

BACKGROUNDER

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Why the U.S. Must Break China's Emerging "String of Pearls" in the Arabian Gulf

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KEY TAKEAWAYS

To achieve their development goals and create balance against an unreliable U.S., Arabian Gulf countries are increasing their engagement with Communist China.

China acquires port terminals in Gulf countries, finances commercial projects, and integrates the seaports into its own regime-controlled digital ecosystem.

The Gulf plays a crucial role in global energy and trade and hosts U.S. military assets—in its own interest the U.S. must re-engage with the countries of the region.

he Arabian Gulf is vital to U.S. national security because the region supplies global energy markets and is located at the heart of global trade and communication. Historically, the United States built strong bilateral ties with the Gulf Cooperation Council (GCC) countries—Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE). These ties were based on political pragmatism, shared security concerns, and economic interests that include large-scale military sales. The United States enjoyed unparalleled access to Gulf countries that host thousands of U.S. troops and key bases across the region.

Gulf leaders, however, doubt Washington's security commitment to the region because of incoherent and contradictory regional policies advanced by the United States. The Biden Administration's disastrous

withdrawal from Afghanistan in 2021, and its repeated efforts to revive a dangerously flawed nuclear deal with Iran, for example, concern Gulf allies who question U.S. resolve. By contrast, China has strengthened its ties to Gulf countries over the years to secure its energy and economic interests. To achieve their development goals and create balance against an unreliable U.S., Gulf countries have been increasing their engagement with China.

After the fall of the Soviet Union, China took advantage of the security umbrella provided by the U.S. to establish strong bilateral relations with Gulf countries. Although China's ties with Gulf countries were initially motivated by its energy needs, Beijing is looking to deepen these relationships beyond energy by linking its Belt and Road Initiative (BRI) with Gulf "Vision" plans. The BRI has two key components: the Silk Road Economic Belt (land-based) and the Maritime Silk Road (sea-based). At its core, the BRI is China's globalization strategy.

Commercial seaports in the Arabian Gulf are gateways for exporting Chinese products to Middle Eastern, European, and African markets. Gulf seaports are therefore a target for Chinese investment. To expand its maritime access points at strategic ports, China is investing in three areas: terminal capacity and railways, trade cities and free trade zones, and "smart port" technology.²

Chinese investment in Arabian Gulf seaports should be a wake-up call for the United States for two reasons: First, under its "first civilian, then military" strategy, China invests in port infrastructure for commercial purposes and later "converts" these ports to support its military. Second, China can collect signals intelligence on the United States and other countries through advanced technology embedded in port facilities. These practical concerns, however, pale in comparison to the geostrategic implications of long-term Chinese investment.

U.S. dominance in the region is not guaranteed. If the U.S. pushes its Gulf allies away, these countries will find new friends. In a world that pits the United States against China, Gulf allies are invaluable because the region determines the health of global energy and trade and is home to vital U.S. military assets and bases.

Surrendering the region to China would create significant strategic costs for the United States. Without Gulf energy, Beijing cannot fuel its economic and industrial growth or fulfill its military ambitions in Taiwan. China's energy dependence on the Gulf therefore makes Beijing vulnerable. The United States must take China's growing commercial engagement in the Arabian Gulf seriously because it strengthens Beijing's ability to wage war against Taiwan.

It is naive, however, to expect Gulf countries to completely halt their relationships with China. Instead, the U.S. must do its best to mitigate China's gains in the region by tracking Chinese port investment activity, exposing China's self-serving approach to the region through misuse of investments and technology, encouraging greater investment screening processes, offering cybersecurity to safeguard Gulf infrastructure, and improving public diplomacy by leveraging existing joint alliance frameworks, such as the Abraham Accords.

To advance these policy goals, the U.S. must understand China's strategic outlook on the region.

The Growth of GCC-Sino Relations

China's interest in the Arabian Gulf historically centered on trade. Gulf merchants along the Silk Road exchanged pearls and other goods with Chinese traders. In the 20th century, however, Cold War alliances, ideological differences, and the absence of shared interests or threats deterred China from establishing formal bilateral relationships with Gulf monarchies.

U.S. military commitments in the Arabian Gulf, especially Desert Shield and Desert Storm in the early 1990s, created a peaceful and stable environment within which China could expand its regional economic and political ties.

China had established bilateral relations with every country in the GCC by 1990. These relationships evolved as Beijing's energy needs grew. Chinese oil consumption levels in 1998 were around 4 million barrels per day. In 2022 that number was around 14.3 million barrels per day, 52 percent of which came from five countries in the Arabian Gulf.⁴ China's dependence on Gulf energy is expected to grow significantly over the next 10 years. By 2030, the U.S. Energy Information Administration projects that 80 percent of China's oil and natural gas will be imported.⁵

U.S. energy dependence, by comparison, has decreased over time. In 1977, the U.S. imported 44 percent of its energy needs. Of those imports, an estimated 28 percent of U.S. energy was sourced from Arabian Gulf countries. Since 2005, however, U.S. petroleum imports have declined significantly because of a "shale boom" that significantly increased domestic petroleum production. In 2020, the United States became a net exporter of petroleum for the first time since at least 1949. Now, only 12 percent of U.S. crude oil imports and 12 percent of total petroleum imports are sourced from the Gulf. The U.S. is therefore no longer the number one customer for Gulf energy—China is. While China imports the majority of its energy from the

Gulf, the U.S. under the Biden Administration is calling for the elimination of fossil fuels and pushing for climate cooperation. These policies weaken U.S. energy security and strengthen China.⁹

Energy, however, is not China's only priority. To outcompete the United States in the global economy, China must connect its own financial centers with others that are strategically located to influence world financial markets. GCC countries are international financial and trading hubs with business-friendly environments and world-class commercial ports. Trade between China and the region blossomed as a result. Since 2000, bilateral trade between China and GCC countries grew five-fold, and as of 2020, China is the GCC's top trading partner, accounting for 11 percent of the bloc's overall trade. ¹⁰

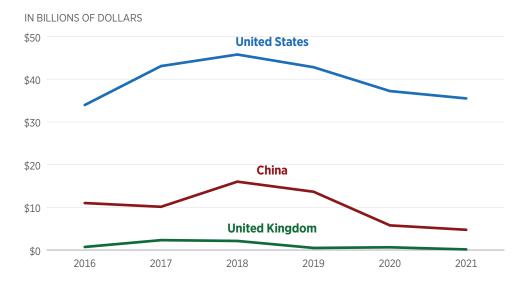
The release of China's Arab Policy Paper in 2016 elevated Gulf–Sino relations. Beijing identified the Middle East as one of six economic corridors to advance its Silk Road Economic Belt and its 21st Century Maritime Silk Road. Each initiative promoted a "1+2+3" cooperation pattern with energy at the core, followed by infrastructure construction to better facilitate trade and investment, and finally the joint development of new technologies. ¹¹ The strategy links supply chains and builds business clusters that fulfill the strategic priorities of China while also achieving key pillars outlined in Gulf "Vision" plans.

In 2022, Saudi Arabia hosted the first GCC–China Summit in Riyadh. Following the summit, China and the GCC released a 2023–2027 action plan for cooperating in the fields of energy, finance and investment, innovation, science and technology, aerospace, and language and culture. China's partnerships with the six members of the GCC, however, are not all the same. Saudi Arabia and the UAE are "comprehensive strategic" partners, followed by Kuwait, Oman, and Qatar as "strategic" partners, and lastly, Bahrain, as a "friendly cooperative" partner.

China's "Comprehensive Strategic" Partners: Saudi Arabia and the United Arab Emirates. China's growing relationship with Saudi Arabia is based on energy. The kingdom accounts for nearly 18 percent of China's total crude oil purchases, more than any other country in the world. ¹⁴ The release of Saudi Vision 2030, however, provided China and Saudi Arabia opportunities to strengthen bilateral ties through mutually beneficial trade and investment activities. In 2016, President Xi Jinping visited Riyadh and signed an agreement with Saudi Arabia to promote China's BRI. ¹⁵ A Sino–Saudi High Level Joint Committee was established shortly after the visit to facilitate cooperation in five areas: (1) industrial and energy collaboration, (2) trade and investment, (3) culture, (4) technology, and (5) tourism. ¹⁶

CHART 1

Foreign Direct Investment in the Gulf Region, 2016–2021



SOURCES:

- Bureau of Economic Analysis, "International Trade and Investment," https://www.bea.gov/data/intl-trade-investment(accessed September 29, 2023).
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China has invested \$26.33 billion in the kingdom's energy, communications technology, and infrastructure sectors since 2016. During the same time frame, the U.S. invested an estimated \$78.5 billion, mostly in nonbank holding companies, wholesale, and mining trade. Before the companies of the co

The UAE exports oil to China, but trade is at the heart of the UAE-Chinese relationship, as the UAE is home to the Gulf's busiest seaports, airports, and free trade zones. These global logistic hubs serve as the regional gateway for almost two-thirds of China's exports to Europe, the Middle East, and

Africa.¹⁹ After visits by UAE Crown Prince Mohamed bin Zayed to Beijing in December 2015, and by Xi Jinping to Abu Dhabi in 2018, the UAE and China established a business committee and joint investment fund to explore areas of collaboration in eight areas: (1) logistics, (2) transportation, (3) industry, (4) technology, (5) artificial intelligence, (6) energy, (7) innovation, and (8) technology transfer.²⁰ China has since accelerated its cooperation with the UAE. Chinese investments in the UAE totaled \$19.27 billion between 2018 and 2022. More than 6,000 Chinese businesses and more than 400,000 Chinese nationals also work in the UAE.²¹ U.S. investment in the UAE, by comparison, between 2018 and 2022 totaled over \$82 billion, targeting manufacturing, mining, wholesale trade, and financial sectors.²²

Although Saudi Arabia and the UAE have historic ties to China, policies advanced by the Biden Administration incentivized both countries to elevate their engagement with China. U.S. efforts to revive the flawed Iran nuclear deal combined with the Biden Administration's weak response to Houthi missile drone attacks against the UAE and Saudi Arabia weakened its influence in both countries. After Russia invaded Ukraine in 2022, for example, the U.S. pressured the UAE and Saudi Arabia to condemn the invasion. Instead, they labeled the events "concerning" and urged "diplomacy and de-escalation" from both sides. The UAE and Saudi Arabia also continue to engage with Russia regularly.

In 2021 and 2022, Saudi Arabia declined U.S. requests to increase oil production following a spike in global energy prices, choosing instead to abide by the April 2020 agreement between OPEC+ and Russia to cut production. Saudi Arabia cut production in April 2023 and in July 2023. ²⁴ Saudi Arabia and the UAE also reconciled with Iran and Syria with the help of Russia and China. ²⁵ Although the U.S. is still an important security partner for Saudi Arabia and the UAE, both countries are hedging against a U.S. that is prioritizing the Indo–Pacific and Ukraine and is no longer a major energy customer. China benefits from U.S. disengagement. To wedge itself between the United States and traditional Gulf allies, China markets itself as a more dependable trade partner and stable energy customer. While Beijing's strategy is paying off in Saudi Arabia and the UAE, other Gulf countries are more cautious.

China's "Strategic" Partners: Kuwait, Oman, and Qatar. China sees Oman as a strategic node for its maritime belt and road, but Beijing is not a top foreign direct investor in Oman. Located in a critical part of the world for energy and commerce, Oman links the Arabian Gulf to the Indian Ocean and acts as a bypass point for China to avoid the critical chokepoint of the Strait of Hormuz.²⁶ Oman is also situated close to Iran, Pakistan, and Eastern Africa, countries and

regions that China identified as critical to its BRI. Oman's proximity to China's only overseas naval support base in Djibouti makes the Sultanate a regular port of call for Chinese naval ships transiting the Gulf of Aden. ²⁷ Yet, China has invested only \$2.9 billion since 2018. Most of these investments target Oman's nascent energy sector. ²⁸ On the other hand, the United Kingdom, the United Arab Emirates, the United States, and Kuwait all eclipsed China in Oman in 2021. ²⁹

Kuwait and Qatar both receive greater investment from China than does Oman, but Beijing's relationship with each country is opportunistic, not necessarily strategic.

Kuwait was one of the first countries to sign a memorandum of understanding (MOU) with China on BRI cooperation, but political obstacles in the country's parliament halted China's \$10.27 billion of planned investment.³⁰ China signed on to develop multiple mega-development projects in Kuwait—Silk City, the Kuwaiti Five Islands, and Kuwait's main seaport, Mubarak al Kabeer, but Kuwait paused these projects in 2021.³¹ Kuwaiti lawmakers are concerned about China's abuses of Uyghur Muslims in Xinjiang and also fear that Silk City will become a liberalized state within a state outside the jurisdiction of Islamic law.³²

Regardless, Kuwait does not have a functioning parliament at this moment. Snap elections in June 2023 were intended to solve Kuwait's political stalemate but did little to move the country's deadlocked parliament.³³ If internal issues persist, it is unlikely that Kuwait's government will move forward on its megacity projects, with or without China. The U.S., meanwhile, has invested a total of \$4.3 billion since 2014, but there is no publicly available information on the distribution of these investments.³⁴

Qatar is China's second-largest source of liquified natural gas (LNG), therefore most of China's \$4.64 billion of investment since 2014 funds energy infrastructure.³⁵ For example, two Chinese state-owned entities—China National Petroleum Corporation and Sinopec—each signed a deal with Qatar that would guarantee Beijing a total of 8 million tons (4 million tons each) of LNG annually until 2050, two of the longest-duration LNG contracts ever signed by Qatar with any country to date.³⁶ Compared to energy, China funds Qatari infrastructure only minimally. China's Railway Construction Corp. helped to build Lusail Stadium, the site of the 2022 FIFA World Cup in Qatar, but other investments have not advanced beyond MOUs.³⁷ Compared to the \$81 billion of foreign direct investment (FDI) by the U.S. in Qatar, China's investment is minimal.³⁸

China's "Friendly Cooperative" Partner: Bahrain. Bahrain is a natural partner for advancing the BRI because of its proximity to many of the Arabian Gulf's largest oil fields, its centrality within shipping lanes,

and, most important, its unique role as the region's hub for Islamic and conventional banking. Since 2014, however, Chinese investments have totaled a measly \$1.42 billion for energy and real estate.³⁹ For instance, China invested in a large-scale commercial center encapsulating wholesale and retail of Chinese products called Dragon City.

Dragon City is in Diyar Al Muharraq, a group of seven man-made islands that is in the northeastern corner of the island kingdom six miles from Manama. The property includes Dragon Mall, Dragon Apartments, the Thai Mart, Dragon Plaza, and an allocated area for warehouses. Although China has invested more money in neighboring countries, Bahrain's ambassador to China stated in January 2023 that the relationship is "ready to hit new heights." Bahrain is one of two Arab countries with a free trade agreement with the United States. The U.S. has also invested over \$4.2 billion in Bahrain since 2014.

Chinese capital varies across the region for a few reasons. Saudi Arabia and the UAE have made it clear that they want to attract large-scale foreign investment. The UAE, for example, presented the "Projects of the 50" initiative in 2022, which seeks to attract \$150 billion of FDI over the next nine years and aims to expand its exports to 10 global markets. Meanwhile, Saudi Arabia is developing new special economic zones and offering tax incentives to foreign companies based in Riyadh.⁴²

Bahrain, Kuwait, Oman, and Qatar, on the other hand, may be more sensitive to U.S. security concerns as each country hosts major U.S. military installations. That does not mean, however, that China will not increase its level of investment with these countries. For now, Saudi Arabia and the UAE are China's main targets and energy motivates investment. To secure this energy, Chinese companies are investing in infrastructure and technology to secure special access to seaports across the Arabian Gulf.

China's "String of Pearls" in the Arabian Gulf

In an increasingly globalized world, seaports are the cornerstone of international trade and energy networks. Between 80 percent and 90 percent of world trade is shipped by sea in container ships that must use seaports to transfer goods across markets.⁴³

The Arabian Gulf is home to more than 33 ports and harbors across eight countries that border the Strait of Hormuz and the Bab al-Mandab Strait—critical choke points for energy and commercial shipping in global trade that form part of China's "string of pearls." China therefore funds the building and expansion of port terminals, railways, and special economic zones. "Smart port" technology is then integrated into these China-funded

seaports, which gives Beijing a competitive edge in global markets and leverage over traditional U.S. allies.

Port Infrastructure and Railways. Modern commercial seaports comprise a variety of terminals that handle different types of cargo. The types of terminals that a port has generally determine the role and function of the port. To capture the terminal asset, terminal operators lease terminals through concession agreements that involve a bidding process. The main goal of terminal operators is to acquire terminal facilities in markets where they want to expand their business ties.⁴⁵

Over the past decade, China expanded its commercial footprint in the Gulf by acquiring port terminals that are strategically located along its maritime silk road. Shanghai-based and state-owned COSCO Shipping ports and Hong Kong-based privately owned Hutchison Port Holdings are both global port operators tied to the Chinese Communist Party (CCP). In Oman, Saudi Arabia, and the UAE, COSCO and Hutchison either hold "minority stakes" in companies that operate major port terminals or signed concession agreements with local authorities to operate their own container terminals.⁴⁶

At Jeddah Islamic Port, COSCO is the only non-Saudi company to hold a stake in Jeddah's Red Sea Gateway Terminal.⁴⁷ Saudi shareholders own 80 percent of the company while COSCO owns a 20 percent stake.⁴⁸ Red Sea Gateway terminal is the premier terminal for Jeddah Islamic Port because it serves as a hub for ultra-large container ships transiting the Red Sea, the Arabian Sea, and the Indian Ocean.

In Jazan, however, China is more integrated in the seaport development. Saudi Silk Road Industrial Services LLC oversees the development of Jazan City for Primary and Downstream Industries (JCPDI) Port. This company is a joint venture consisting of Chinese Guangyin International Investment Development Ltd.; the Royal Commission for Jubail and Yanbu; and Saudi Aramco Development Company, established to align the BRI and Saudi Vision 2030. China holds a 60 percent equity interest in the company, while the Saudis hold 20 percent. According to the website, the company provides "investment services" at JCPDI Port and other locations in Saudi Arabia.

In 2021, Hutchison signed an investment agreement with the Royal Commission for Jubail and Yanbu to develop and operate JCPDI Port. Shortly after, China Harbour Engineering Company was awarded the contract to construct the port infrastructure. ⁵¹ Although smaller than other major Saudi ports, Jazan is home to the largest Saudi Aramco gas power plant, Jazan Refinery and Terminal. The port opened in September 2022,

MAP 1

Chinese Investment in Ports Across Gulf States



Terminal Assets

- 1. Jeddah's Red Sea Gateway Terminal
- 2. Jazan City for Primary Industries
- 3. CSP Abu Dhabi Terminal
- 4. CMA Terminal
- **5.** Hutchison International Container Terminal in Sohar

Special Economic Zones and Industrial Parks

- **6.** Jazan City for Basic and Downstream Industries
- 7. Jebel Ali Free Zone (Yiwu Market)
- 8. Khalifa Industrial Zone
- 9. China-Oman Industrial Park

Digital Investments

- **10.** Hutchison Ports Sohar Oman
- **11.** Khalifa Port UAE
- **12.** Hamad Port Qatar
- 13. Jeddah Islamic Port Saudi Arabia
- **14.** Jazan Port Saudi Arabia

Nearby Bases that Host U.S. Military*

- 15. Al-Udeid Air Base Qatar
- **16.** Al Dhafra Air Base UAE
- **17.** Jebel Ali UAE
- **18.** Dugm Port Oman

SOURCE: Heritage Foundation research.

^{*} The bases above were selected due to their proximity to areas of heavy Chinese investment and do not reflect the overall number of bases that the U.S. military has access to in the region.

but construction is ongoing to complete the 15-year Jazan Economic City project. ⁵² Set to be one of the four "intelligent" cities developed by Saudi Arabia, Jazan Economic City will include a special economic zone, a railway with connections to major cities, and a new airport. ⁵³

In the UAE, Chinese companies are financing several projects at Khalifa Port. COSCO invested \$300 million in 2018 and negotiated a 35-year concession agreement with AD Ports Group to operate the CSP Abu Dhabi Terminal. ⁵⁴ COSCO, however, is not the only China-affiliated company pouring money into Khalifa Port.

CMA CGM recently signed another 35-year concession agreement with AD Ports Group to invest \$154 million to build and operate a new CMA Terminal in Khalifa port. ⁵⁵ CMA CGM is a family-owned company based in Marseille, France, with deep ties to Chinese state-owned companies. ⁵⁶ China Harbour Engineering Company will develop the buildings and top-side infrastructure for the new terminal, which is set to open in 2024. ⁵⁷ These two concession agreements grant China control over the operations and infrastructure of two of the four terminals in Khalifa Port. MSC Mediterranean Shipping company—a Switzerland-based logistics company, and Auto Terminal Barcelona jointly operate the two other terminals with AD Ports Group. ⁵⁸

Hutchison Ports is also funding a port project in Oman. In a joint venture with the government of Oman, Hutchison was granted operational control of its own container terminal under Hutchison Ports Sohar. ⁵⁹ Although the port is not as developed as others in the Gulf, it will feature a high-speed railway linking Sohar to Abu Dhabi, boosting the Port of Sohar's trade connectivity to the UAE and making the port more valuable to Chinese businesses looking for regional connectivity. ⁶⁰ The port has a "sister port agreement" with Shenzhen Port in China and there are already plans to expand the port through the construction of new container terminals. ⁶¹ Alongside the Sohar international container terminal operated by Hutchison, there is an oil terminal operated by Oiltanking Odfjell Terminals & Company, a joint venture among Omani, German, and Norwegian companies. ⁶²

China-funded terminals and railways are connected to special economic zones designed to bring in Chinese business and investment.

Special Economic Zones and Industrial Parks. China's national development strategy since 1978 has been characterized by the establishment of semi-autonomous economic clusters containing special economic zones and industrial parks. Set up in specific provinces in China, special economic zones and industrial clusters were built in large areas outside Beijing where investors could enjoy financial, investment, and trade privileges.

The purpose of these areas was to test free-market policies that eventually moved China from a centrally planned command economy to one that now mixes private and state ownership.⁶³ Many Gulf countries are adopting China's economic model.

Saudi Arabia, the UAE, and Oman all established special economic zones and industrial parks in partnership with China to attract FDI, accelerate industrialization, and facilitate economic growth. In April 2023, Saudi Crown Prince Mohammad bin Salman launched four new special economic zones in the kingdom, including one in Jazan Port. The focus of Jazan's special economic zone will be logistics, metal conversion, and food processing. China has already committed more than \$21.33 billion to the Jazan region, but more investment is expected over the coming years as the kingdom pushes hard to advance its plan for Vision 2030.

In the UAE, Chinese companies are involved in the Jebel Ali Free Zone (JAFZA) in Dubai and the Khalifa Industrial Zone (KIZAD) in Abu Dhabi. DP World and China Commodity City Group in JAFZA established Yiwu market in 2022—the first smart free-zone market in the Middle East for retail and wholesale industries. The market is close to Jebel Ali Port and Al Maktoum International Airport so that Chinese companies can export their goods to the Emirates at a competitive cost and distribute these goods across the Middle East, Africa, and Europe. ⁶⁶ Within KIZAD, more than 20 Chinese companies with more than \$1.7 billion are invested in the China–UAE Industrial Capacity Cooperation Demonstration Zone. Separately, East Hope Group, a Chinese manufacturing firm, will construct manufacturing facilities across KIZAD over the next 15 years. ⁶⁷ Chinese companies are not the only companies in KIZAD. A variety of other international logistics and heavy-industry manufacturing companies also have active projects in KIZAD. ⁶⁸

China is hoping to replicate the UAE and Saudi investment model in Oman. Oman Wangfang, a subsidiary of China–Arab Wangfang Investment Management Co., is developing the 40,000-square-meter Chinese–Omani industrial park in Duqm.⁶⁹ This park is located about 373 miles south of the capital Muscat, with Chinese investment totaling \$10.7 billion.⁷⁰ The area will be divided into three functional areas that will house around 35 projects, including for heavy industry, light industry, port services, and energy.⁷¹ As of 2022, 70 percent of the construction of the Duqm materials market, a major project within the Chinese–Omani industrial park, is complete.⁷² China, however, is not the only investor in Duqm. Other Asian countries, as well as European and Gulf countries, are also financing projects in the special economic zone in Duqm.⁷³

China funds special economic zones and industrial parks that are connected to Gulf ports where it has made infrastructure investments. The purpose is to create greater interconnectivity with countries that advance its Maritime Silk Road. Technology constitutes the final pillar of Chinese investment.

Digitization via "Smart Port" Technology. BRI port infrastructure investments by China are complemented by digital integration of new technologies, systems, and solutions, which include fifth-generation (5G) networks, artificial intelligence (AI), big data, the Internet of Things, blockchain technology, and cloud computing.

Dubbed the Digital Silk Road, these technologies expand China's ability to collect large amounts of sensitive data.⁷⁴ Huawei is the digital partner of choice in the Arabian Gulf, winning 11 5G contracts with major telecommunications companies in all six GCC countries.⁷⁵ These digital partnerships have opened the door for additional information and communications technology (ICT) sector integration in maritime ports.

Oman's Port of Sohar has been at the forefront of testing Huawei's 5G network and smart port technology, with various MOUs signed between Omani telecom companies, Huawei, and Hutchison Ports Sohar. In 2021, Chinese firm United Projects Achievement signed an agreement to build a cloud data center that will develop AI, big data, and cloud computing. The facility is located on 2,500 square meters of leased land within Oman's Sohar free zone and was set to be open in 2022.

Saudi Arabia will also integrate 5G smart port technology in its ports following an agreement signed by the Saudi Ports Authority, Huawei, and Swedish company Ericsson as part of its Vision 2030 "smart ports initiative." Huawei and Ericsson will provide IT infrastructure as well as cloud computing and cybersecurity development, among many other areas.⁷⁷

In the UAE, Abu Dhabi's Khalifa Port is working with Shanghai Zhenhua Heavy Industries Co., a close partner of Huawei, to integrate an AI cargo-handling system with cameras to track shipments for the COSCO Shipping Abu Dhabi Terminal.⁷⁸

Finally, Qatar's Hamad Port already integrated 5G network systems powered by Qatar's Ooredoo Group—a company that signed a five-year global frame agreement with Huawei to supply radio, core, and transport products and solutions.⁷⁹ These are just a few examples that illustrate China's clear ambition to dominate the ICT-digital sector in the Arabian Gulf.

As Huawei continues to invest in its own ICT development, more countries in the Arabian Gulf will want to adopt 5G technology in their port projects to compete regionally. Most experts, however, do not fully heritage.org

understand the extent of Huawei's 5G integration into maritime port infrastructure and the information it gives to the CCP.

Some experts warn that China can use security and surveillance technologies integrated into "smart port" technology to harness and weaponize data. ⁸⁰ As a result, many countries in the Arabian Gulf are trying to balance their own commercial interests with security concerns voiced by the U.S. and other Western partners.

There is no open-source evidence that backdoors exist in Huawei's 5G equipment, but former U.S. Defense Secretary Mark Esper warned in 2020 that "reliance on Chinese 5G vendors could render our partners' critical systems vulnerable to disruption, manipulation, and espionage."⁸¹ In fact, cybersecurity experts stated that 5G is still a relatively untested technology that is highly vulnerable to cyberattacks.⁸² In 2022, an FBI investigation determined that Huawei equipment atop cell towers near U.S. military bases in the American Midwest were capable of capturing and disrupting U.S. nuclear arsenal communications from U.S. Strategic Command.⁸³

Despite warnings by U.S. cybersecurity experts, Gulf partners embraced Huawei technology. In the UAE, pressure from the United States to cut ties with Huawei ultimately led to the cancellation of the multimillion-dollar F-35 defense sale negotiated during the Trump Administration. U.S. officials repeatedly warned that a dense, Huawei-controlled 5G mobile phone network near F-35 bases and operating areas could be used to passively track and collect intelligence on aircraft and operators without the host country's knowledge.⁸⁴

5G and artificial intelligence is an innovative space that China is looking to dominate. Huawei is the network provider of choice for Arabian Gulf countries, but the U.S. still has an edge in its cybersecurity capabilities—a priority among GCC countries. The U.S., however, has yet to provide an alternative 5G framework to challenge Huawei.

What Does Chinese Port Investment Mean for the U.S. and Its Allies?

Commercial seaports play a critical role in the economic and social development of non-oil economies in the Arabian Gulf. The United States has strong commercial ties with all GCC countries, but China aligns its BRI investment strategies with the development priorities outlined in Gulf "Vision" plans.

Oman, Saudi Arabia, and the UAE are targets of Chinese investment. Unlike the rest of the GCC, these three countries do not host facilities that are controlled and secured by the U.S. military, though they do host U.S. troops in their own military facilities. The concern for the U.S. is that China will leverage its commercial ties to either expand its security relationships with these countries or establish an overseas military facility like it did in Djibouti in 2017.85

Labeled the "first civilian, then military" approach, China invests in commercial infrastructure and later converts it to support its military. Military scholars in China describe these locations as "strategic strongpoints," because they help Beijing to secure critical waterways. According to the U.S. Department of Defense, the People's Liberation Army (PLA) is most interested in military access along strategic lines of communication that connect China to the rest of the world.

The Strait of Hormuz is one of three strategic routes identified by the PLA.⁸⁶ Given China's dependence on Middle East oil, the country will establish a "strategic strongpoint" in the Middle East to protect its energy interests. Recent evidence suggests that the UAE is the likely candidate.

Satellite images and multiple U.S. intelligence reports in spring 2021 illustrated that China was secretly building a military base in the Chinese section of the KIZAD special economic zone at Khalifa Port. ⁸⁷ Initially, the Emiratis denied these reports, but later admitted that these reports were true. After halting construction, Emirati officials allowed U.S. officials to inspect the site and claimed that they were unaware of China's activities. ⁸⁸ Leaked intelligence reports, however, stated that China resumed construction of the military base in January 2023. UAE representatives dismissed the reports stating that the information presented was "out of context" and "criminally obtained." ⁸⁹

Regardless of the information's accuracy, Washington should be wary of future China–UAE port activity. If it is true that Emirati officials were unaware of China's "secret base," that is extremely concerning. If the Emiratis knew about the base and did nothing to stop its activity until reports were leaked about its existence, that is even more dangerous.

Even if the U.S. can prevent China from building an overseas military base in the Arabian Gulf, Chinese tech companies like Huawei could still collect signals intelligence from the U.S. and its allies through the 5G and AI that are integrated into regional commercial ports.

In March 2023, for instance, the Pentagon warned that cargo cranes manufactured by Shanghai Zhenhua Heavy Industries Co. could be used as possible spying tools. The cranes contain sophisticated sensors that register and track the origin and destination of commercial containers. ⁹⁰

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The U.S. Navy makes frequent port calls to commercial sides of Jebel Ali Port in the UAE and Jeddah Port in Saudi Arabia—both these ports use Shanghai Zhenhua cranes. Cranes and other "smart port" technologies could assist China in collecting signals intelligence on the United States and other countries that trade or transmit sensitive military equipment in and out of regional ports.

Signals intelligence collection does not only harm U.S. military support facilities in the region, but also the host countries themselves.

Both Saudi Arabia and the UAE are hoping to attract foreign investment to fund innovative and creative projects and attract foreign and local talent. Strong intellectual property laws incentivize businesses to invest. Saudi Arabia and the UAE have strengthened their intellectual property laws over the past few years to make themselves more competitive regionally. 91

China has a long history of violating intellectual property laws by "re-in-novating" technology that it obtains. ⁹² Beijing could very well steal trade secrets from Omani, Saudi, and UAE ports to improve its domestic ports.

China's commercial investments will also grant the country more political influence. Strong commercial ties in Saudi Arabia and Iran, for example, set the stage for China to diplomatically broker a Saudi–Iran rapprochement.

If U.S. relationships with Saudi Arabia and the UAE continue to deteriorate, China is certain to make greater inroads with regional partners to the detriment of U.S. national security and the security of its allies in the Indo–Pacific.

The Arabian Gulf is a major thoroughfare for energy not only to China, but also Japan, India, and South Korea. The region is also a major waypoint for outbound trade from Asia to Europe. All three countries are therefore interested in maintaining the free flow of energy and open sea lines of communication. China is in direct competition with India, Japan, and South Korea for energy, trade, and investment. Although each country individually invests with Arabian Gulf countries, there may be an opportunity for them to work together to counter China.

India and Japan already cooperate to counter China in the Indo–Pacific. Leaders of both countries attend annual summits, their militaries conduct joint maritime exercises, and Japan invests in India's economy. Both countries are also part of the Quadrilateral Security Dialogue, commonly known as the Quad, an association of Australia, India, Japan, and the United States that is committed to a free and open Indo–Pacific. South Korea is pushing to mend its ties with Japan to boost a Seoul–Tokyo–Washington security cooperation. India and South Korea are looking to strengthen

science and technology cooperation to align with a U.S.-led push to diversify global supply chains away from China. 95 India, Japan, and South Korea are competing with China over access to many of the same markets. The United States should work with each country to provide Gulf countries with economic alternatives to China in a way that advances U.S. interests.

Seven Things the United States Should Do

Beijing's investments in Arabian Gulf seaports have long-term strategic implications for the United States. More than 30,000 U.S. military personnel are spread across bases and facilities in every Arabian Gulf country. He military assets are critical for deterring Iranian aggression and ensuring freedom of navigation along vital waterways for global energy and trade. China could compromise these assets, as it could use its investments to collect critical intelligence about the U.S. and reshape supply-chain networks to advance its own interests.

China's investment model in the Arabian Gulf has a clear pattern. After acquiring terminal assets, China finances railways, special economic zones, and industrial parks to increase its commercial footprint. It then integrates these seaports into its own Chinese digital ecosystem. To ensure that the U.S. secures its national interests in the Arabian Gulf and mitigates the threats posed by China, the United States should:

- 1. Conduct a Threat Assessment of Chinese Port Infrastructure Investments in the Arabian Gulf. China is expanding its commercial reach with key U.S. regional allies at a time of perceived U.S. disengagement. Commercial ties could be the first step toward greater Sino–Gulf military-to-military cooperation. Saudi Arabia and the UAE are already working with China in critical sectors like smart technology and manufacturing, while hosting thousands of U.S. forces. The UAE, for example, hosts an U.S. Air Force Base in Al Dhafra, south of Abu Dhabi, where about 3,500 U.S. personnel are stationed. Al Dhafra base is only 50 miles from Khalifa Port, where China is suspected of building a PLA support base. The UAE also provides logistical support to U.S. Navy ships and collectively hosts more Navy ships than any other port outside the United States. The U.S. must understand which intelligence-collection capabilities China gains through its seaport investments and how these investments compromise U.S. military assets and U.S. troops stationed across the region.
- **2. Expose China's Misuse of Investments and Technology.** Business with China carries several risks. China's national security laws effectively make every Chinese company and entity subject to the whims, and

intelligence requests, of the CCP.⁹⁷ In the UAE, for example, China leveraged its commercial investments in the Chinese section of the KIZAD special economic zone in Khalifa Port to build a secret PLA support base. China also has a history of stealing innovative technology to reinvent in China. U.S. companies with locations in China or joint investment with Chinese companies, for example, have long complained that Beijing pressures them to hand over intellectual property.⁹⁸ China could use the same tactics with its Gulf business partners.

3. Improve Public Diplomacy to Contrast Mutually Beneficial Relationships with China's Self-Serving Approach to the Arabian Gulf. Arabian Gulf countries are flourishing today because of America's commitment to building long-term and beneficial relationships with Gulf countries by providing investment, technical expertise, and stability. China, however, reaps monetary benefit without significantly contributing to resolving the political, social, and geopolitical problems that destabilize the region. For example, China is unable to provide the security guarantees that have historically been provided by the United States. Still, Saudi Arabia and the UAE are engaging with China because they perceive that the U.S. is disengaging in the region and because China is aligning its BRI investments with Gulf development goals. To mitigate China's growing commercial footprint in the region, the U.S. must articulate to its Gulf allies what future U.S. economic and security engagement looks like. A clear road map outlined by the U.S. and its allies will ensure greater buy-in from countries that are leaning toward China.

4. Encourage GCC Countries to Strengthen Oversight Investment Mechanisms to Screen Chinese Investments in Digital and Technological Sectors. On September 14, 2021, Saudi Arabia's Cabinet of Ministers launched a new Permanent Ministerial Committee for Examining Foreign Investments (CEFI) that would review foreign investments for potential national security threats.99 It is modeled after the Committee on Foreign Investments in the United States (CFIUS). The UAE does not have a committee to screen sensitive foreign investments but requires a foreign investor to obtain an operating license from the appropriate regulatory authority. Security, defense, and military-related activities, for example, must be approved by the Ministries of Defense and Interior. Telecommunication activities must be approved by the Telecommunications and Digital Government Regulatory Authority.¹⁰⁰ It is unclear which regulatory body would review smart technology investments. Other Gulf countries do not have screening mechanisms for reviewing foreign investments, but each government publishes a list of certain industries that either prohibit foreign ownership or limit the

percentage of foreign ownership. The U.S. can work with GCC countries to establish or strengthen oversight investment mechanisms.

- **5. Provide Gulf Countries Cybersecurity Training to Protect Their Infrastructure from Malign Activities.** Beijing is interested in integrating cutting-edge AI into its intelligence and military enterprises. This means that China can use any technology that is integrated in Arabian Gulf seaports to collect sensitive information about host countries and other countries that use these ports to transit goods. The U.S. should help Gulf countries to strengthen their cybersecurity capabilities through training and information sharing to prevent China from collecting intelligence from critical infrastructure.
- 6. Incentivize GCC Countries to Join the Abraham Accords and Negev Forum, Based on More Robust Commercial Diplomacy as an **Alternative to the BRI.** Normalization with Israel has opened the door for greater defense and security cooperation among Abraham Accord countries, but economic cooperation takes place mostly on a country-to-country basis. To strengthen the Abraham Accords, the U.S., Bahrain, Egypt, Israel, Morocco, and the UAE established the Negev Forum, a new framework for cooperation in the region via six working groups focused on (1) clean energy, (2) education and co-existence, (3) food and water security, (4) health, (5) regional security, and (6) tourism. Beyond a meeting that took place in September 2022, it is unclear which progress has been made. There is also no working group on trade and investment. The Negev Forum would be an opportunity to look at ways that the U.S. can jointly invest with Abraham Accord countries in targeted sectors that can help the region diversify its supply chains and advance its development goals. These efforts may incentivize other countries, such as Saudi Arabia, to take steps toward normalization with Israel.
- 7. Make Better Use of U.S.-Indo-Pacific Partnerships to Pull Gulf Countries Away from Dependence on Chinese Infrastructure Investment and Technology. India, South Korea, and Japan all depend on the Arabian Gulf for their energy needs and are looking for opportunities to invest in the region. These three countries are also wary of China's growing influence via its commercial footprint. The U.S. should more aggressively work with India, Japan, and South Korea to identify sectors where all three countries can offer alternatives to Chinese investment for Arabian Gulf countries through the I2U2 Group (India, Israel, the UAE, and the U.S.) framework or within a multilateral framework. Smart technology, 6G, critical infrastructure, and manufacturing are just a few areas to explore. The U.S. Department of Commerce, the U.S. Department of the Treasury, the U.S. Agency for International

Development, and the U.S. Department of State together with U.S. International Development Finance Corporation should revitalize the previous Administration's interagency working group to evaluate the federal tools that exist within their respective agencies to support these efforts.

Getting Gulf Allies Back on Track

Arabian Gulf countries have historically relied on the United States to maintain stability and advance economic prosperity, but U.S. policy missteps opened the door for greater Chinese engagement. Although China wants to secure its energy supply-chain networks, Beijing is expanding its commercial footprint by investing in seaports that are located along key waterways for global trade. These commercial ports enhance Beijing's political influence in the region, and China could later use them to expand its global military capabilities.

Traditional U.S. partners, such as Saudi Arabia and the UAE, have recently strengthened their ties with China, partly in response to perceived U.S. disengagement in the region, as well as for pragmatic economic reasons. The volume of China's commercial investments in the Arabian Gulf is significantly less than U.S. and U.K. investment, but while Western investment is private-sector driven, Chinese investment is state-led and is likely politically driven; Beijing is financing port infrastructure and integrating new technologies in seaports along strategic chokepoints to control the flow of information, trade, and energy. These targeted investments will therefore affect long-term U.S. power projection in the Arabian Gulf.

Ultimately, the BRI serves as a mechanism for the CCP to redraw the geopolitical map by putting Beijing at the center of the world's economic activity. China relies on Gulf energy. The United States does not. Energy reliance means that China has a vested interest in maintaining strong relationships with Gulf countries. The U.S., meanwhile, no longer depends on imported Gulf energy, but the region hosts vital U.S. military assets and bases across the region. To limit the harm to American geostrategic interests, the U.S. must work within existing partnership structures, such as the Abraham Accords and the I2U2 Group, to incentivize alternative investment frameworks for Gulf countries that are looking to develop new technologies, build critical infrastructure, and diversify their economies beyond energy production.

In response to Middle East partners that are cozying up to China, a top Pentagon official at the 2022 Manama Dialogue in Bahrain stated, "don't compare me to the almighty, compare me to the alternative." The

alterative—China—is only interested in its own survival and therefore will never act as a positive force in the Arabian Gulf. The U.S., however, established a stable political and security environment for Arabian Gulf countries to flourish. To pull U.S. allies away from China's orbit, the United States must articulate why it is dangerous to work with China and provide alternative investments and technologies that align with the development priorities of its Gulf allies.

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