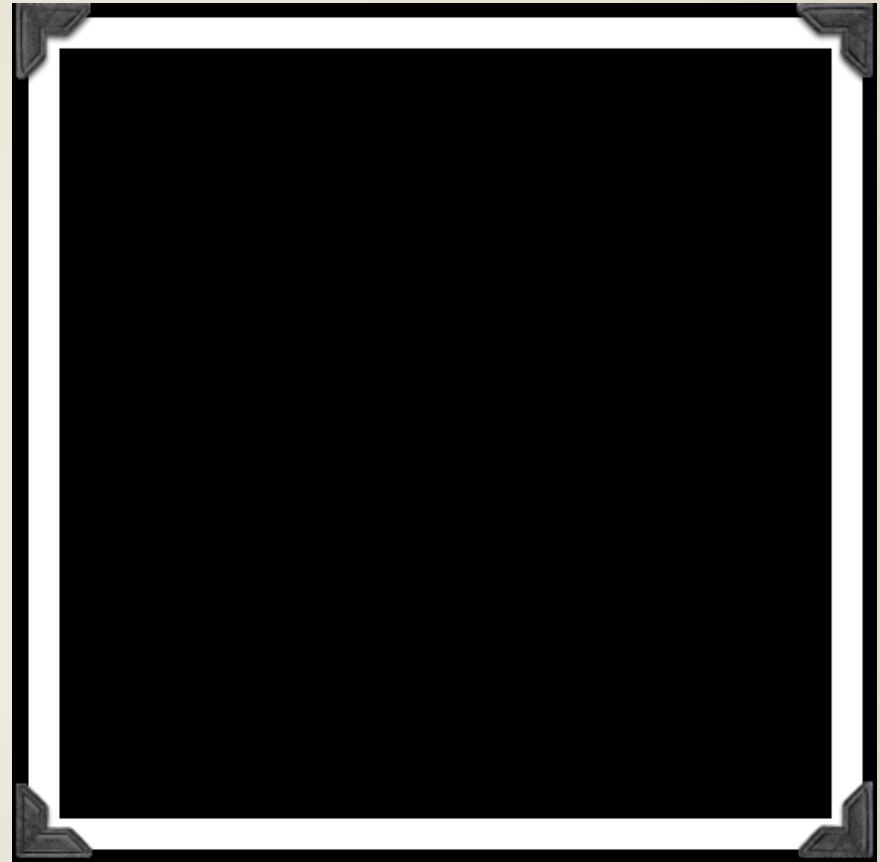


Organization of Petroleum Exporting Countries

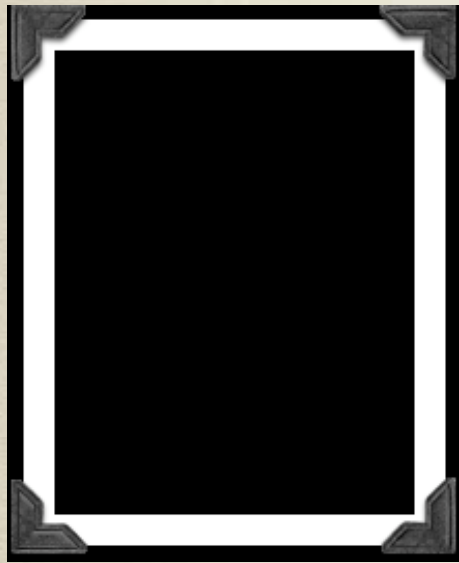
Ashley Trott, Sam Holmberg, Sarah
Wong

Agenda

- * History
- * Debunking the Myth
- * OPEC v. CIPEC
- * OPEC in Action
- * Alternatives to OPEC
- * Conclusion



OPEC - A Successful Cartel

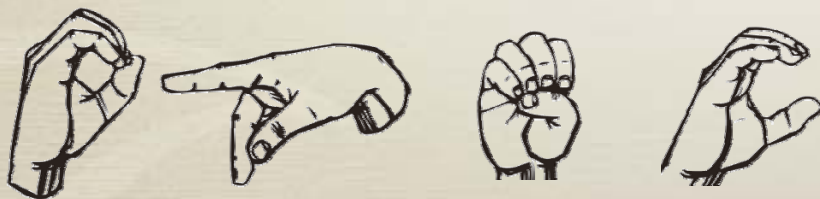


A cartel is defined as successful if it is able to raise the market price at least three times the marginal production cost of the member with the highest production cost.

- in Perloff & Carlton

OPEC

- ✱ The Organization of the Petroleum Exporting Countries (OPEC) is a permanent, intergovernmental organization, created at the Baghdad Conference on September 10–14, 1960, by Iran, Iraq, Kuwait, Saudi Arabia and Venezuela

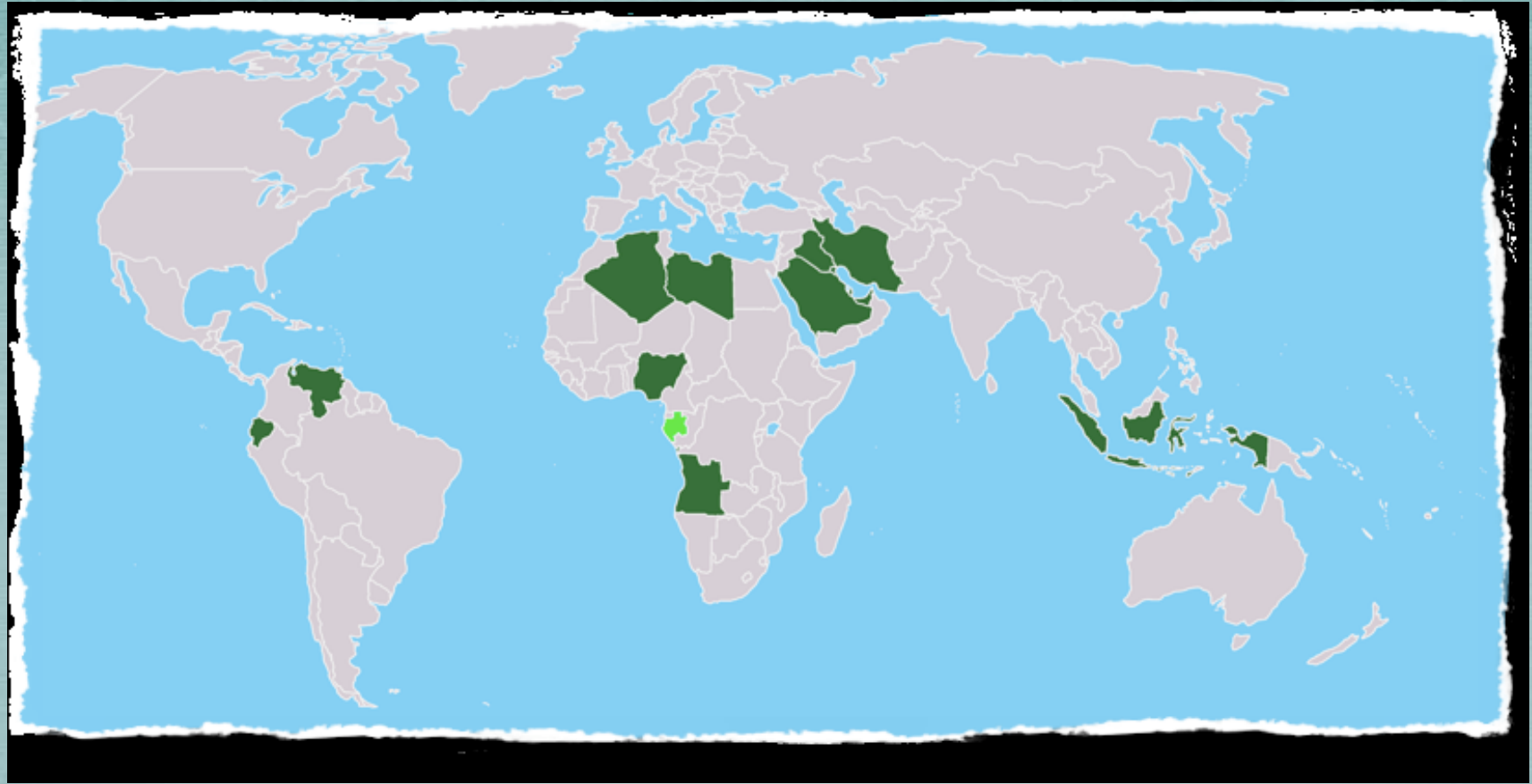


OPEC

- * "OPEC's objective is to co-ordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the industry." - opec.org



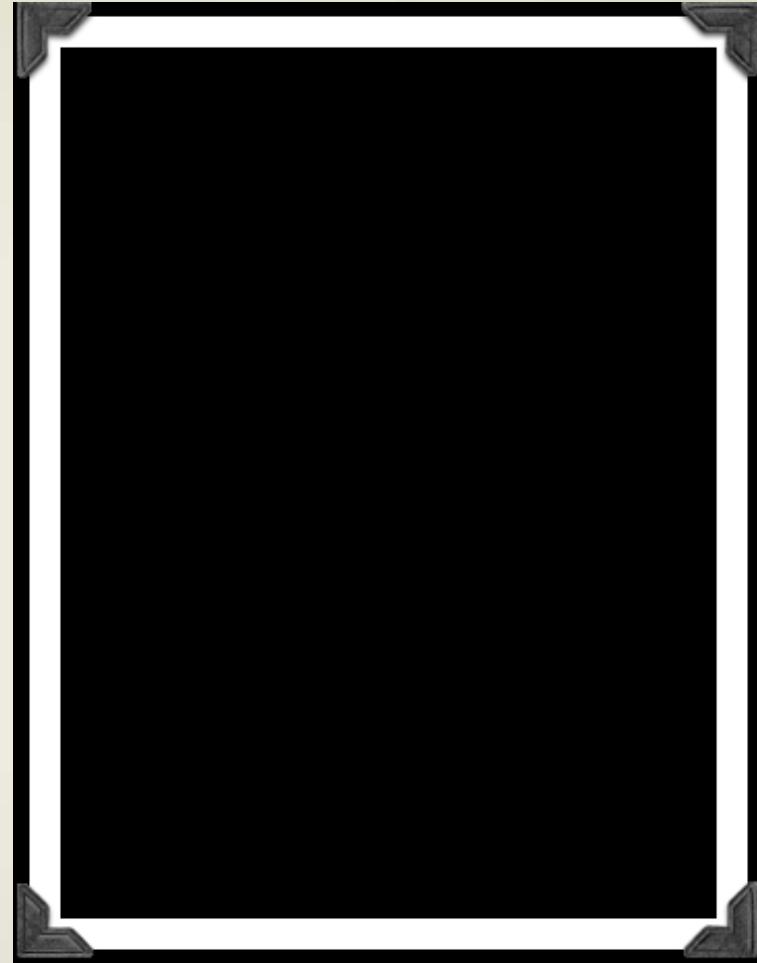
OPEC Press Conference in Vienna



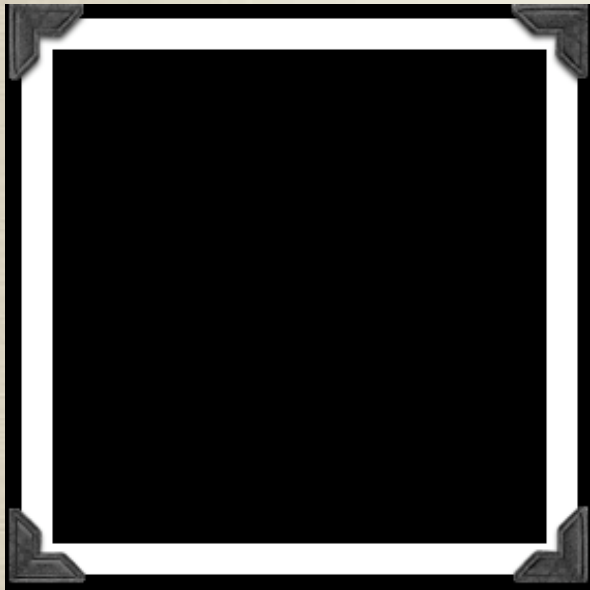
OPEC History

History - 1960s

- * OPEC was founded in Baghdad in response to a 1960 law instituted by American President Dwight Eisenhower
- * The law forced quotas on Venezuelan and Persian Gulf oil imports, preferring the Canadian and Mexican oil industries
- * Asserts its member countries' rights in global oil market dominated by others
- * Membership grew to 10 nations



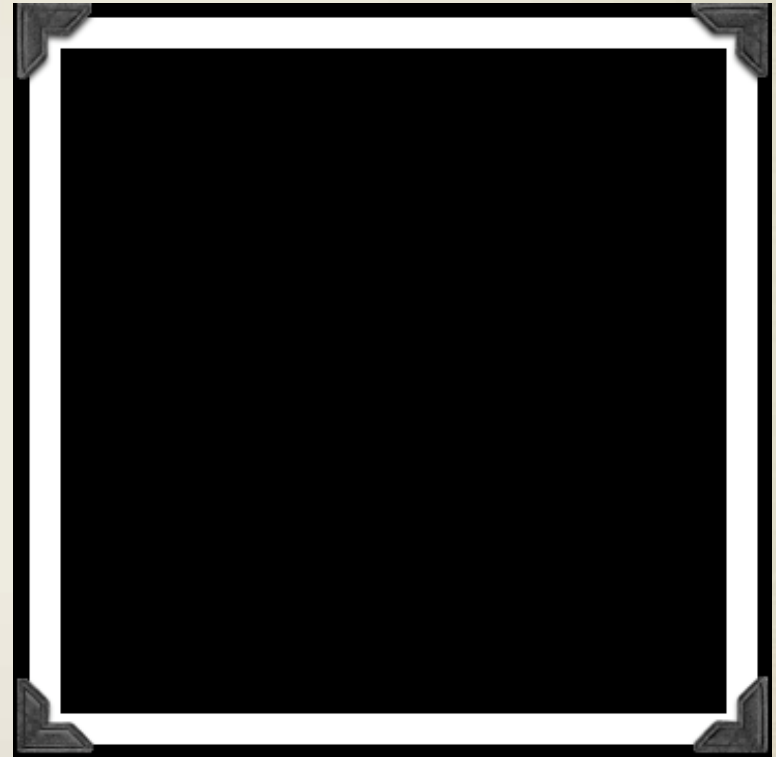
History - 1970s



- * OPEC rises to international prominence
- * Member countries establish major say in global prices of crude oil
- * An oil pricing crises leads to a steep increase in the price of crude oil (1973-74)

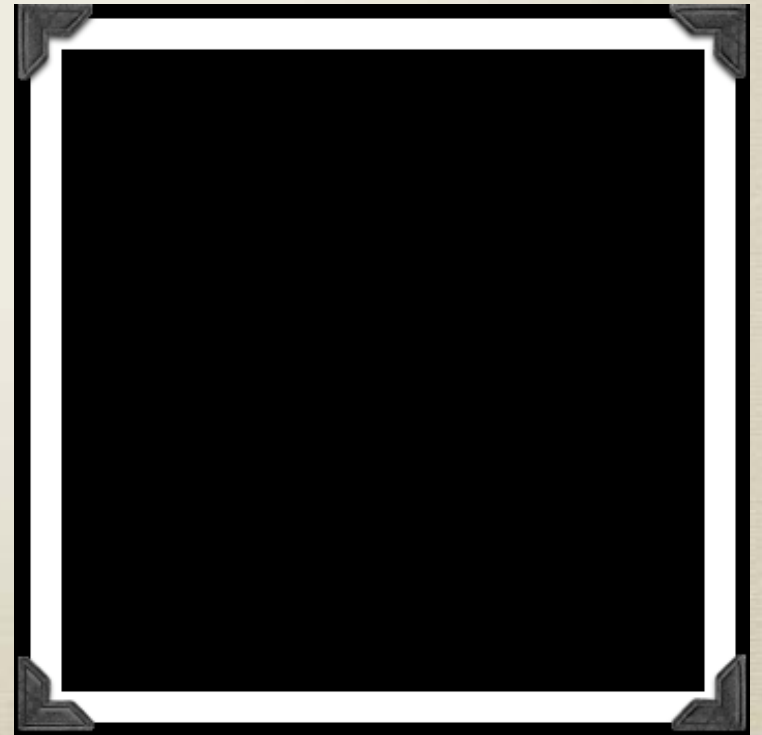
History - 1980s

- * A steady decline in prices led to awareness of the need for joint action among oil producers
- * Environmental issues begin to appear on the international agenda



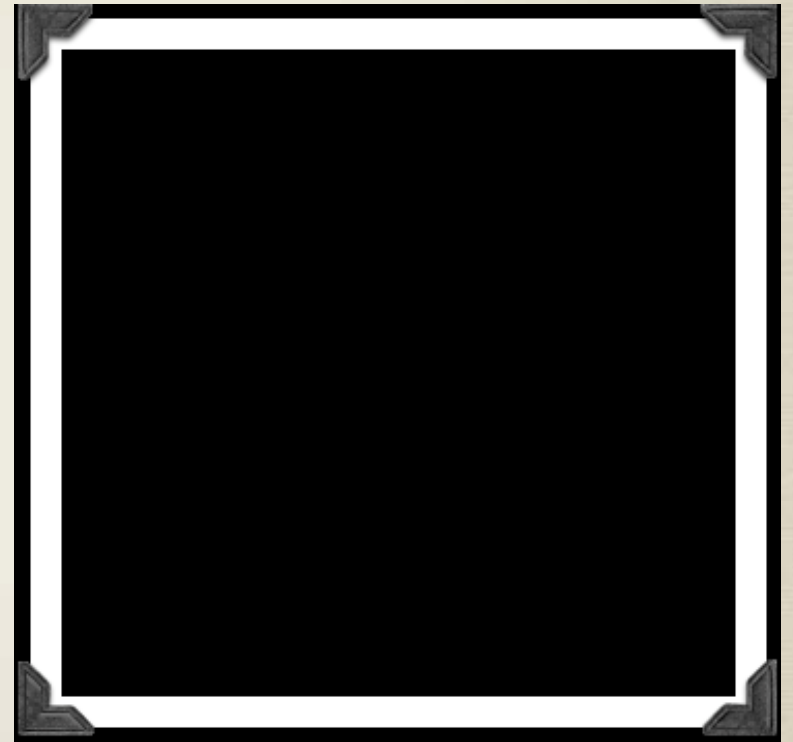
History - 1990s

- * Mega-mergers among major international oil companies fueled by technological advances
- * Climate change negotiations threatened heavy decreases in future oil demand



History - Today

- * Prices reached a high of \$145+ a barrel in July 2008
- * Price dropped to \$32 a barrel Dec. 2008
- * U.S. consumer demand for oil dropped by 8%
- * The weakening of the global economy also decreased demand for energy sources
- * Jan. 2009 - OPEC slashed global output by 5%





Debunking the Myths

Debunking the Myth

Myth:

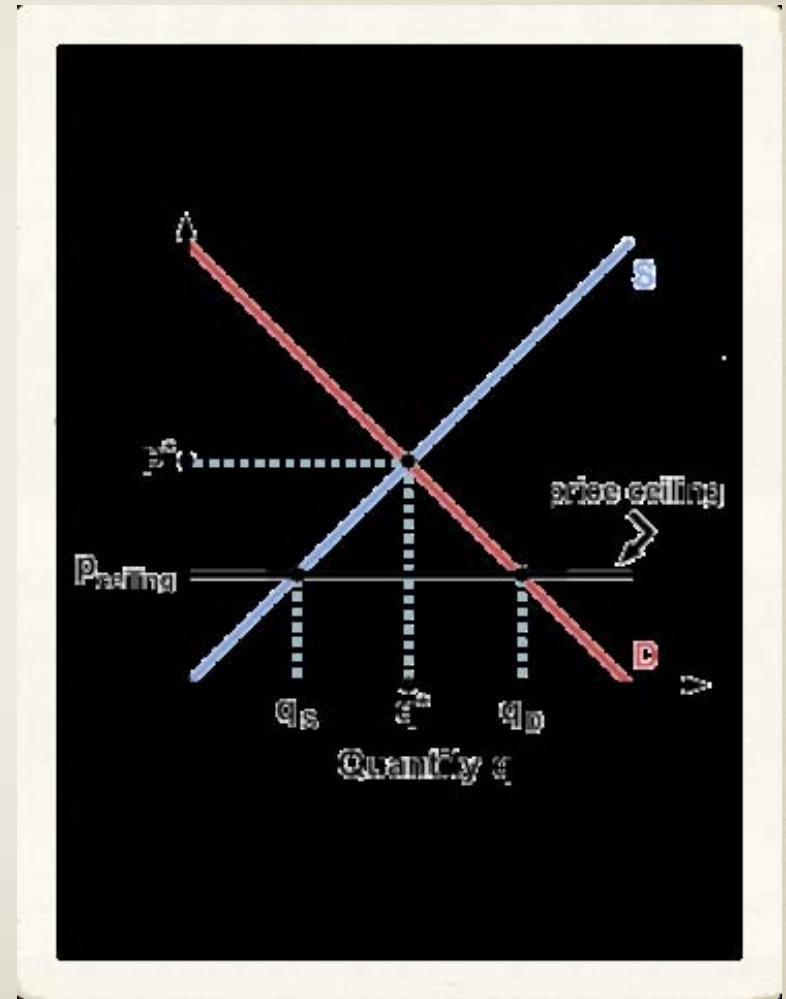
- ✱ U.S. oil shortage and gas station lines in 1973-1974 were caused by OPEC's U.S. oil "embargo"

Debunked:

- ✱ Oil is a fungible (**replaceable**) commodity => arbitrage (**differing prices in a market**) possibilities exist
- ✱ Shortages were caused by price and allocation controls on crude oil and refined products originally imposed by Nixon (1971)

Debunking the Myth

- * A price ceiling imposed by the Nixon Administration caused a shortage of oil



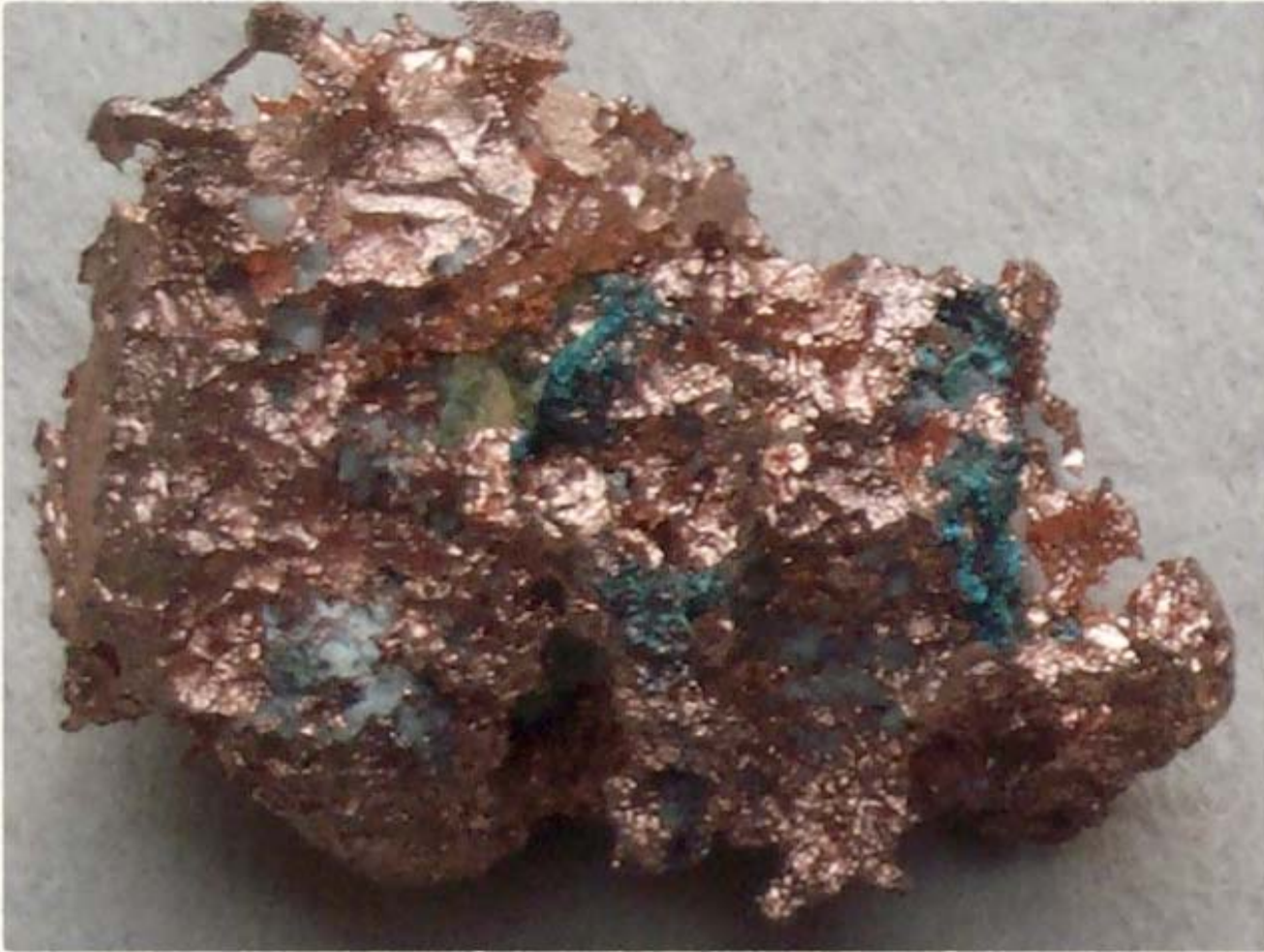
Debunking the Myth

Myth:

- ✱ Illegal? Though cartels are technically illegal, no one has been able to shut OPEC down

Debunked:

- ✱ OPEC is operated by national governments and is recognized as a legal entity by U.S. foreign trade laws
- ✱ OPEC holds summits in Vienna and meets publicly



OPEC v. CIPEC

Conseil

intergouvernemental des
pays exportateurs de cuivre

Intergovernmental Council of
Countries Exporters of Copper

CIPEC - an Outline



- * 1967 - 1988 (12 years)
- * Composed of Chile, Peru, Zaire, Zambia, AUS, Indonesia, Yugoslavia, and Papua New Guinea (8 countries)
- * Copper demand is very elastic so it failed
- * In 1974 members “cheated” and did not reduce production as much as was agreed upon in their contract

OPEC v. CIPEC

OPEC	CIPEC
World demand for crude very inelastic	World demand for copper elastic
When first formed held 2/3 of world oil reserves	Held 1/3 of world's non-communist copper production
Initially OPEC quadrupled world oil price	Unable to raise copper prices
Faces relatively inelastic fringe supply	Demand for copper elastic (recyclable and substitutable)
Continuing	Collapsed in 1988



OPEC in Action

OPEC Production (2007)

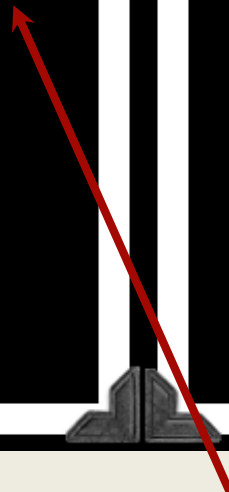
OPEC Flows of Crude and Refined Oil, 2007
(Thousand Barrels per Day)

	Europe	North America	Asia and Pacific	Latin America	Africa	Middle East	Total World
Middle East							
IR IRAN	859	0	1,844	2	150	0	2,855
IRAQ	418	593	605	0	0	85	1,701
KUWAIT	346	134	1,828	0	44	0	2,351
QATAR	0	0	689	0	0	0	689
SAUDI ARABIA	938	1,597	4,682	87	321	477	8,101
UNITED ARAB EMIRATES	78	17	2,590	5	41	19	2,750
Africa							
ALGERIA	567	873	75	84	50	40	1,689
ANGOLA	334	743	81	0	27	0	1,185
NIGERIA	448	1,671	26	0	53	0	2,198
SP LIBYAN AJ	1,279	102	141	37	26	4	1,589
Asia/Far East							
INDONESIA	1	30	395	0	0	0	426
Latin America							
ECUADOR	1	214	13	154	0	0	382
VENEZUELA	271	1,378	199	871	18	0	2,738

Net Export Revenue



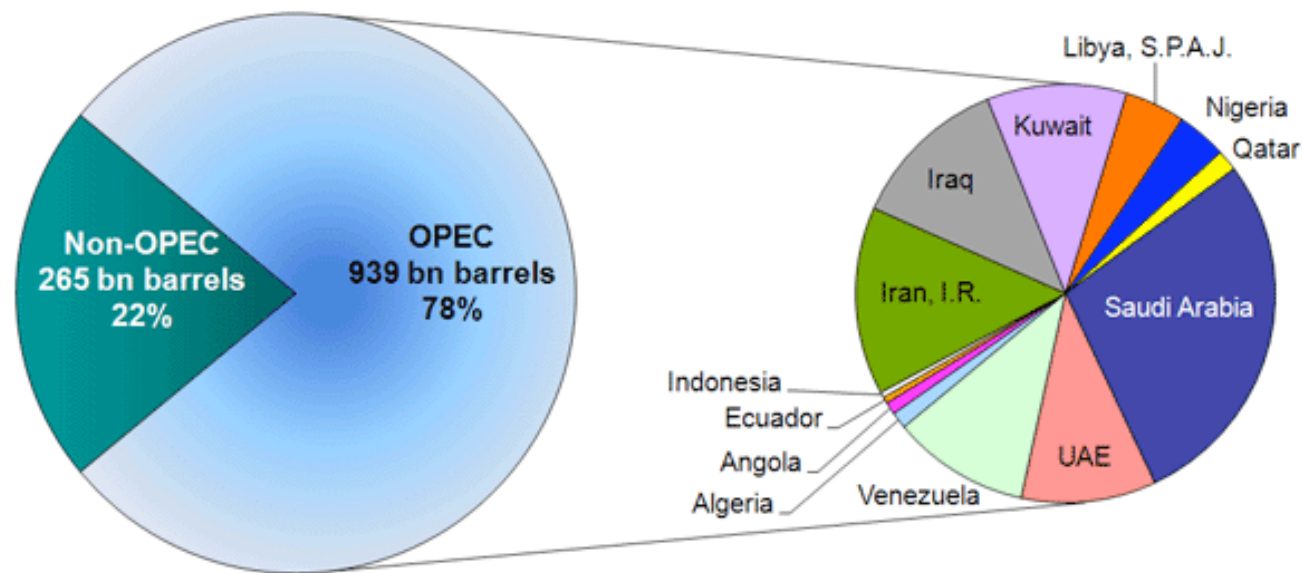
$\$3 \Rightarrow \12



Oil price reaches
highest point in
July 2008 (\$145)

OPEC Reserves

OPEC Share of World Crude Oil Reserves (2007)



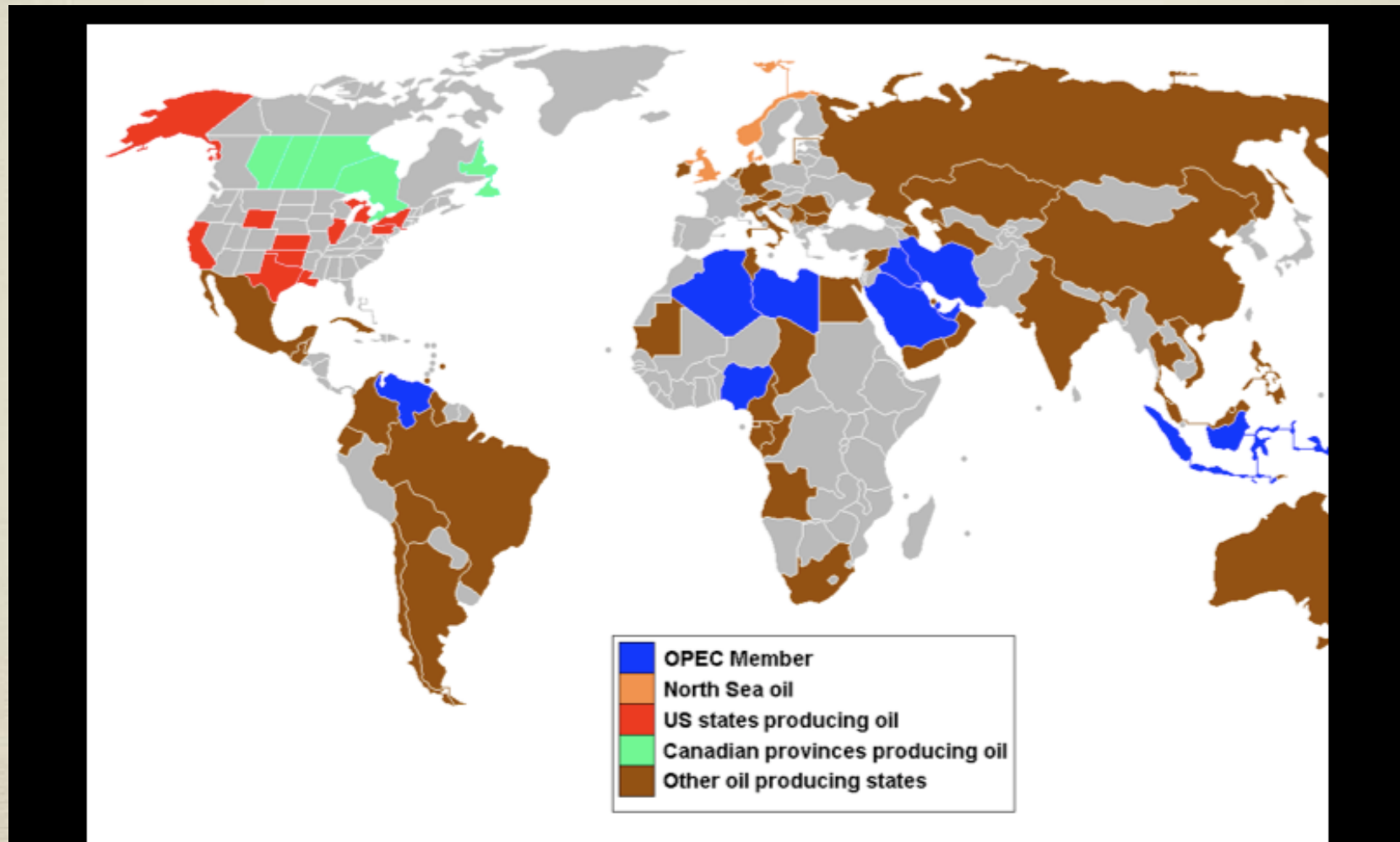
Competition

- ✱ OPEC's ability to control oil prices has diminished somewhat since 1971
- ✱ Discovery and development of large oil reserves in the Gulf of Mexico and the North Sea
- ✱ The opening up of Russian oil reserves

Competition



Oil Producing Countries



How Oil Prices Affect the Global Economy

- ✱ How dependent is a country on imported oil?
- ✱ What is the ability of consumers to decrease consumption, or switch to alternatives?
- ✱ Net effect on the world economy of OPEC's major price increases has always been negative

How Higher Oil Prices Affect OECD Countries

- * Organization for Economic Co-operation and Development - an international organization of 30 democratic countries with high income economies that collects data and monitors trends
- * In the short run, higher oil prices have an unfavorable impact in OECD countries (2008)
- * Oil activity accounts for 1% of GDP
- * Long term impact is more limited

How Higher Oil Prices Affect Developing Countries

- * Economic impact is commonly more prominent than for OECD countries
- * Economies are more fragile and oil intensive
- * Energy intensive manufacturing
- * Oil accounts for a larger share of GDP - around 3%
- * Inefficiency - two times the oil for same output



Alternatives to OPEC

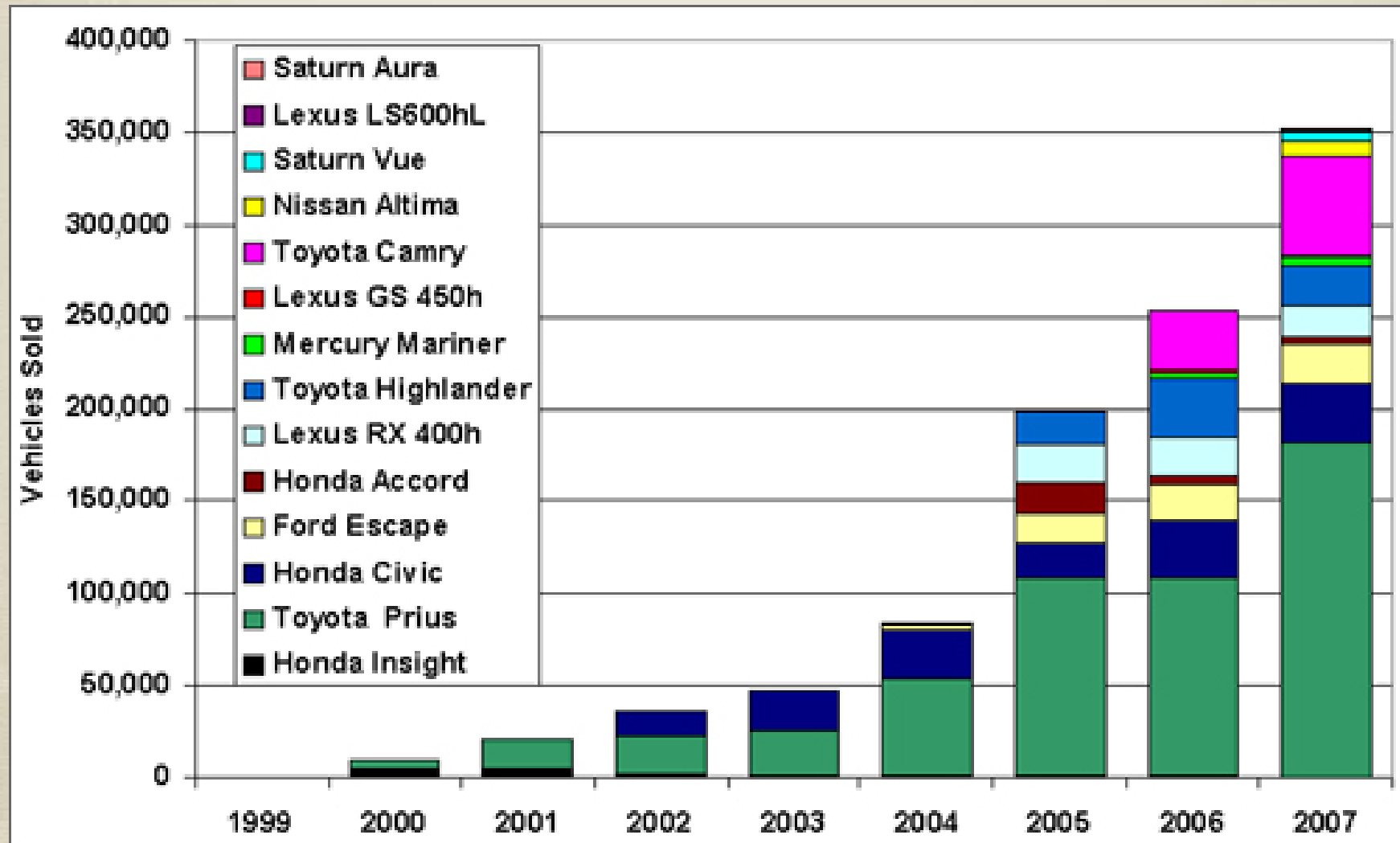
HEVs

- * HEVs reduce emissions and fuel use through increased fuel economy
- * Americans are currently buying more than 20,000 HEVs per month
- * 1.6% of annual U.S. market of light-duty vehicles but only 0.2% of total U.S. light-duty fleet.
- * Still, HEVs impact and set a standard of achievement for high fuel economy and low emissions
- * Contests between car-makers to supply latest high-tech, clean and green technologies



A cornflower blue Prius

Domestic HEV Sales



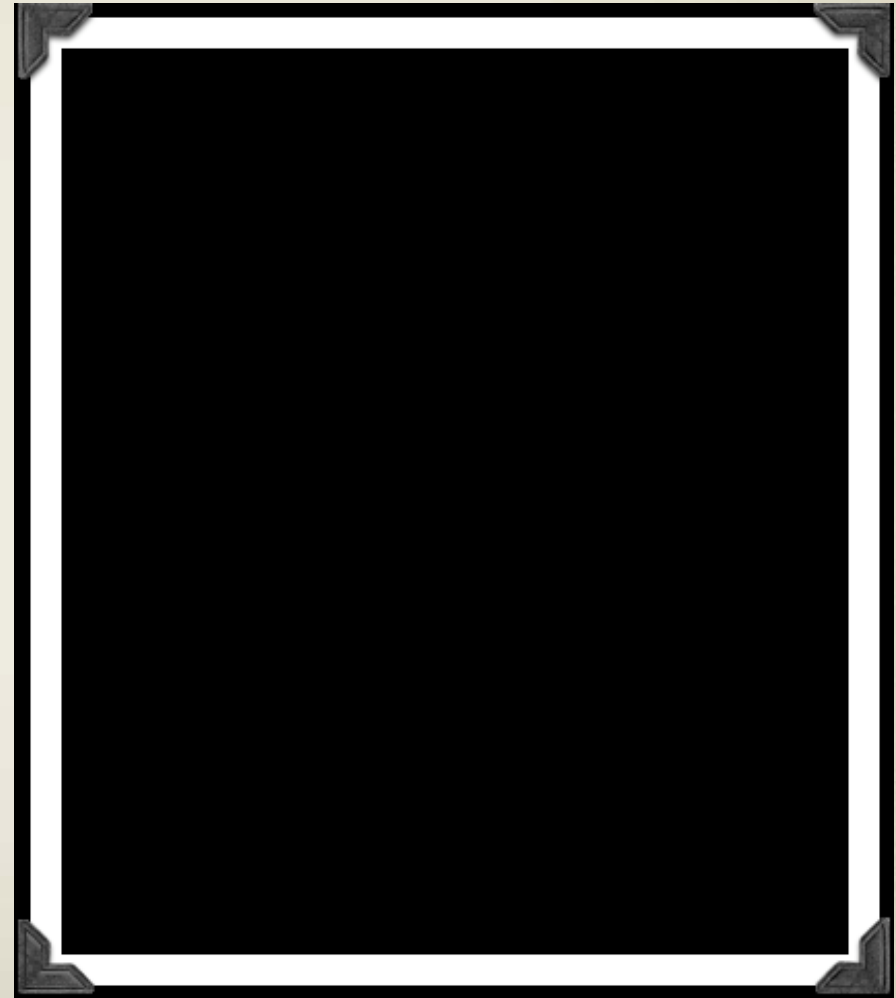
HEV Sales Estimates, 1999 - 2007

Model	1999	2000	2001	2002	2003	2004	2005	2006	2007
Honda Insight	17	3,788	4,726	2,216	1,200	583	666	722	-
Toyota Prius	-	5,562	15,556	20,119	24,600	53,991	107,897	106,971	181,221
Honda Civic	-	-	-	13,700	21,800	25,571	18,797	31,251	32,575
Ford Escape	-	-	-	-	-	2,993	15,800	20,149	21,386
Honda Accord	-	-	-	-	-	1,061	16,826	5,598	3,405
Lexus RX 400h	-	-	-	-	-	-	20,674	20,161	17,291
Toyota Highlander	-	-	-	-	-	-	17,989	31,485	22,052
Mercury Mariner	-	-	-	-	-	-	998	3,174	3,722
Lexus GS 450h	-	-	-	-	-	-	-	1,784	1,645
Toyota Camry	-	-	-	-	-	-	-	31,341	54,477
Nissan Altima	-	-	-	-	-	-	-	-	8,388
Saturn Vue	-	-	-	-	-	-	-	-	4,403
Lexus LS600hL	-	-	-	-	-	-	-	-	937
Saturn Aura	-	-	-	-	-	-	-	-	772

Source: www1.eere.energy.gov/.../facts/2008_fotw514.html

Biofuels

- * Produced from living organisms or metabolic by-products (organic or food waste products)
- * To be considered a biofuel, the fuel must contain over 80% renewable materials
- * Originally derived from photosynthesis process and can therefore be referred to as a solar energy source.
- * Biofuels are still a work-in-progress
- * Impact on bio-diversity and farmer's incentives may become perverted; non-sustainable biofuel production
- * Net effect is a reduction in greenhouse gas when compared to "traditional" fuels

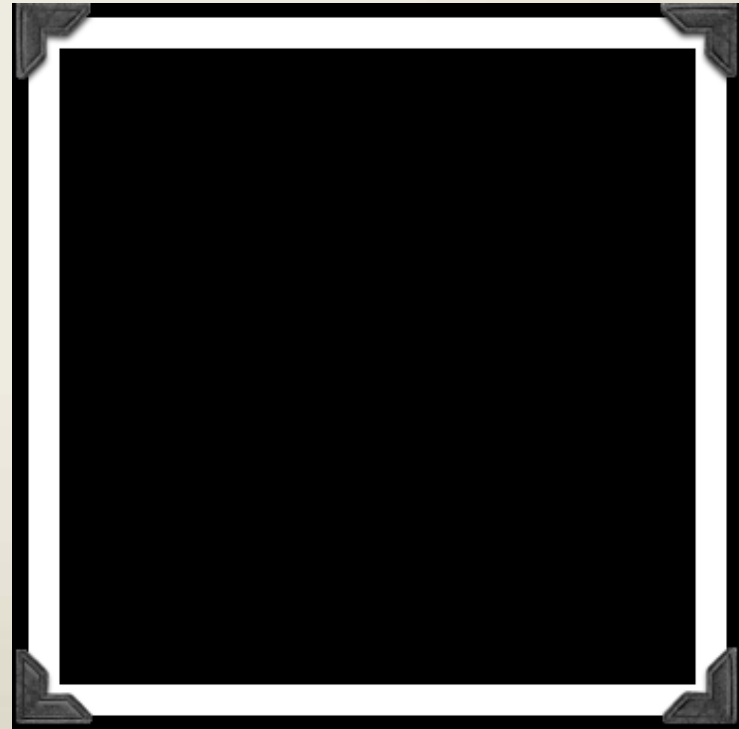


Share of biofuel production in total road-fuel market

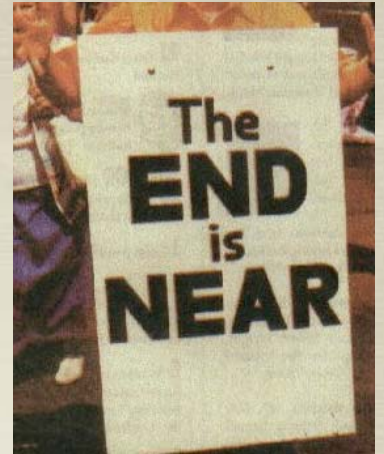


Ethanol

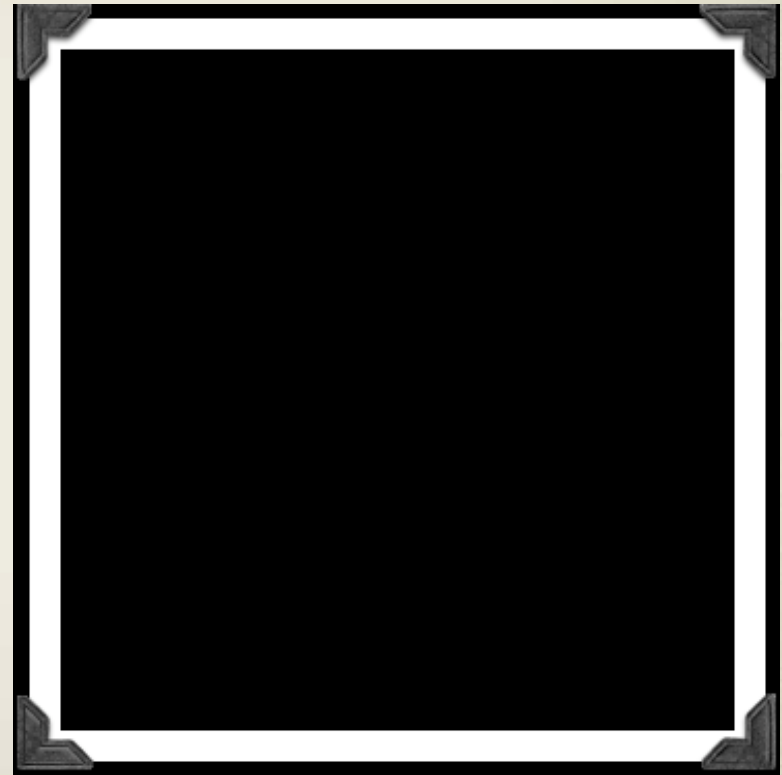
- * “A political boondoggle” (*Rolling Stone*)
- * International Institute for Sustainable Energy found that ethanol subsidies amount to as much as \$1.38/gallon - about 1/2 of ethanol’s market price
- * Why the misguided hype?
- * Panic
- * Iowa - the largest corn producing state
- * Iraq - “If you love America, how can you not love ethanol?”
- * Infrastructure problems



Tar Sands



- * Tar Sands (Oil Sands) are made up of clay, sand, water and bitumen (a heavy black oil)
- * They are mined and then refined into oil
- * The mining process is far more complex and expensive than mining conventional oil
- * The largest deposits are in Canada and Venezuela



Conclusion

- ✱ Oil demand is very inelastic in OECD and developing countries, hence OPEC's market power.
- ✱ Energy alternatives are being developed, which could affect OPEC's market power.
- ✱ With more substitutes, demand for oil would be more elastic.



We Shouldn't All be Oil Men

Confused? Questions?

Sources

- * <http://www.opec.org/aboutus/history/history.htm>
- * <http://www.econlib.org/library/Enc/OPEC.html>
- * <http://images.google.com/images?q=biofuels&oe=utf-8&rls=org.mozilla:en-US:official&client=firefox-a&um=1&ie=UTF-8&sa=N&hl=en&tab=wi>
- * www1.eere.energy.gov/.../facts/2008_fotw514.html
- * <http://images.google.com/images?um=1&hl=en&client=firefox-a&rls=org.mozilla%3Aen-US%3Aofficial&q=U.S.++car+sales+graph&btnG=Search+Images>