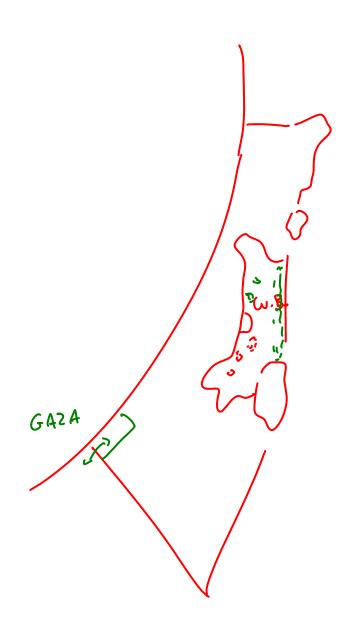
IRAQ

- I. Initial Endowments
- II. Ethnic and Religious History
 - Sunnis, Shi'ites and Kurds.
 - Iraqi tribes
- III. Economic History
- IV. Baathist Period
- V. Economics of Sanctions
- VI. Iraq in 2003: A snapshot
- VII. Nation Building



I. Initial Endowments

- Physical Endowments:
 - Fertile Crescent:
 - Tigris and Euphrates: Irrigation and navigation
 - Access to the Ocean
 - Climate

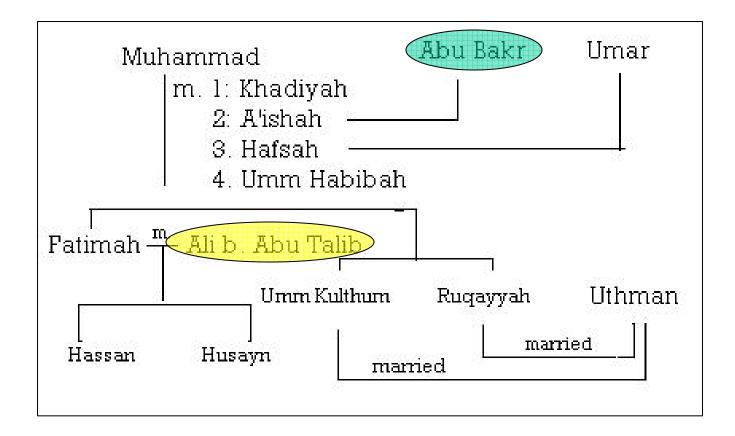


- Mineral resources: 2nd largest oil reserves, natural gas.
- Trade Routes (Mediterranean-India)



II. Religious History

- The Succession of Muhammad
 - Shi'ites: The House of Ali (cousin and son-in Law)
 - Sunnis: Muhammad's Father-in-law (Abu Bakr)



II. Religious History

- Center of Shi'ite unrest: Southern Iraq (Kufa, Najaf, Karbala)
 - Little change in Iraq's demographic maps since 8th century:
 - Center: "Sunni triangle"
 - Shi'ites in the south.
 - Early struggle for the Caliphate: Umayyads vs. the House of Ali
 - Abbasids take control (foundation of Baghdad, golden period)
- Split in the Islamic Empire:
 - Shi'ite Revolt in North Africa (Modern Tunisia)
 - Three Caliphates: Fatimids in Cairo (Shi'ite), Abbasids in Baghdad (Sunni), Umayyads in Cordoba (modern Spain)

II. Ethnic History

- Kurdish region
 - Location: Zagros Mountains

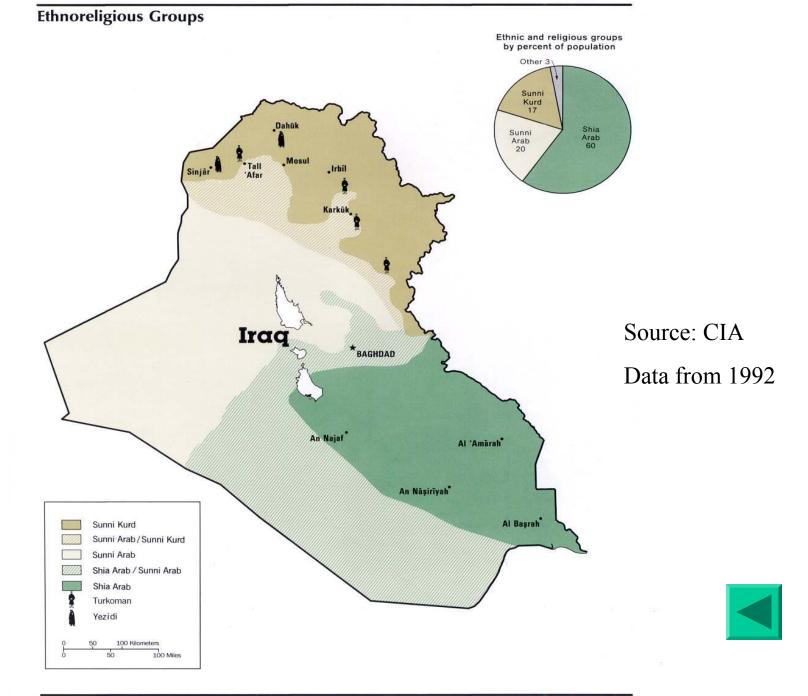


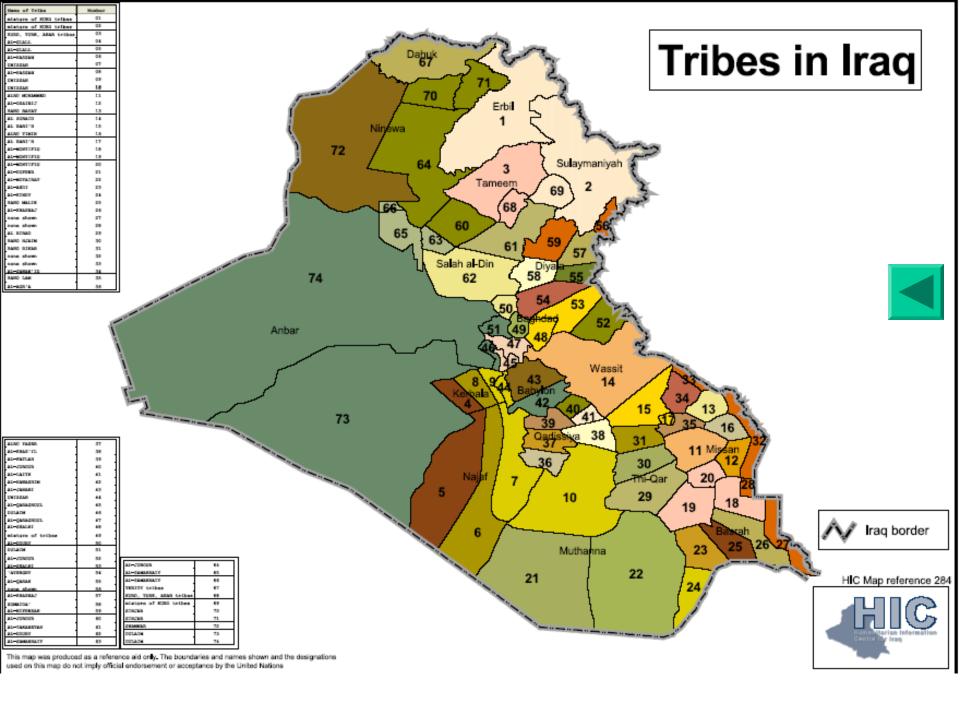
- Iraq (17-23%), Turkey (22%), Iran (10%), Syria (8%)
- Origin
 - Indo-European tribes (settled in Zagros mountains during 2nd millennium B.C.)
- Demographics in Modern Iraq
 - Tribal society



- Ethnic and Religious regions
 - South: Shi'ites
 - Center: Sunnis
 - North: Kurds







• 8th-13th Century: Center of Islamic Empire



- 8th Century: Baghdad new capital of Caliphate
 - Abbasid period: Center of intellectual and trade activity
 - Largest City outside China (1/2 million)
- Mongol Invasion of Baghdad (1258)
 - End of the Caliphate
- 1350-1800: Period of Decline
 - What went wrong?
 - Recall history lectures (1st week).

The Abbasid Caliphate (750-1258)





- 1800-1870: Unfulfilled Promise
 - All elements for a rapid development:
 - Physical Endowments (rivers, climate, minerals)
 - Location:
 - » Access to the ocean
 - » Proximity to big markets (Mediterranean, Iran, India)
 - Causes of slow growth
 - Frequent floods (at least 20 major floods in 67 years)
 - Epidemic outbreaks (plague, cholera)
 - Between 1/3-1/2 Baghdad population perished in 1831.
 - Political unrest between tribes and Ottoman Governors
 - Main issue: Tax collection
 - Predominant resistance in the Shi'ite south

- 1870-1914: Expansion of Foreign Trade
 - Suez Canal brought the Persian Gulf within reach of Europe
 - Exports: Wheat, dates, livestock products
 - Twelve-fold increase
 - Imports: 20-fold increase
- Transformation of rural Iraq
 - Expansion of agriculture
 - Sedentarization of Tribes
 - Land reform by Ottoman Land Code:
 - » Large landowners (sheikhs) and landless peasants

- 1800-1910 (cont.):
 - Population growth due to increase in agricultural production
 - Little development of infrastructure
 - No modern transportation networks (railroads, ports)
 - Low human capital levels
 - No industrial development
 - Less developed than most ME countries

- 1910-1914: Hopes of development
 - British and German interest in Oil explorations:
 - Anglo-German oil company wanted exploration concessions
 - Master plan for developing transportation networks connecting Iraq to Europe
 - WWI: Development plans were halted
 - Iraq was a major battlefield
 - British army developed some infrastructure.

- 1914-1941: Rapid development
 - British control (direct control until 1921, prowestern kingdom afterwards)
 - Development of infrastructure:
 - Transportation, electricity...
 - Expansion of agriculture (land ownership unchanged)
 - Emergence of a financial sector (mainly foreign banks)
 - Development of low-tech industrial sector (tobacco, leather products)
 - Education and health improvements
 - 1934: Beginning of large-scale oil production

- 1941-1950: Slowdown
 - Reduction in Oil Production:
 - WWII
 - Shutdown of Pipeline to Haifa (1948)
 - Other Factors:
 - High inflation (shortages during WWII and its aftermath)
 - Exodus of Jewish community hurt Iraq's trade
- 1950-1958: Rapid Growth (7-11% annually)
 - Sharp increase in Oil revenues
 - New pipelines, renegotiation of royalties
 - Industrial and social development (Government sponsored)

• The 1958 revolution

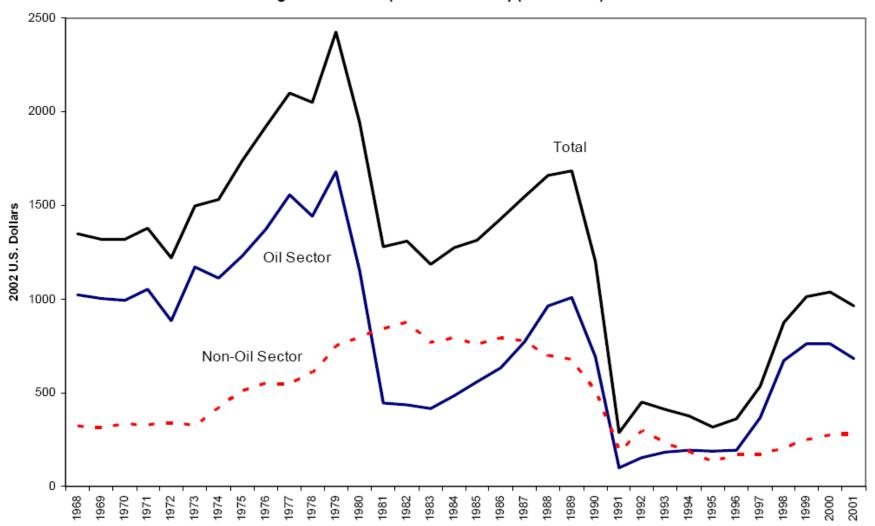
- Overthrown of the Monarchy
- Government instability: Civil unrest, internal clashes (Kurds-Arabs, Baathists-Communists)
- Unsuccessful Land Reform (very disruptive, slow redistribution: more than ½ of the land held by the Government)
- Ambitious industrialization plans
 - Nationalization of large-scale industries in 1964
 - Nationalization of oil concessions to private companies
- 1968: Saddam Hussein takes power
 - Tight control of economic and political activity

- The pre-war period (1968-1980)
 - Mixed Economy:
 - Small private sector
 - Government owns major industries, nationalized financial sector
 - Complete nationalization of the Oil sector (1972)
 - Economic growth



- Rapid growth due to rise in oil revenues
- Improvements in Education and human capital levels
- Big increases in living standards
- Expansion of military and police

Figure 1: Per Capita GDP in Iraq (1968-2001)





- The Curse of Oil
 - Extremely high rents from Oil
 - Need for control and protection
 - Buildup of Military (7% labor force) and Police
 - "Arabization" of Kurdish Iraq.
 - Oil fields locations (Shi'ite and Kurdish areas)



• Demographic changes in Kirkuk Area:

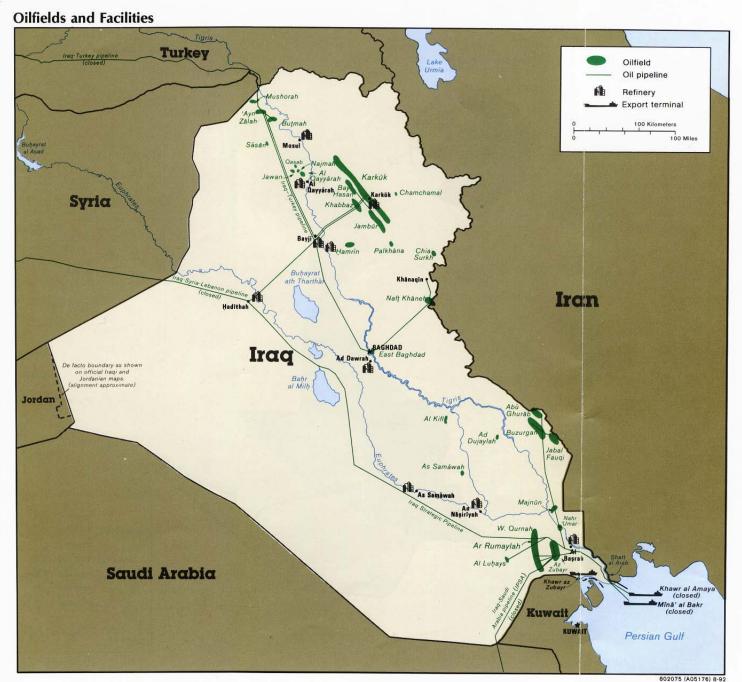
-1978



- 1992



Distribution of Religious and Ethnic Groups **MAJORITY GROUPS** MINORITY GROUPS Rawandūz Sunni Arab Yezidi *Tall Kayf Sinjär Irbil Sunni Kurd Turkoman As Sulaymānīyah Iranian Shia Arab Christian • Karkūk Sunni Arab and Sunni Kurd Mandaean Sunni Arab and Shia Arab Jewish Euphrates Sāmarrā Mandali Ar Ramadi Baghdad . Ar Rutbah Source: CIA Karbala" . Al Hillah Map from 1978 Ad Diwaniyah Al 'Amarah An Najaf An Năşiriyah



Source: CIA Map from 1992



- The Iran-Iraq war (1980-1989)
 - Initial halt in oil production
 - Sharp reduction in investment and GDP per capita
 - Increase in government debt (decline in oil revenues)
 - Decline in education and social programs
 - Sluggish economic growth (recovery after 1984)
 - Unequal distribution of burdens: Shi'ites, Kurds hard hit by the slowdown.
 - Intensification of demographic relocation in the north
 - Kurd uprising and subsequent repression
 - Shi'ite unrest in the south

- The Persian Gulf War
 - Infrastructure severely damaged
 - Electricity grid
 - Oil Wells
 - Transportation Networks
 - Aborted Shi'ite and Kurdish uprisings
 - Severe punishment of Shi'ite areas
 - War within Kurdish factions (Iran and Saddam backing opposite sides). Kurds eventually gain autonomy.
 - UN sanctions
 - Initial effects:
 - Complete halt to foreign revenues
 - Inability to import capital equipment
 - Huge increase in debt burden

- Gains from trade vanished (forced autarky)
 - Huge comparative advantage unexploited due to halt in trade (Oil production).
- Roving vs. Stationary Bandit (Olson)
 - Two-Period Expropriation Model:
 - Household lives two periods: $U(C_1, C_2)$, W (initial endowment)
 - Constant Returns to Scale Technology:
 - » Invest K in period 1 and get an output (1+r)K in period 2
 - Expropriation rate (t):
 - » A "bandit" can steal (expropriate) a fraction t of K in period 1 and of the output in period 2.
 - Timing:
 - » Period 1: Household invest K, bandit expropriates tK
 - » Period 2: Household produces (1+r)(1-t)K, bandit gets t(1+r)(1-t)K

- Roving vs. Stationary Bandit (cont.)
 - Household optimal decision:
 - Choose K so that $MRS_{C1,C2} = (1+r)(1-t)^2$
 - A) No expropriation (t=0).
 - Optimal investment: MRS=MRT (=1+r)
 - B) Stationary Bandit (lives for two periods): Chooses expropriation rate that allows for some investment (0<t<1).
 - Investment is lower: MRS<MRT. (Now investment yields lower returns to the household)
 - C) Roving Bandit (lives only for one period): Expropriates all the capital (t=1).
 - Knowing so, household does not invest at all.

- Sanctions: Stationary Bandit ⇒ Roving Bandit
 - Formal vs. informal sector
 - More productive activity goes to the informal economy (harder to expropriate)
 - Productive vs. expropriation activity
 - More resources diverted towards expropriation activities (higher returns than productive activities)
- Macroeconomic Policies harder to implement
 - -↓Foreign revenues ⇒ †debt burden
 - Inflationary risks (shortages, food rationing)
 - Tax base erosion (formal vs. informal sector)

- Economic Consequences
 - Sharp reduction of Economic activity
 - No investment (sharp deterioration of infrastructure)



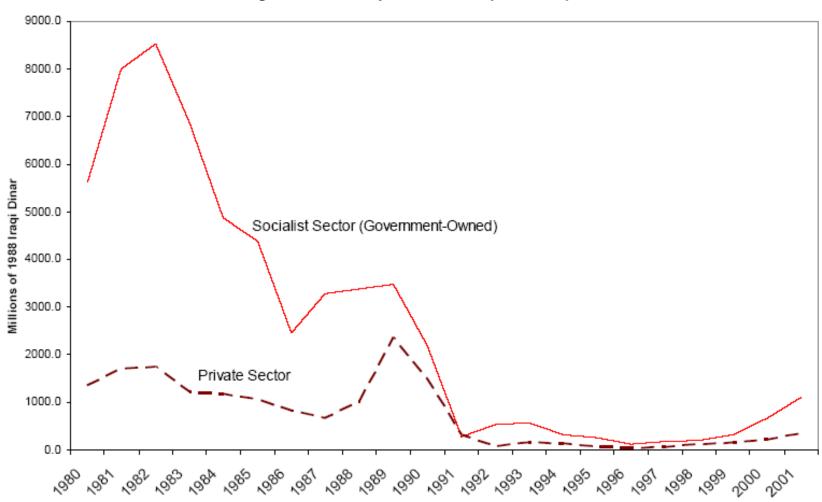
• Sharp decline in GDP per capita



- Hyperinflation
 - Printing of money (source of gov. revenues)
- Sharp declines in living standards
 - Child malnutrition (relief under 1996 oil-for-food program):
 - » Infant mortality grew from 20-30/1000 before the war to 80/1000 after the Gulf war
 - Further marginalization of Shi'ites

Investment

Figure 2: Gross Capital Formation (1980-2001)





- Economic Consequences (cont.)
 - Deterioration of Economic Policy
 - Roving bandit hypothesis, shift responsibility (US, UN)
 - Halt to alphabetization programs
 - 2001: 59% females aged 15-24 are illiterate (55% males)
 - Worsening of Business environment
 - Hike in expropriation activities (smuggling: cats of the embargo)
 - Emergence of a Kurdish Autonomy
 - No-fly zone: Independent north (in practice)
 - Economic growth in the north
 - Emergence of Kurdish governance structures

VI. Iraq in 2003

	1979	2003
GDP per capita (2002 \$)	2,410	960
Oil production (barrels per day)	3.5 million	2.5 million
Export earnings per capita (2002 \$)	4,100	544
Foreign debt (2002 \$)	\$41 billion (as of 1990)	\$180 billion
%Labor force in the Government or the Army	-	1/3
Average monthly wage (2002 \$)	_	\$40

VI. Iraq in 2003

- Worn-out infrastructure
 - Electricity, Telecommunications
 - Oil facilities (capacity below 1979 levels)
- Very limited Health and Education services
- Low female labor force participation (7.5%)
 - Low by ME standards
- Disenfranchised population (Shi'ites)
- Ethnic and religious fractionalization
 - Ethnic tension between Kurds and Arabs in the north, and between Shi'ites and Sunnis in the center.

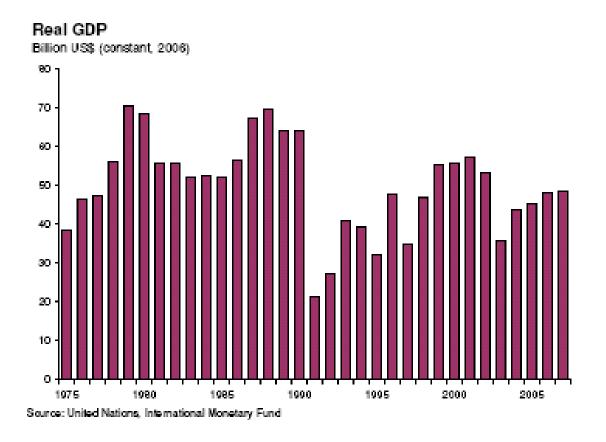
VII. Nation Building

- Law and Order
 - Reform and creation of structures of governance
 - Security
- Rebuilding Infrastructure
- Creation of a Tax Base
- External Debt (it crowds out external financing of the private sector)
 - Debt relief: Debt forgiveness, drop of claims for war reparations
 - Debt restructuring: From short- to long-term loans

VII. Nation Building

- Positive factors:
 - Easy access to huge oil reserves
 - High oil prices
 - Educated class of technocrats
- Potential Economic Issues
 - Security:
 - Essential for economic activity
 - Perceptions of living standards' improvements
 - Ethnic and religious frictions
 - Location of Oil fields and ethnic/religious division lines

Slow recovery

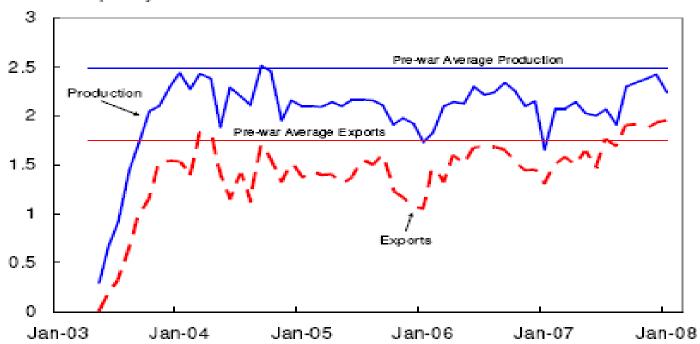


Compiled by: Deepa Dhume, Harvard "Five Priorities for Economic Reform in Iraq" March 08

Slow recovery

Crude Oil Production and Exports

Million Barrels per Day

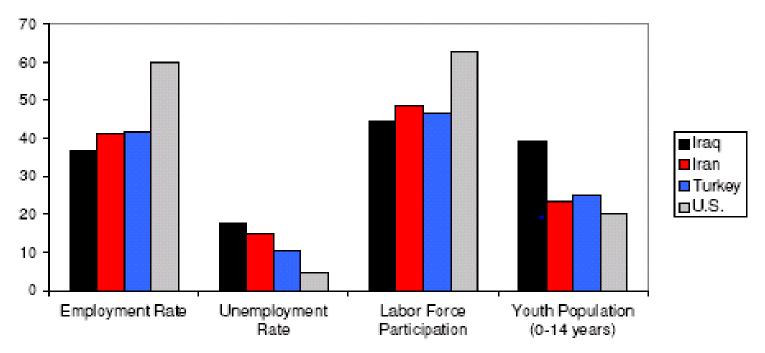


Sources: Brookings Iraq Index, OPEC Annual Statistical Bulletin

Big challenge

Comparative Labor Market Indicators

Percentage



Sources: CIA World Factbook, Iraq's Central Organization for Statistics and Information Technology