# Multilateral Use of Strategic Stocks: Can We Do Better?

Sarah A. Emerson
Energy Security Analysis, Inc

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# The Entire Tank of OECD Oil Inventories

**(million barrels)***

| | Crude Oil | Petroleum Products | Total |
|---|---|---|---|
| **Industry** | 1200[#] | 1410 | 2610 |
| **Government** | 1210 | 220 | 1430 |
| | | | **4 billion barrels** |

***Approximate stock levels by end 2004, based on IEA data and ESAI estimates**

**# Includes NGLs and other refinery feedstocks**

# Organizing the Countries into categories

| Who Holds the Stocks | | | |
|---|---|---|---|
| | industry | govt | total |
| | mm bbls | mm bbls | mm bbls |
| Small stockholders | 61 | 39 | 100 |
| Large Stockholders | 831 | 709 | 1,540 |
| Company Only Stocks | 408 | | 408 |
| Net exporters | 348 | 8 | 356 |
| US Domestic | 967 | 675 | 1,642 |
| | | | |
| Total | 2,615 | 1,431 | 4046 |

| Industry Stock Available in an Emergency | | | | | |
|---|---|---|---|---|---|
| | Industry Stocks | Product Demand | Days of Sales | "Extra" Days | Available volume |
| | mm bbls | 000 b/d | | >40 | mm bbls |
| Small stockholders | 61 | 1,155 | 53 | 13 | 15 |
| Large Stockholders | 831 | 15,143 | 55 | 15 | 225 |
| Company Only Stocks | 408 | 6,038 | 68 | 28 | 166 |
| Net exporters | 348 | 6,526 | 53 | 13 | 87 |
| US Domestic | 967 | 20,488 | 47 | 7 | 147 |
| | - | | | | |
| Total | 2,615 | 49,350 | 53 | 13 | 641 |

# The Two Biggest Crises Since the Arab Oil Embargo and Creation of IEP

- Iranian Revolution: supply allocation was not triggered because stocks at sea and alternative supplies made up the lost production and import trigger never activated
  - Prices stayed high as consumers stocked up due to concerns about the region
  - Under fixed prices the rising stocks did not dampen prices
  - Global economic growth fell to 1.1% by 1982

- Gulf war: policymakers waited 6 months to draw strategic stocks. Alternative supplies made up the disruption
  - Prices stayed high in the meantime over concerns about the region
  - Futures market backwardation discouraged stockbuilding and reinforced high prices
  - Global economic growth fell to 1.6% in 1991

# Reform Underway in the Meantime

- Original System:
  - Import trigger
  - Fixed prices
  - Major oil company control
  - Volume replacement
- Current System:
  - Supply trigger
  - Market prices
  - Many companies and traders
  - Price mitigation
  - Collaborate with Producers

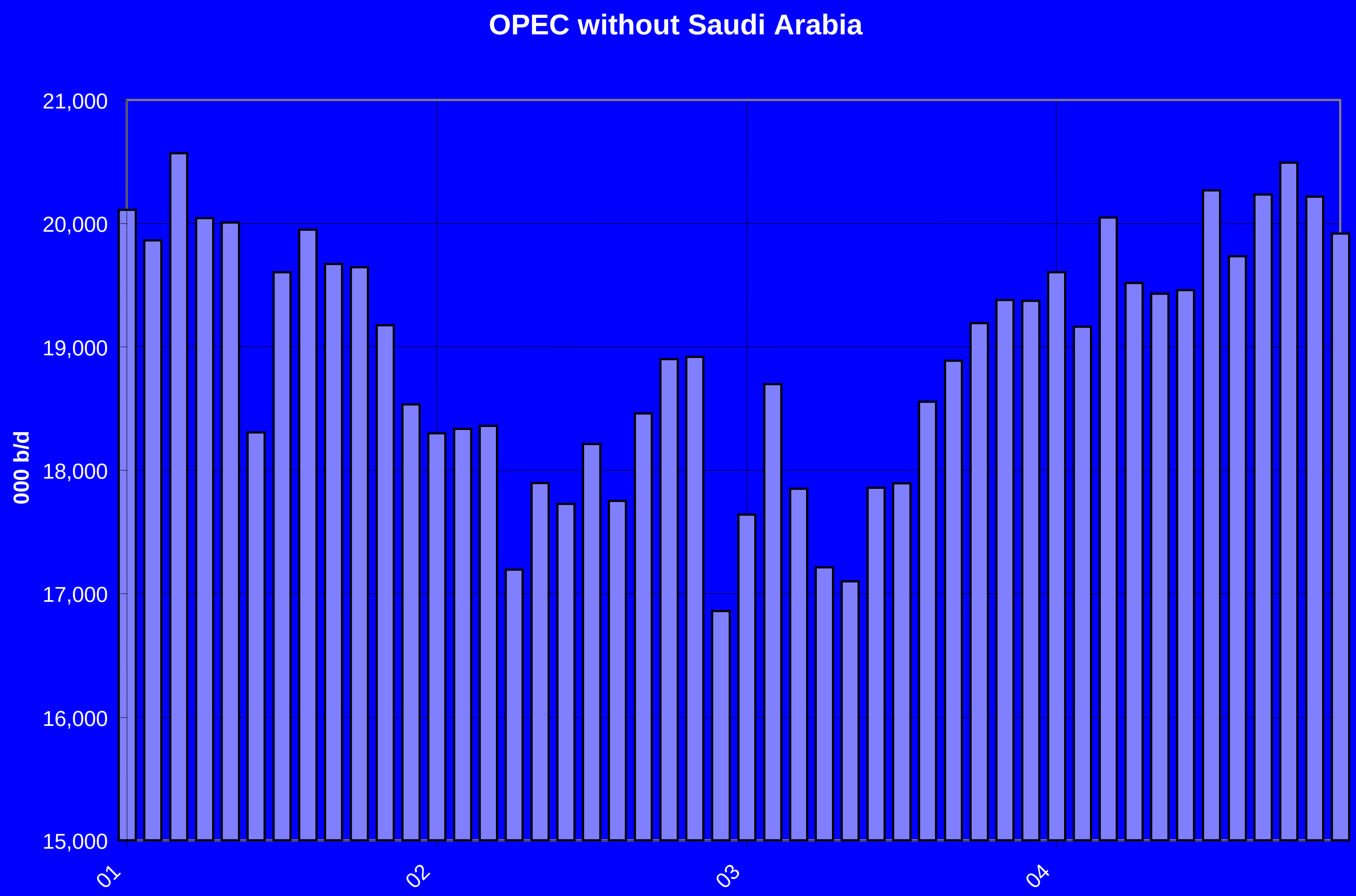
**Market Forces are Part of the Solution**

# Price Mechanism Complicates Market Intervention

- Prices may be left alone to reallocate supplies after a disruption, but high prices must be endured during the interim and/or alternative supplies may not be forthcoming

- Strategic reserves may be used to replace volumes lost in a disruption, but price mechanism may be short-circuited in a manner that prevents efficient allocation of resources, leaving high prices at end of supply chain

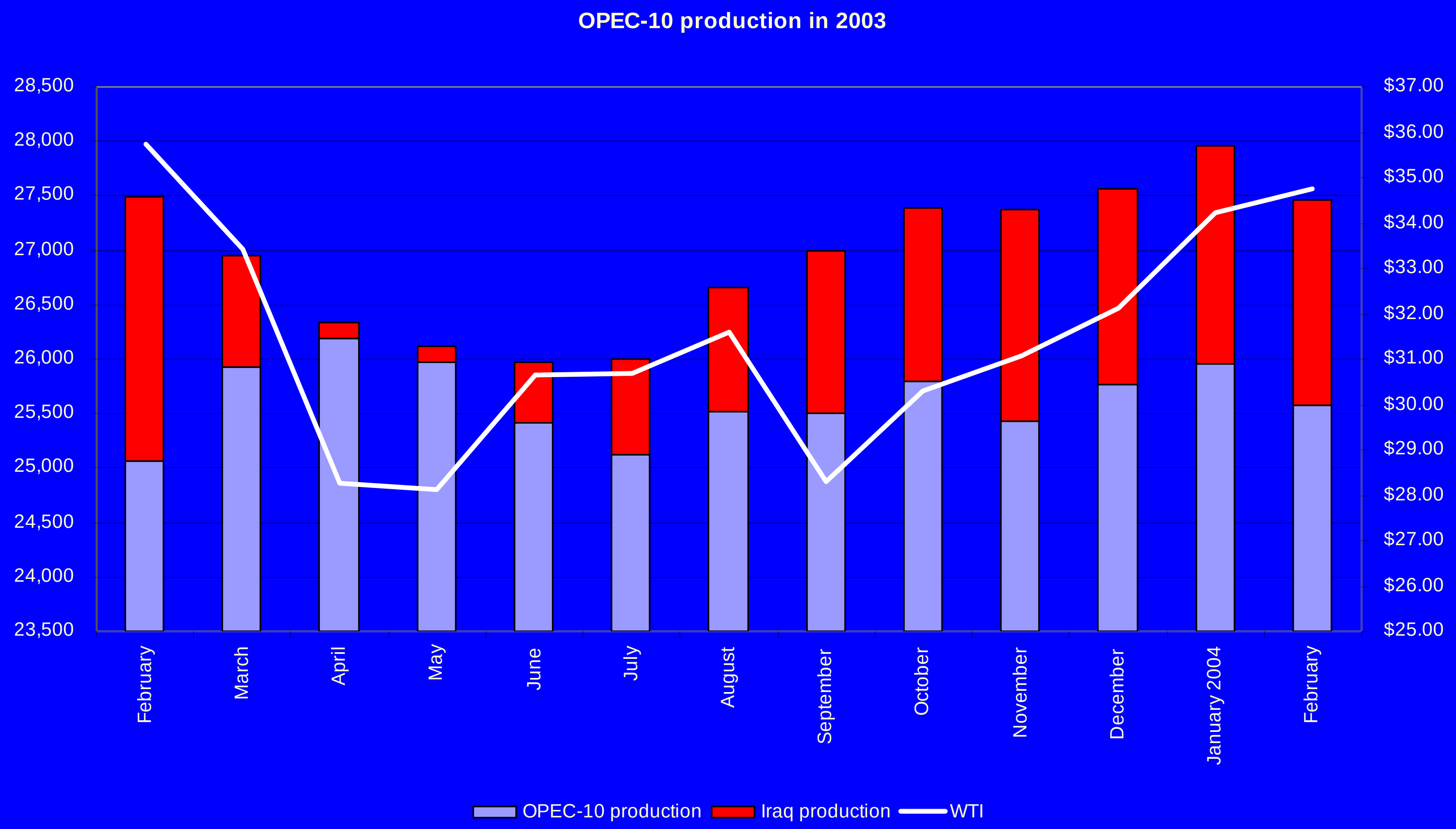
# 2002-2003 Crisis?



# Alternative Supplies and Producer-Consumer Collaboration

- 2003 IEA collaboration with OPEC producers highlighted the benefits of producer-consumer collaboration and OPEC spare capacity as first line of defense
- Was this a victory for market forces?
- What was the statute of limitations on this deal?

# Was there an Agreement to Cut Production Too?



# Why is it So Hard to Use Strategic Stocks?

- The Crisis Can Always get Worse

- IEP and CERM Provide Consultation Rather than Guideline

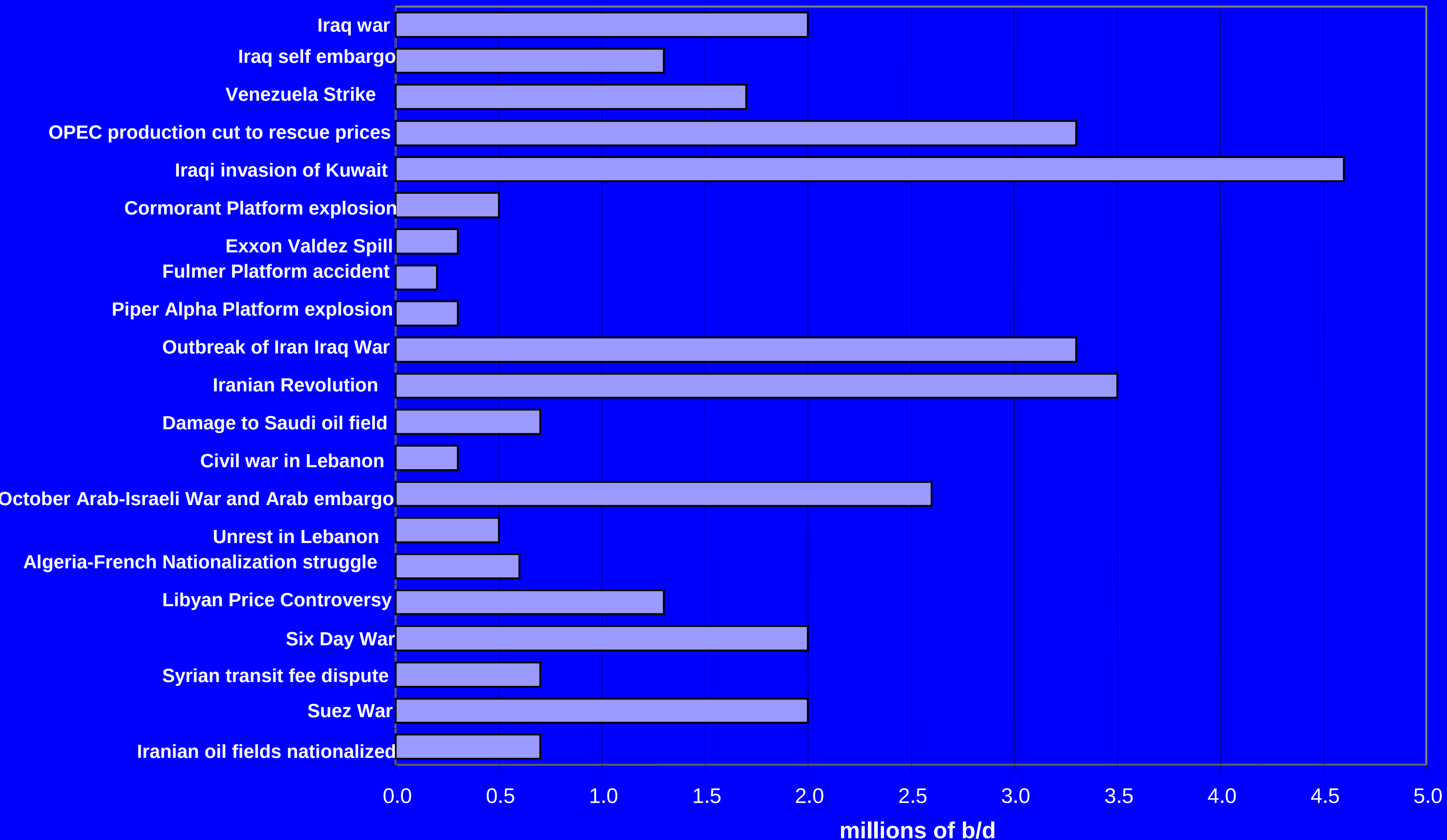
- Consultation Becomes Stuck in Debate
  - Government intervention vs market forces
  - Quick response vs last resort

- What is a Crisis after all?

# Evolution of emergency response

- Immediate response to eliminate economic shock of high oil price
- IEP: import trigger, sales trigger
- Spot and Futures markets: prices are problem and solution
- CERM: crises and sub-crises, contingency plans
- Can adequate supplies make up shortfall, making strategic stocks a last resort
- Gulf War: Stocks not used for 6 months, then as contingency plan for air war
- Unilateral draw downs for price smoothing

# Defining Oil Crisis or Supply Disruption

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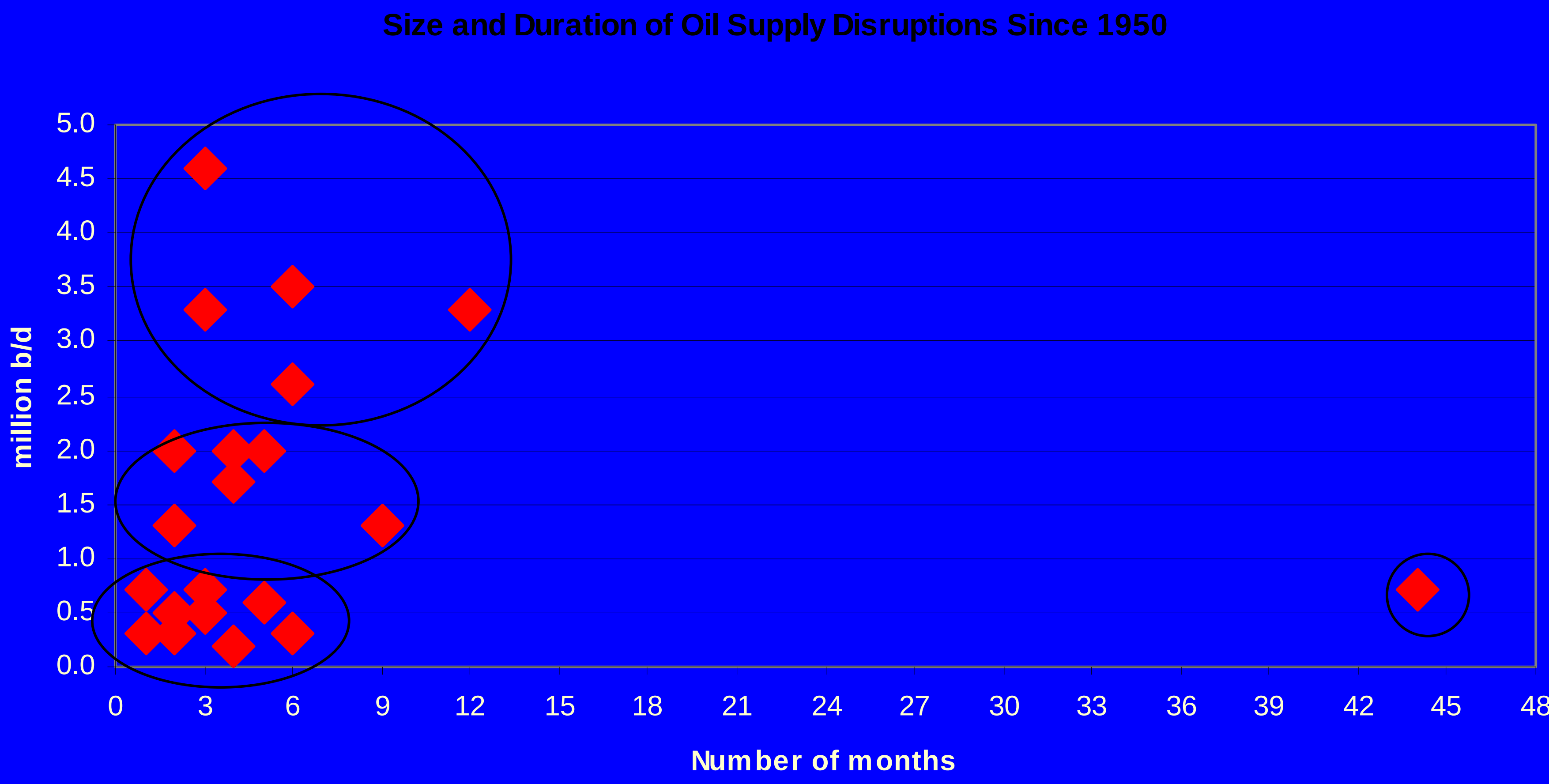
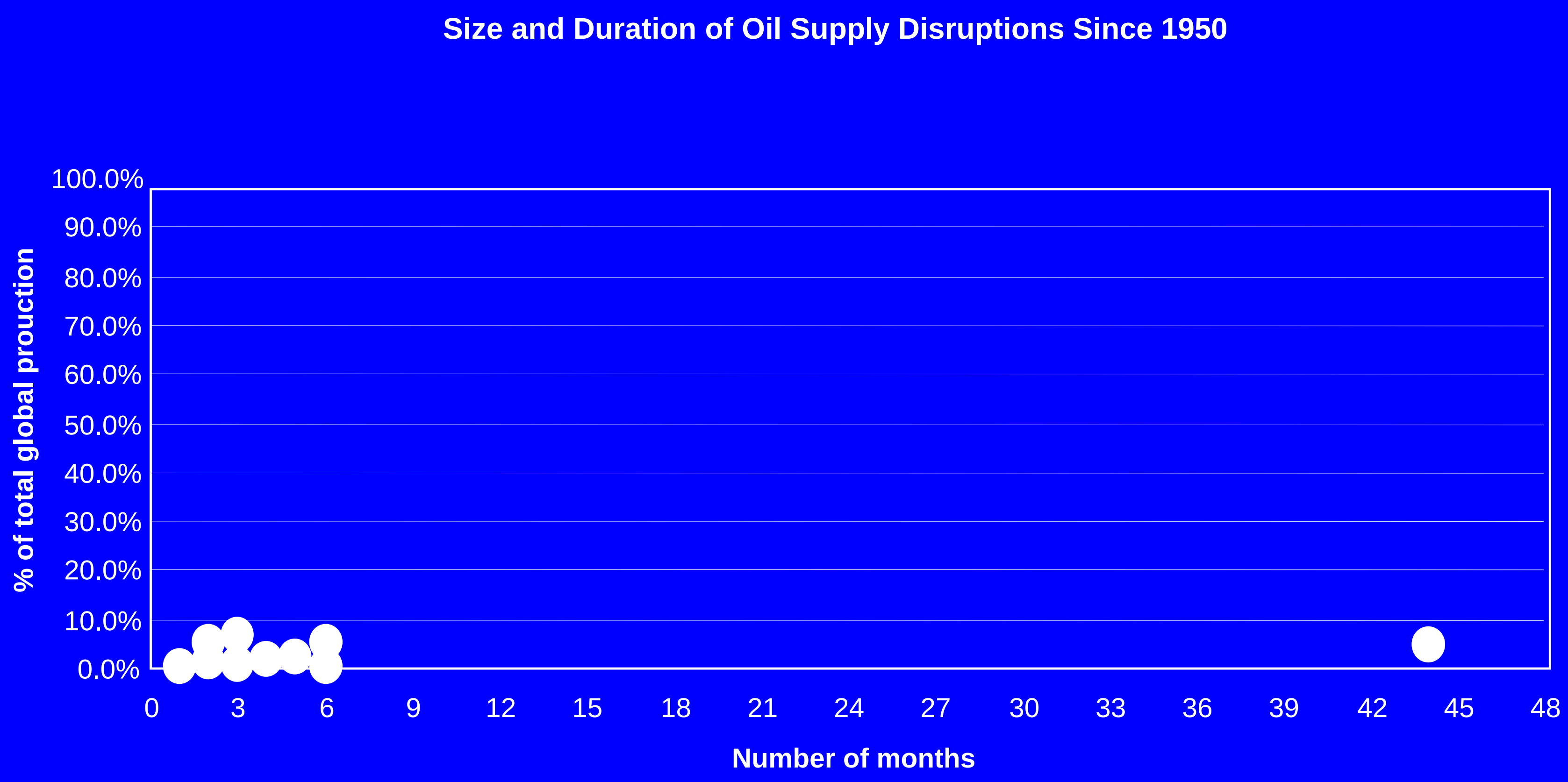
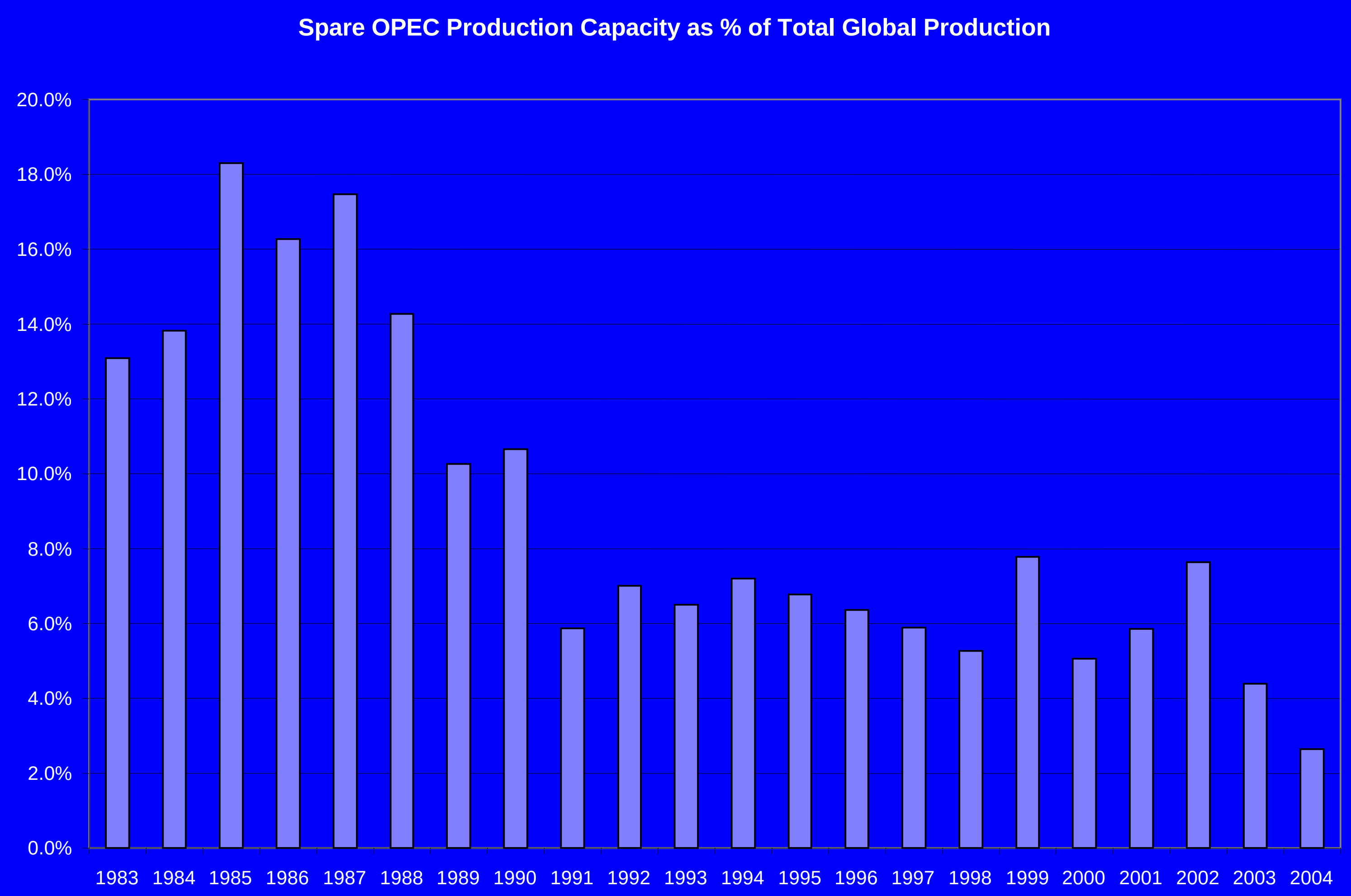
# Previous Oil Disruptions have been Relatively Short-lived



# Disruptions have been Small Relative to Global Spare Capacity



# But Spare Capacity Has Declined Since Gulf War



# Can We Still Recognize an Oil Crisis

- Tight spare production capacity limits market forces fix
- Low commercial inventories transmit price impact of disruption(s) quickly
- Price volatility in futures market as industry has ceded control of short-term price movements by eliminating inventory
- Lack of spare capacity throughout supply chain reduces flexible response to any supply problems
- Supply disruption: Gathering storm of multiple events versus lightning strike of one event
    - Venezuela, Iraq, Nigeria, Norway, Russia
    - Political instability, terrorism, natural disasters

# Multilateral Use of Strategic Stocks Can Continue to Evolve

- Crisis identification
  - Lightning Strike
  - Gathering Storm

- Drawdown policy
  - Market forces or government intervention debate – politicizes the process
  - Price mitigation is the implicit objective
  - Producer-consumer dialogue – here to stay
  - Spare production capacity – availability and producer willingness to deploy
  - Combination of Spare Capacity and Strategic Stocks
  - Are Ad hoc decisions policy?

- Authority issues
  - IEA, national gov'ts, US leadership

# Recommendations

- General Rule of Thumb for market condition – maintain available spare production capacity…3% or lower
- Tie that spare capacity to size of disruption(s) ….reducing spare capacity below 3% “triggers” action
- Action consists of official multi-step deliberation and decision making with more transparency
- Much discretion still left to the IEA governing Board

# Benefits

- Strategic stocks still a last resort
- Lessen the impact of a single country or politician
- Offset the lack of flexibility due to low commercial inventory and limited spare capacity in supply chain
- Temper bullishness of speculative activity in futures market
- Provide loose framewwork for new strategic stockholders to sign on to
- Encourage producers to build spare capacity
- **Constituency is economic well-being of consumers**