

# Oil and National Security

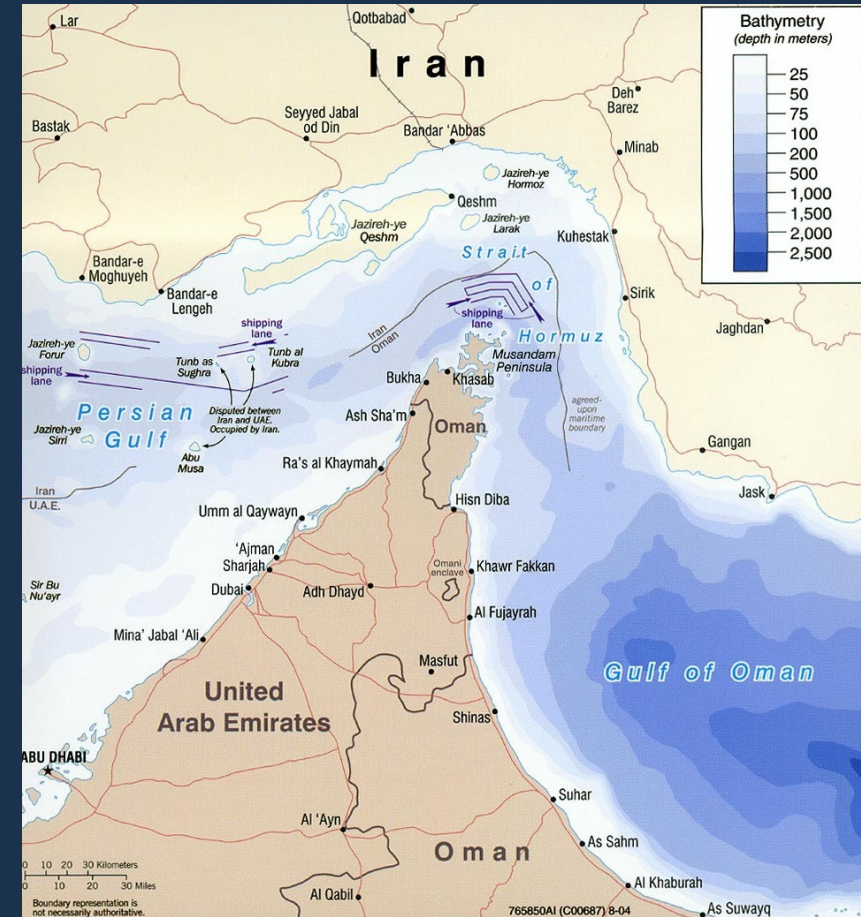
How serious is the threat of supply disruption?

# Oil in the World Economy

- U.S. produces about 9 million barrels of oil per day, but consumes much more; must import about 8 million barrels per day
- Global oil market is around 95 million barrels of oil per day
- Market is global – when prices go up in one place, they go up everywhere
- Prices have big economic impact
  - Less money for consumers, higher price of transportation
  - Higher price for chemicals used in many industries
  - 33% price increase = -0.2 to -1.7 % GDP decrease, higher inflation and unemployment

# The Persian Gulf and the Strait of Hormuz

- Persian Gulf is home to 6 of world's top 15 oil producers
- Important exporters, more spare production capacity (helpful if there's a disruption elsewhere)
- About [30%](#) of global maritime oil trade passes through Gulf, exits at Strait of Hormuz (just 33 miles wide)
- Open terrain at west end of Gulf can enable rapid conquest (see wars in 1990, 1991, 2003)



# The Current Consensus

- U.S. has long feared that Gulf instability constitutes a critical threat to its national security
- This has been a factor in an active U.S. policy in the Gulf
  - Lots of military bases
  - Regular military and other interventions
  - Indulging troublesome allies like Saudi Arabia
- Carter Doctrine: “An attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States of America, and such an assault will be repelled by any means necessary, including military force.”

# How serious is the threat?

- Eugene Gholz and Daryl G. Press (2010) examined the impact of oil supply disruptions like those possible in a Persian Gulf crisis
  - How well can markets adapt?
  - When can markets fail to adapt?
  - How can America prepare for when markets fail to adapt?
- This presentation will look at Gholz and Press's argument and also examine objections to it

# How Markets Adjust to Oil Shocks

- Increasing production (profit motive)
  - Direct production boosts
  - Disruptions to agreements among producers to restrict production
  - Some can take a while to come online
- Private oil stocks
  - Held by companies that handle oil, typically about 1-2 billion barrels in the US
  - Can use themselves or sell to others
  - Do have incentive to hoard in crisis

# How Markets Adjust to Oil Shocks

- Government-held oil stocks
  - US Strategic Petroleum Reserve: 700 million barrels in massive salt caverns on the Texas and Louisiana coasts
  - Europe: 400 million barrels
  - Large stocks in Japan, South Korea, China
  - Can't replace *all* oil consumption for long, but they don't need to
- Re-Routing Oil in Transit
  - Can send ships around trouble spots or change pipeline flows
  - This can add time (Mideast to Europe much faster via Suez)
  - Doesn't really work at Hormuz

# Case studies of markets adapting

- Oil strikes in Iran, 1978
  - Oil industry collapses in Iran, 1979
  - Iran-Iraq War breaks out, 1980
  - Attacks on oil tankers during Iran-Iraq War
  - Iraq invades Kuwait, 1990
  - Oil strikes in Venezuela, 2002-2003
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- In five of six cases, “adaptation rapidly replaced the missing barrels”



# Iran Oil Strikes

- October 1978: Iran is OPEC's #2 producer – 5.5 million barrels per day
- January 1979: Iran is producing 700,000 barrels per day
- Rest of world boosted production by millions of barrels per day
  - Net loss to market, January 1979: 2.8 million barrels
  - February: 2.4 million barrels
  - March: Iranian oil industry begins comeback
  - April: Supply back to normal
- Price of oil increased by about \$1 per barrel, climbed more *after* supply had recovered

# Iran Oil Collapse

- Political struggles over control of Iran's oil industry and relationships with outside oil companies led to sustained reductions
  - October 1979: Iran produces 4 million barrels per day
  - February 1980: 2.8 million barrels per day
  - May 1980: 1.5 million barrels per day
- OPEC *cuts* production, taking another 1.8 million barrels off the market
- Prices began rising even before the crisis as wholesalers began increasing stockpiles, rise more during crisis as they try to increase even more
- Price of oil doubles

# Iran-Iraq War

- Oil facilities concentrated near front lines where Iraq invaded Iran in September 1980 came under attack
- Iraqi oil production falls by more than three million barrels per day after a month; Iran falls by one million
- Oil prices climb from mid-\$50s to mid-\$60s in following months
- Both countries needed money; quickly restored some production
- High prices drew other producers to boost production; within two months world production came within 200k barrels of prewar total
- OPEC discipline breaks down for years; still, oil prices take 18 months to get below prewar level

# The 'Tanker War'

- Several years into the Iran-Iraq War, both sides began attacking oil tankers in the Persian Gulf, creating serious international tensions
- However, Gholz and Press say that “[oil] production by the belligerents appears unaffected by...attacks on tankers.”
- “The price of oil dropped steadily throughout the Tanker War.”
- Both sides made efforts to reroute oil (for example, by changing shipping routes and methods and building pipelines) and to encourage buyers (by lowering prices and offering insurance)

# The Gulf War

- August 1990: Iraq invades Kuwait; both countries' oil put under international embargo. 5.3 million barrels per day go off the market.
- Oil price doubles between July (\$20) and October (\$40)
- Other producers produce more. Gholz and Press: "By September...net world production was only down 1 mb/d, and by November global production had recovered completely."
- Price falls too. December: \$32; February: \$23; March (postwar): \$21.
- Some production increases may have been political (countries wanted US to intervene); but many faraway producers also increased production

# Venezuela's Oil Strike

- Anti-Chavez strikes in December 2002 took 2.3 mb/d off the market. Prices rose from \$25 in November to \$33 in February.
- Gholz and Press: “By January 2003...other oil producers had stepped into the market void, replacing 1.5 mb/d.” By February, world production was *higher* than before the crisis.
- Gholz and Press: “Prices lagged slightly behind the recovery in oil production, peaking in February...but falling sharply in March. By April, the Venezuelan oil shock was over.”

# Key Findings from Case Studies

- In five of six cases, major reductions in one country “quickly triggered compensating increases elsewhere.”
- “In five of six cases...oil prices either remained nearly constant or quickly returned to pre-disruption levels.”
- Oil markets may be getting better at handling disruptions – the three most recent cases had the shortest adaption times, “even though one of these three (the 1990 Gulf War) involved the greatest immediate shortfall.” This may be due to more complex investment tools.
- Iran-Iraq War case showed that price spikes can cause prolonged disputes in oil cartels, benefiting consumers



Image via Gholz and Press.

# More Serious Threats to Oil

- Though markets can cushion the blow, Gholz and Press argue that in three circumstances, “adjustments would be particularly painful”
  - Large-scale conquest in the Persian Gulf – a “regional empire”
  - A blockage of the Strait of Hormuz
  - A “major civil war in Saudi Arabia”
- All three would not leave enough spare capacity elsewhere in the world to replace missing oil; a regional empire could also greatly strengthen the oil cartel



# More Serious Threats to Oil

- Gholz and Press: “U.S. military planning should focus on preventing those three specific disruptions.”
- Market mechanisms can adjust fast enough that in other scenarios, “no military action would be needed to protect U.S. oil interests.”
- Further, even in the three scenarios, “peacetime forward presence” by basing U.S. forces in the Middle East “is not the best military strategy to protect American oil interests.”

# Threat 1: A Gulf Empire

- Iran, Iraq, and Saudi Arabia are the only countries with economies and populations large enough to threaten conquest; each has critical weaknesses
  - Saudi Arabia: Rich, but smaller population; military may not be so effective
  - Iran: Larger population, but poor; military badly equipped, not a big budget
  - Iraq: Smaller population, and poor; severe internal divisions and weak military
- (We also used to worry about the Soviet Union getting to the Persian Gulf, but they're not around anymore)

# Threat 1: A Gulf Empire

- Gholz and Press on managing this threat:
- U.S. can credibly issue deterrent threats: it has a clear interest in keeping control of Gulf oil out of any one actor's hands
- If one tries to conquer anyway, “decimating armies on the move is one of the things that the U.S. armed forces do best.”
- “If necessary, American ground forces could reverse any gains... prospect of that reversal would deter attacks” even without peacetime deployments in the region

# Threat 2: Closing Hormuz

- ~17 mb/d pass through the strait; alternative routes (pipelines) don't have enough spare capacity; adaption mechanisms couldn't fix a disruption this big
- Gholz and Press argue it can't be closed
  - Too big to physically block
  - Iran has hundreds of antiship missiles, but large oil tankers (about 200 transit Hormuz each month):
    - tend to take several hits to sink or disable
    - are surrounded by many other ships, and can maneuver; both complicate targeting
    - would not be hit by all of the missiles fired at them: some will miss or fail
  - Sea mines have similar shortcomings
  - Harassment, rather than closure, would still allow market pressures and other cushioning mechanisms to work

# Threat 2: Closing Hormuz

- U.S. military can also act if Iran tries to close the strait
  - Attack missile launchers from the air
  - Attack Iranian ships, minelayers, and submarines from the air
  - Air patrols to prevent Iran's air force from attacking ships
  - Minesweeping
- None of these, argue Gholz and Press, require forward-deployed forces. U.S. ships and aircraft are both highly mobile.

# Threat 3: A Saudi Crisis

- Massive unrest in Saudi Arabia could impact oil production there
- Large Shia populations in Saudi oil regions; often unhappy with treatment by Sunni Saudi regime
- Gholz and Press: “Unfortunately, American military presence...does not reduce this threat.”
  - A U.S. counterinsurgency in Saudi Arabia would require an enormous force, possibly around the size of the Iraq War
  - Outside forces rarely have local knowledge needed for effective counterinsurgency, meaning “many of their actions are ineffective if not counterproductive”
  - U.S. presence can anger, energize radicals (origin of Al Qaeda)

# A Proposed Solution

- Gholz and Press: “Instead of maintaining American forces at bases throughout the region, the United States should issue clear threats to deter conquest, backed by robust naval deployments in nearby waters.”
- “A lower American military profile in the Persian Gulf would serve both local political stability and the U.S. interest in protecting against oil disruptions.”

# Counterpoints

- Michael Levi argues that oil markets remain vulnerable
  - Spare capacity to pump oil is low due to underinvestment, difficulty of new production, other factors
  - Spare tanker capacity is also low, and you can't build new tankers quickly
  - Both hinder ability of market to adjust
- Gholz and Press counter that:
  - Observed dips in spare pumping capacity have occurred when states were responding to oil crisis – as they predicted
  - Tankers can steam faster or skip maintenance, increasing capacity
  - Even if Levi is right and there is a capacity shortage, the solution is to increase capacity, not to deploy forces to the Gulf



# Counterpoints

- Rosemary A. Kelanic has argued that cutting off a state's oil "could immobilize the target's military, essentially threatening the target with military defeat," and that oil can thus be an effective coercive tool
- Three factors determine how vulnerable a state is to oil coercion
  - Degree of dependence on foreign sources of oil
  - Geography: How easy to block? Island states most vulnerable
  - Relative power – impacts ability to protect supply lines
- However, states recognize the threat and try to anticipate it in four ways: internal measures like stockpiling, alliances with oil producing states, deterrence, and conquering oil regions.
- "More often than not, these policies undermine the effectiveness of the oil weapon. As a result, when it comes to oil coercion, we see a paradox: coercive failures occur because states respond proactively to the potential of being coerced."

# Discussion Questions

- Should the United States forward-deploy forces to the Persian Gulf?
- What role should oil play in America's national-security strategy?
- What interests other than energy does America have in the Middle East? How critical are these interests?
- Some other countries, like China, are highly dependent on imported oil from the Persian Gulf. How might leaders there react to this article?

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