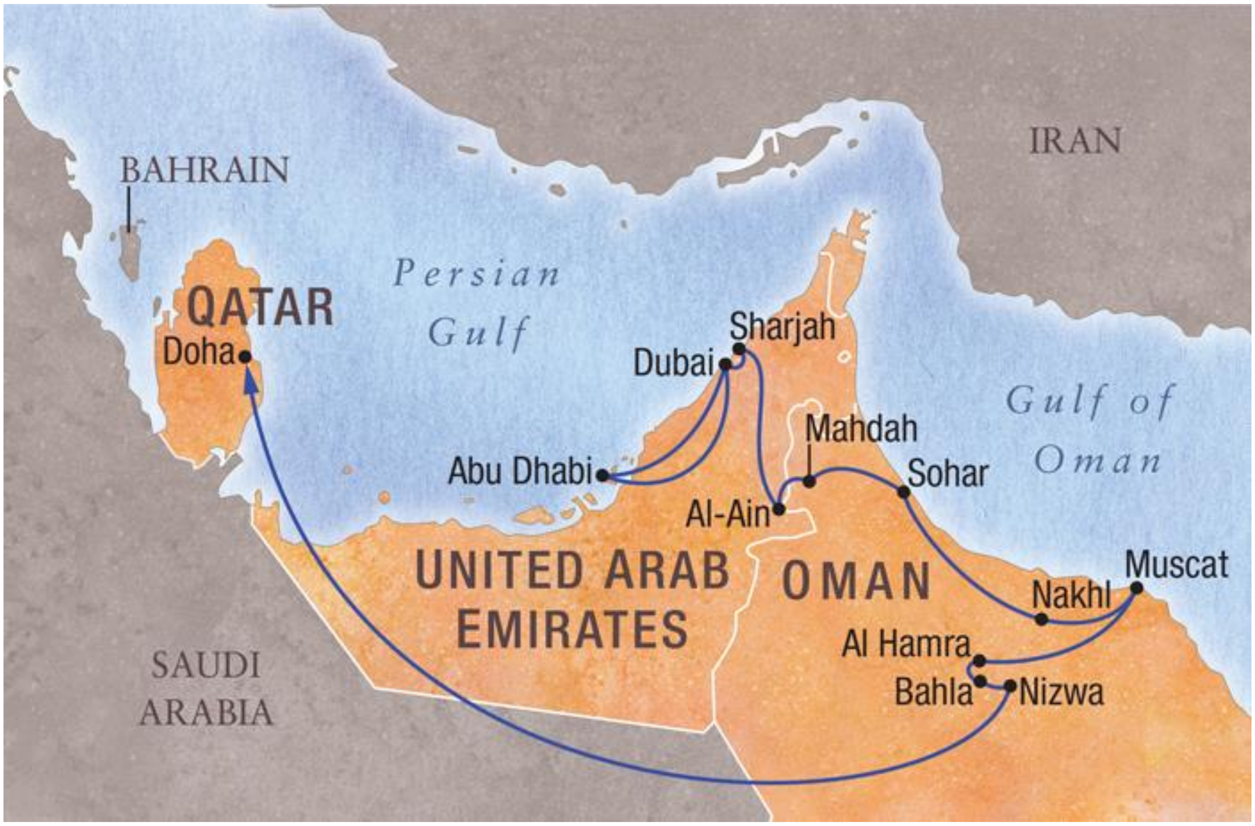


Emirates and Sultanates – Dubai, Oman, and Qatar

Scott Pearson
Professor Emeritus
Stanford University

This essay focuses on the political and economic history of three countries in the Arab Gulf region – the United Arab Emirates (UAE, including Dubai), Oman, and Qatar. Dubai has a large foreign debt ($80 billion) with meager earnings from hydrocarbons. Oman has limited oil and gas reserves and must diversify into tourism, horticulture, and petro-chemicals. Qatar has natural gas reserves that could last for 200 years at current production levels. I wrote these lectures for a Stanford Travel/Study program, Emirates and Sultanates, March 2014.

I begin with Dubai – free-port entrepreneurship that set the stage for rapid growth, diversification from gas-based heavy industry to light manufacturing, finance, real estate, and tourism, and vulnerability to global recession. I then look at Oman – early trade routes in the Western Indian Ocean, British colonization, and prosperity under Sultan Qaboos. I move on to Qatar – the world's richest country, control by Al-Thani rulers, and an aggressive foreign policy. I close by analyzing world petroleum – the rise of OPEC and the gyrations in oil prices since 1973. I append a time line, a bibliography, and description of sites that I visited in the UAE, Oman, and Qatar.

Dubai (1820-present)

Great Britain and the Trucial States (1820-1971). Imperial Britain entered the lower Arabian Gulf region in the early l9th century. The English East India Company implored the British Royal Navy to protect its monopoly on trade between the Gulf and India from incursions by Arab dhows, termed "pirates" by Britain. British imperial interests in the region expanded in the 20th century to include the protection of sea and air links with India and the production and trade of Middle Eastern petroleum.

Source: Wikimedia Commons available at https://commons.wikimedia.org/wiki/File:East_Indiaman_Warley.jpg>

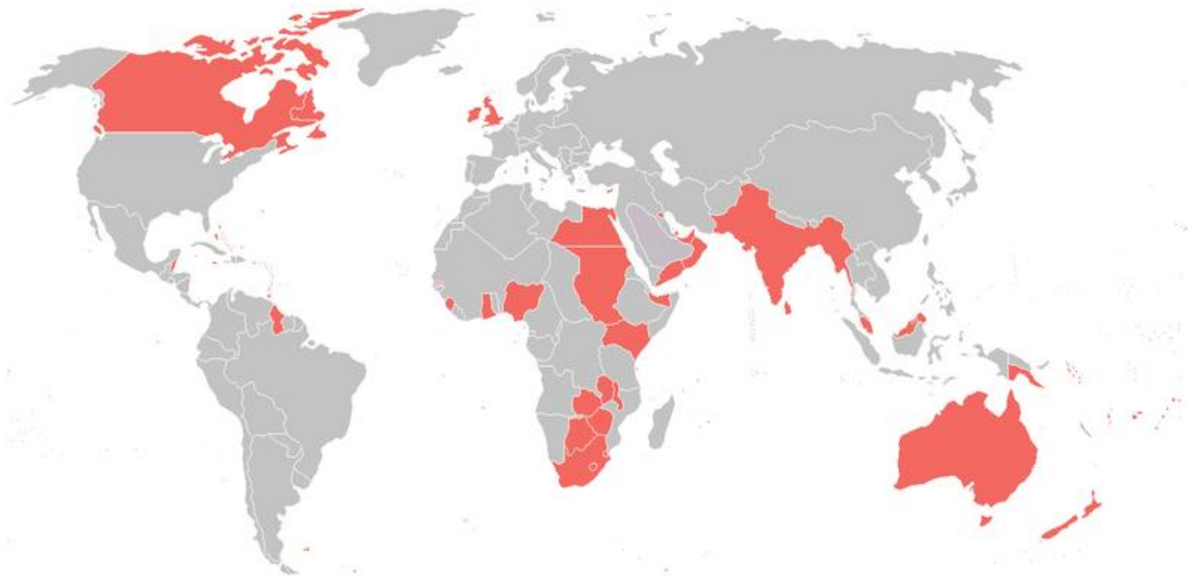
Warley, An East India Company Ship –
Painting By Robert Salmon, 1804, National Maritime Museum, London

Following British naval successes in 1819, Britain and the lower Gulf sheikhdoms signed General Treaties of Peace to end Arab "piracy." Dubai became an independent sheikhdom in 1833, when 800 members of the Al Bu Falah branch of the Bani Yas tribe migrated there, assumed control, and established the al-Maktum dynasty.

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:UAE_Dubai_Al_Fahidi_Fort_img1_asv2018-01.jpg>

Al Fahidi Fort, Oldest Building in Dubai –
Constructed in 1787, Taken Over by the al-Maktum Dynasty in 1833

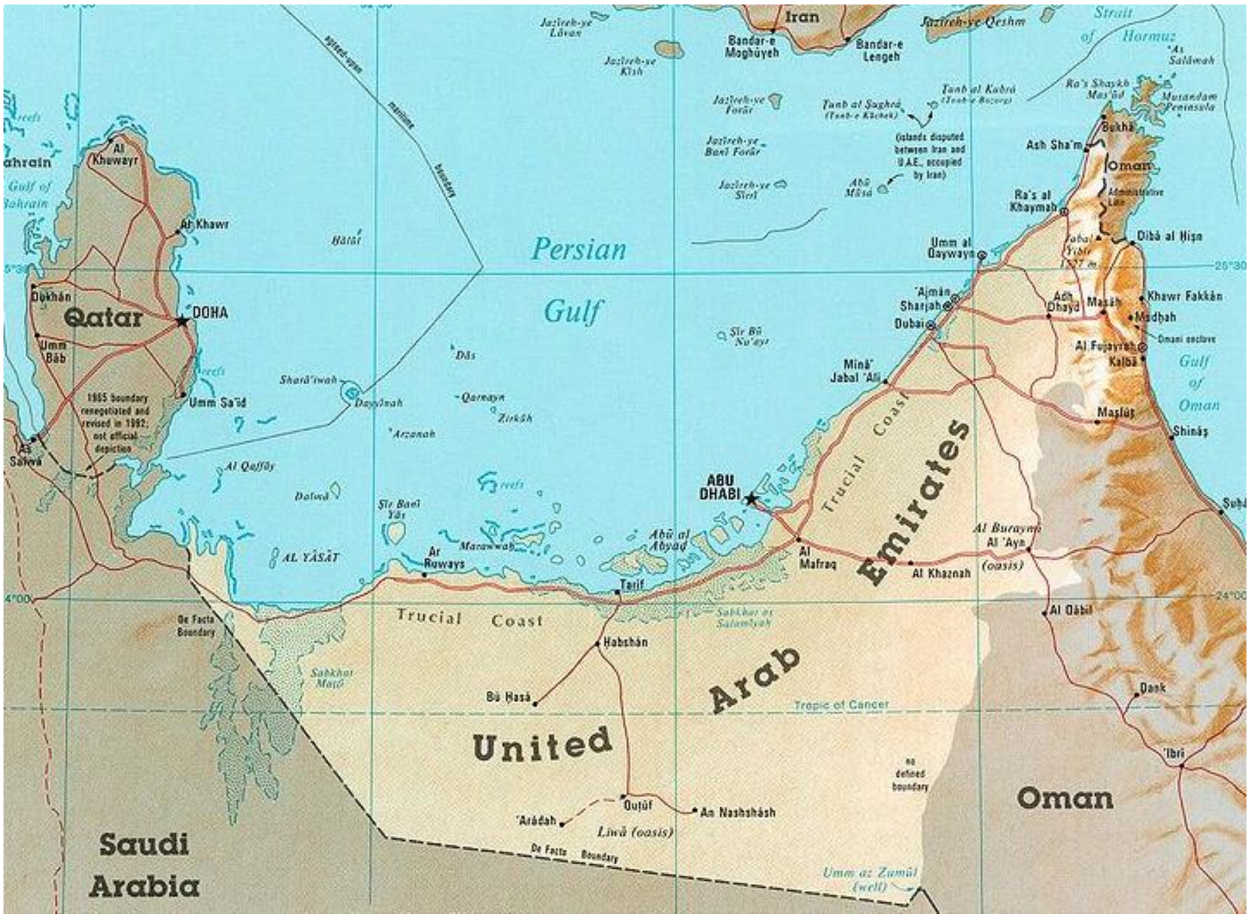
In 1853, Britain and the seven sheikhdoms entered into a Perpetual Maritime Treaty to end all hostilities at sea between sheikhdoms. Thereafter, the sheikhdoms that signed the permanent truce became known as the Trucial States. In the Exclusive Agreement of 1892, the lower Gulf sheikhdoms agreed that Britain would be responsible for their foreign relations. And in 1922, the Trucial States signed treaties giving British firms exclusive rights to obtain oil concessions.



Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:British_Empire_in_1914.png>

The British Empire in 1914, including the Trucial States – One-fourth of the World's Land Area and Population

Part-time patrols by six ships of the British Navy guaranteed the political stability of the authoritarian Trucial sheikhdoms. British defense successfully staved off potential incursions into the lower Gulf region by the Ottoman Empire and by Arab Wahhabi expansionists. Under the British umbrella, seven sheikhs ruled over a total population of about 80,000. In 1971, Britain chose to end the Trucial system, and the seven sheikhdoms created an independent federation, the United Arab Emirates.



Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:United_arab_emirates_rel95.jpg>

The Trucial States (1892-1971) –
After 1971, the United Arab Emirates (Abu Dhabi, Dubai, Sharjah, Ajman, Umm al-Quwain, Ras al-Khaimah, and Fujairah)

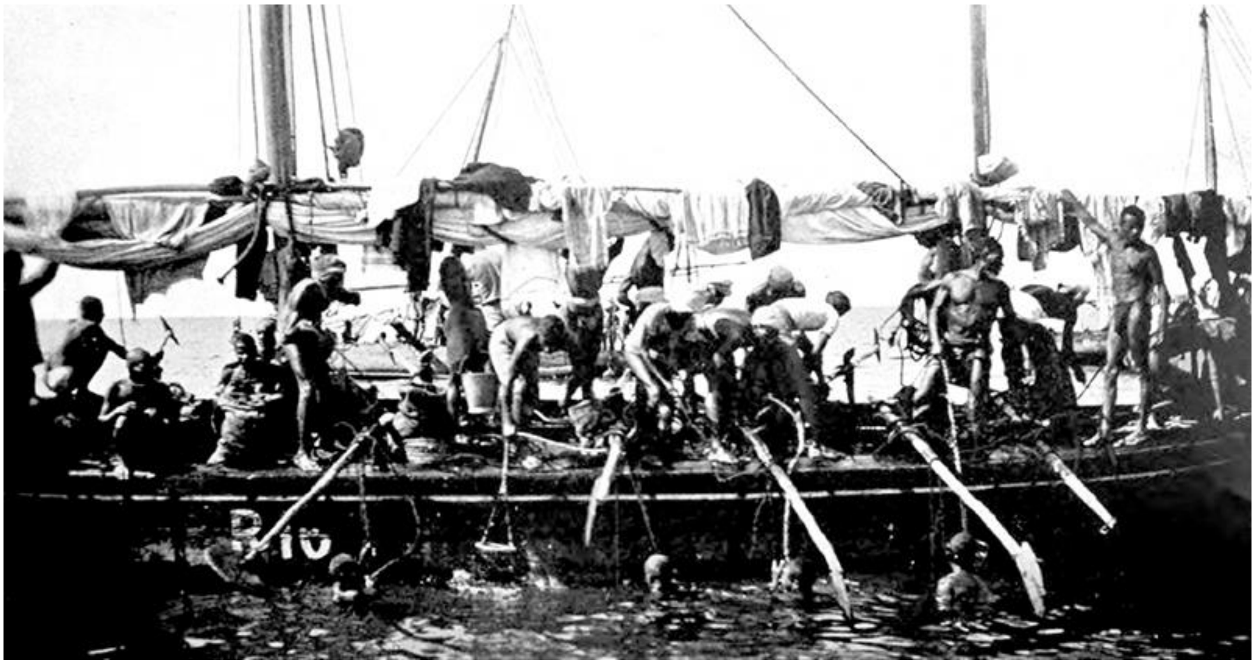
Rise of Entrepreneurial Dubai (1830s-1960s). Political stability has been an essential ingredient of Dubai's phenomenal success.

Sheikhs from the al-Maktum family dynasty have ruled Dubai since 1833 in an uninterrupted succession. No al-Maktum ruler has been assassinated or deposed. Since 1912, four members of the al-Maktum family – Sheikhs Said, Rashid, Maktum, and Mohammed – have ruled Dubai. They contained Arab nationalism by creating and redistributing wealth to Dubai nationals.

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Sheikh_Said_and_Sheikh_Juma_Al_Maktoum.jpg>

Sheikh Said bin Maktum al-Maktum, Ruler of Dubai (1912-1958) (Right) and His Brother Sheikh Juma al-Maktum – Pictured in 1950

Between 1800 and 1929, the economic base of Dubai (and of the entire Gulf region) was pearling. Dubai operated 300 pearling ships in the early 20th century. But pearling in the Gulf collapsed in the 1930s with the onset of the global Depression and Japan's expansion of cultured pearls.



Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Arab_pearl_divers_in_the_Persian_Gulf.jpg>

Arab Pearl Divers in the Arabian Gulf, 1908 –
Photograph from George Frederick Kunz, The Book of the Pearl

An earlier Sheikh Maktum had developed Dubai as a free port at the turn of the 20th century by guaranteeing political stability, eliminating trade taxes, permitting smuggling, and encouraging immigration of merchants. About 1900, many Persian merchants moved to Dubai, swelling its population to 10,000. Dubai grew slowly during the next half century, reaching 15,000 people by 1950. Then the boom began, and by 1965 Dubai had 100,000 residents.

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Another_Dhow.JPG>

Arab Dhow – Dubai Has Been a Free Port Since 1900

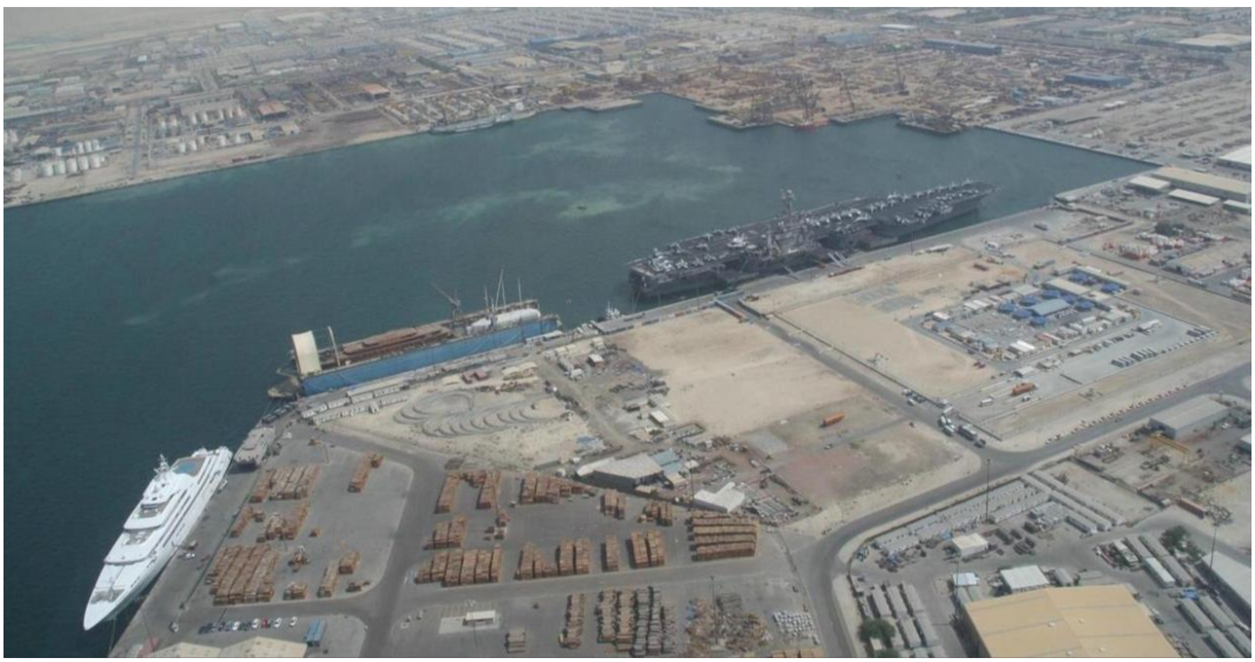
Sheikh Rashid, a visionary entrepreneur, gambled that he could transform Dubai economically by investing the city-state's modest petroleum earnings in public infrastructure. He dredged the creek to improve Dubai's port (1961), introduced electricity and water (1965), and constructed the world's largest man-made port and dry docks for ship repair (1979). Dubai first exported crude oil in 1969 and reached peak production in 1991 (410,000 barrels per day). Although Dubai's oil earnings were two-thirds of GDP in 1975, its oil reserves are small (4 billion barrels).

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Rashid_bin_Saeed_Al_Maktoum.jpg>

Sheikh Rashid bin Said al-Maktum (ruled Dubai 1958-1990) – The Father of Dubai Development

Diversification of Dubai's Economy (1960s-present). Sheikh Rashid took the lead in diversifying Dubai's economy away from oil-dependence. Initially, Dubai diversified into hydrocarbon-based heavy industry. Because it produced no natural gas, Dubai imported gas from its UAE partners, Abu Dhabi and Sharjah. Dubai produced oil-related products, such as metals, plastics, and gases. The centerpiece of this strategy was Dubai Aluminum, a highly profitable smelter.

In 1977, Sheikh Rashid created the Jebel Ali Free Zone, eliminating taxes to attract foreign light manufacturing firms. By 2008, 6,000 firms had invested $6 billion and employed 40,000 workers, principally in textiles.



Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:Port_Jebel_Ali_on_1_May_2007_Pict_1.jpg>

Jebel Ali Free Zone and Port, Dubai –
Created in 1977, Pictured in 2007

Sheikh Maktum recycled the free zone model several times. The two most successful innovations were Internet City (launched in 2000, recently with 1.600 firms, including Microsoft, Hewlett-Packard, and Dell, employing 10,000 workers) and Media City (begun in 2001, recently with 1,300 firms, including AP, BBC, and Reuters, which access war zones conveniently from Dubai). In 2002, Dubai created the International Financial Centre. Its 2,400 resident firms, including Goldman Sachs, Citibank, and UBS, solidified Dubai's standing as the leading financial hub in the Middle East.

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Dubai_International_Financial_Center_from_Dubai_Mall_-_panoramio.jpg>

International Financial Centre, Dubai –
Created in 2002, Pictured in 2015

The third step in Dubai's diversification strategy was to become a leading center for luxury tourism and expatriate real estate. Dubai has 540 luxury hotels with 100,000 rooms that attracted 16.7 million tourists and generated $28 billion in 2019. The Burj Al Arab, costing $1 billion, is one of the world's tallest buildings. Dubai also built 30,000 new homes for expatriate ownership. One developer, Nakheel, constructed a new island for its luxurious Palm Jumeirah collection of beach-front villas.

Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:Dubai_Wingsuit_Flying_Trip_(7623566780).jpg>

Dubai's Real Estate Development Ran Amok –
Palm Jumeirah, Nakheel Reclamation

Political and Economic Vulnerabilities (1960s-present).

Dubai's expansion has been accompanied by significant risks. The al-Maktum rulers have divested power to their sons, especially the crown prince, to facilitate power transitions. Sheikh Mohammed, the current ruler, is a strong, experienced leader and an active sportsman. The political structure remains autocratic, although an advisory Federal National Council was elected in 2006. Dubai has an effective system of e-governance with interactive websites providing access to its leaders.

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Mohammed_bin_Rashid_Al_Maktoum_(15-02-2021).jpg>

Sheikh Mohammed bin Rashid al-Maktum, Ruler of Dubai (2006-present) – Fighter Pilot, Horseman, and Entrepreneur

However, the ruling bargain struck between the al-Maktum family and Dubai's 255,000 nationals (Emiratis) underpins political stability – the rulers redistribute state wealth from rentier activities and the Emiratis forego political participation. An average male Emirati receives free education, healthcare, land, and water and subsidized housing, electricity, and fuel. Privileged Emiratis have become rentiers by renting or selling their land to investors. Most employed Emiratis work for the government or for state-owned firms.

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Haribya_Band.jpg>

Emirati Men Perform a Razfah Ceremonial Dance at a Wedding – Every Emirati Man Receives an Annual Government Benefit Worth $55,000

But this ruling bargain is under threat because of massive expatriate immigration. Dubai is home to about 3.1 million expatriate non-citizens. Nearly three-fourths are from South Asia (mainly India) and one-forth from Iran. Foreigners constitute about 99 percent of the workforce in Dubai's private sector. Perhaps half of Dubai's expatriates are non-Muslim. Many Emiratis worry that free-wheeling Dubai has lost its cultural identity. Ironically, Dubai's diversification strategy – to encourage foreign investment in free zones, tourism, and real estate – has heightened the city-state's exposure to global market risks and increased its vulnerability to global recession.

Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:Dubai_skyline_2010.jpg>

Dubai's Skyline in 2010 – Global Recession Threatened Dubai's Trade, Tourism, Real Estate, and Aviation

Impact of Global Economic Downturn on Dubai (2008-present). The global credit crunch hit Dubai in October 2008. Dubai's real estate bubble burst, and during the following eighteen months property values fell by half. Foreign currency speculators moved $55 billion of short-term capital out of Dubai. Foreign investors sold stocks, and the stock index on the Dubai exchange fell 70 percent. During 2009, national income in the United Arab Emirates (including Dubai) declined 4 percent, reflecting lower world oil prices, reduced local asset prices, and fewer tourists. The fall-off in property values triggered a debt crisis in Dubai. Real estate developers had borrowed heavily abroad.

Source: Wikimedia Commons available at
<https://en.wikipedia.org/wiki/File:Burj_Al_Arab,_Dubai,_by_Joi_Ito_Dec2007.jpg>

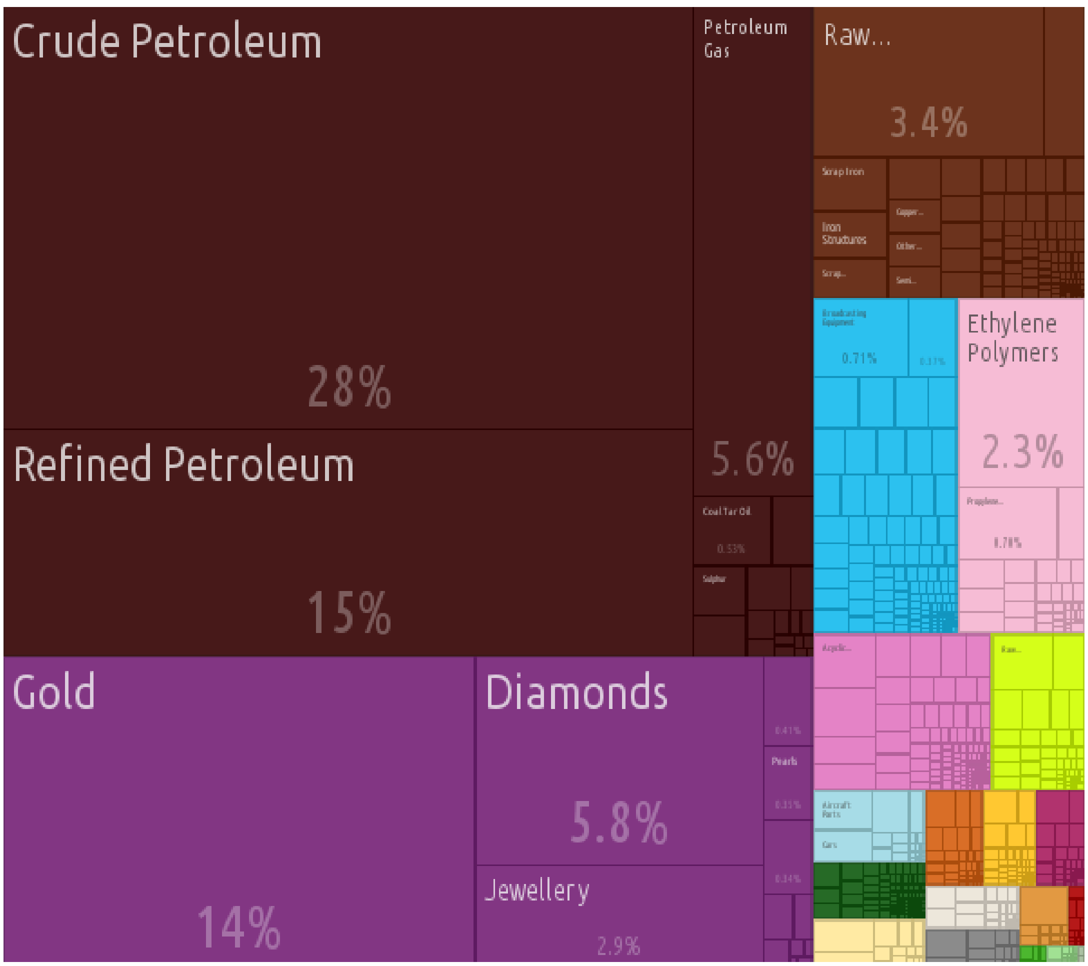
Burj Al Arab Hotel, Dubai, Opened in 1999, Pictured in 2007 –
Real Estate in Dubai Lost Half Its Value in 2009

Struck by the global credit crunch, Dubai was stretched to service its debt of $110 billion. Oil-rich Abu Dhabi came to Dubai's rescue twice in 2009. In February, Abu Dhabi convinced the UAE Central Bank to purchase $10 billion of Dubai's bonds. Then in December, the Abu Dhabi government lent a further $10 billion to the Dubai government. In 2011, Dubai negotiated a restructuring of $25 billion of its debt; 90 foreign banks and hedge funds allowed Dubai to pay lower interest over a longer period. Fueled by tourism and trade, Dubai's economy recovered and grew 4 percent in 2012. In 2013, Dubai unveiled plans to build the world's largest mall and 100 more hotels in a new Mohammed bin Rashid City.

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Abu_dhabi_skylines_2014.jpg>

Skyline of Abu Dhabi in 2014 – Dubai's Oil-rich Benefactor, Neighbor in the United Arab Emirates, and Economic Rival

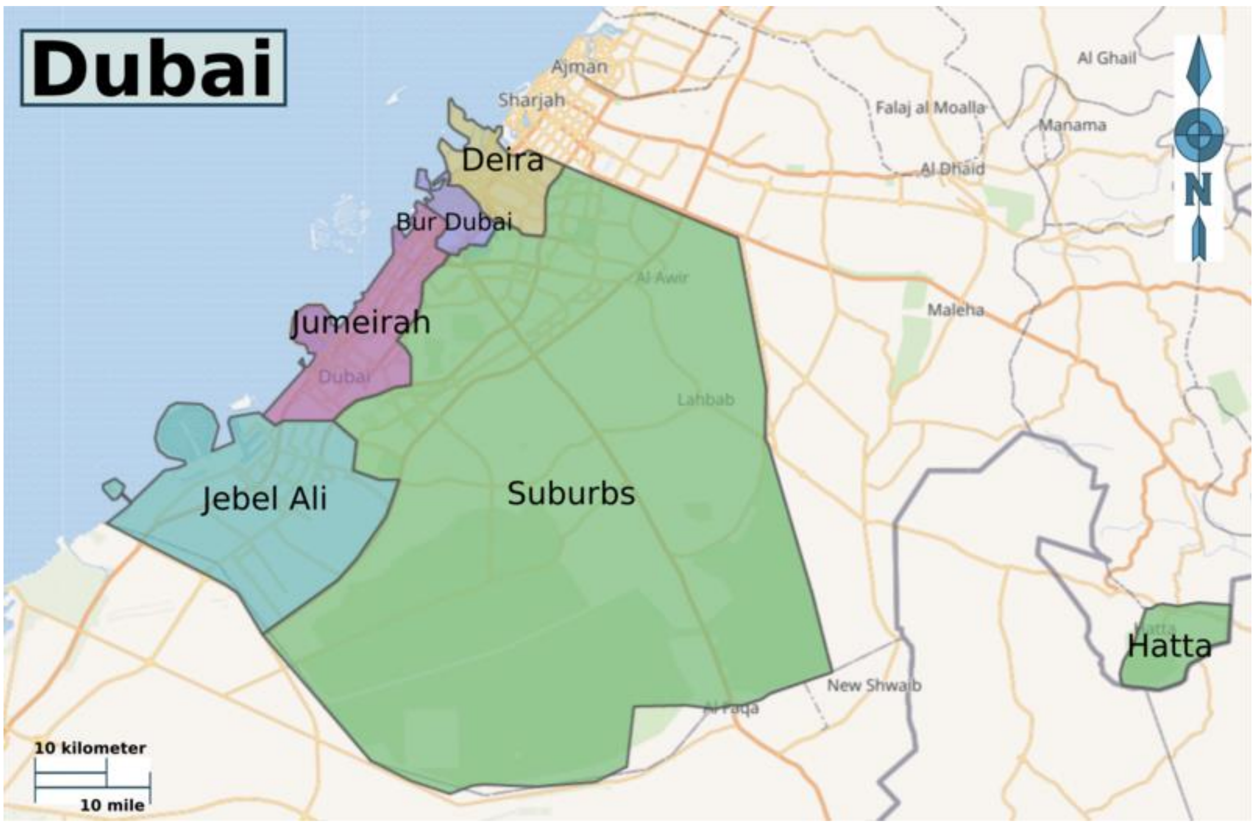
In 2019, each of the 9.7 million residents in the United Arab Emirates (3.4 million of them reside in Dubai) earned an average income (adjusted for purchasing power) of $70,089 – 7 percent higher than that in the US. Expenditures on health and education improved quality-of-life indicators. Life expectancy was 78 years and the rate of adult literacy was 93 percent. The UAE ranked 31st of 189 countries in the United Nation's Human Development Index and a very impressive 16th of 190 countries in the World Bank's Ease of Doing Business Index. Moreover, the UAE ranked a creditable 21st of the 180 countries listed in Transparency International's Corruption Perceptions Index.



Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:United_Arab_Emirates_Exports_Treemap_2017.svg>

Proportional Representation of the United Arab Emirate's (including Dubai's) Export Earnings in 2017

Sheikh Mohammed's dream is to complement a booming economy in Dubai with investments in education and the arts. But foreigners need to regain their confidence in Dubai's future as a Middle Eastern hub for trade, finance, and tourism. Meanwhile, Dubai's cousins in neighboring Abu Dhabi – the oil-rich capital of the UAE – are planning to use their vast oil wealth to out-compete Dubai in luxury real estate and tourism.

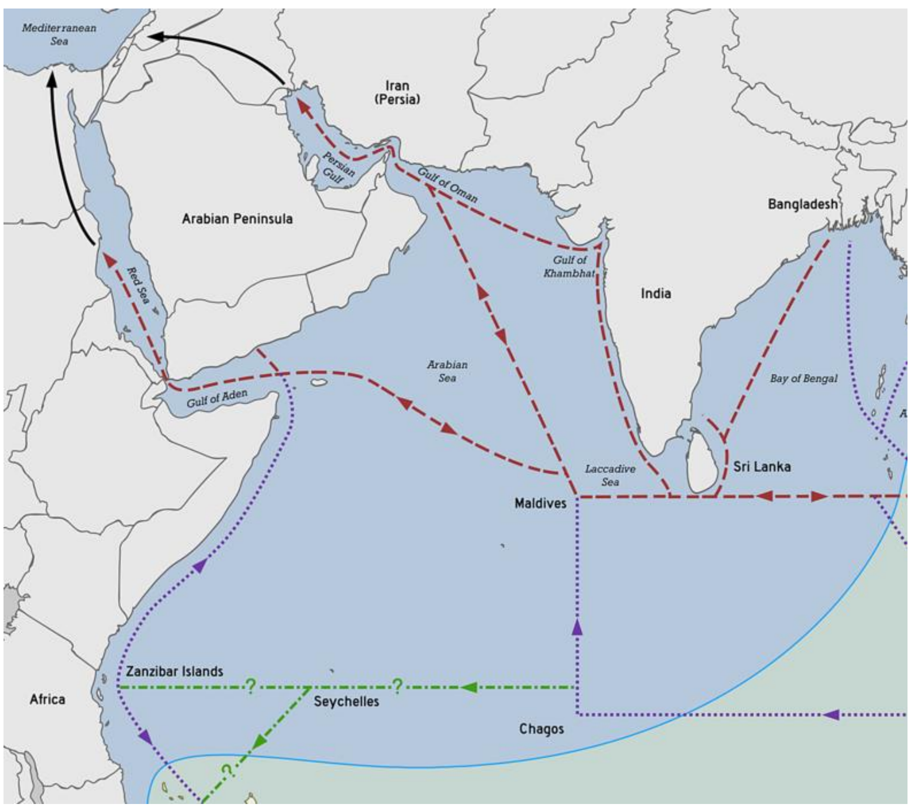


Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:Dubai_new_travel_map.png>

Contemporary Dubai – A Wealthy State in the United Arab Emirates

Oman and Zanzibar (1500-present)

Portuguese Domination of Oman and Zanzibar (16th-18th centuries). Muslim Arab merchants from Oman and Yemen controlled trade between India, Arabia, and East Africa in the Indian Ocean between the 8th and 13th centuries. In the following three centuries, Arab traders extended their control of the Indian Ocean. African slaves, ivory, and gold were exchanged for Indian textiles, beads, and rice.



Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Austronesian_maritime_trade_network_in_the_Indian_Ocean.png>

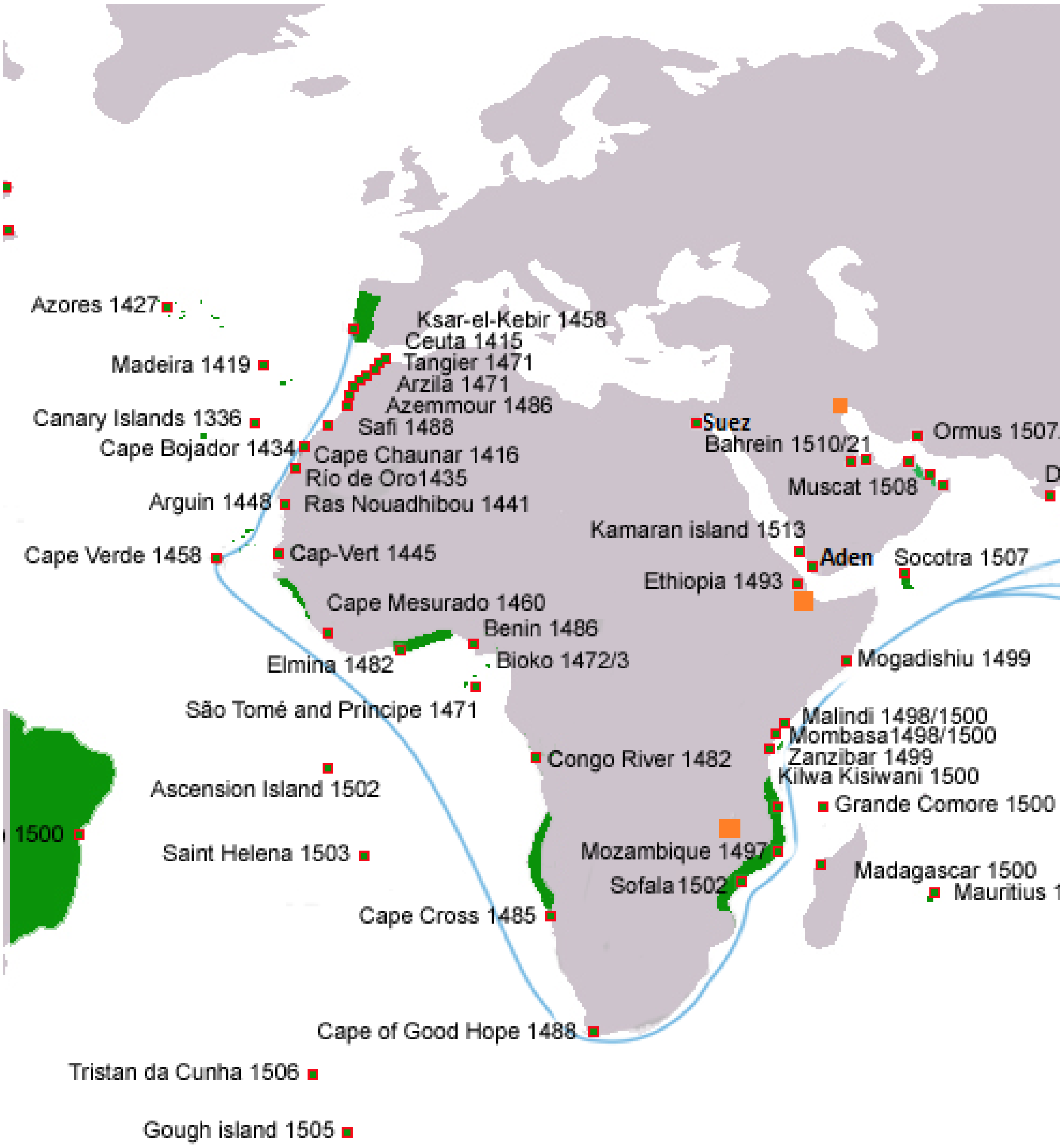
Oman-Africa-Asia Trade Triangle – 8th-15th centuries

Muslim control ended in the early 16th century when Portuguese ships rounded the Cape of Good Hope and established new all-sea trade routes between Europe and Asia. Portugal had two goals in pioneering a marine route around Africa. Both involved competition with the expanding Ottoman Empire. The principal Portuguese motivation was commercial – to undercut Ottoman control of European-Asian trade routes and to end the Muslim monopoly of trade in the Indian Ocean. The Portuguese expected to reap huge trading profits from Asian spices and African gold. Portugal's second goal was to spread Christianity by limiting Islam in Asia and Africa.

Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:Portuguese_Caravel.jpg>

Model of a Portuguese Caravel Ship, 15th century –
Musée National de la Marine, Paris, France

Portugal introduced two innovations – large ships with improved sails, and gunpowder to besiege fortresses. Portuguese forces controlled key Indian Ocean ports by constructing fortresses and used superior military strength to enforce trade monopolies and collect trade taxes. Since its manpower was limited, Portugal did not attempt to control trade in interior regions.



Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:Portuguese_discoveries_and_explorationsV3en.png>

Portugal's Exploration and Settlements in Africa and Arabia, 1415-1510

Omanis expelled Portugal from Muscat (1650) and Zanzibar (1729). The impacts of the Portuguese incursion (1498-1729) were farreaching. The end of Muslim domination of Indian Ocean trade paved the way for European merchant-based imperialism (British India, Dutch East Indies) and Islamic gunpowder empires (Ottoman, Safavid (Persia), Mughal (India).

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Old_Muscat_(2).jpg>

Fort Al-Jalali, Old Muscat, Oman – Built by the Portuguese in the 1580s to Control Muscat Harbor, Captured by the Omanis in 1650

Omani Control of Zanzibar (18th-19th centuries). Omani leaders took control of Zanzibar in 1729, ruled until 1890, and nominally ruled under a British Protectorate until 1964. During much of the Omani era in Zanzibar, a triangular trade pattern linked East Africa (Zanzibar) with

Arabia (Oman) and India (Gujerat). Zanzibar-based participants in the Indian Ocean trade included people from all three nodes of the triangle. After a modest start, the Omani Arab rulers, led by Sayyid Said bin Sultan (ruled 1806-1856), oversaw a quintupling of trade during the 19th century.

Source: Wikimedia Commons available at <*https://commons.wikimedia.org/wiki/File:Said_bin_Sultan.jpg*>

Sayyid Said bin Sultan (1791-1856) –
Leading Omani Ruler of Zanzibar (ruled 1806-1856)

The Al-Busaidi dynasty, led by Sayyid Ahmad, took control of Oman in 1744 and increasingly shifted its mercantile and political attention to Zanzibar as Britain displaced traditional Omani trading interests in India. Sayyid Said moved his capital to Zanzibar in 1832, expanded his empire in East Africa, and ruled Oman from there. Following Said's death, with British encouragement the sons of Said split the empire into two parts in 1861. Majid ruled in Zanzibar and Thuwaini in Muscat.

Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:Sultan%27s_Palace,_Zanzibar.JPG>

The Sultan's Palace in Stone Town, Zanzibar –
Former Omani Capital and Residence of the Omani Sultans

The Omani rulers had long relied on Banyan merchants, Gujerati Hindus from Cutch in northwest India. The Banyans, who had helped expel the Portuguese in 1650, became the backbone of Zanzibari trade expansion. They operated as brokers in the regional trade, owned the merchant ships, financed trade and production (especially of cloves in Zanzibar in the 19th century), and served as tax collectors by running the customs house for the sultans.

The Swahili residents of Zanzibar aided regional trade by providing entrepôt services (food, storage, recreation), and they ran the local trade between Zanzibar and the Swahili coast. That trading system operated until the onset of European imperialism in East Africa in the late 19th century.

Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:Zanzibar_Stone_Town01.jpg>

Swahili Residents of Zanzibar Provided Entrepôt Services – Market Stall in Stone Town, Zanzibar

Arab-European Conflict in Zanzibar and Oman (19th century).

The basis of Zanzibar’s entrepôt economy was the caravan trade with the interior of East Africa. Zanzibari Arab merchants established regional trading empires in the interior. They used finance from Indian (Banyan) merchants and employed African (mostly slave) porters. The primary exports from the interior were elephant ivory, African slaves, and gum copal (a resin used in varnish).

The principal trade goods exchanged in the interior were textiles (Surat cloth from India and, later, *merikani* cloth from the United States) and glass beads (from Italy). The wealthiest of the Zanzibari Arab interior merchants was Tippu Tip, who ruled a large section of the eastern Congo in the 1870s and 1880s.

Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:TipputipPortrait.jpg>

Tippu Tip (Hamed bin Mohammed) –
Wealthy Zanzibari Arab Trader, Eastern Congo, 1870s-1880s

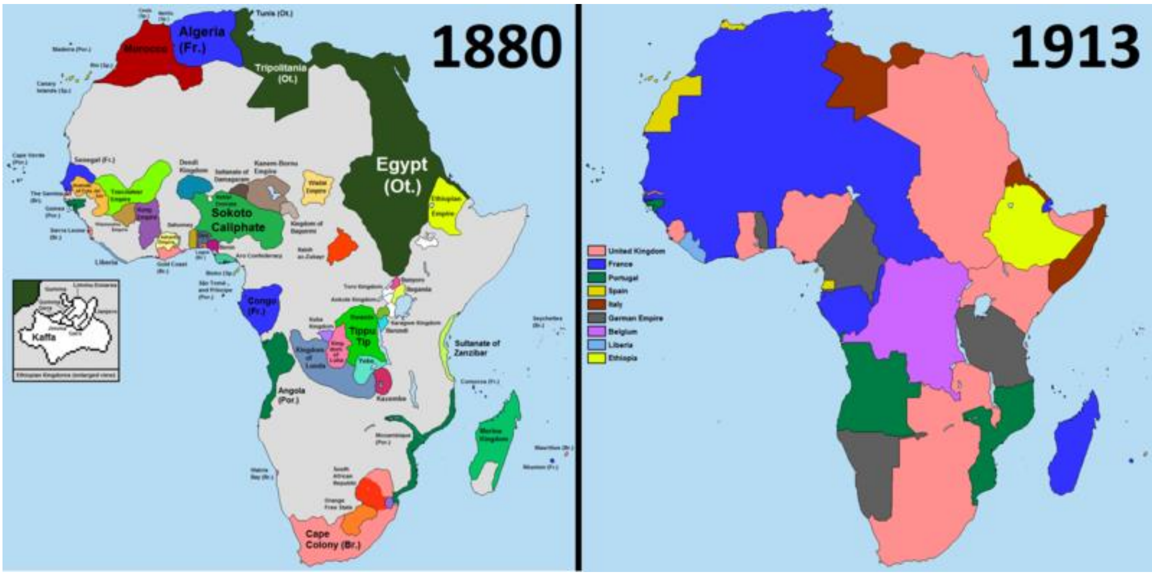
Starting in the 1830s, foreign merchants began making incursions into the East African trading system. American merchants from Salem, Massachusetts, seeking ivory, came first – in the early 1830s. An Omani-American commercial treaty was signed in 1833, giving Americans trade privileges in Zanzibar equal to those enjoyed by Britain. Britain, which had signed a similar commercial treaty with the Omani sultanate in 1798 to promote exports of Indian cloth, introduced anti-slave trading provisions in a new trade treaty with Zanzibar in 1839.

France lost out in the coastal trade in East Africa and grew sugar in Madagascar and Réunion.

Source: Wikimedia Commons, available at <https://commons.wikimedia.org/wiki/File:Stone_Town_of_Zanzibar-108843.jpg>

Stone Town, Zanzibar, Omani Entrepôt on the Indian Ocean – Colonized By Great Britain in 1890

Trade grew into imperialism. Oman became a client state of Britain by the 1850s. Britain proclaimed a protectorate in Zanzibar in 1890 and colonized Kenya at the turn of the 20^{th} century. Germany formed the German East Africa Company and claimed Tanganyika as a colony in 1888. The Omani sultanate in Zanzibar thus lost its East African coastal territories, but continued to rule in Zanzibar under British hegemony.

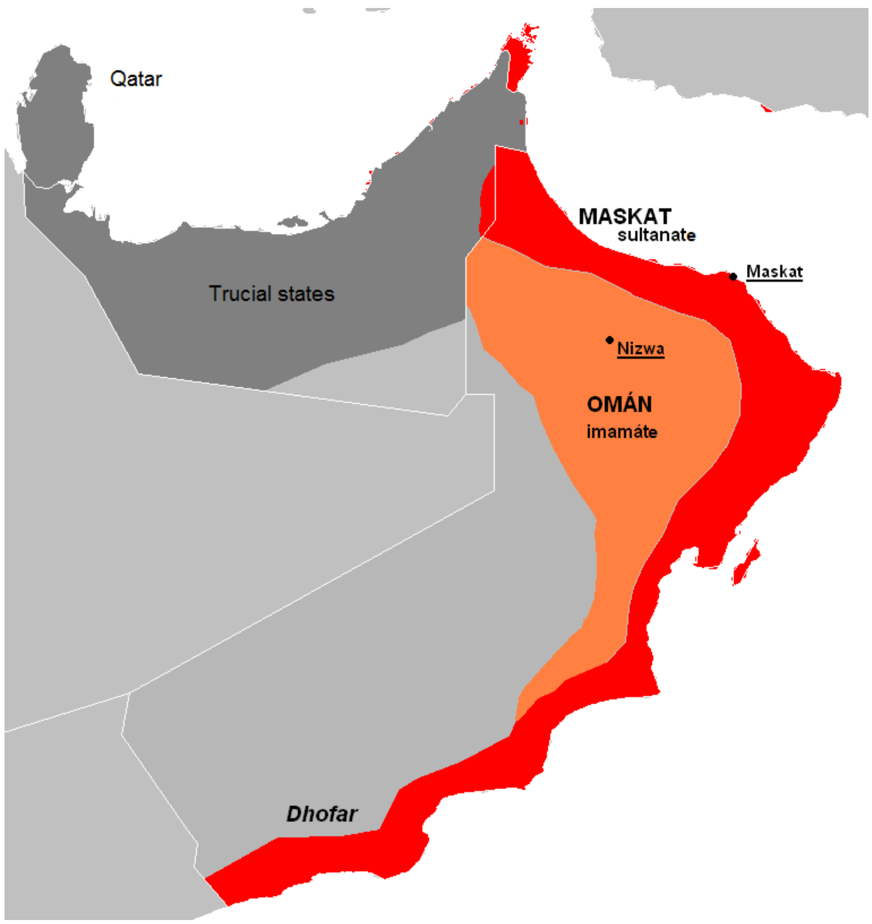


Source: Wikimedia Commons, available at
<https://commons.wikimedia.org/wiki/File:Scramble-for-Africa-1880-1913.png>

European Colonialism in Africa, 1880 and 1913 – Britain (Pink), France (Blue), Germany (Brown), Portugal (Green), Belgium (Lavender), and Italy (Red)

British Influence in Oman and Zanzibar (1890-1964). By the mid-19th century, Oman had become a client state of Britain and the sultanate depended on British protection. But Oman never became a British colony. Britain's motives in Oman were primarily strategic – to buttress its most valuable colonial possession, India, by controlling access to the Arabian Gulf. Initially, Britain supported the Omani sultanate against its traditional enemies – rebelling local tribes and Arabian invaders.

After the British-imposed Seeb Agreement (1920), Sultan Taimur controlled the coasts and local sheikhs held the interior. In the aftermath of World War II, the British helped the sultanate to contain Arab nationalism and communism. British troops helped Sultan Said defeat insurgents in northwestern Oman in the Jebel Akhdar War (1955-1959).



Source: Wikimedia Commons, available at <https://commons.wikimedia.org/wiki/File:Maskat_%26_Oman_map.png>

Seeb Agreement (1920) – Al-Busaidi Sultans Controlled the Coasts of Oman (Red) and Local Sheikhs Controlled the Interior (Orange)

In the Omani sultanate of Zanzibar, Britain had other motives. During the scramble for Africa, Britain declared a protectorate over Zanzibar in 1890 to preempt German rule. Britain allowed the Al-Busaidi dynasty nominally to continue its rule, but effective power rested with the British resident. Following the close of the East African slave trade and the over-harvesting of elephant ivory, Britain presided over a change in the Zanzibari economy. Pre-colonial Zanzibar was an entrepôt to serve the export of ivory and slaves from the interior. Britain encouraged the transformation of Zanzibar to become the world's leading producer of cloves.

Source: Wikimedia Commons, available at <https://commons.wikimedia.org/wiki/File:Seasonal_clove_buds_drying_on_Pemba1.jpg>

Clove Buds Drying on Pemba Island, Zanzibar

With cloves and regional trade, Zanzibar prospered through the 1950s. Zanzibar experienced a bloody revolution in 1964. Immigrant Africans from the mainland overthrew the Omani sultanate. Later in that year, Zanzibar joined Tanganyika to form Tanzania. Zanzibar suffered under African socialism.

Source: Wikimedia Commons, available at <https://commons.wikimedia.org/wiki/File:Tanzania_market.jpg>

Widespread Parallel (Black) Markets in Tanzania – For Food, Consumer Goods, and Foreign Exchange

Oman under Sultans Qaboos and Haitham bin Tarik (1970-present). In 1970, Sultan Said was deposed in a bloodless coup d'état. Said had been reluctant to use Oman's new oil wealth for development. The new ruler, Sultan Qaboos, Said's son, was Sandhurst-educated and progressive. Oman depended on Britain for security until 1971 and on the US thereafter. Britain helped Qaboos overcome a communist insurgency in southwest Oman, the Dhofar War (1965-1975).

Source: Wikimedia Commons, available at <https://commons.wikimedia.org/wiki/File:Omani_Qaboos_bin_Said_Al_Said_2_(cropped).jpg>

Sultan Qaboos bin Said Al-Said (1940–2020) –
Ruler of Oman (1970-2020), Pictured in 2013

Qaboos ruled autocratically. Elected councils were advisory. A few merchant families controlled Oman's economy and supplied much of the country's leadership. In response to demonstrations in 2011, Oman promised social services valued at $2.6 billion. Ruling succession was uncertain, since Qaboos had no direct heirs. After Qaboos died in January 2020 at age 79, he was succeeded as Sultan of Oman by his cousin, Haitham bin Tarik, who had earlier been Minister of Culture.

Source: Wikimedia Commons, available at <https://commons.wikimedia.org/wiki/File:Secretary_Pompeo_Meets_with_the_Sultan_of_Oman_Haitham_bin_Tariq_Al_Said_(49565463757)_(cropped).jpg>

Sultan Haitham bin Tarik Al Said (1955 –) –
Ruler of Oman (2020 –), Pictured in 2020

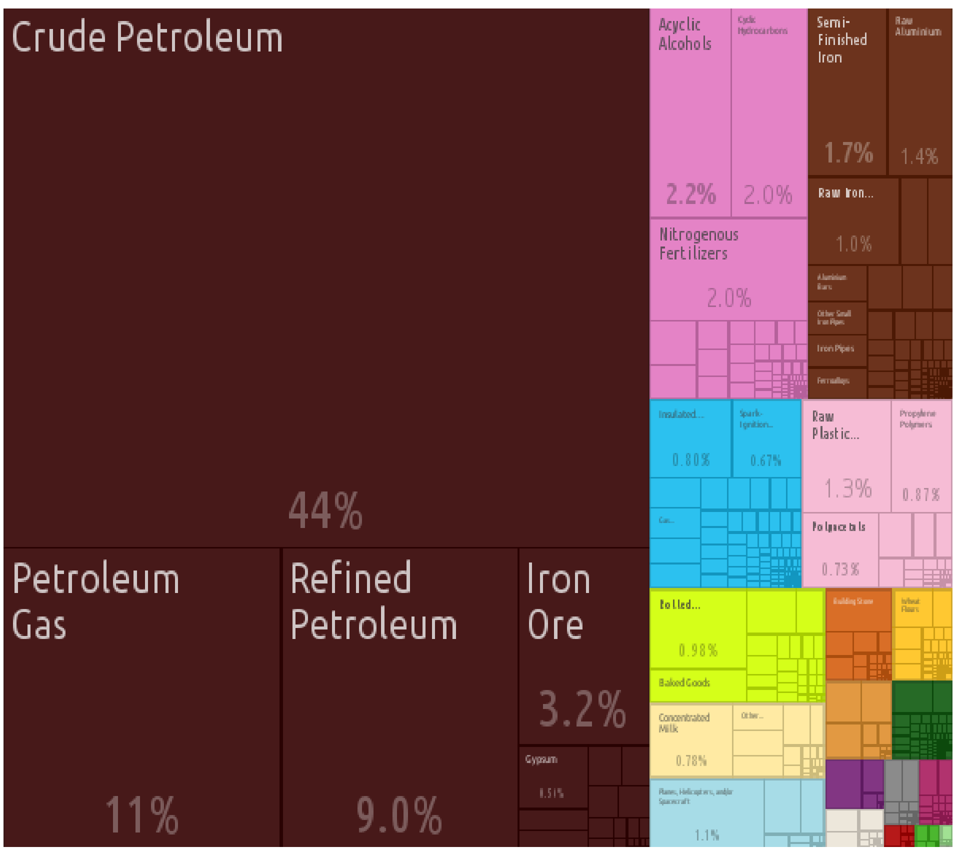
In 1970, Oman was a poor and largely illiterate country of 435,000 residents. By 2019, Oman's 5 million people enjoyed a per capita income (adjusted for purchasing power) of $28,508 (44 percent of the US level), a life expectancy of 78 years, and an adult literacy rate of 96 percent. In that same year, Oman ranked 60th of 189 countries in the United Nation’s Human Development Index, 56th of the 198 countries listed in Transparency International’s Corruption Perceptions Index, and 68th of 190 countries in the World Bank’s Ease of Doing Business Index.

Source: Wikimedia Commons, available at
<https://commons.wikimedia.org/wiki/File:Caes_project.JPG?uselang=fr>

Civil Engineering Project, Sultan Qaboos University, Muskat, Oman -- Sultan Qaboos University, Founded in 1986, Has 15,000 Students

Oman’s economy is dependent on petroleum and natural gas, which accounted for 37 percent of GDP in 2019, but the country is not a member of OPEC. Oil production in 2019 was 971,000 barrels per day, worth $23.2 billion, but proven oil reserves are only 4.8 billion barrels

(15 years of current production). Oman produces natural gas and exports liquefied natural gas to Asia. In 2019, gas production was 1.6 trillion cubic feet, worth nearly $6 billion. Reserves of natural gas are estimated at 23.8 trillion cubic feet. Omani leaders are trying to diversify into gas-based manufacturing and tourism, but success has been limited. Annual foreign investment rose to $3.4 billion in 2019, but tourism accounted for less than one percent of GDP.



Source: Wikimedia Commons, available at <https://commons.wikimedia.org/wiki/File:Oman_Exports_Treemap_2017.svg>

Proportional Representation of Oman's Export Earnings in 2017

Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:Oman-map.png>

Contemporary Oman

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Map_of_Zanzibar.svg>

Contemporary Zanzibar – A Province of Tanzania

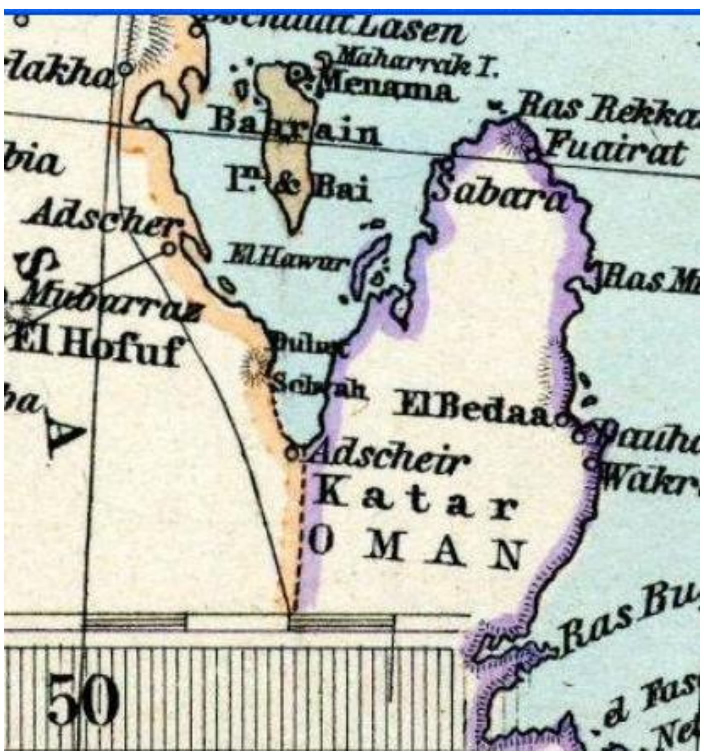
Qatar (1850-present)

Great Britain and Qatar (1850-1971). Great Britain emerged as the world's leading maritime power in the 19th century. Britain intervened in the lower Arabian Gulf region to protect its trade routes with India, its most important colony. It desired to control piracy and limit conflict between Arab rulers. In the 20th century, after Britain discovered oil in Iran, British imperial motives in the Gulf shifted to controlling the production and trade of petroleum.

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Abadanrefinery1938.jpg>

Oil Motivated British Imperialism in the 20th century – Anglo-Iranian Refinery, Abadan, Iran, 1938

Sheikh Muhammad bin Thani established the Al-Thani ruling dynasty in 1825 and relocated to Doha in eastern Qatar in 1850. Sheikh Muhammad entered into an Agreement with Britain in 1868, which recognized Al-Thani rule and Qatari independence from Bahrain. But in 1871, Muhammad agreed to protectorate status within the Ottoman Empire and permitted Turkish troops in Doha. His son and successor, Sheikh Jassim, defeated the expansionist Turks in the Battle of Wajbah (near Doha) in 1892, maintaining Qatari independence.



Source: Wikimedia Commons available at <[*https://commons.wikimedia.org/wiki/File:Qatar_in_Stielers_Handatlas_1891_59.JPG*](https://commons.wikimedia.org/wiki/File:Qatar_in_Stielers_Handatlas_1891_59.JPG)>

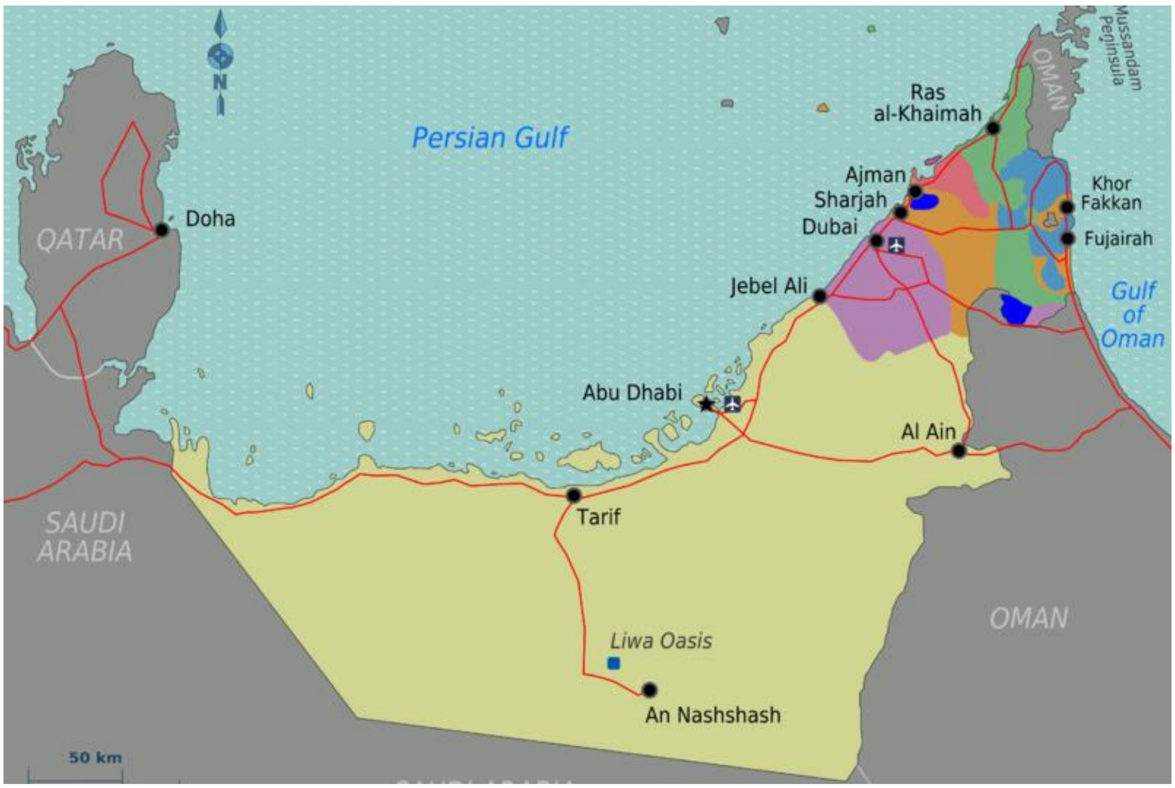
Qatar, A Protectorate of the Ottoman Empire (1871-1916) – Map, 1891

Facing the decline of Ottoman power and a threat of takeover by Saudi Arabia, Qatari Sheikh Abdallah negotiated the Anglo-Qatari Treaty of 1916 with Britain. Qatar became a British protectorate. Britain promised to defend Qatar from attacks by sea in return for British control over Qatari foreign affairs and oil concessions. In 1935, Britain extended its protection to invasions by land and the Anglo-Persian Oil Company (later British Petroleum) gained a 75-year concession for rights to Qatari oil and gas. Sheikh Abdallah received a sizeable cash bonus and annual subsidy.

Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:Sheikh_Abdullah_Bin_Jassim_Al_Thani.jpg>

Sheikh Abdallah bin Jassim Al-Thani (1880-1957) –
Emir of Qatar (1913-1949)

Qatar gained full independence in 1971, after Britain stopped providing military protection to its former Gulf protectorates. Despite British pressure, Qatar (and Bahrain) chose not to join the United Arab Emirates.



Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:UAE_Regions_map.png>

Qatar Did Not Join the United Arab Emirates (UAE) – When It Was Formed in 1971

Economic Change in Qatar (1860s-present). Before 1950, Qatar was one of the world's poorest countries. For more than a century, the tiny emirate had subsisted on pearling, fishing, and camelbreeding. Financed by the sheikhs and merchants, the Qatari pearling industry had 800 boats and 13,000 divers at its peak in the 1860s. But Arabian Gulf pearling collapsed in the 1930s, following the introduction of Japanese cultured pearls and the onset of the global depression. Between 1925 and 1950 (the Years of Hunger), Qatar suffered economic decline and outward migration.

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Al_Zubarah_Fort._Doha-Qatar.jpg>

Al Zubarah Fort, Doha, Qatar –
Constructed in 1938 by Sheikh Abdallah, During the Years of Hunger

Exploratory drilling for petroleum began in 1939, and oil production and export from the Dukhan Field began in 1949. Qatar joined OPEC in 1961 and nationalized its oil production in 1976. In 2019, Qatar produced 622,000 barrels per day (bpd). Its estimated reserves of oil, 25 billion barrels, were expected to last only 10 years.

Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:DukhanPipelines.jpg>

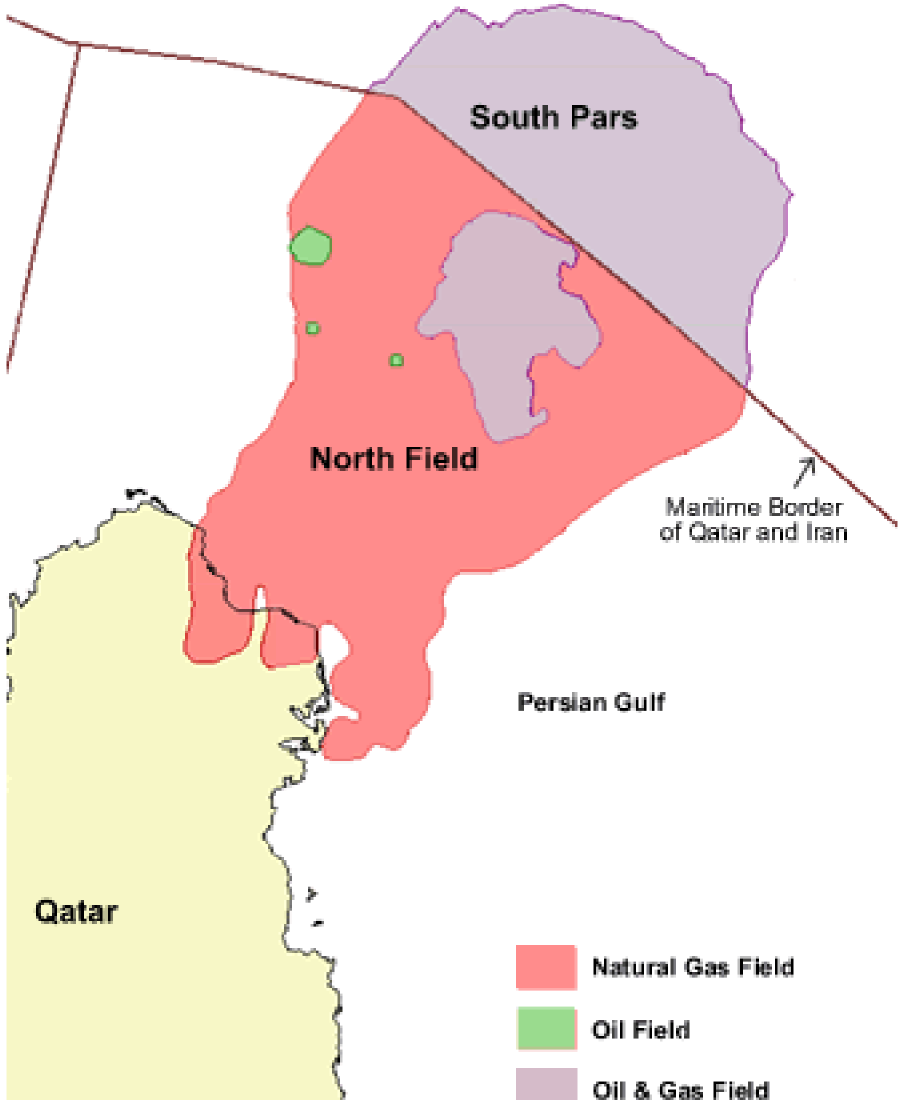
Dukhan Petroleum Field and Pipelines, Qatar's Only Onshore Oil Field – Oil Production Began in 1949, Reached 622,000 bpd in 2019

Qatar's economy is fuelled mainly by natural gas, not petroleum. The offshore North Field, which Qatar shares with Iran, was discovered in 1971. It is the world's largest reservoir of natural gas. Qatar's gas reserves, estimated at 900 trillion cubic feet, could support 200 years of gas production at recent levels. In 2019, Qatar produced 6,290 billion cubic feet (bcf) and exported 5,050 bcf. Since 2007, Qatar has been the world's leading exporter of liquefied natural gas (LNG). Qatar earned

$60 billion from petroleum and natural gas exports in 2019, 34 percent of the country's Gross Domestic Product of $176 billion. Three-fourths of Qatar's export earnings came from sales of Liquified Natural Gas (LNG).

Source: U. S. Energy Information Administration available at
<North Field, Offshore Qatar – World's Largest Natural Gas Reservoir>

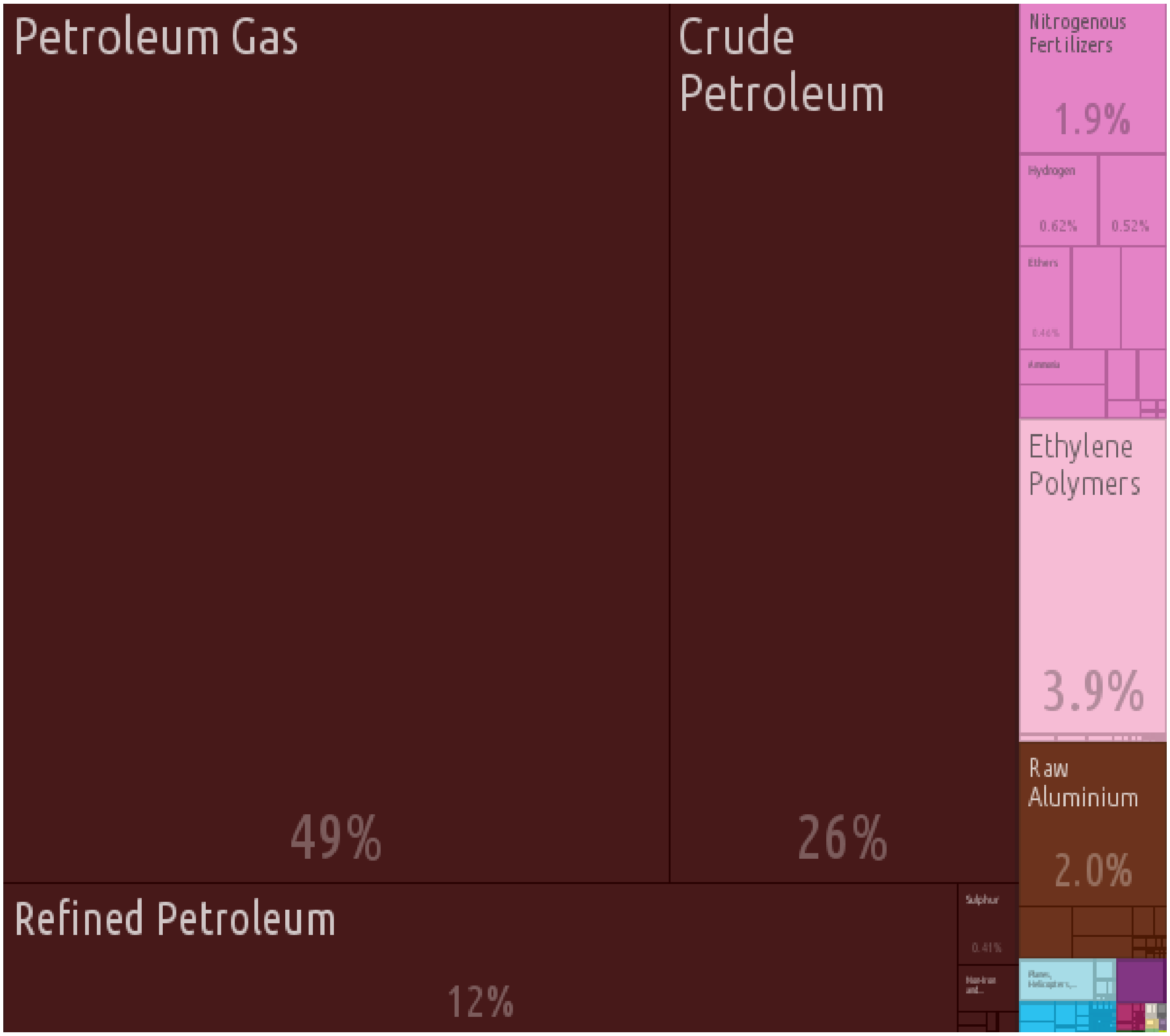
North Field, Offshore Qatar – World's Largest Natural Gas Reservoir



Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:South_Pars.gif>

Close-up Map of the North Field, Offshore Qatar – World's Largest Natural Gas Reservoir

In 2019, each of the 2.8 million residents (333,000 Qatari citizens and 2.5 million expatriates) in Qatar earned an average income (adjusted for purchasing power) of $94,029 – the third highest in the world and 44 percent higher than the US level. Qatar's quality-of-life indicators were somewhat less impressive – average longevity was 80 years, and the literacy rate was 93 percent. Qatar ranked a solid 45th of 189 countries in the United Nation's Human Development Index, an impressive 30th of the 198 countries in Transparency International's Corruption Perceptions Index, but a disappointing 77th of 190 countries in the World Bank's Ease of Doing Business Index.



Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Qatar_Exports_Treemap_2017.svg>

Proportional Representation of Qatar's Export Earnings in 2017

Political Transitions in Qatar (1860s-present). The Al-Thani dynasty has ruled Qatar absolutely since 1850. The Al-Thani family now has 20,000 members with long-standing rivalries. In 1971, a coup d'état led by Sheikh Khalifa shifted rule to a different Al-Thani lineage.

Sheikh Hamad, the son of Khalifa, deposed his father in a bloodless coup in 1995. Both Sheikhs Khalifa and Hamad introduced tactical political reforms – to fend off rival claims and please their American allies. But after solidifying power, they continued a policy of liberalized autocracy. Sheikh Hamad delayed holding elections for the Advisory Council, promised in the 2005 Constitution.

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:5th_Global_Forum_Vienna_2013_(8512954534)_(cropped).jpg>

Sheikh Hamad bin Khalifa al-Thani, Emir of Qatar (1995-2013) – A Liberal Autocrat, Pictured in 2013

In June 2013, Sheikh Hamad stepped down in favor of his son, Sheikh Tamim bin Hamad Al-Thani. Born in 1980, Sheikh Tamim was educated at Sandhurst and held leadership roles in the military, state-enterprises, and foreign affairs. Sheikh Tamim is continuing his father's policies favoring rapid development.

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Sheikh_Tamim_bin_Hamad_Al-Thani_in_Qatar_(23519218878)_(cropped).jpg>

Sheikh Tamim bin Hamad Al-Thani (1980 –), Emir of Qatar since June 2013 – Seamless Succession

Al-Thani rule is based on patronage and the distribution of wealth to the 333,000 Arab Qatari citizens. Each citizen is entitled to free housing, land, health care, education, water, and electricity and to subsidized fuel and gasoline. The value of those benefits has been estimated at $84,000 per year. Qatari citizens also are guaranteed a public-sector job, and many hire foreign workers in rent-generating firms.

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Hamad_Bin_Khalifa_Al-Thani_with_Obamas_(cropped).jpg>

Sheikha Moza bint Nasser of Qatar – Head of the Qatar Foundation and Wife of Sheikh Tamim bin Hamad al-Thani

In the past decade, the population of Qatar has increased by more than 1 million. Rapid expatriate immigration is threatening the country with a loss of cultural identity. Most of the foreign workers are South Asian or Filipino, 80 percent are male, most are not Muslims, and nearly all are single or unaccompanied by spouses. The immigrants are attracted by tax-free salaries and the right to own land.

Source: Wikimedia Commons available at
<*https://commons.wikimedia.org/wiki/File:Migrant_workers_in_West_Bay_Doha.jpg*>

2.3 Million Expatriates Reside in Qatar – Migrant Construction Workers on QP Building in Doha, Qatar, 2014, After Finishing a Shift

Recent Developments in Qatari Foreign Policy. Tiny Qatar has engaged in a bold foreign policy since 1995. The Gulf emirate has used its oil/gas wealth to carry out a focused policy of international public relations. Sheikh Hamad established Al-Jazeera in 1996 with an annual subsidy of $30 million, and the satellite television network has been a successful public forum in its broadcasts in both Arabic and English.

Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:Al_Jazeera_English_Newsdesk.jpg>

Qatar's Al-Jazeera Television Network. Doha Headquarters – National Branding with a $30 Million Annual Subsidy

In addition, Qatari officials at the highest levels have mediated international conflicts in Libya, Palestine, Yemen, Sudan, and Djibouti/Eritrea. Its most notable success was in Lebanon in 2008. Qatar also has been eager to host international sporting competitions. It hosted the Asian Games in 2006 and in 2010 was chosen to be the site of the 2022 FIFA World Cup.

Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:Abdullah_bin_Khalifa_Stadium_(1).jpg>

Abduillah bin Khalifa International Football Stadium, Doha – Opened 2013, Seats 9,000

To aid its international security, Qatar forged a military alliance with the United States. The emirate invested $1 billion to build Al-Udeid Air Base for American use. In 2004, the United States transferred its military presence from Saudi Arabia to Qatar and established its Central Command (CENTCOM), Special Forces units, and a CIA base at Al-Udeid. The American Army moved to Al-Saliyah Camp in Qatar, which also serves as a storage area for American military equipment.

Source: Wikimedia Commons available at
<https://commons.wikimedia.org/wiki/File:Al_Udeid_Air_Base.jpg>

US Radar Base, Al-Udeid Air Base, Qatar – Pictured in 2004

During the Arab Spring in 2011, Qatar engaged in an aggressive foreign policy. Al-Jazeera strongly promoted the early rebellions in Tunisia and Egypt, and Qatar later lent $7 billion to the Morsi government of Egypt. In Libya, Qatar backed the rebellion, supplied F-16 fighters to help NATO establish a no-fly zone, and was the first government to recognize the anti-Qaddafi rebels. Qatar also has been a vocal opponent of the al-Assad regime in Syria.

Official Flag of Qatar, Adopted in 1971 At Independence – Flown in Libya, After the Arab Spring

In 2017, Saudi Arabia, the United Arab Emirates, and Egypt severed diplomatic relations with Qatar. The rift was ameliorated in January 2021, when Saudi Arabia and Qatar reopened their land and airspace borders and expected to restore diplomatic relations.

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Doha_skyline_in_the_morning_(12544910974).jpg>

West Bay Skyline, Doha – The Capital and Financial Center of Qatar

Source: Wikimedia Commons available at <https://commons.wikimedia.org/wiki/File:Qa-map.PNG>

Contemporary Qatar

World Petroleum (1859-present)

American Dominance (1859-1945). Petroleum production began in 1859, after Edwin Drake successfully drilled for oil in northwestern Pennsylvania. Pennsylvania's Oil Region was the dominant American supplier during the rest of the 19th century. Kerosene for lighting was the principal product from petroleum ("rock oil"). The refining of oil and marketing of kerosene (including exports to Europe) were increasingly controlled by John D. Rockefeller's Standard Oil Company, which obtained a near monopoly position by the mid-1880s.

Source: Wikimedia Commons, available at <https://commons.wikimedia.org/wiki/File:Jdr-king.JPG>

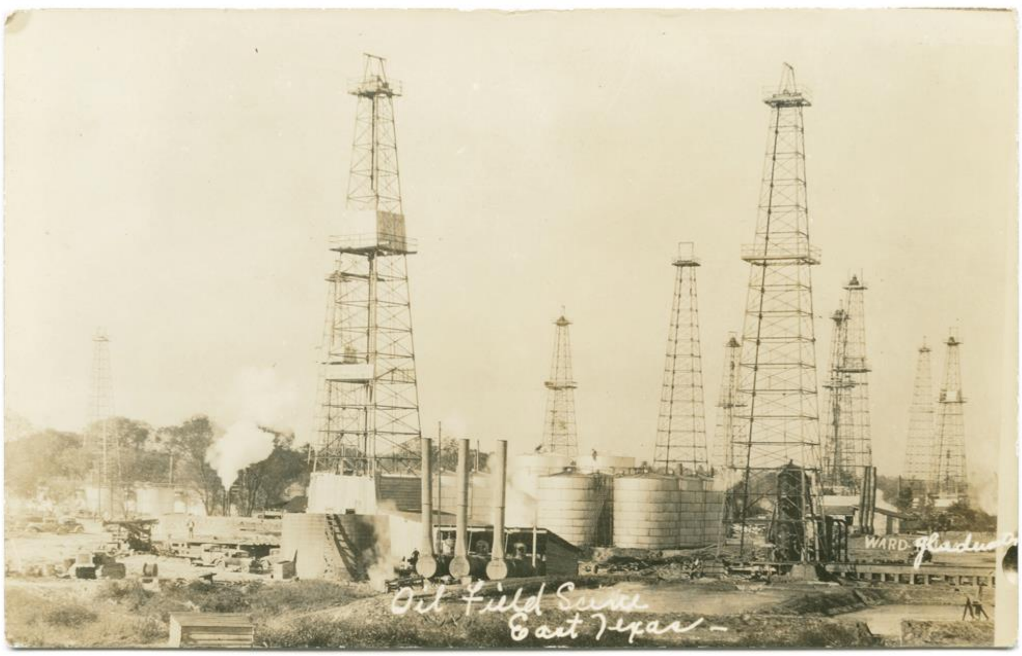
John D. Rockefeller, Founder of Standard Oil –
Satirized in Puck Magazine, 1901

Russia (producing oil near Baku) was the main foreign competitor in the 1880s and 1890s. In Baku, the Nobels built the world's first oil pipeline and oil tanker, and the Rothschilds constructed a railroad to export kerosene via the Black Sea port of Batum. By 1900, Baku produced half of the world's petroleum, and kerosene was Russia's leading export.

Source: Wikimedia Commons, available at
<https://commons.wikimedia.org/wiki/File:Oldbaku2.jpg>

First Petroleum Fields in Bibiheybet, Near Baku, Azerbaijan – Late 19th century

After 1905, gasoline (for automobiles) and fuel oil (for ships) became the principal petroleum products. Oil was discovered in Iran in 1908. Britain converted its navy from coal to fuel oil in 1914 and bought 51 percent of the Anglo-Persian Oil Company (APOC), the concessionaire in Iran. American oil production shifted from Pennsylvania – to California (1910s), Oklahoma (1920s), and Texas (1930s). The Black Giant field in East Texas (1930) was the largest discovery in North America.



Source: Wikimedia Commons, available at
<https://commons.wikimedia.org/wiki/File:Oil_Field_Scene,_East_Texas_(7590755468).jpg>

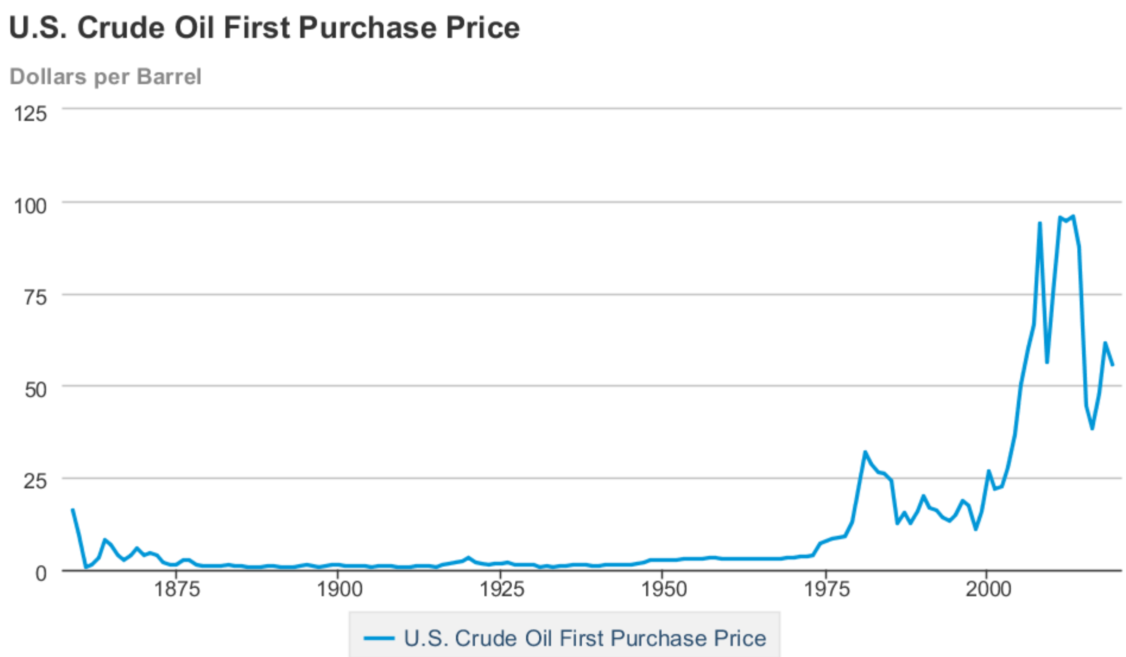
Oil Field, Gladewater, East Texas, 1930 –
Southern Methodist University Libraries

Following the break-up of Standard Oil in 1911, refining and marketing were dominated by multinational firms, led by Standard Oil of New Jersey (later Exxon), Royal Dutch/Shell, and Anglo-Persian (later British Petroleum). In the 1920s, first Mexico and then Venezuela became the world's second leading oil producer. But the United States dominated and continued to produce two-thirds of world oil through 1945.

Multinational Majors (1945-1970). The world oil industry expanded rapidly between 1945 and 1970, under the direction largely of eight major petroleum companies. Five of the majors – Chevron, Exxon, Gulf, Mobil, and Texaco – were American, British Petroleum was British, Shell was British and Dutch, and the Compagnie Francaise de Petroles (CFP) was French. Crude oil production exploded six-fold to 40 million barrels per day (mbd), and proven reserves rose nine times to over 500 mbd. The geographic focus shifted to the Middle East, which in 1972 accounted for nearly half of the output (18 mbd) and 70 percent of the reserves (367 billion barrels).

Between 1948 and 1972, American oil production increased from 5.5 mbd to 9.5 mbd and U.S. proven oil reserves rose from 21 billion barrels to 38 billion barrels. Nevertheless, the American global shares fell to only 22 percent of production and 7 percent of reserves.

Although market prices (adjusted for inflation) steadily declined, they remained well above marginal costs and thus generated very high profits. The companies and exporting countries negotiated "fifty/fifty agreements" that were intended to divide the profits equally.



Source: US Energy Information Administration available at
<https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000__3&f=A>

US Crude Oil Prices, 1861-2019 (Dollars Per Barrel, Prices Not Adjusted for Inflation)

In 1960, the five largest oil exporting countries (which together accounted for 80 percent of exports) – Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela – formed the Organization of Petroleum Exporting Countries (OPEC). During the 1960s, OPEC succeeded in defending the posted price (the reference price for calculating the revenues for exporting countries) and in forcing the companies to consult on pricing decisions. After 1960, country revenues came from excise taxes, which effectively set a floor under oil prices. By 1970, the oil-producing countries' share of oil profits had risen to about 80 percent.

Source: Wikimedia Commons, available at <https://en.wikipedia.org/wiki/Mohammad_Reza_Pahlavi>

Muhammad Reza Pahlavi, The Shah of Iran, OPEC Member – Visiting the Kharg Petrochemical Complex, 1970

First Price Shock (1970-1981). Between 1970 and 1981, world oil prices spiked twice as OPEC learned to take advantage of war and revolution. The process began in 1971-1972 when OPEC raised excise taxes in concert, set the world oil price at $2.18 per barrel, and negotiated with the oil companies to increase their share of oil profits to 55 percent. The October 1973 (Arab-Israeli) War interrupted oil supplies. Consumers panicked, hoarded oil inventories, speculated on price rises, and drove the oil price up. OPEC then unilaterally raised excise taxes to set the price at $5.12 per barrel. In 1974, despite falling demand and excess capacity, Saudi Arabia cut output and OPEC raised excise taxes to underpin a world price of $11.65 per barrel.

Source: Wikimedia Commons, available at
<https://commons.wikimedia.org/wiki/File:President_Nixon_shaking_hands_with_King_Faisal_of_Saudi_Arabia_following_talks_at_Riasa_Palace,_07-15-1974.gif>

Saudi Arabia Cut Output to Defend Prices, Despite Its "Special" Relationship with the US – President Nixon and King Faisal, 1974

Between 1974 and 1978, OPEC managed the world market successfully and raised the oil price to $12.70 per barrel. Worker strikes in Iran in late 1978 resulted in a net loss of 2 million barrels per day (mbd), 4 percent of free-world consumption. Consumers and oil companies again panicked, hoarded, and speculated as market prices briefly rose to $42 per barrel. Companies, utilities, and motorists built massive oil inventories, totaling 3 mbd above normal demand. OPEC took advantage of the market disarray, raised excise taxes, and set the official oil price at $34 per barrel. Saudi Arabia once more cut output to underpin the new price structure.

During Iran's Islamic Revolution (1978-1979), oil exports declined from 4.5 mbd to 1 mbd before recovering by mid-1979. Iran's oil industry incurred severe damage when Iraq invaded oil-rich Khuzistan in 1980. During the 1970s, OPEC retained its dominance of the world oil market. OPEC member countries supplied nearly two-thirds of world totals throughout that turbulent decade.

Source: Wikimedia Commons, available at
<https://commons.wikimedia.org/wiki/File:%D8%AE%D9%85%DB%8C%D9%86%DB%8C_%D9%88_%D9%85%D8%B1%D8%AF%D9%85.JPG>

Ayatollah Khomeini Meeting the Iranian People – Iranian Oil Production Declined after the Revolution and the Iran-Iraq War

Price Decline (1981-2000). OPEC had miscalculated. The oil market adjusted quickly. Between 1979 and 1983, the demand for oil fell 6 mbd due to conservation and fuel switching (to coal, nuclear energy, and natural gas), non-OPEC oil supplies increased by 4 mbd (from the North Sea, Alaska, Mexico, and Egypt), and oil companies and consumers dumped their 3 mbd of expensive inventories.

Source: Wikimedia Commons, available at <https://commons.wikimedia.org/wiki/File:Prudhoe_Bay_oil_fields_1971_FWS.jpg>

Non-OPEC Petroleum Supplies Increased –
Prudhoe Bay, Alaska, Photographed in 1971

OPEC exports thus fell precipitously – from 31 mbd in 1979 to only 18 mbd in 1983. The oil ministers of the OPEC countries decided to impose a cartel, setting export quotas to defend oil prices. At a meeting in London in 1983, OPEC cut its price from $34 to $29 per barrel, set a quota of 17.5 mbd, and agreed that Saudi Arabia would act as a swing producer to enforce the quota. After two years of rapidly declining exports, Saudi Arabia stopped acting as the swing producer and began cutting prices to regain its market share.

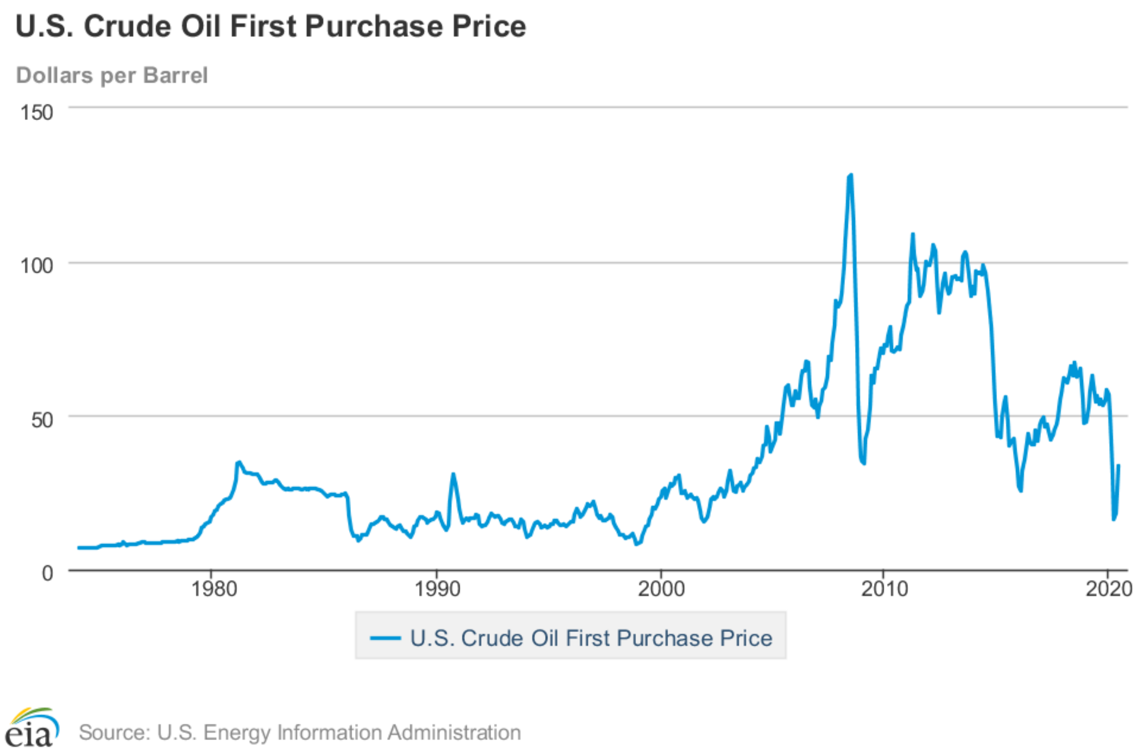
In 1986, the oil price fell to $8 per barrel and OPEC was in disarray. The group met in Geneva and agreed to defend a price of $18 per barrel with a quota of 17.3 mbd. Each country would honor its market share, and Saudi Arabia would not be a swing producer. That agreement held up until 1990, when Iraq's invasion of Kuwait led to the Gulf War and removed 4 mbd from the world oil market. The Gulf War crisis was resolved when Saudi Arabia increased its output by 3 mbd while the United Arab Emirates and Venezuela also added extra supplies.

World oil consumption expanded in the mid-1990s, and in 1997, OPEC raised export quotas by 2 mbd. But the Asian financial crisis, which started in that year, interrupted economic growth in Southeast Asia and South Korea, and oil consumption in the Asian tigers plummeted. The world oil price collapsed – briefly to $10 per barrel.

Source: Wikimedia Commons, available at
<https://commons.wikimedia.org/wiki/File:Suharto_resigns.jpg>

President Suharto of Indonesia Resigned, May 1998 --
Following the OPEC Meeting in Jakarta and the Asian Financial Crisis

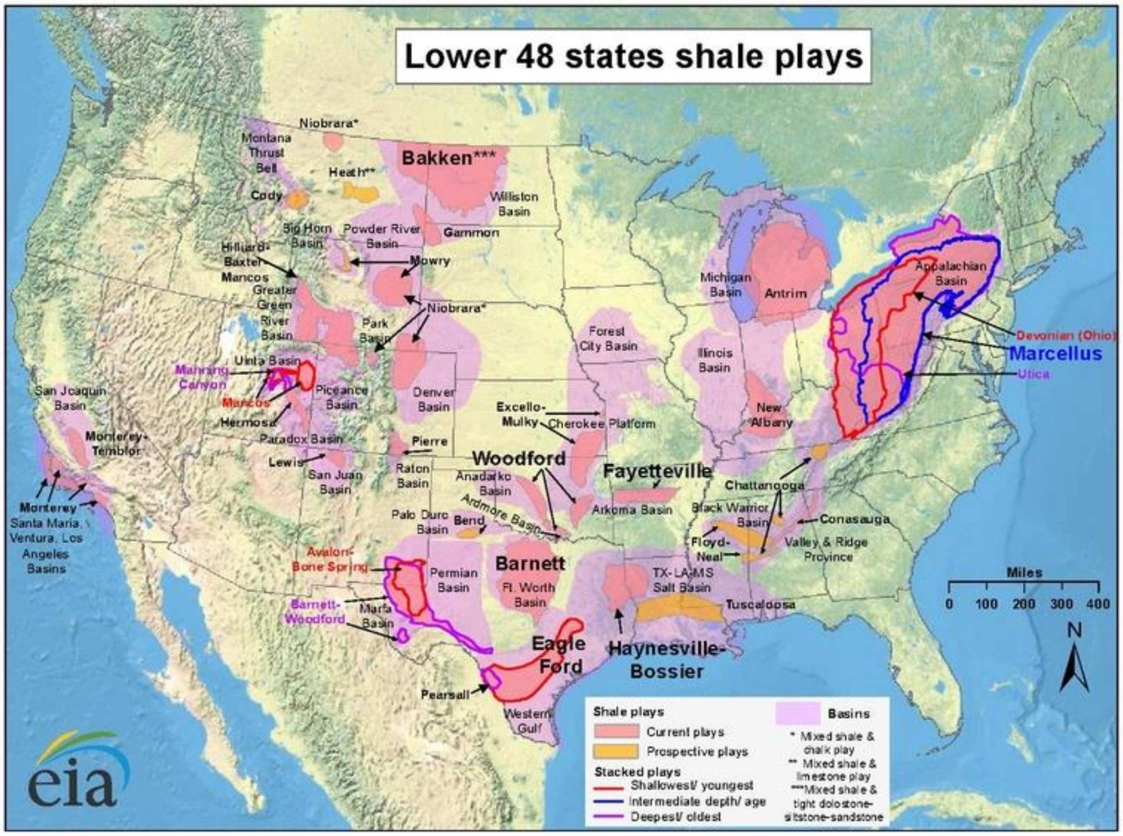
Second Price Shock (2000-present). Since 2000, world oil prices have shot up to inflation-adjusted levels much higher than those of the 1970s. A part of that price increase can be attributed to unrealistic expectations, unrelated to oil supply-demand fundamentals. American relations in the Middle East have been complicated by the 9/11 terrorist attack in 2001, the wars in Iraq and Syria, and Iran's nuclear threat. But most of the oil price rise reflects market shifts. In the two decades starting in 1990, global demand for oil increased 30 percent, India's oil demand doubled, and China's tripled. Between 2004 and 2012, the costs of developing oil fields doubled due to shortages of equipment and skilled personnel. However, between mid-2014 and mid-2107, the oil price fell by half to $40-55 per barrel, reflecting increases in U.S. shale oil production and a fall-off in the growth of energy consumption in emerging markets, especially China.



Source: US Energy Information Administration available at <https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=f000000__3&f=m>

US Crude Oil Prices, 1861-2020 (Dollars Per Barrel, Prices Not Adjusted for Inflation)

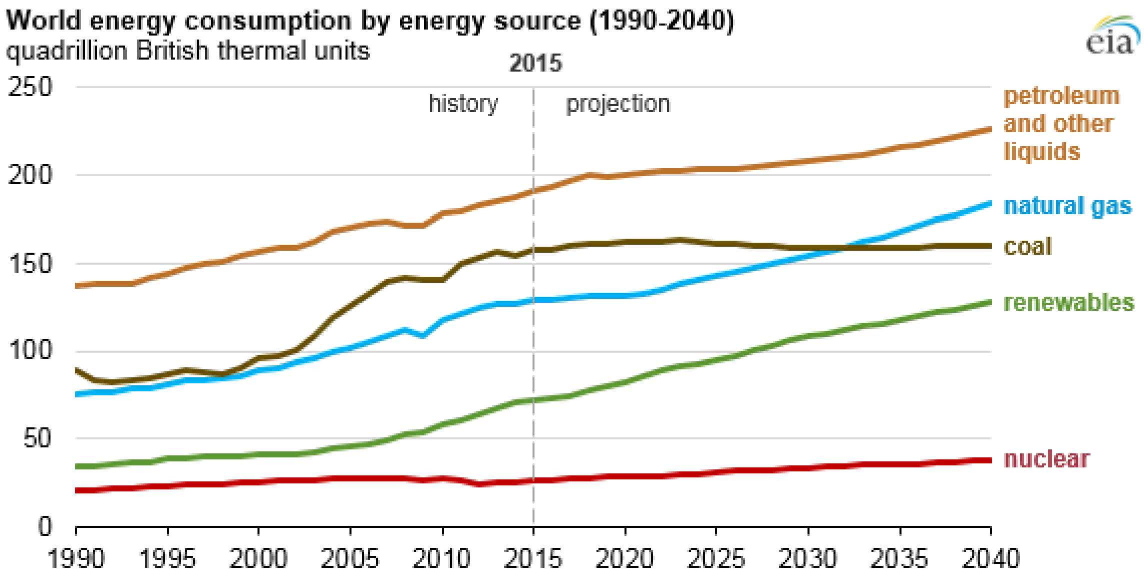
Future oil supplies and prices will depend on cost and demand. In both 2018 and 2019, global oil production and consumption were each 101 mbd, whereas proven oil reserves were estimated at 1.7 trillion barrels (half in the Middle East). Future oil prices also will be influenced by the economics of producing unconventional oil and natural gas (from shale, oil sands, and deep offshore deposits) and by the ability of consuming countries to improve energy efficiency (which doubled between 1975 and 2010). Energy demand in the U.S., Europe, and Japan has already peaked.



Source: Wikimedia Commons, available at
<https://commons.wikimedia.org/wiki/File:United_States_Shale_gas_plays,_May_2011.pdf>

US Energy Information Administration Assessment of Principal Regions of Shale Plays – Fracking For Petroleum and Natural Gas

Daniel Yergin projects an 18 percent increase in world oil output – from 93 mbd in 2010 to 110 mbd in 2030 – with contributions from conventional (Kazakhstan's Kashagan and Brazil's Tupi fields) and unconventional (U.S. shale oil and Canadian oil sands) sources. He expects that global oil production will peak about midcentury and then decline gradually. The US Energy Information Administration projects a 20 percent increase in world energy consumption between 2015 and 2040 – all occurring outside of North America and Europe. Both of those projections were made prior to the onset of the global pandemic.



Source: US Energy Information Administration available at <https://www.eia.gov/todayinenergy/detail.php?id=32912>

US Energy Information Administration Projects a 20 Percent Increase in World Energy Consumption Between 2015 and 2040 – All Occurring Outside of North America and Europe

Time Line for the United Arab Emirates, Oman, and Qatar

550-350 BCE	Achaemenid Persian Empire
312-64 BCE	Hellenistic Seleucid Kingdom
238 BCE-230 CE	Parthian Persian Empire
230-650 CE	Sassanian Persian Empire
330-1453	Byzantine Empire (Eastern Roman Empire)
630s-640s	Arab Islamic Jihad overwhelmed Arabia, Egypt, Syria, Persia, and the Caucasus
661-749	Umayyad Caliphate in Damascus – installed Arab governors in Iran and the Caucasus
8^{th}-15^{th} centuries	Muslim Arab merchants from Oman and Yemen – controlled trade between India, Arabia, and East Africa in the Indian Ocean
750-1256	Abbasid Caliphate in Baghdad – Arab language, Persian administration
1040-1194	Seljuk Turkish Empire – ruled Persia, Mesopotamia, Anatolia
1219-1223	Chinggis Qan’s Mongol warriors conquered Central Asia
1256-1335	Mongol Il-Khanate – ruled Iran, Mesopotamia, and the Caucasus

1300-1923	Turkish Ottoman Empire – expanded from Anatolia to Southeastern Europe, Armenia, Mesopotamia, Levant, Egypt, North Africa
15^{th}-16^{th} centuries	Portugal led the European Age of Discovery – better navigation, caravel ships – gunpowder – controlled spice trade – undercut Muslim trade – spread Christianity
1504-1729	Portugal controlled Zanzibar and coastal East Africa
1515-1650	Portugal controlled Muscat and coastal Oman
1501-1722	Safavid Persian Empire
1729-1964	Omani sultans ruled Zanzibar – under British suzerainty after 1890
1744	Al-Busaidi dynasty, led by Sayyid Ahmad, took control of Oman – continues to rule today
1798	Britain signed a commercial treaty with the Omani sultanate of Oman and Zanzibar – promoted exports of Indian cloth
early 19^{th} century	English East India Company – implored the British Royal Navy to protect its monopoly on trade between the Arabian Gulf and India
1806-1856	Sayyid Said bin Sultan ruled Oman and Zanzibar – moved his capital from Muscat to Zanzibar in 1832

1819	General Treaties of Peace – Britain and Gulf sheikhdoms agreed to end Arab "piracy"
1825	Sheikh Muhammad bin Thani established the Al-Thani ruling dynasty in Qatar – relocated to Doha in eastern Qatar in 1850
1833	Dubai an independent sheikhdom – 800 Bani Yas tribesmen migrated there, assumed control, established the al-Maktum dynasty
1833	Omani-American commercial treaty – gave Americans trade privileges in Zanzibar equal to those enjoyed by Britain
1853	Perpetual Maritime Treaty – Britain and 7 Gulf sheikhdoms (Trucial States) – ended all hostilities at sea between sheikhdoms
1859	first petroleum production in the world – northwestern Pennsylvania – Edwin Drake – kerosene was the main product
1861	Omani al-Busaidi dynasty divided its rule – 2 sons of Sayyid Said – Majid ruled in Zanzibar and Thuwaini in Muscat
1868	Britain-Qatar Agreement – Britain recognized Al-Thani dynastic rule – agreed to protect Qatari independence from Bahrain
1870s-1880s	Tippu Tip (Hamed bin Mohammed), wealthy Zanzibari Arab merchant – ruled large section of the eastern Congo

1871-1916	Qatar was a Protectorate of the Ottoman Empire – Al-Thani dynasty continued to rule
1872	Russia opened the Baku region to private companies – triggered a massive oil boom
1878	Ludvig Nobel launched the world's first oil tanker, the *Zoroaster* – transported kerosene across the Caspian Sea, upriver into Russia
1883	Alphonse and Edmond de Rothschild, French financiers – built the first railroad to transport kerosene from Baku via Tbilisi to Batum on the Black Sea
1880s	John D. Rockefeller's Standard Oil Company – near US monopoly position in refining of oil and marketing of kerosene
1884-1885	Berlin Conference – Great Britain, France, Portugal, Germany, and Belgium partitioned Africa to avoid imperial war
1888	German East Africa Company proclaimed colonial rule of Tanganyika for Germany – Omani sultans of Zanzibar lost their coastal territories in East Africa
1890	Great Britain gave France hegemony in Madagascar in return for France acceding to British dominance in Zanzibar
1890	Great Britain ceded the North Sea island of Heligoland to Germany in return for German

	recognition of British claims to Zanzibar, Kenya, Uganda, and parts of western Africa
1890-1964	Great Britain proclaimed a protectorate in Zanzibar – Omani sultans continued nominal rule – Zanzibar became the world's leading producer of cloves
1892	Exclusive Agreement – 7 Gulf sheikhdoms (Trucial States) agreed that Britain would be responsible for their foreign relations
1892	Battle of Waibah (near Doha) – Jassim bin Muhammad, Emir of Qatar, defeated Ottoman Turks – maintained Qatari independence
1908	petroleum discovered in Iran – Britain bought 51 percent of the Anglo-Persian Oil Company – converted British navy from coal to fuel oil in 1914
1912-1958	Sheikh Said bin Maktum al-Maktum ruled Dubai
1913-1949	Sheikh Abdallah bin Jassim Al-Thani, Emir of Qatar
1913-1932	Sultan Taimur bin Feisal ruled Oman
1913	The Young Turks, nationalist military leaders – gained control of the Ottoman Empire in a coup
1914-1918	World War I – Ottoman Empire aligned with the Central Powers (Germany and Austria-Hungary) against the Entente (Britain, France, and Russia) and the US

1916	Anglo-Qatari Treaty – Qatar became a British protectorate – Britain promised to defend Qatar from attacks by sea – British control of foreign affairs and oil concessions
1920	Seeb Agreement – Britain imposed an agreement to end civil wars in Oman – Al-Busaidi Sultans controlled the coasts and local sheikhs controlled the interior
1922	7 Gulf sheikhdoms (Trucial States) gave British firms exclusive rights to obtain oil concessions
1925-1950	Years of Hunger in Qatar – Qatar suffered economic decline and outward migration – Global Depression, World War II, loss of Qatari pearl fishery (Japan's cultured pearls)
1930	Black Giant oil field in East Texas – largest discovery in North America
1932-1970	Sultan Said bin Taimur ruled Oman
1935	Anglo-Qatari Treaty – Britain extended its protection to invasions by land – Anglo-Persian Oil Company gained a 75-year concession for rights to Qatari oil and gas
1949-1960	Sheikh Ali bin Abdullah Al-Thani, Emir of Qatar
1949	Qatar began exporting petroleum – Dukhan Field

1955-1959	Jebel Akhdar War in northwestern Oman – British troops helped Sultan Said defeat insurgents and regain control
1958-1990	Sheikh Rashid II bin Said al-Maktum ruled Dubai
1960-1971	Sheikh Ahmad bin Ali Al-Thani, Emir of Qatar
1960	Organization of Petroleum Exporting Countries (OPEC) formed – Iran, Iraq, Kuwait, Saudi Arabia, Venezuela – 80 percent of petroleum exports
1961-2019	Qatar was a member of OPEC
1964	bloody revolution in Zanzibar – immigrant Africans from Tanganyika overthrew Omani sultanate and British hegemony – Zanzibar joined Tanganyika to form Tanzania
1965-1975	Dhofar War – Britain helped Sultan Qaboos of Oman overcome a communist insurgency in southwest Oman
1967	United Arab Emirates joined OPEC
1970-2020	Sultan Qaboos bin Said ruled Oman
1971-1972	OPEC set the world oil price at $2.18 per barrel – negotiated with major oil companies to increase share of oil profits to 55 percent
1971	Britain ended the Trucial States system – 7 Gulf sheikhdoms created an independent federation, the United Arab Emirates (UAE)

1971	Britain granted full independence to Qatar – ended British military protection of Qatar – Qatar did not join UAE, despite British pressure
1971	North Field discovered in Qatar – world's largest reservoir of natural gas – Qatar has been world's leading exporter of liquefied natural gas (LNG) since 2007
1972-1995	Sheikh Khalifa bin Hamad Al-Thani, Emir of Qatar
1973	October (Arab-Israeli) War – interrupted oil supplies – consumers panicked, hoarded oil inventories, drove up oil price – OPEC set oil price at $5.12 per barrel
1974	Saudi Arabia cut petroleum output – OPEC raised excise taxes to underpin a world oil price of $11.65 per barrel
1977	Sheikh Rashid of Dubai created the Jebel Ali Free Zone – eliminated taxes to attract foreign light manufacturing firms
1978	Worker strikes in Iran – led to loss of 2 million barrels of oil per day – consumers panicked, hoarded, and speculated – oil prices rose briefly to $42 per barrel
1978-1979	Iranian Revolution – led to a loss of 3.5 million barrels of oil per day (mbd) – OPEC set the oil price at $34 per barrel – Saudi Arabia would be a swing producer

1979	two giant fields discovered in Kazakhstan – Tengiz oil field near Caspian Sea – Karachaganak oil and gas field north of the Caspian Sea
1986	OPEC met in Geneva – agreed to defend an oil price of $18 per barrel with a quota of 17.3 mbd – Saudi Arabia would no longer be a swing producer
1990-2006	Sheikh Maktum bin Rashid Al Maktum ruled Dubai
1995-2013	Sheikh Hamad bin Khalifa Al-Thani, Emir of Qatar
2000	Sheikh Maktum of Dubai created the Internet City – now 1,600 global IT firms
2001	Sheikh Maktum of Dubai created the Media City – now 1,500 global media firms
2002	Sheikh Maktum of Dubai created the International Financial Centre – now 2,400 global financial firms
2002	Kashagan, giant oil field, discovered in Kazakhstan – located offshore in the northern Caspian Sea – projected to contain 20-30 billion barrels
2004	Al-Udeid Air Base, Qatar – United States transferred its military presence from Saudi Arabia to Qatar

2006-present	Sheikh Mohammed bin Rashid al-Maktum, ruled Dubai
2008-2009	global recession, credit crunch – Dubai's real estate bubble burst – property values fell by half – triggered a debt crisis
2011	Arab Spring – Qatar backed rebellion in Libya, recognized anti-Qaddafi rebels – lent $7 billion to Morsi government in Egypt
2013-present	Sheikh Tamim bin Hamad Al-Thani, Emir of Qatar
2017	Saudi Arabia, the United Arab Emirates, and Egypt severed diplomatic relations with Qatar
2019	Oman ranked 60th of 189 countries in the United Nation's Human Development Index
2019	Qatar ranked 45th of 189 countries in the United Nation's Human Development Index
2019	The United Arab Emirates ranked 31st of 189 countries in the United Nation's Human Development Index
2020-present	Sultan Haitham bin Tarik ruled Oman
2021	Saudi Arabia and Qatar reopened their land and airspace borders and expected to restore diplomatic relations

Bibliography for the United Arab Emirates, Oman, and Qatar

Ervand Abrahamian, *A History of Modern Iran*, Cambridge, United Kingdom: Cambridge University Press, 2008.

M. A. Adelman, *Genie Out of the Bottle, World Oil since 1970*, Cambridge, Massachusetts: The MIT Press, 1995.

Karen Armstrong, *Islam, A Short History*, New York: Modern Library, 2002.

Michael Axworthy, *Revolutionary Iran, A History of the Islamic Republic*, London: Allen Lane, 2013.

Christopher I. Beckwith, *Empires of the Silk Road, A History of Central Asia from the Bronze Age to the Present*, Princeton, New Jersey: Princeton University Press, 2009.

Norman Robert Bennett, *Arab Versus European, Diplomacy and War in Nineteenth-Century East Central Africa*, New York: Africana Publishing Company, 1986.

M. Reda Bhacker, *Trade and Empire in Muscat and Zanzibar, Roots of British Domination*, London: Routledge, 1992.

David Birmingham, *Portugal and Africa*, London: Macmillan Press, 1999.

Paul Bohannan and Philip Curtin, *Africa and Africans*, Prospect Heights, Illinois: Waveland Press, 1995.

Fernand Braudel, *The Mediterranean in the Ancient World*, London: Allen Lane, The Penguin Press, 2001.

Charles Corn, *The Scents of Eden, A History of the Spice Trade*, New York: Kodansha America, Inc., 1998.

Svante E. Cornell, *Azerbaijan Since Independence*, Armonk, New York: M. E. Sharpe, 2011.

Andrew Coulson, *Tanzania, A Political Economy*, Oxford, United Kingdom: Oxford University Press, 2013.

Jill Crystal, *Oil and Politics in the Gulf: Rulers and Merchants in Kuwait and Qatar*, Cambridge, United Kingdom: Cambridge University Press, 1990.

Christopher M. Davidson, *Abu Dhabi, Oil and Beyond*, London: Hurst & Company, 2009.

Christopher M. Davidson, *After the Sheikhs, The Coming Collapse of the Gulf Monarchies*, London: Hurst and Company, 2012.

Christopher M. Davidson, *Dubai, The Vulnerability of Success*, London: Hurst & Company, 2008.

Christopher M. Davidson (ed.), *Power and Politics in the Persian Gulf Monarchies*, New York: Columbia University Press, 2011.

Thomas De Waal, *The Caucasus, An Introduction*, Oxford, United Kingdom: Oxford University Press, 2010.

Amar Drissi and Thierry de Montbrial (eds.), *Dubai, The New Arab Dream*, Paris, France: IFRI (Institut Français Des Relations Internationales), 2006.

John L. Esposito, *The Islamic Threat, Myth or Reality?*, Oxford, England: Oxford University Press, 1999.

Peter Frankopan, *The Silk Roads, A New History of the World*, London: Bloomsbury Publishing, 2015.

Allen J. Fromherz, *Qatar, A Modern History*, London: I. B. Tauris, 2012.

Erik Gilbert, *Dhows and the Colonial Economy of Zanzibar, 1860-1970,* Oxford: James Currey, 2004.

Peter B. Golden, *Central Asia in World History*, Oxford, United Kingdom: Oxford University Press, 2011.

Jason Goodwin, *Lords of the Horizon, A History of the Ottoman Empire*, New York: Henry Holt and Company, 1998.

Monika Gronke, *Iran, A Short History*, Princeton, New Jersey: Markus Wiener Publishers, 2008.

Richard Hall, *Empires of the Monsoon, A History of the Indian Ocean and Its Invaders,* New York: Harper Collins, 1998.

Donald Hawley, *The Emirates, Witness to a Metamorphosis*, Wilby Hall, United Kingdom: Michael Russell, 2007.

Philip K. Hitti, *History of the Arabs: From the Earliest Times to the Present*, Basingstroke, UK: Palgrave Macmillan, 2002.

Albert Hourani, *A History of the Arab Peoples*, Cambridge, Massachusetts: Belknap Press of Harvard University Press, 2010.

Albert Hourani and Malise Ruthven, *A History of the Arab Peoples*, London: Faber and Faber, 2013.

Roger Howard, *Iran Oil, The New Middle East Challenge to America*, London: I. B. Tauris, 2007.

Jeremy Jones and Nicholas Ridout, *Oman, Culture and Diplomacy*, Edinburgh, United Kingdom: Edinburgh University Press, 2012.

Miriam Joyce, *The Sultanate of Oman, A Twentieth Century History*, Westport, Connecticut: Praeger, 1995.

Mehran Kamrava, *Qatar, Small State, Big Politics,* Ithaca, New York: Cornell University Press, 2013.

Lord Kinross, *The Ottoman Centuries, The Rise and Fall of the Turkish Empire*, New York: Morrow Quill Paperbacks, 1977.

Jim Krane, *Dubai, The Story of the World's Fastest City*, London: Atlantic Books, 2009.

Steve LeVine, *The Oil and the Glory, The Pursuit of Empire and Fortune on the Caspian Sea*, New York: Random House, 2007.

Bernard Lewis, *The Middle East, A Brief History of the Last 2,000 Years*, New York: Touchstone, 1997.

Michael F. Lofchie, *The Political Economy of Tanzania, Decline and Recovery*, Philadelphia: University of Pennsylvania Press, 2014.

Colin McEvedy, *The Penguin Atlas of African History*, London: Penguin Books, 1995.

John Middleton, *African Merchants of the Indian Ocean, Swahili of the East African Coast*, Long Grove, Illinois: Waveland Press, Inc., 2004.

John Middleton, *The World of the Swahili, An African Mercantile Civilization*, New Haven: Yale University Press, 1992.

James A. Millward, *The Silk Road, A Very Short Introduction*, Oxford, United Kingdom: Oxford University Press, 2013.

Giles Milton, *Nathaniel's Nutmeg*, New York: Penguin Books, 2000.

Boris Najman, Richard Pomfret, and Gaël Raballand (eds.), *The Economics and Politics of Oil in the Caspian Basin*, London: Routledge, 2008.

The New Atlas of the Arab World, Cairo, Egypt: The American University in Cairo Press, 2010.

John Julius Norwich, *A Short History of Byzantium*, New York: Vintage Books, 1997.

A. H. de Oliveira Marques, *History of Portugal, Volume I, From Lusitania to Empire*, New York: Columbia University Press, 1972.

Roland Oliver and Anthony Atmore, *Africa Since 1800*, Cambridge, England: Cambridge University Press, 2005.

Roland Oliver and Brian M. Fagan, *Africa in the Iron Age, c. 500 B.C. to A.D. 1400*, Cambridge, UK: Cambridge University Press, 1975.

Roland Oliver and J. D. Fage, *A Short History of Africa*, London: Penguin Books, 1995.

Wojciech Ostrowski, *Politics and Oil in Kazakhstan*, London: Routledge, 2010.

Indra Overland, Heidi Kjaernet, and Andrea Kendall-Taylor (eds.), *Caspian Energy Politics, Azerbaijan, Kazakhstan and Turkmenistan*, London: Routledge, 2010.

Lawrence G. Potter and Gary G. Sick (eds.), *Iran, Iraq, and the Legacies of War*, New York: Palgrave Macmillan, 2004.

Malise Ruthven, *Historical Atlas of Islam*, Cambridge, Massachusetts: Harvard University Press, 2004.

Mary Ann Tétreault, Gwenn Okruhlik, and Andrzej Kapiszewski (eds.), *Political Change in the Arab Gulf States*, Boulder, Colorado: Lynne Reiner, 2011.

Leonard Thompson, *A History of South Africa*, New Haven, Connecticut: Yale University Press, 2001.

Marc Valeri, *Oman, Politics and Society in the Qaboos State*, London: Hurst & Company, 2009.

Robin Wright, *Dreams and Shadows, The Future of the Middle East*, New York: The Penguin Press, 2008.

Daniel Yergin, *The Prize, The Epic Quest for Oil, Money & Power*, New York: Free Press, 2008.

Daniel Yergin, *The Quest, Energy, Security, and the Remaking of the Modern World*, The Penguin Press: New York, 2011.

Yelena Nikolayevna Zabortseva, *Russia's Relations with Kazakhstan, Rethinking Ex-Soviet Transitions in the Emerging World System*, London: Routledge, 2016.

Rosemarie Said Zahlan, *The Making of the Modern Gulf States*, Reading, United Kingdom: Ithaca Press, 1998.

Sites Visited in the United Arab Emirates, Oman, and Qatar

Emirates and Sultanates, Inside Dubai, Oman, and Qatar
Stanford Travel/Study Program
March 4-19, 2014
Land-based, with International Flights

Dubai, United Arab Emirates

Dubai is a mind-boggling demonstration of entrepreneurial development on steroids. The entire experience of visiting this city is surreal. We began slowly, crossing the creek to Old Dubai to gain an impression of what the city was like before the boom. Nasif Kayed gave us an entertaining introduction to Islamic culture at the Sheikh Mohammed Center for Cultural Understanding. Later, we explored Dubai's numerous excesses. In less than a minute, we zoomed to the 124th floor (452 meters) of the Burj Khalifa, the world's tallest building, which cost more than $1 billion, was finished in 2008, and is only one-fourth occupied. We next drove across town to have a sumptuous high tea on the 54th floor of the Burj Al Arab, Dubai's iconic landmark that was completed in 1999 and is fully occupied. We drove to the Palm Jumeirah, the palm-shaped set of artificial islands that house 1,300, fully-occupied luxury villas, all with beach-fronts. Then we went to the Mall of the Emirates for a quick look at Ski Dubai, the interior ski mountain that is nestled among shops and restaurants.

Abu Dhabi, United Arab Emirates

Abu Dhabi, a stunningly-modern city of about 300,000 Emiratis (Arab Muslim citizens) and 1.7 million foreign workers, is the capital of the United Arab Emirates (UAE) and the largest city in Abu Dhabi Emirate. Abu Dhabi is awash in petroleum revenues, with annual oil production of 2.5 million barrels per day and revenues of $260 billion. Per capita income in the UAE is about $60,000, ten percent higher than that of the

USA and the fifth highest in the world. To attract future buyers of luxury, ocean-front villas, Abu Dhabi is creating a complex of world-class museums on Saadiyat Island. Following a look at the work-in-progress on Saadiyat, our group visited the Qasr al Hosn, the oldest fort in Abu Dhabi. There, we traced the history of Abu Dhabi from a poor pearling port to a striking city of skyscrapers. We ended our tour of Abu Dhabi by visiting the Sheikh Zayed Grand Mosque, a vast and expensive religious monument. For my aesthetic taste, the Grand Mosque was an attempted enlargement of the Taj Mahal in Agra, India. I much prefer the real Taj.

Sharjah and Al-Ain, United Arab Emirates

Sharjah is both a city of about 1 million and one of the seven emirates in the UAE. Sharjah serves as a bedroom community for entrepreneurial Dubai, its southern neighbor. About 300,000 workers living in Sharjah commute daily to work in Dubai. Sharjah also benefits from an annual budgetary allocation of $10 billion from Abu Dhabi's oil revenues and has close commercial and political links with Saudi Arabia. In Sharjah, we visited the Iranian Souq and several small museums, featuring elements of traditional culture. Al-Ain is an oasis city of 400,000 mostly Emirati residents. Because of its ample water supply, Al-Ain has long served as a caravanserai on trade routes connecting Abu Dhabi Emirate with Oman and Saudi Arabia. In Al-Ain, we visited the Jahidi Fort Museum, featuring photographs of Wilfred Thesiger's incredible journey across the Empty Quarter of southern Oman, and the Al-Ain Museum, which emphasized the key role of a native son, Sheikh Zayed, who became Emir of Abu Dhabi and led the creation of its modern economy.

Sohar and Nakhal, Oman

We drove from Dubai to Muscat, Oman on a day-long scenic route, much of it facing the Gulf of Oman. We reached the coast at Sohar, once an ancient capital of Oman and now a thriving port and industrial center of 145,000 residents. The Omani government is developing Sohar as its principal port, and it has invested billions in new steel and aluminum plants there. Sohar also will be the terminus of the newly-announced pipeline that will permit natural gas exports from Iran to Oman. We visited the formerly grand Sohar Fort, which is currently under reconstruction. Following a scenic drive along coastal Batinah (Oman's horticultural heartland), we next drove inland to see the Nakhal Fort. That classic fortress, originally built eight centuries ago, was re-constructed in the mid-17th century by the Al-Yarubi sultans, the precursors to the ruling Al-Busaidi dynasty. Located near natural hot springs and an amply watered oasis, the Nakhal Fort had a classic Omani defense system – murder holes in doorways through which boiling date syrup could be poured on invading enemies.

Muscat, Oman

Since 1970, Muscat has been transformed from a sleepy capital to a modern city of a million residents. Muscat is woven into the stark hills along a horseshoe-shaped natural harbor. We explored Muscat's fascinating history as a center of trade and Omani culture. Old Muscat is well represented by the Mirani and Jelali Forts, constructed by Portugal in the 1580s. The Bait Al Baranda Museum is dedicated to tracing the history of Muscat, and its director gave us a stimulating tour. The Bait Al Zubair Museum houses an informative private collection of Omani ethnographic artifacts. The director of the Omani Heritage Gallery introduced us to a wide range of Oman's traditional handicrafts. The Sultan Qaboos Grand Mosque provides a stunning example of recent Islamic architecture, featuring an eight-ton chandelier of Swarovski crystal. On the day of the President of Iran's state visit to Oman, the Deputy Chief of Mission of the American Embassy gave us an insightful briefing about current Omani affairs. And our group thoroughly enjoyed shopping in the Muttrah Souq.

Nizwa, Oman

Nizwa, a bustling town of about 100,000 inhabitants, is the most important center in interior northwestern Oman. Sited at the base of the Jebel Akhdar Mountains, Nizwa was the capital of the Omani Imamate (interior state). During the Jebel Akhdar War (1955-1959), British airplanes bombed Nizwa and surrounding sites and aided the Omani sultan's victory over the rebellious interior troops. In neighboring Tanoof, we saw a village that was abandoned after that war. Our group visited the renowned Nizwa Friday animal market and observed cattle and goats parading in a counter-clockwise circle to be sold with vigorous bargaining. Many in our group purchased exquisite silver jewelry in the Nizwa Souq. We also toured the impressive Nizwa Fort and Round Tower (1650) and the nearby Jabrin Castle (1670), both constructed by Al-Yarubi sultans in the mid-17th century, following their expulsion of Portugal from coastal Oman. In Birkat Al Mauz, we saw a good example of traditional irrigation (*falaj*) supporting date palm and banana plantations.

Doha, Qatar

Doha houses most of Qatar's 2.2 million people. Since 2000, Doha has become a forest of skyscrapers. Qatar is investing billions in education and the arts. Tarek Swelim, now on the faculty of the Qatar Faculty of Islamic Studies (QFIS), taught our group how I. M. Pei designed the Museum of Islamic Art and guided us through its priceless collections. Tarek also arranged our visit to Education City, which has branch campuses from eight American universities plus the QFIS, a hospital, and a convention center. The Qatar Foundation, which channels funds from the government into education, research, and community development, supports Education City and Katara, a cultural center that includes a new amphitheater and opera house. In Education City, we visited Al Shaqab, one of the world's largest equestrian centers, which has 450 horses, 80 percent of them Arabian. Our group enjoyed a tour of the studio of Al-Jazeera, the satellite-television network that reaches more than 300 million homes in Arabic or English from studios in Doha, Kuala Lumpur, London, and Washington.

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The World Less Traveled by Private Jet
Stanford Travel/Study Program
January 24-February 16, 2013
Airplane-based, Aboard a TCS and Starquest Expeditions Jet

Riyadh and Mada'in Salih, Saudi Arabia

Saudi Arabia is renowned for its petroleum wealth and its autocratic rule. The country of 28 million (mostly Arab) people earns about $250 billion a year from oil and gas exports, and its per capita income is about $25,000 (just over half of the US level). Nearly half of national income and 90 percent of export earnings derive from oil and gas. The Al Saud dynasty has ruled parts of the Arabian Peninsula intermittently since 1744. It unified Saudi Arabia between 1902 and 1930. The current king (and prime minister) is King Abdullah bin Abdul Aziz Al Saud. Royal succession is lateral – to the king's brothers before his sons become eligible. Apart from Ottoman rule of the west (Red Sea) coast and the northeast (1517-1918), Saudi Arabia was never colonized.

In Riyadh, the Saudi capital, we visited the impressive National Museum, which contains displays of Arabian history, the Musmuk Fort, the site of the Al Saud dynasty's capture of Riyadh in 1902, and a major archaeological project in Addiriyah, a former city in the Al Saud heartland. Two dozen Saudi alumni of Stanford joined us at an elegant lunch featuring camel meat. The next day, we flew northwest to visit Mada'in Salih, an ancient camel-caravan city on the Incense Route that linked South Arabia to Rome via Petra. The Nabataeans dominated the trade in frankincense and myrrh for four centuries until Rome took over in 106 CE. With its tombs and buildings elegantly carved into rose-red limestone, Mada'in Salih is similar to Petra, the Nabataean capital and entrepôt.

The Saudi government is investing huge oil-based resources in projects to create the basis for a sustainable economy after the country's substantial oil and gas reserves are depleted. Two projects have the best prospects for future success. The Saudi Basic Industries Corporation (SABIC), once the world's leading producers of petrochemicals, uses inexpensive natural gas feedstock and cheap energy. The King Abdullah University of Science and Technology (KAUST) has well-trained faculty with excellent foreign degrees. The government hopes to emulate Silicon Valley with KAUST and become a regional center of information and bio-medical technology. The hitches will likely be the lack of entrepreneurs and venture capital and the head-start that Dubai has in the region.

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Jewels of the Indian Ocean Expedition, By Private Jet
TCS Expeditions
October 28-November 13, 2005
Airplane-based

Muscat, Oman

In 1498, militaristic Portuguese traders rounded Africa and seized control of the triangular trade route connecting southern Arabia, eastern Africa, and western India, which Muslims had dominated for eight centuries. The Portuguese built forts in Muscat to gain control of that key trading port. Omani Arabs expelled Portugal from Oman in 1650. Beginning in 1749, the Busaidi dynasty ruled Oman from Muscat with external support from the British navy. The Busaidis imposed their control over desert tribes by undercutting the local Ibadhi Muslim imams and centralizing religious and political control in a Muscat-based sultanate. Sultan Said moved his capital from Muscat to Zanzibar in 1832, expanded his empire in East Africa, and ruled Oman from there. Oman became a client state of Britain by the 1850s. Britain wanted control of the entrance to the Persian Gulf, and Oman gained protection from its traditional enemies – rebelling local tribes and Saudi Arabian expansionist invaders. In 1970, with British cooperation the insular Sultan Said was deposed in a bloodless coup d'état. Said had refused to use Oman's new oil wealth for development. The new ruler, Sultan Qaboos, Said's son, is Sandhurst-educated, outward-looking, and progressive in development policies. The outlook for development of Oman depends on the government's continuing use of its oil-based wealth to invest in education, literacy, health, and infrastructure.

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