

Jim Krane writes: It took an astonishing increase in demand to get to this point. Energy consumption six exporting countries in the Middle East, just a rounding error on global demand a few decades ago, has grown by eight percent annually since 1972, compared to two percent for the world. Together, four of the six monarchies (Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates) have less than one percent of the world's population, but account for more than five percent of global oil consumption. Saudi Arabia, which consumes roughly a quarter of its own production, is now the world's number-six oil consumer, guzzling nearly as much of the stuff as Russia and more than either Brazil or Germany, countries with far larger economies and populations.

What lies behind the transformation? For one thing, populations and incomes in the Gulf countries have mushroomed in recent decades, with predictable effects on demand. But another factor, one that lies entirely within government control, is also responsible: price.

Energy is so cheap in the Gulf states that, in some cases, it is essentially given away. Prices are among the world's lowest: at 45 cents per gallon, gasoline in Saudi Arabia is a quarter the price of bottled water. In Kuwait, electricity has cost just 0.7 cents per kilowatt-hour since 1966. (Americans pay about 15 times as much.) In nearby Qatar, citizens receive unlimited electricity and water for free. Ultra-low energy prices are typical in autocratic or populist petro-states beyond the Arabian Peninsula, including Algeria, Brunei, Iran, Iraq, Libya, Turkmenistan, and Venezuela.

Cheap energy has exacerbated demand in two important ways. First, it has created path-dependence on energy-intensive infrastructure and technologies: skyscrapers, Hummers, and industrial plants producing aluminum, fertilizer, and petrochemicals. Second, low prices have also

engendered wasteful behavior, making it easy for families to leave their air-conditioners blasting at home during a long vacation.

As a result, the Gulf's per capita carbon emissions lead the world as well, ahead of or alongside other big emitters such as Australia, Canada, and the United States. The level of waste is substantial, even on a global scale. The IMF has calculated that eliminating energy subsidies, the largest of which are concentrated in oil-producing states, would reduce worldwide carbon emissions by 13 percent

Short-sighted energy policies could be defended in the 1970s, when citizens of these states were poor and few in number. But they have set the Gulf on a dangerous path.

WHEN ALL PETROLEUM IS LOCAL

The region's problems extend beyond wasted energy. The Saudis and their neighbors also divert massive amounts of their chief export into domestic markets. That trend could prove ruinous. The Gulf countries derive, on average, 40 percent of their GDPs and 80 percent of their national budgets from oil exports. Yet if longstanding consumption trends continue, these countries will be unable to maintain their all-important supply to global markets. Most are already experiencing **shortages of natural gas** used in power generation, and some, including Kuwait and Saudi Arabia, are generating more than half their electricity from crude oil and other valuable liquid fuels.

Khalid al-Falih, the CEO of Saudi Aramco, has **warned** that without any significant changes, the kingdom's consumption could rise from three million barrels per day to eight million by 2030. A **projection by Riyadh's Jadwa Investment Bank**

paints an even gloomier picture, showing that, at current rates of consumption growth, Saudi spare oil production capacity will dwindle until it disappears sometime before 2020. Barring major new investments, the Saudis would have to begin diverting oil destined for export into the domestic market. Following the trend further, Jadwa has estimated that Saudi Arabia will consume its entire production capacity—12.5 million barrels per day—at home by 2043. London's **Chatham House** has predicted that the kingdom will become a net oil importer even earlier, by 2038.

There is a clear way, however, that the monarchies can reverse course: by raising domestic prices. In one sense, the Gulf monarchies and other big exporters are fortunate. They don't need to tax energy; they just need to sell it at a reasonable price. If the Gulf states raised prices to global levels, calculations based on modest estimates of price elasticity show that demand would respond strongly. Over the long term, Kuwait might cut its electricity demand by as much as 60 percent, and Abu Dhabi by as much as 40 percent. An end to gasoline subsidies in Saudi Arabia could reduce its domestic demand by a third.

Just as in the United States, Gulf consumers would also take steps to reduce their exposure to higher prices, insulating their homes and trading in old appliances and SUVs. Governments would reap even more revenue, which could help finance a transition to a more energy-efficient economy. Polluted skies would give way to cleaner air. And since actual reserves in most of these countries remain huge, they could export more of the oil and gas they now consume.

Reforms, however, won't be easy to implement. Subsidies are notoriously difficult to retract, even the unsustainable ones. And centralized governments, like those in the Gulf, are particularly vulnerable to angry public reaction. The Arab

Spring, moreover, has taught the sheikhs that antagonizing subjects could endanger their very survival. As the political scientist Ted Gurr wrote in 1970—and as history has demonstrated since—declines in state benefits and social welfare are among the most common triggers for political violence. The examples are many. In OPEC members Venezuela and Indonesia, government-mandated price increases triggered violent public reactions that toppled sitting governments in 1993 and 1998, respectively. More recently, Arab Spring rioters counted benefit cuts as a major grievance, in countries ranging from Tunisia to Oman.

Citizens of the Gulf monarchies—like those in petro-states the world over—consider themselves entitled to cheap energy, alongside the other inducements that the regimes provide in return for political support. For many of them, raising prices on electricity or gasoline is politically illegitimate.

As the ability of Gulf monarchies to maintain exports comes under challenge, that sense of entitlement will be tested. Gulf rulers will need to look for ways to tinker with the prevailing social contract, reforming subsidies in ways that maintain exports without undermining public support for the regime. The recent plunge in oil prices has made these reforms simultaneously more urgent and easier to sell. But the stakes are high: If the monarchs fail, they may not get a second chance.

THE END OF SPARE CAPACITY

Surging Gulf oil consumption poses a strategic threat as much as it presents an economic one. In the past, OPEC has been able to flood the market with oil, mostly from Saudi Arabian reserves, to protect the global economy from damaging volatility. This capability has also functioned as a critical strategic asset for the United States. When Washington

intervenes in the Middle East, it can usually count on its Saudi friends to ramp up production and replace lost exports from, say, Iran, to help avoid a crippling spike in prices. At one time or another, **Saudi spare capacity** has replaced exports from Iran, Iraq, Kuwait, and Libya. Such reserves allow the United States to have its cake and eat it too—to advance foreign policy goals without disrupting economies, antagonizing motorists, or complicating investment decisions.

At the moment, a supply overhang is sending oil prices lower, and so, few are thinking about Saudi spare capacity. When demand returns, however, the Saudis may be less able to rise to their old role. Future export outages could trigger more virulent price spikes. Everyone from central bankers to U.S. consumers would suffer, and the ensuing damage to national economies and personal incomes would have no short-term antidote.

For the Gulf monarchs, the scenario gets even worse. If they lose their spare capacity, they start to lose their strategic importance to the United States and much of the oil-importing world. Pundits have crowed for some time that U.S. shale production could eliminate the country's dependence on Middle Eastern oil. Meanwhile, Middle Eastern elites have feared that shale oil could reduce U.S. commitment to the region's security.

Yet such scenarios are off-target. Since oil is a globally fungible commodity, the source of supply matters less than the level of supply. Even if the United States were entirely self-sufficient, an external supply shock would still impact U.S. prices. Shale oil doesn't decouple the United States from the Middle East; it simply makes its dependence on the region's oil less direct. Washington's current calculus will change, however, if the Gulf countries find themselves unable to sustain their market-regulating role. In that case, the United

States may not be as interested in spending, by one estimate, \$50 billion annually to protect the monarchies.

THE REFORMER'S PLAYBOOK

Like all oil exporters, the Gulf monarchies' prime business will eventually come to an end, either from depletion, the domestic displacement of exports, or reduced global demand for a product that is contributing to a warming climate. Some countries, such as the United Arab Emirates and Qatar, have already begun funneling profits into sovereign wealth funds and diversifying their economies, both of which are steps in the right direction. But they are still insufficient to replace the giant economic contributions of oil. The sheikhs need more time.

The simplest way for these oil monarchies to stay in business is to end extraordinarily generous energy subsidies. Once prices increase, efficiency will follow, driving behavioral change and technological improvement.

The good news is that an effective model for reform already exists. Across the Gulf, an old nemesis, Iran, has proven that an oil-exporting autocracy can launch a massive change in energy pricing without triggering unrest. Although Arab monarchs might recoil at the thought of emulating Iran, there are reasons to believe that the **Iranian script** for replacing in-kind energy benefits with cash might work better on the Arab side. In Iran, the government ultimately suspended its reforms in the face of inflation, currency devaluation, and embargo. But the Arab oil monarchies have a more reform-friendly macroeconomic environment, since they peg their currency to the U.S. dollar and face little danger of embargo.

External pressure would also help, providing political cover for

governments, especially centralized regimes, to enact unpopular measures. Saudi Arabia's accession to the World Trade Organization in 2005 gave the kingdom justification to enact difficult economic reforms. And when the IMF's managing director, Christine Lagarde, warned of wasted resources in Kuwait, she provided the government with a rationale to scale back diesel and gasoline subsidies.

In the United States, the Environmental Protection Agency's proposed carbon standards for power plants have provided President Barack Obama with new credibility on climate change. He should leverage that momentum by asking exporting countries to pare back their subsidies. In so doing, he would also provide political cover for Middle East allies that are ready to begin a task they desperately want to start. Oil revenues that have tumbled to their lowest levels in years provide a handy fiscal incentive to get busy.

Whatever the catalyst, subsidy reform will likely occur for a simple reason: because the alternatives are far worse. As **Saudi King Faisal understood**, rags-to-riches tales don't always end on a high note. "In one generation we went from riding camels to riding Cadillacs," he wrote. "The way we are wasting money, I fear the next generation will be riding camels again."