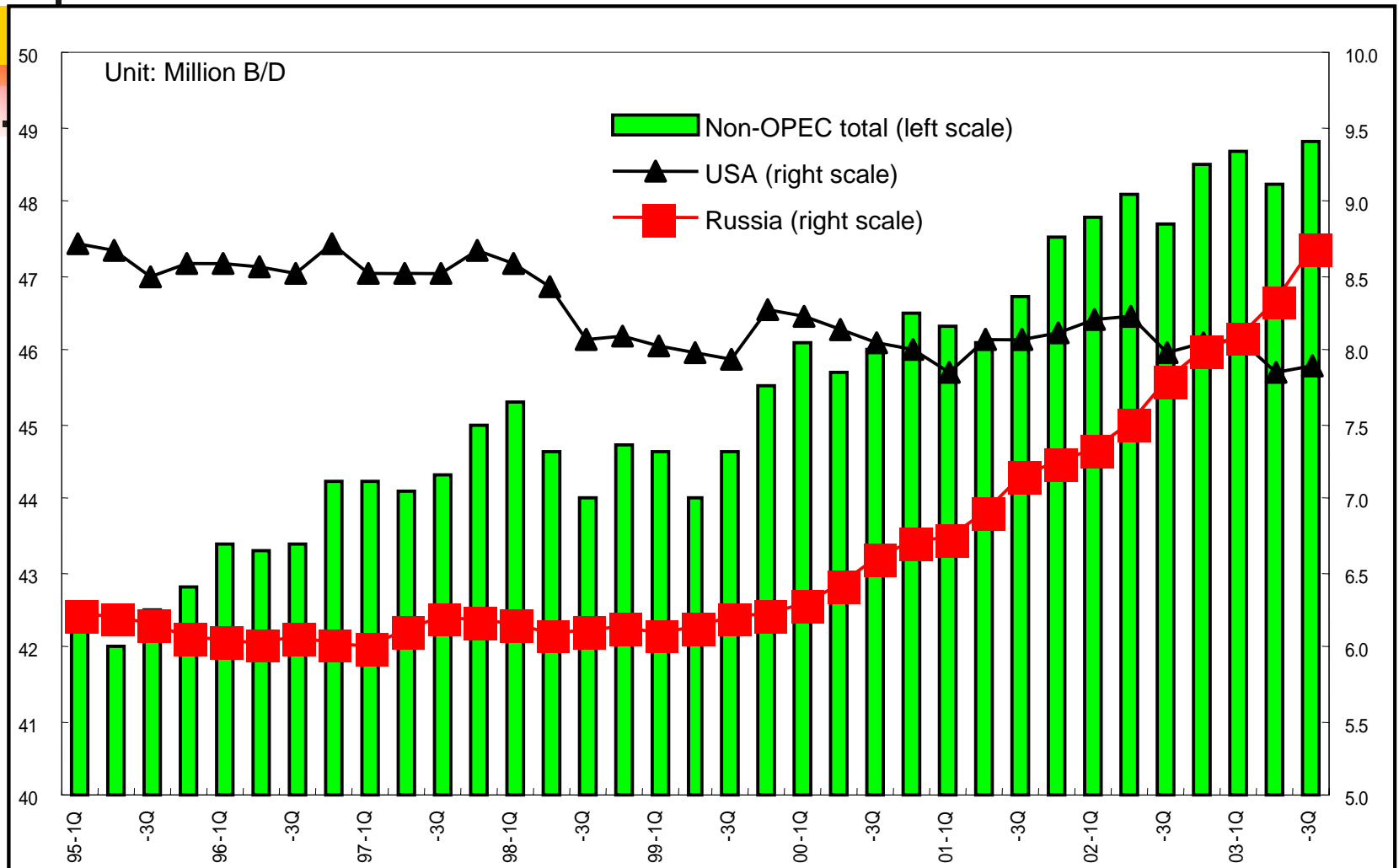
(Source: Prepared from the China Customs Statistics)

# China's Crude Oil Import Trends (on a monthly basis)



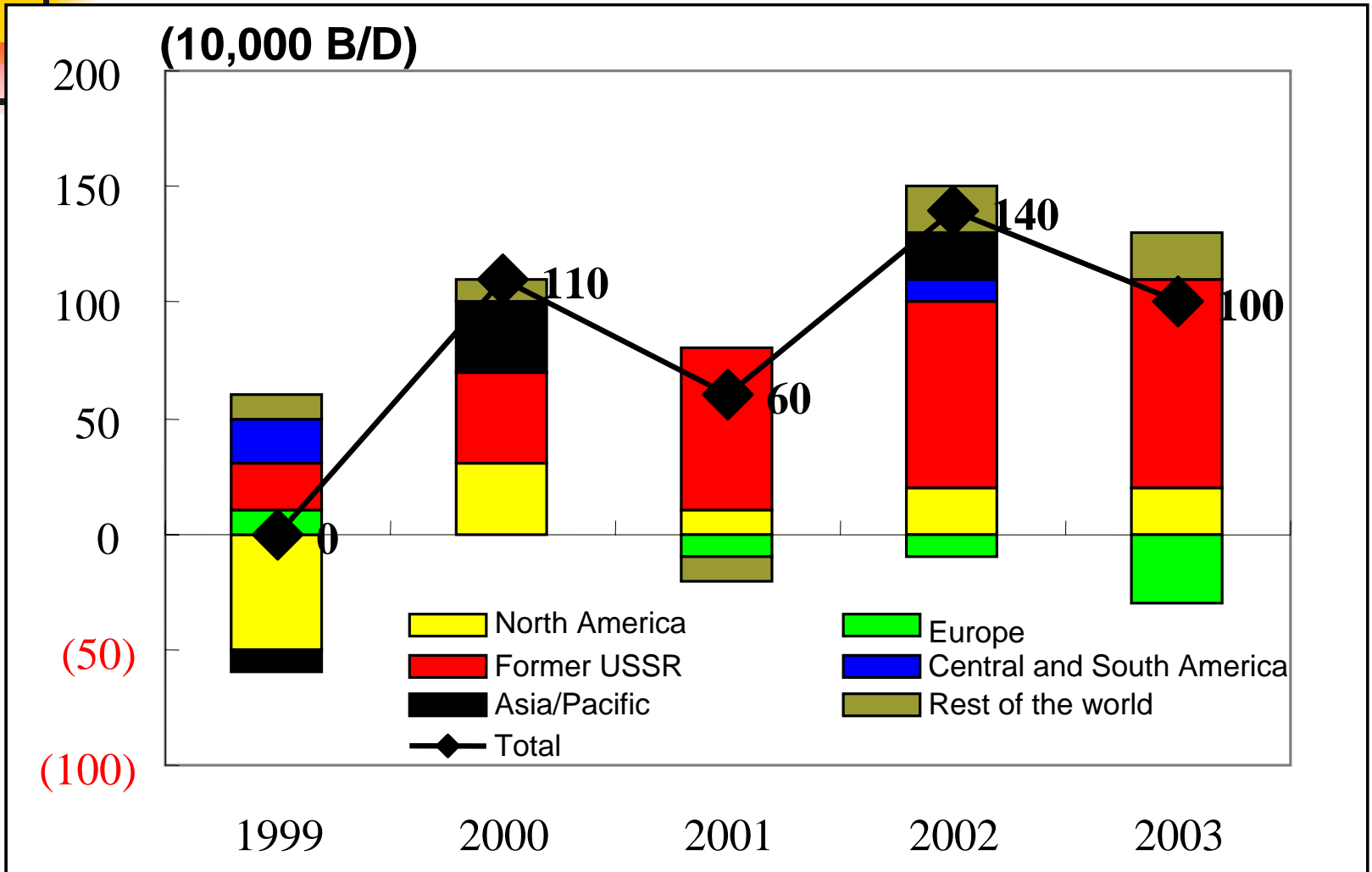
(Source: Prepared from the China Customs Statistics)

# Non-OPEC Oil Production Trends



(Source: Prepared from IEA, "Oil Market Report")

# Trends in Non-OPEC Oil Production Increases by Region



(Source: Prepared from IEA, "Oil Market Report")

# OPEC Production Policies After 2000

**Mar. 2000, in the 109th general meeting, decided to increase production quotas by 1.452 million B/D, excluding Iran (in real terms, it means an increase of 1.716 million B/D including Iran).**

**Concluded an agreement on the target price (US \$22–28) and production adjustment (price band) system.**

**Jun. 2000, in the 110th general meeting, decided to increase production quotas (by 0.78 million B/D).**

**Sep. 2000, in the 111th general meeting, decided to increase production quotas (by 0.8 million B/D).**

**Oct. 31, 2000, based on the price band system, decided to increase production by 0.5 million B/D.**

**Jan. 17, 2001, in the 113th general meeting, decided to cut production by 1.5 million B/D.**

**Mar. 16-17, 2001, in the 114th general meeting, decided to cut production by 1 million B/D.**

**Jul. 25, 2001, member countries agreed and decided to cut production by 1 million B/D.**

**Nov. 14, 2001, in the 118th general meeting, decided to cut production by 1.5 million B/D on the assumption of production cuts of 0.5 million B/D by non-OPEC countries.**

**Dec. 2002, in the 122nd general meeting, decided to increase production quotas (by 1.3 million B/D).**

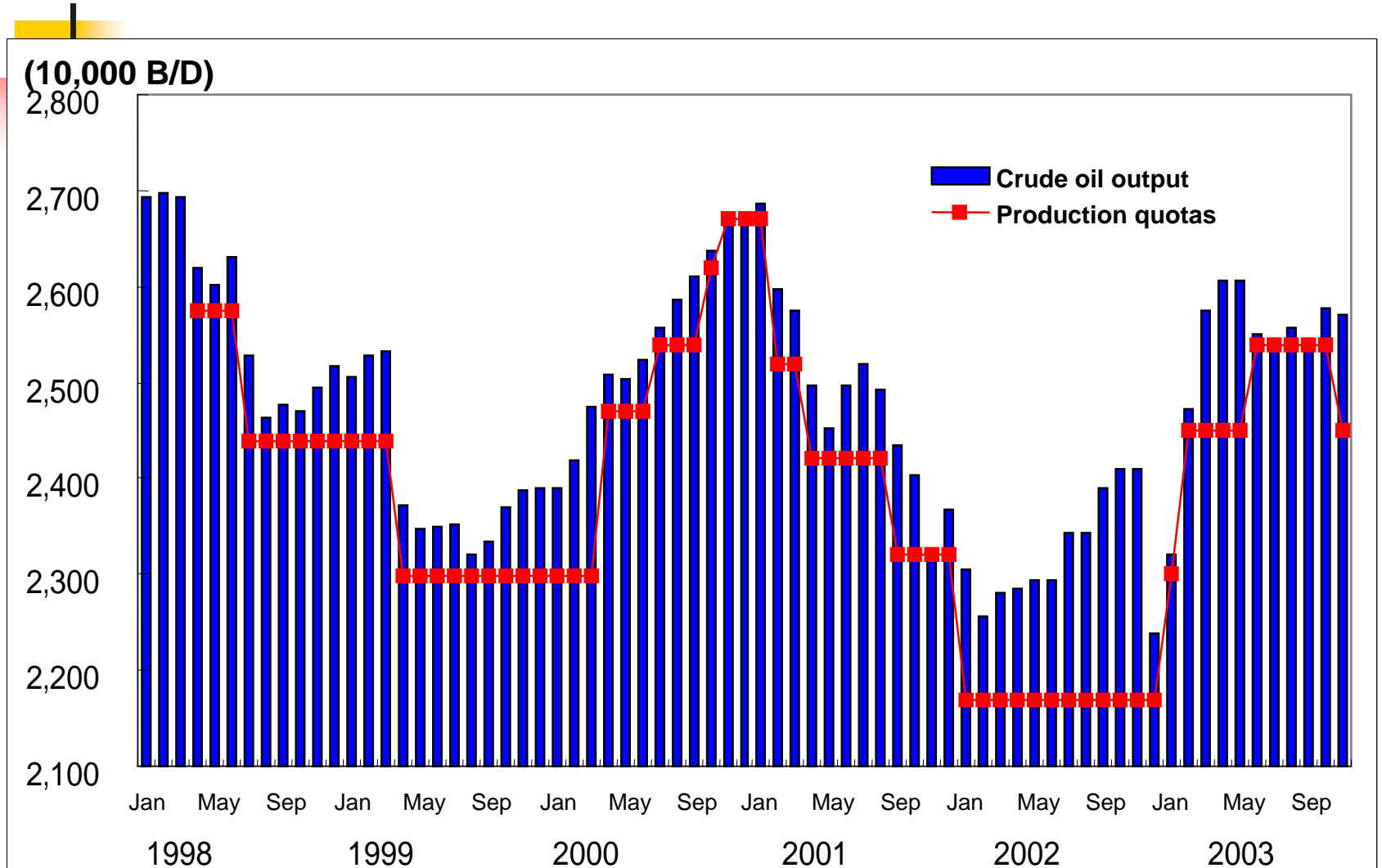
**Jan. 2003, in the 123rd general meeting, decided to increase production quotas (by 1.5 million B/D).**

**Apr. 2003, in a cabinet-level meeting, decided to increase production quotas (by 0.9 million B/D).**

**Sep. 2003, in the 127th general meeting, decided to cut production quotas (by 0.9 million B/D).**

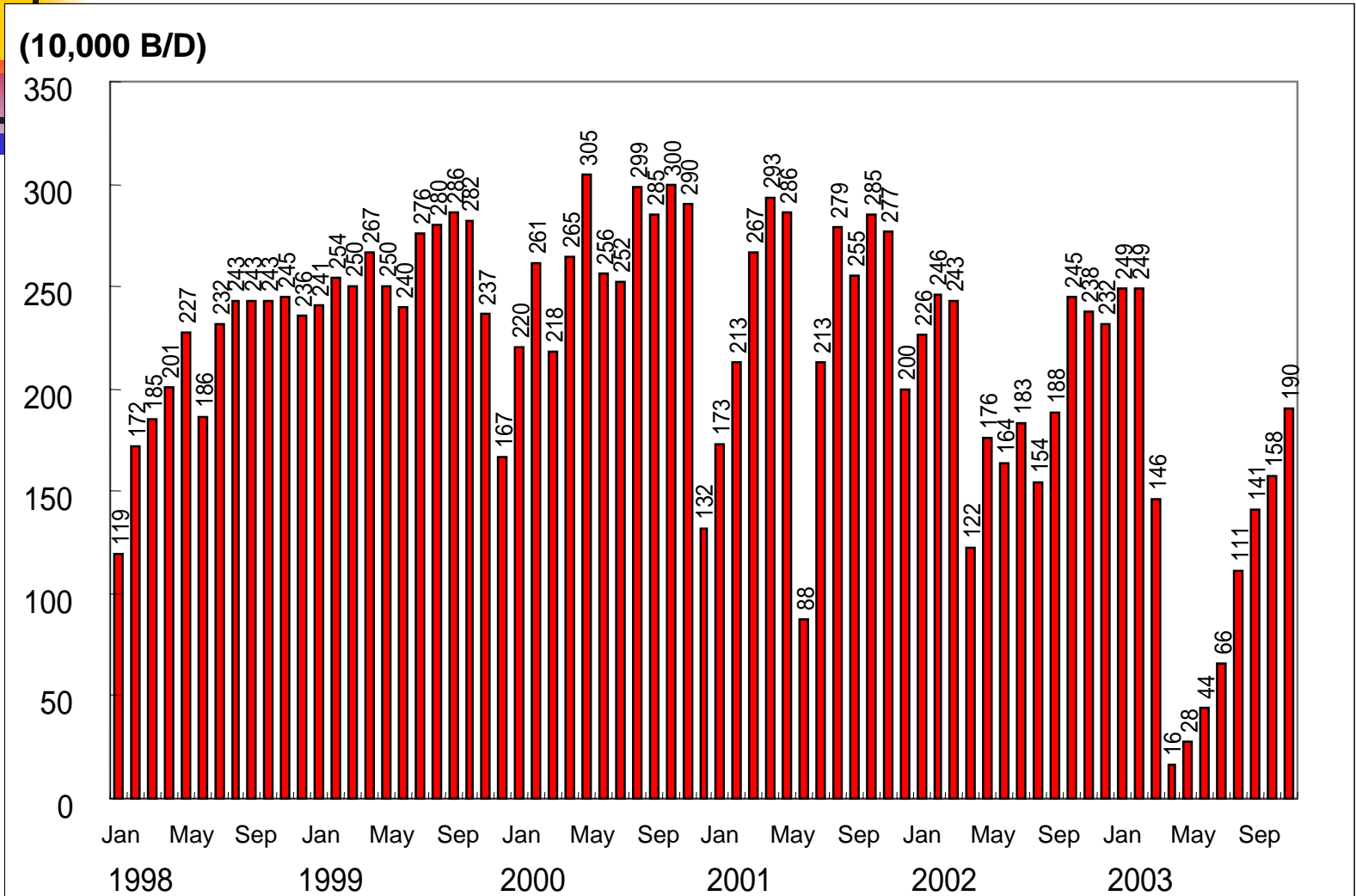
(Source: Prepared by the author)

# Production Adjustment Records by OPEC 10



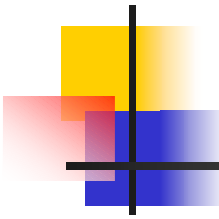
(Source: Prepared from IEA, "Oil Market Report")

# Iraqi Oil Production Trends



(Source: Prepared from IEA, "Oil Market Report")

# Recent Iraqi Situation

- 
- Deterioration of security, increase and expansion of terrorism
    - Frequent occurrence of terror attacks against the U.S. military (number of casualties is well over the number killed during the six-week war)
    - Expansion of the terrorist scope and targets
      - August: Terror bombing at a U.N. office and Shia leader
      - November: Terror attacks on the Italian military HQ at Nasiriyah
      - November: Two Japanese diplomats were killed
    - Expanding, systematic terrorism and increase of victims
  - Movements toward reconstruction and stabilization
    - October: U.N. resolution requesting reinforcement of international involvement for the stabilization of Iraq (1511); International Donors' Conference on Reconstruction of Iraq (US \$33 billion pledged)
    - November: U.S. changed policy to front-load the restoration of Iraqi sovereignty
    - U.S. military began cleanup operations against armed groups (terrorist forces)
  - Dec. 13: Ex-president Saddam Hussein was captured
  - Oil production recovered to 1.9 million B/D as of November (1.55 B/D for export, all via the Basra terminal, most of which is from the oil field in the south)



# OPEC Crude Oil Production Status

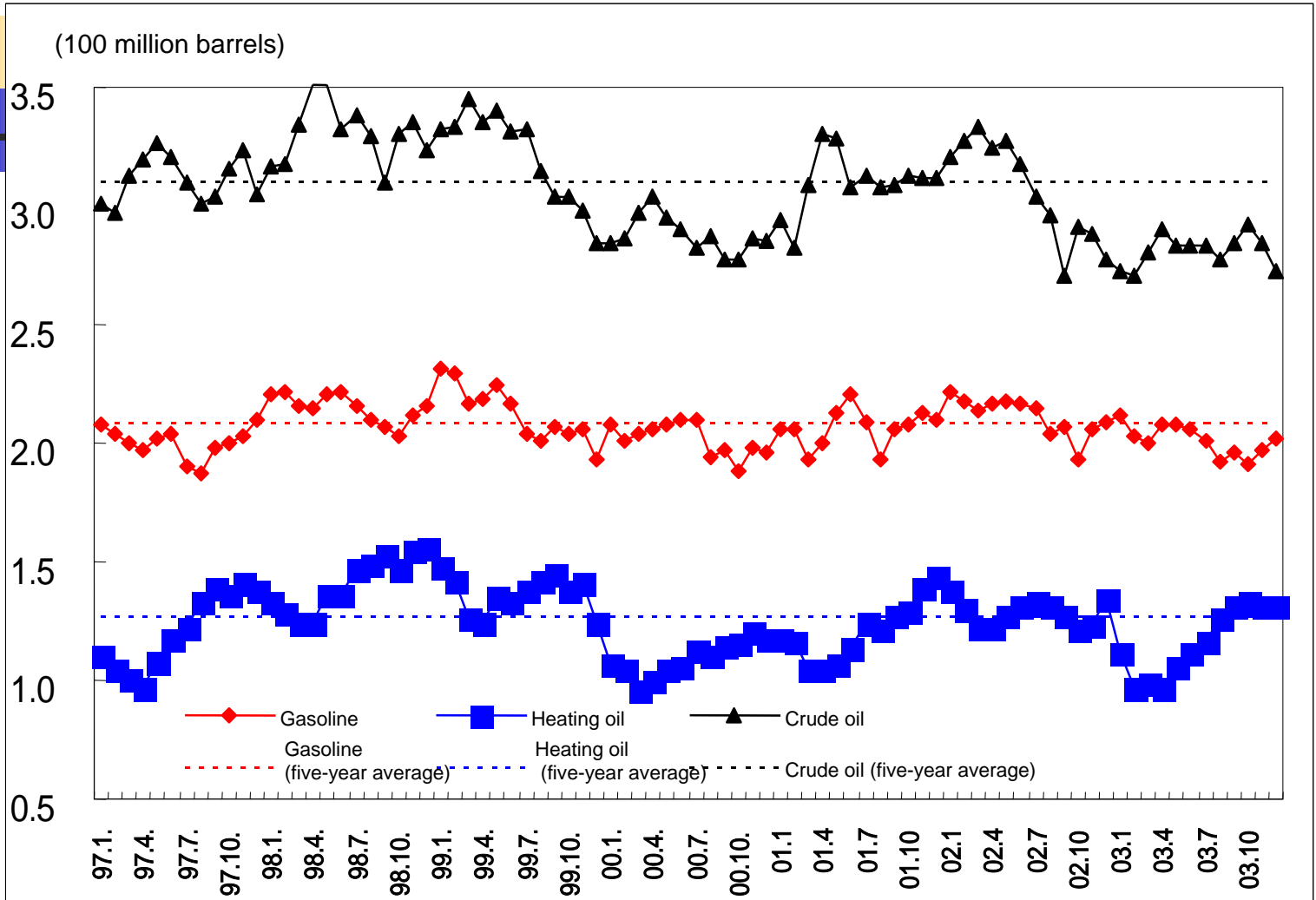
	Crude oil production capacity (1,000 B/D) (A)	'03/11 output (1,000 B/D) (B)	Excess capacity (1,000 B/D) (A) - (B)	Production quotas (since '03/11) (1,000 B/D)	Overproduction above quotas (1,000 B/D)
Algeria	1,200	1,150	50	780	370
Indonesia	1,100	1,000	100	1,270	(270)
Iran	3,850	3,850	0	3,600	250
Iraq	2,800	1,900	900		
Kuwait	2,300	2,290	10	1,970	320
Libya	1,500	1,450	50	1,310	140
Nigeria	2,500	2,270	230	2,020	250
Qatar	800	740	60	640	100
Saudi Arabia	9,500	8,500	1,000	7,960	540
UAE	2,400	2,240	160	2,140	100
Venezuela	2,350	2,220	130	2,820	(600)
<b>Total</b>	<b>30,300</b>	<b>27,600</b>	<b>2,700</b>	<b>24,500</b>	<b>1,200</b>
OPEC10 (excluding Iraq)	27,500	25,700	1,800		
OPEC9(excluding Iraq and Venezuela)	25,150	23,480	1,670		

(Source: Prepared by IEEJ from IEA, "Oil Market Report")

# Decisions of the 128<sup>th</sup> OPEC General Meeting and Future Outlook

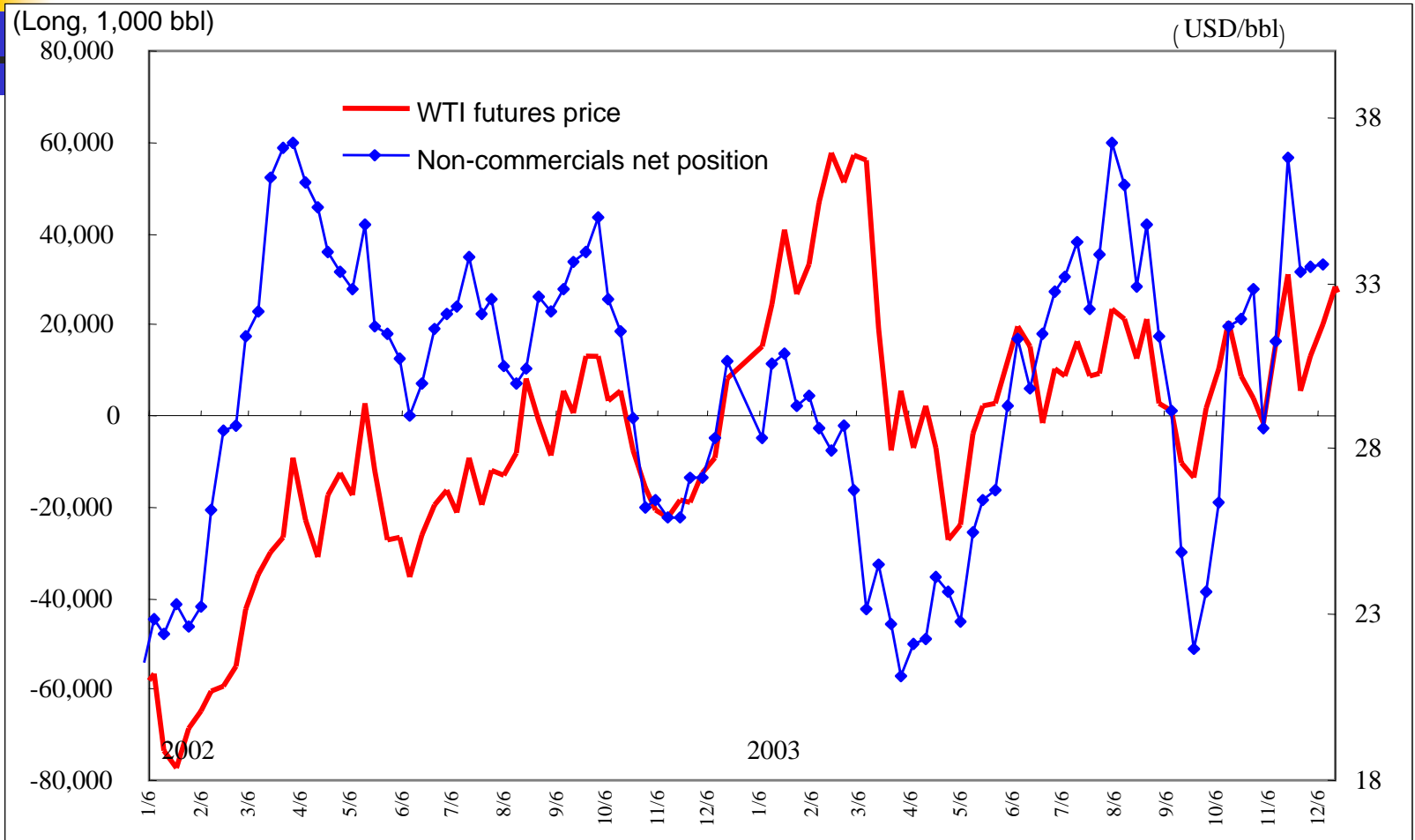
- Decided to keep existing quotas (24.5 million B/D)
- Presented the determination to monitor market status (recovery of Iraqi production, stocks, prices) and respond (production decrease)
- Decided to hold an extraordinary general meeting in Feb. 2004 (and an ordinary general meeting in March and an extraordinary general meeting in June)
  - Considerable decline in the scale of production may be inevitable at the next general meeting
  - Continued high crude oil prices      Concern over the future softening of supply and demand
  - Additional concerns exist over the decline in market share because of the production increases of non-OPEC countries
  - Possibility of a production increase by Iraq, and some member countries are concerned

# US Oil Stock Trends (Private Stocks)



(Source: Prepared by IEEJ from EIA publications)

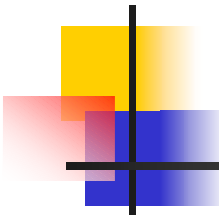
# Trading of Non-Commercials and WTI Futures Prices



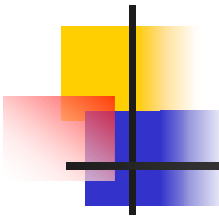
(Short, 1,000 bbl)

(Source: Prepared by IEEJ from NYMEX and CFTC publications)

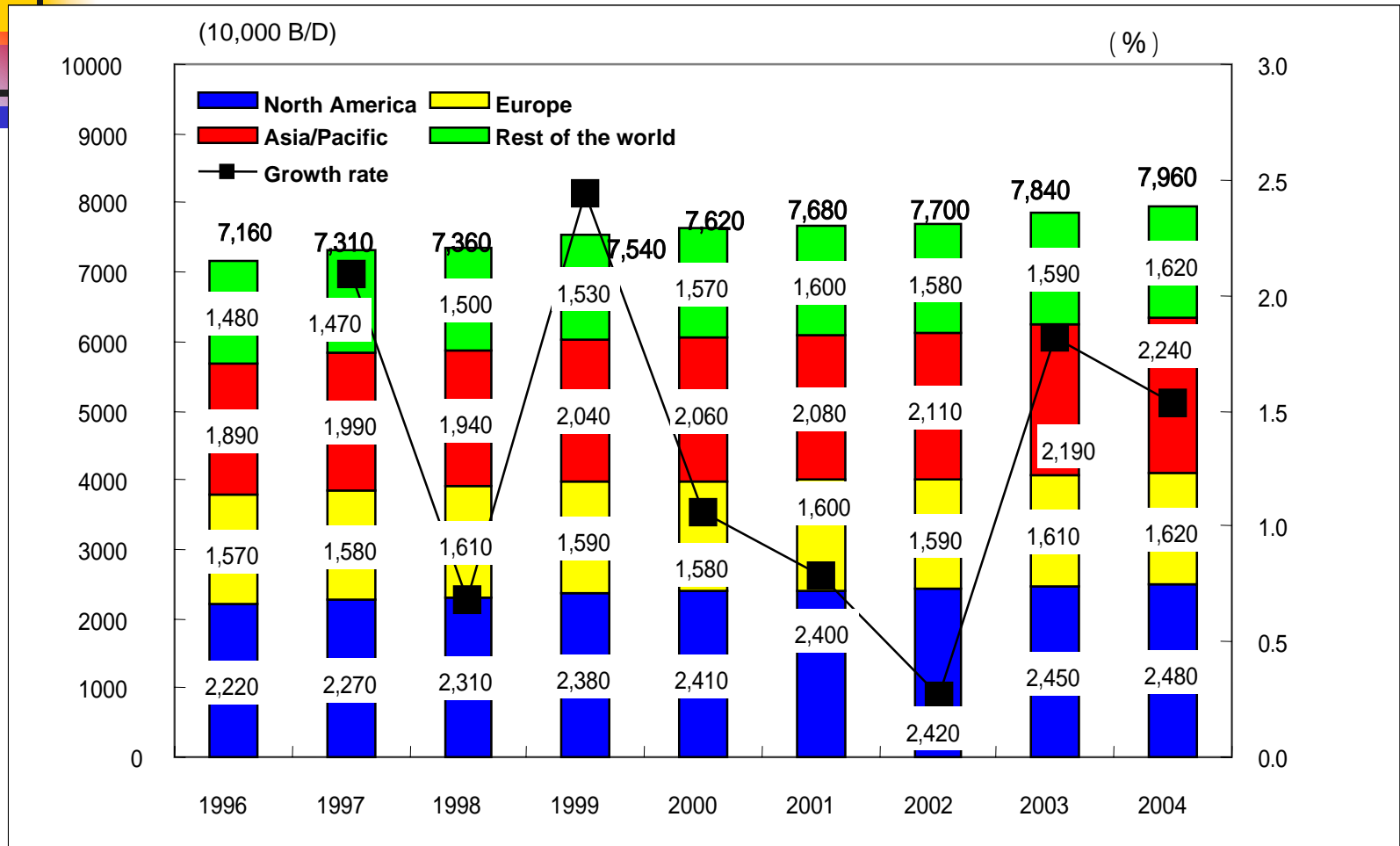
# Major Factors That Will Influence the World Oil Market in 2004

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- Future developments in Iraq and its oil production and export
  - Increase in oil demand throughout the world
  - Trend of increasing production by non-OPEC countries
  - Possibility of occurrence of (or concern over) supply disturbance in major oil producing countries, including Venezuela and Nigeria, etc.
  - OPEC's responses to the above major factors or market status

# Points Regarding Iraqi Production and Export Trends

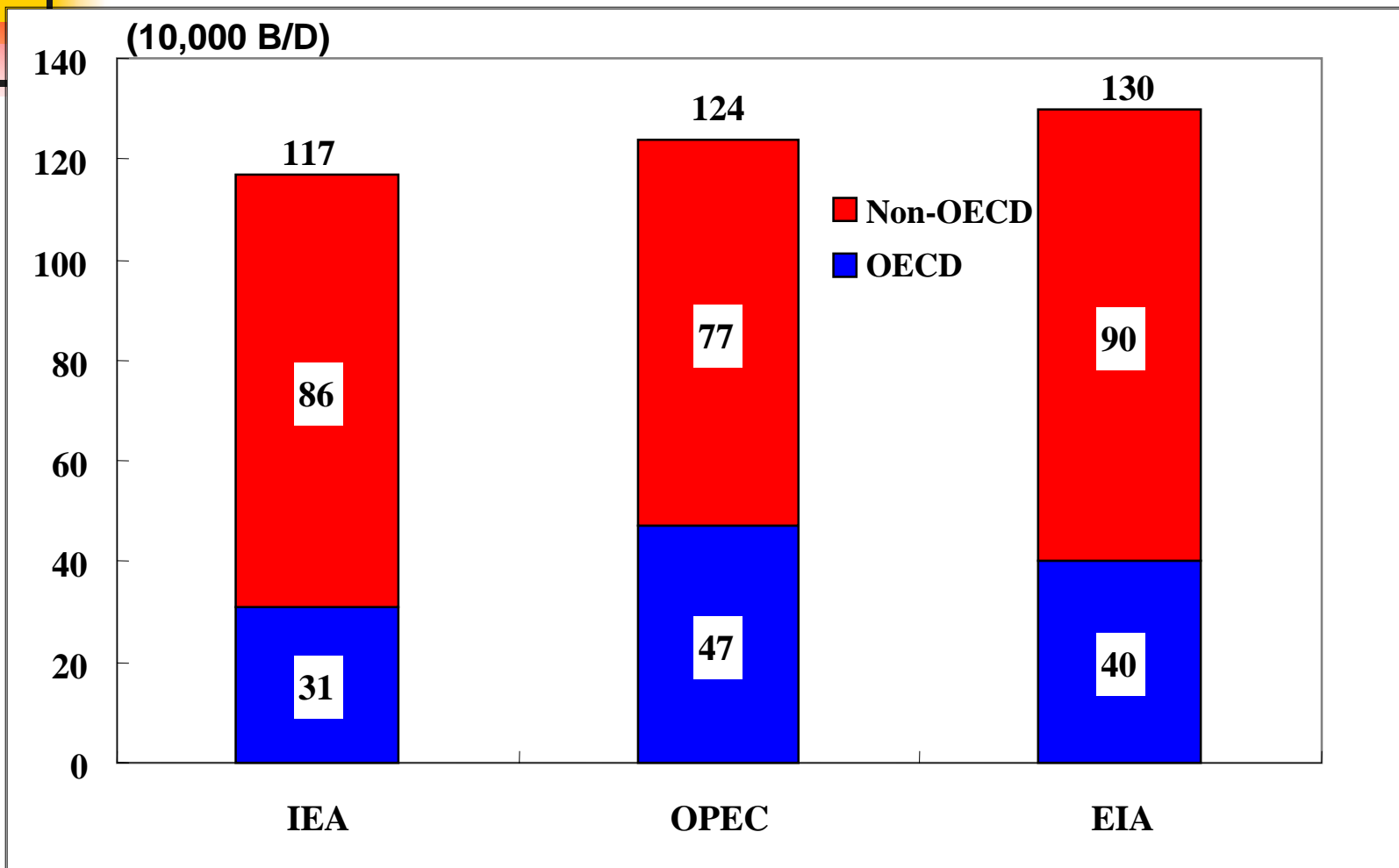
- 
- Production targets of Iraqi oil authorities were 2.3 million B/D by the end of 2003 and 2.8 million B/D by the end of 1Q/2004.
  - Key points for expansion of production and export
    - Restoration of public order (security)
    - Construction of export infrastructure
      - The capacity of the existing export route (Basra terminal) is around 1.6 million B/D at full production.
      - Possibility of resuming the operation of the Khor-Al-Amaya terminal (about 0.4-0.7 million B/D); possibility of resuming operation of the pipeline to Turkey (around 0.4 million B/D 0.8 million B/D).
    - Importance of oil field management and investment for maintaining and expanding production
      - Major production is in the southern area; northern area only produces 0.2 million B/D.
      - Though the oil fields in the north have spare capacity, production increases require securing of an export route.
      - Concerns exist over the adverse effect of the sharp rise in production in the last several months.
    - Securing of the investment for the mid- to long-term expansion of production capacity

# Short-Term Outlook for World Oil Demand (IEA)



(Source: Prepared by IEA, "Oil Market Report")

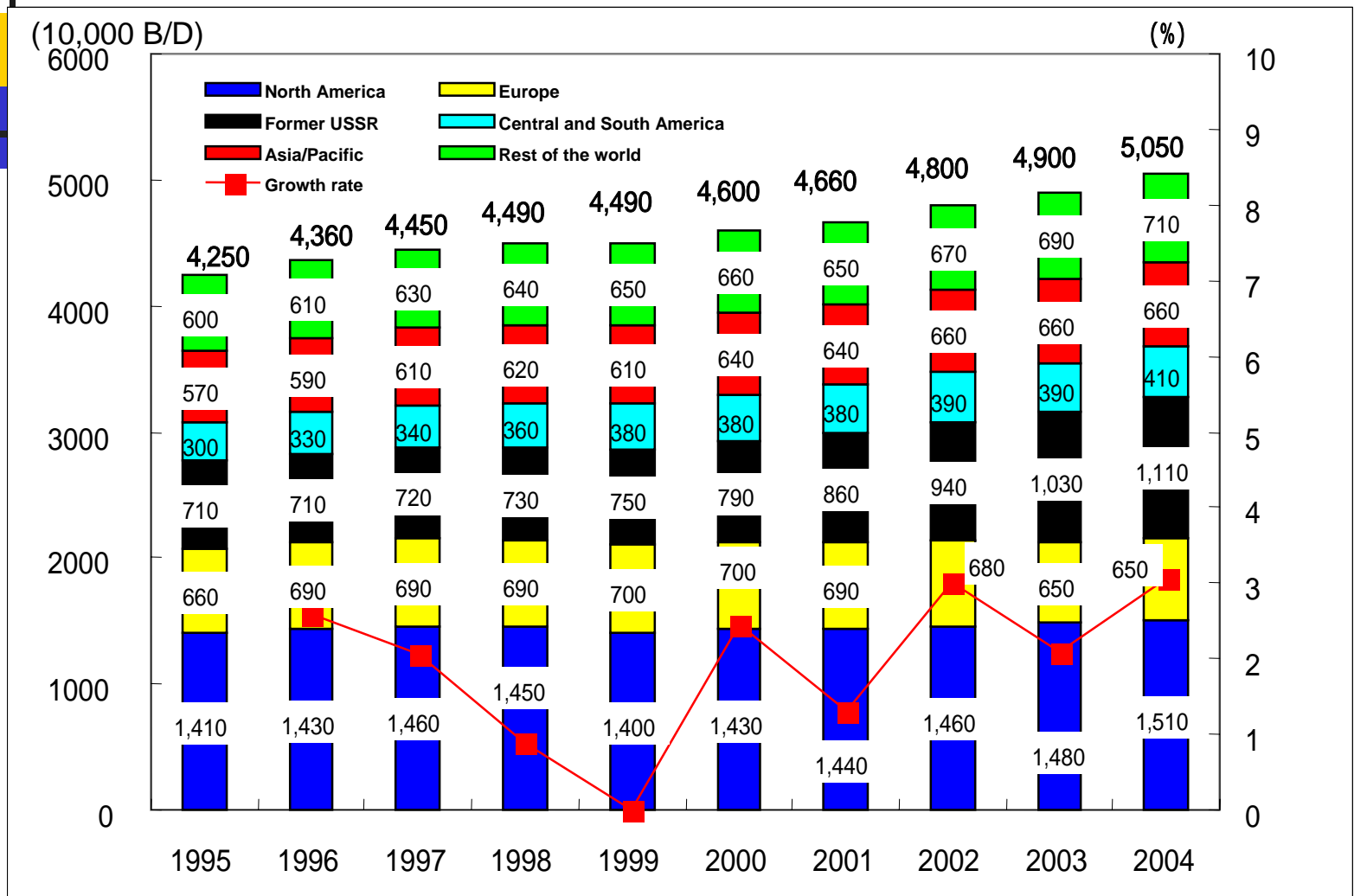
# Comparison of Outlook for Increase in Oil Demand During 2004



(Source: Prepared by IEEJ from IEA, OPEC, and EIA publications)

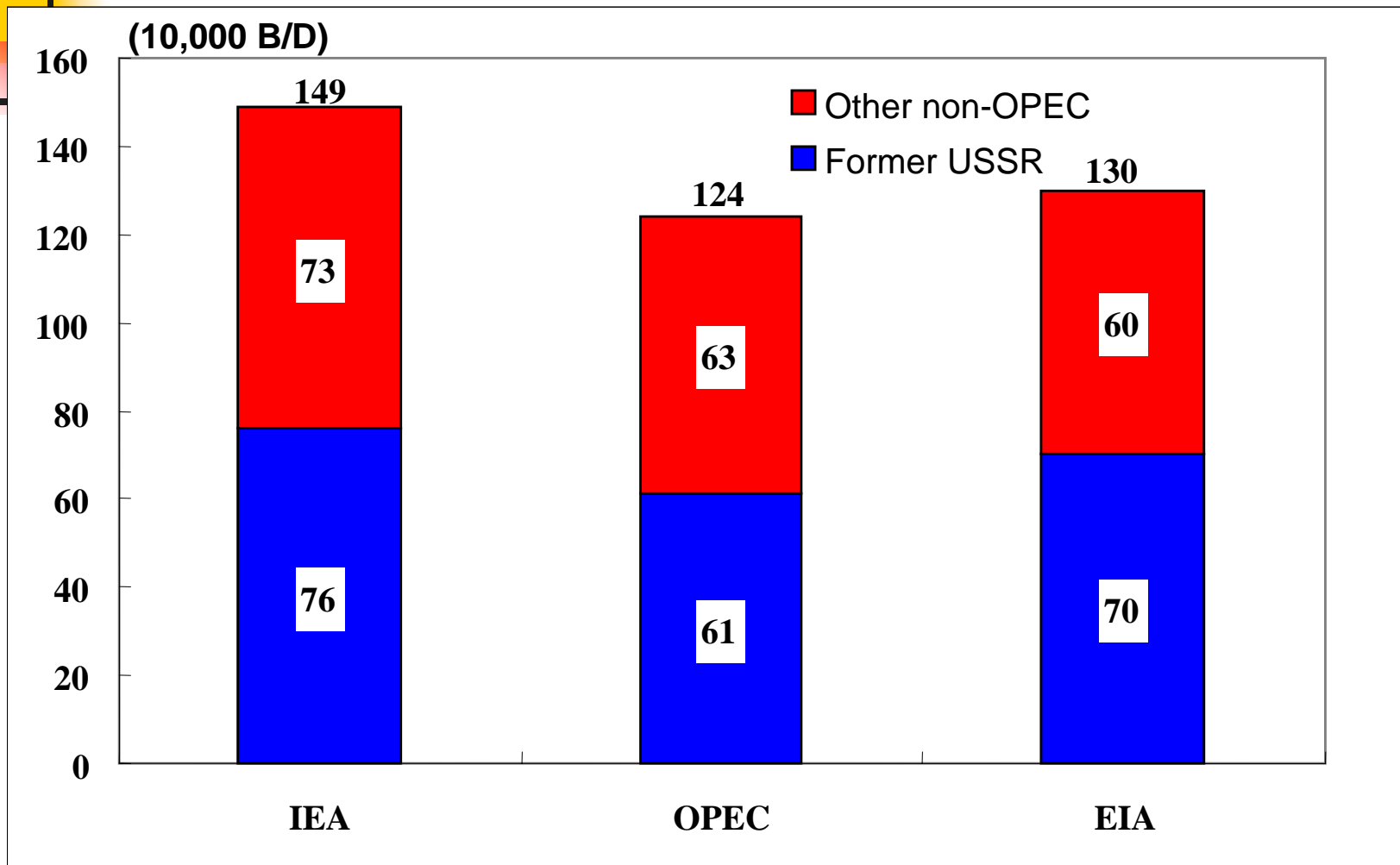


# Non-OPEC Oil Production Outlook (IEA)



(Source: Prepared by IEEJ from IEA, "Oil Market Report")

# Comparison of Outlook for Non-OPEC Production Increase in 2004



(Source: Prepared by IEEJ from IEA, OPEC, and EIA publications)

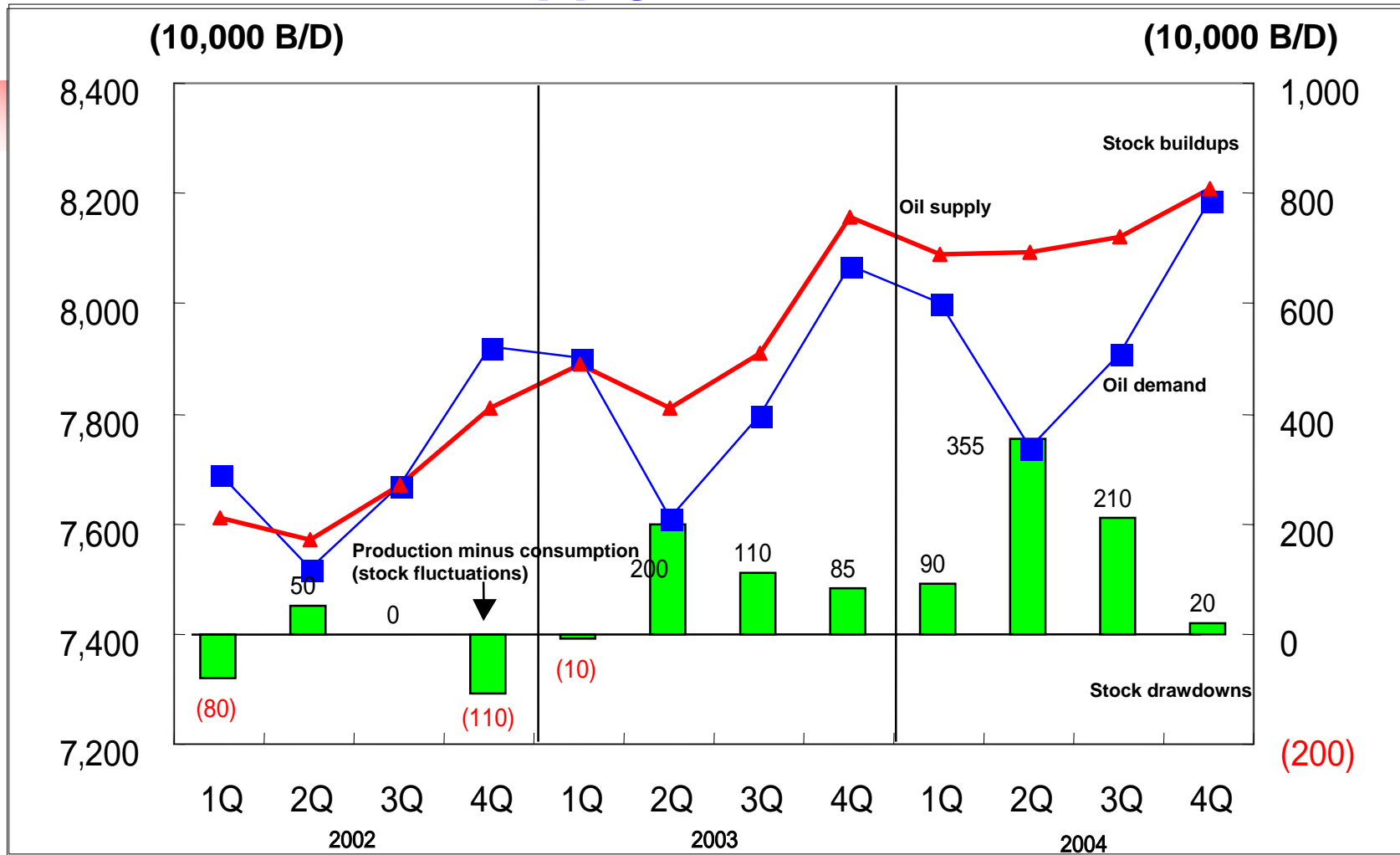
# OPEC 10 Responses as a Key Element



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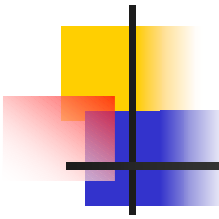
- **The necessity for large-scale production cuts (particularly 2Q) was recognized.**
- **Member countries other than Venezuela and Indonesia continuously exceed their production quotas.**
- **Africa OPEC members are on a production increase trend based on capacity reinforcement.**
- **Dissatisfaction with the “free ride” by non-OPEC countries and OPEC’s decline in market share.**
- **Responses and leadership by Saudi Arabia are being put to the test.**
- **Cooperation with non-OPEC countries (particularly Russia) is being examined.**

# Short-Term Outlook for Balance in Oil Supply and Demand



Note: Iraqi production estimated at a 1.85 million B/D for 4Q/2003 and 0.1-0.15 million B/D per quarter thereafter; OPEC 10 production estimated at 24.5 million B/D after Dec. 2003. (Source: Up to 2003/3Q taken from IEA, "Oil Market Report." Thereafter, forecast by the author.)

# Reference Case of the World Oil Market in 2004

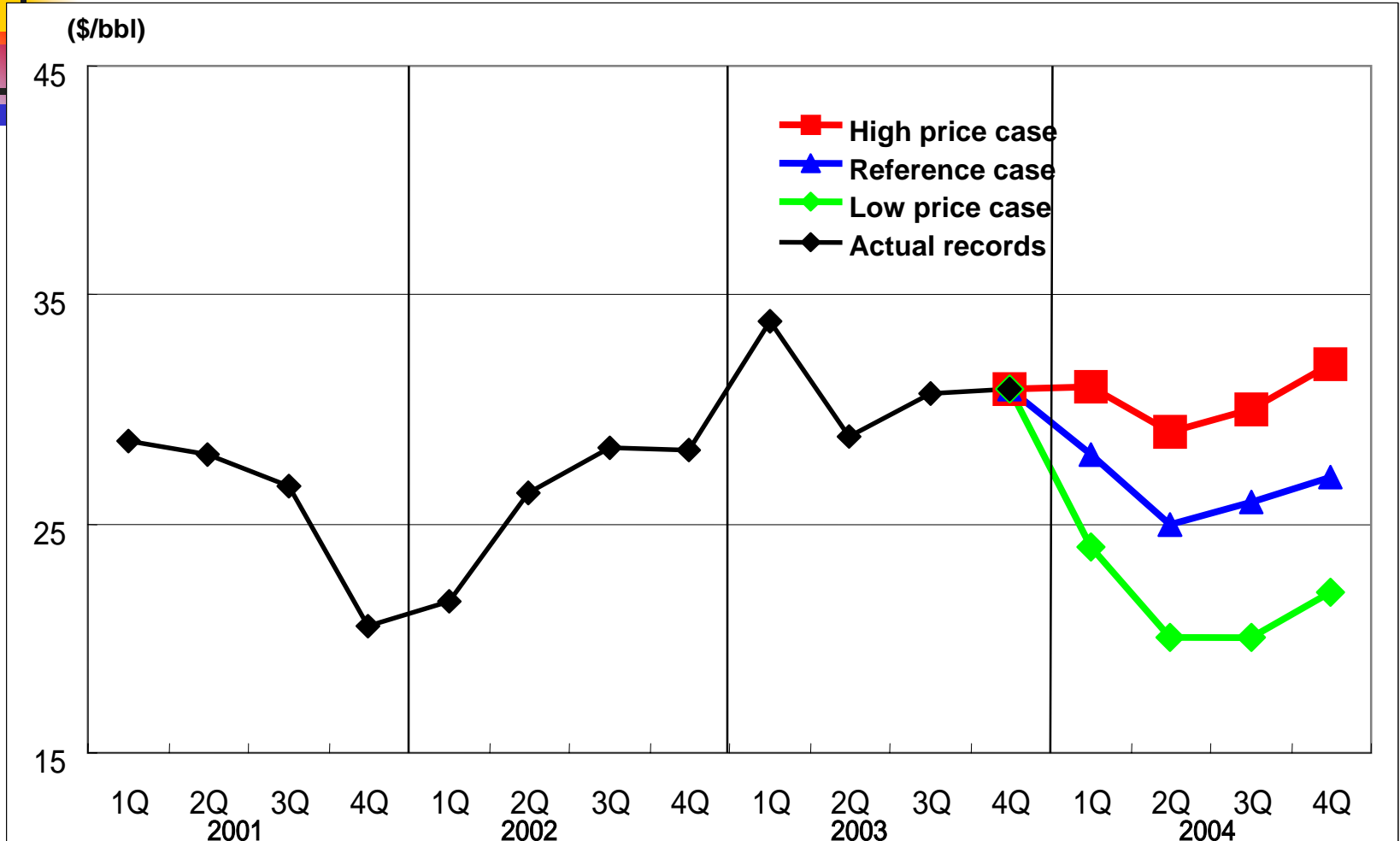
- 
- Basic idea (presumption)
    - Production in Iraq gradually increases from 1.9 million B/D to 2.5 million B/D by the end of 2004.
    - The world's oil demand in 2004 increases by around 1.2 million over the previous year.
    - The production by non-OPEC countries in 2004 increases by around 1.3 million B/D over the previous year.
    - No serious disturbance occurs in any major oil producing countries.
  
  - Results
    - The world oil market in 2004 resumes the gradually softening trend in supply and demand.
    - Significant amount of excess supply is possible, especially in 2Q.
    - OPEC aims to accelerate production cuts, but it becomes more difficult due to (1) the trend for continuous production increases in some countries, and (2) dissatisfaction with the decline in market share from their unilateral approach.
    - Downward pressure is applied on crude oil prices. Prices drop around 2Q; the WTI annual average is around \$26-27 per barrel.

# High Price Case and Low Price Case



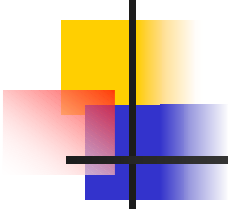
- High price case
  - Production in Iraq remains almost the same through 2004 (no production increase).
  - Production disturbances in some major oil producing countries.
  - Demand for OPEC oil increases more than expected.
  - The balance of supply and demand in the world market does not relax + risk premium occurs.
  - Crude oil prices remain high; the WTI annual average price in 2004 is around \$30-32.
  
- Low price case
  - Production in Iraq recovers much faster than expected and totals 2.5 million B/D by the first half of 2004.
  - No disturbances in any major oil producing countries.
  - Demand for OPEC oil lower than expected.
  - The world oil market in 2004 makes its way toward significant softening.
  - The discipline and cooperation among OPEC members on production cuts disintegrates and causes a significant drop in crude oil prices; the WTI annual average price in 2004 drops to around \$20-22.

# Crude Oil Price Trends by Scenario



(Source: Prepared by IEEJ)

# What Will Crude Oil Prices Be From Now On?

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- The prices in the present world oil market remain high due to unstable geopolitical factors and the influence of the expectation for a recovery in demand, low stocks, and elevated natural gas prices in the U.S.
  - From 2004 onward, the fundamentals may soften gradually.
  - Responses of OPEC 10 (particularly Saudi Arabia) form the key element.
  - However, it is (the psychology of) the futures market that actually determines prices.
  - Influence of market psychology on unstable geopolitical factors cannot be ignored.
  - Depending on future developments in Iraq, market/price scenarios provide quite different pictures.
  - High volatility appears inevitable from the interaction of the Iraqi situation, fundamentals, and market psychology.