The state of OPEC

On the campaign trail, President Obama promised to reduce US dependence on OPEC oil. Sadly, two years later, we have made little progress. The US continues to import more than 60 percent of its oil, almost half of which is supplied by member states of the Organization of Petroleum Exporting Countries (OPEC). In June 2010 alone, we imported 362 million barrels for a total price tag of $27 billion, accounting for 55 percent of the $49.9 billion trade deficit that month. In July 2010, we imported 388 million barrels of oil, marking the single largest import month since President Obama took office. The US has consistently imported about five million barrels of oil per day (bpd) from member countries of OPEC. Unfortunately, OPEC's relationship with the US and other import dependent states has not been one marked by collaboration, which makes continued dependence on OPEC oil problematic for our long term interests. Despite the steady growth in global energy demand, OPEC's oil output today is barely more than it was in 1977. The export club drew criticism from its slow response to increase production during the 2008 financial crisis. And just last week, as the world economy struggles to recover, Libya called for the organization's members to push for a price of US$100 a barrel.

The 50th anniversary of OPEC has given rise to a new round of discussions about the real strength and monopoly power of OPEC. Skeptics of OPEC's monopoly power make reference to the difficult time OPEC has extracting compliance from its members. For example, Ecuador, an early member of OPEC, withdrew at the end of 1992 because it was unwilling (or unable) to pay a $2 million membership fee and felt that it needed to produce more oil than it was allowed under OPEC quotas at the time. It later rejoined in October 2007. Similar concerns prompted Gabon to suspend membership in January 1995; it has yet to rejoin. As recently as August 2010, reports indicate a mere 53 percent compliance for OPEC's 4.2 million bpd production cuts among its members (excluding Iraq), a sharp decline from its 80 percent compliance rate in March 2009. OPEC is producing two million bpd above its formal production ceiling of 24.845 million bpd (WSJ, March 18, 2010). Some have argued that the "only enforcement mechanism that has ever existed in OPEC was Saudi spare capacity," which accounts for 60 percent of OPEC's total spare capacity but has fallen in recent years.

In addition, recent growth in production and the discovery of new reserves in non-OPEC countries suggest the potential for these countries to capture greater market share. Seven of the world's fifteen largest oil producers are outside of OPEC. These include Russia, the US, China, Mexico, Canada, Norway, Brazil and Britain. In recent years, the biggest production gains have occurred in non-OPEC states Azerbaijan, Brazil, Canada, Kazakhstan, and the US. In 2007, pre-salt reserves were found off the coast of Brazil (see accompanying article in this issue of the JES), with the potential to add significantly to Brazil's reserve base of 12-14 billion barrels. In 2009, production increased 8.5 percent in Kazakhstan and 13.5 percent in Azerbaijan. Over the period 2000-2004, Kazakhstan's oil production rose at an annual average rate of 15 percent.

Moreover, domestic unrest has adversely affected output in several OPEC countries. The violent campaign of Nigeria's rebel group to bomb pipelines and attack export facilities has slashed Nigeria's daily oil output by about 20 percent since 2006. In August 2010, Nigerian output fell by 20,000 barrels to 2.14 million "due to sabotage." This level of output is significantly lower than its estimated production capacity of 2.9 million bpd. Recently, Royal Dutch Shell Plc

declared force majeure on high grade (Bonny Light) oil exports because of theft.

Halfway across the world, the oil sector in Venezuela, the third biggest OPEC producer (after Saudi Arabia and Iran), is collapsing under the weight of its own egocentric dictator and his political rhetoric which has stressed Petroleos de Venezuela (PDVSA) operations and scared away foreign investment, resulting in a decline in production and strain on Venezuelan refining operations. In 2009, Venezuela's import of fuel purchases increased 56 percent while its exports of fuel products fell by 17 percent.

Yet despite production declines in some OPEC countries, most forecasts indicate that a growing share of world oil output will come from OPEC countries. The non-OPEC production rate has not exceeded the level achieved in 2004, even in the face of higher oil prices, and the US Energy Information Administration is expecting non-OPEC oil supplies to slow once again in 2011. While new fossil resources have been discovered in non-OPEC regions, estimates suggest that these new reserves will simply offset dwindling reserves in other non-OPEC nations. For example, in 2004-2009, several non-OPEC countries experienced increases in production rates: Russia (+0.690 million bpd) and Brazil (+0.473 million bpd), but these increases did not outweigh decreases in the North Sea area (-1.537 million bpd) and Mexico (-0.782 million bpd). As noted by Gal Luft in "Dangerous Dependence," world oil production is projected to increase by approximately 65 percent in the next 30 years. Three quarters of that production increase will come from OPEC countries. As a result, it is estimated that OPEC will account for 60 percent of total oil supply in 2030, up from the 40 percent it supplies today.

Moreover, many non-OPEC producers have older, less productive wells, and face rising costs for new projects. Other non-OPEC members, like Kazakhstan and Russia, have struggled to maintain production due to mismanagement and a lack of technological knowledge and capacity to extract oil from deep sources. In contrast, OPEC producers continue to enjoy low costs in planning over 140 oil projects in the next five years. Saudi Arabia is investing as much as $30 billion on new supplies over the next five years.

Furthermore, OPEC producers maintain control of 78 percent of global oil reserves, a figure that remains unchanged from 1988. While the Middle East's share of reserves has shrunk by almost 10% in the last two decades, overall OPEC reserves remain stable. Venezuela is now the world's second biggest holder (13 percent) of proven oil reserves (73 billion barrels of heavy crude), overtaking Iran, Iraq and Kuwait. Even with the addition of the recently discovered pre-salt reserves, Brazil still only controls 1 percent of proven oil reserves around the world. Russia, who overtook Saudi Arabia as the world's biggest producer in 2009, only has 5.6 percent of the world's reserves and requires significant investments to modernize its equipment, build infrastructure and expand production. More striking, OPEC's reserve-to-production ratio, which indicates how long reserves would last if production were to continue at the same rate, is (at 85.3 years) more than five times the reserve-to-production ratio of non-OPEC countries (14.7 years).

Uncertain global environment

Despite OPEC's control of vast reserves, there are a number of factors that could affect OPEC's long term strategic position and ability to maintain its desired price band. As mentioned earlier,

there is considerable doubt about OPEC's internal cohesion, as evidenced from its low compliance rate of 54 percent. Compliance may only become more difficult, particularly in an era of increasing demand amidst tightening supplies that become increasingly expensive to extract. For example, in Iran, the longer economic sanctions remain in place and continue their stranglehold on the country's domestic economy, the greater the incentive Iran has to disregard OPEC's quota system or simply withdraw (as Ecuador and Gabon did) so as to maximize its ability to secure much needed revenues. With abundant oil and a crumbling energy sector infrastructure, Iran enjoys sizable investments from China and Russia. State-owned China National Petroleum Corporation (CNPC) and the China Petroleum and Chemical Corporation (Sinopec) are developing Iranian oil fields, expanding oil production, and increasing Iran's capacity to refine crude oil. The China National Offshore Oil Company (CNOOC) has agreed to help Iran develop its natural gas reserves and build gas liquefaction facilities. In 2010, Chinaoil, the trading arm of CNPC, began delivering gasoline to Iran. Unipec, the trading arm of the China Petroleum & Chemical Corporation (Sinopec) also resumed gasoline sales to Iran in the spring of 2010 after a nearly six-year hiatus. China's Zhuhai Zhenrong has also started shipping gasoline to Iran, sometimes in cooperation with Litasco, the trading arm of Lukoil, Russia's petroleum giant. Russian energy giant Gazprom, meanwhile, is pondering exploration of Iran's oil and gas pipelines. With this set of incentives, Iran will find it increasingly difficult to stomach OPEC production quotas, and other OPEC members may face similar situations.

Moreover, the increasing role and activity of sovereign wealth funds (SWFs), national oil companies (NOCs), and even traditional state-owned enterprises (SOEs) may undermine OPEC's ability to 'set prices.' As noted by Sven Behrendt and Joseph Helou in the July 2010 issue of the JES, there is some concern that OPEC states may use their SWFs and a portion of their earned revenue "to enjoy the leverage in fixing prices, setting production quotas, influencing policy and negotiating from a position of strength." But despite the heightened concern over SWFs, they are investing much less in the energy sector than the powerful NOCs and SOEs, particularly in the aftermath of the 2008 financial crisis. Among the biggest and most active SOEs and NOCs are Abu Dhabi's National Energy Company TAQA, China's CNOOC and CNPC, Russia's Lukoil, and Dubai World. To date, Chinese and Middle Eastern SOEs and NOCs have invested billions in Canada's energy sector. Farther south, Latin America has enjoyed steady investment from Chinese and Indian SOEs and NOCs. Most recently, China's state Construction Engineering Corporation, a subsidiary of the state-owned construction company, announced a $23 billion investment in Nigeria to construct three refineries and a fuel complex.

This degree of market integration and activity by state actors in the oil industry is unprecedented. Certainly, investment by SOEs and NOCs owned by OPEC member countries allows these oil producing countries to diversify their risk. But there is another benefit to these cross border transactions in downstream and upstream facilities. Greater international market integration and cross-national ownership means that OPEC's success will increasingly depend on the success of its non-member oil-producing peers. As the fates of companies and governments, consumer and producer states, and OPEC and non-OPEC nations become more closely aligned, it will serve OPEC's long-term interest to engage in greater policy coordination with non-OPEC countries. If nothing else, the strategic behavior of powerful NOCs and SOEs, and greater integration in the oil industry may further undermine OPEC's ability to keep its

members in line and its ability to capture monopoly rents.

US strategy

Independent of the long term strategic behavior of OPEC, the US must reduce the vulnerability presented by heavy demand on OPEC produced oil. First, the US should forge more strategic relationships with non-OPEC oil producing countries, including Brazil, Kazakhstan, Russia and even the Sudan. Energy must be at the center of these engagements, but they could also address other areas of mutual interest (e.g. military, economic, nuclear security). Second, the US needs to take a leading role in engaging consumer (net importer) countries—including China and India (home to many of the world's largest SOEs and NOCs)—in a dialogue and multilateral initiative to coordinate energy policy. The OECD experience has shown that multinational initiatives that group consumer nations together have produced the best results. As Amy Jaffe Myers has noted, "As [Asia's] share of world oil demand grows, this disconnect between Asia's size and importance as a consumer region and its lack of energy policy coordination with other large oil consuming nations (as well as the International Energy Agency itself) will create new problems and challenges for international oil markets and international economic systems." The US should launch a series of bilateral and multilateral discussions with China and India with the end goal of designing a decision-making architecture that can serve to coordinate energy policy among the largest oil consuming nations. The combined US, Chinese and Indian markets are so critical that they could be an important tool of leverage to gain concessions from OPEC nations or to limit OPEC's ability to extract excessive rents.

Finally, the US must move forward on policies to reduce oil's dominance over transportation fuel. Despite recent efforts by the Obama administration, energy remains a small R&D priority for the US federal government as compared to other areas such as health, space, and defense. The US government currently spends about $5 billion per year on energy research and development (R&D) activities, which is only slightly more than half the historic peak in energy R&D spending in 1980. This amount is a far cry from the $15 billion advocated by a group of leading American scientists and researchers. The American Recovery and Reinvestment Act increased clean energy R&D through its ARPA-E program, but its funding expires after 2010.

While OPEC's long term ability to maintain its price band may be challenged by a changing global market environment and domestic conditions in its member states, it remains, even in weakened form, a geopolitical force whose interests may collide with those of the international community. As such, the US should make reducing the strategic importance of oil a national priority.

Dr. Nancy E. Brune is an Adjunct Professor at the Anderson School of Management at the University of New Mexico. She is a Truman National Security Fellow, as well as a member of Women in International Security and the Pacific Council on International Policy