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What economies of shale for US foreign policy?

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"Under President Obama's leadership we are moving the US energy position from a liability we manage into an asset that secures U.S. strength at home and leadership in the world." Last April, Tom Donilon, then US National Security Advisor, expressed a sentiment shared by many in the United States today. The domestic energy boom – often dubbed as the 'shale gas/tight oil' or simply 'shale revolution' – has done more than boost economic activity and create jobs at home: it has increased government revenue, improved the country's trade balance, and reduced US dependence on energy imports from politically unstable regions, thus also widening its room for diplomatic manoeuvre. The outlook is indeed promising, and the Energy Information Administration (EIA) forecasts that the net import share of total US energy consumption will decrease from 19% in 2011 to below 10% by 2040.

Europe has observed the energy revolution in the United States with both envy and trepidation. There are fears that the redrawing of the energy map will have profound geopolitical consequences, with the US losing interest in the Middle East and slowly reducing its military presence in the Persian Gulf. Are these fears justified? How will the shale revolution impact on US foreign policy? And what does this mean for the transatlantic relationship?

Energy revolution = independence?

When President Barack Obama moved into the White House in 2009, many energy experts still expected the country's dependence on energy imports to increase. A few years later, the situation has changed dramatically: in 2012, domestic oil production reached its highest level in 15 years. Dependence on foreign oil is at its lowest level since the 1990s. Natural gas production reached an all-time high, surpassing coal as the country's most important source of domestically produced energy. According to EIA estimates, the country could not only become import-independent around 2020 but could turn into a major net exporter of gas.

While domestic oil production is yet to increase as dramatically as gas, the development is nonetheless impressive: total domestic production of crude oil – which had decreased significantly since 1985 – rose again between 2008 and 2012 from 5 million barrels per day to 6.5 million. The net import share of US petroleum and other liquids consumption (including crude oil, petroleum liquids, and liquids derived from nonpetroleum sources) has dropped from 60.3% in 2005 to 40.0% in 2012. The EIA expects the net import share to decrease further (to 37 per cent) in 2040. In 2012, the United States imported 8.5 million barrels of

crude oil per day. Of those, 4 million came from OPEC countries, the main supplier among them being Saudi Arabia and Venezuela. The EIA expects imports from the Middle East to continue to decline. Before 2011, the United States was a net importer of petroleum products; in 2012, the country exported on average 2.6 million barrels of finished petroleum products per day.

Is the United States thus becoming independent from world energy markets? Most measures of US oil security have indeed improved: not only are imports decreasing, but also US oil intensity has fallen considerably (by 60% since the early 1970s). Diversifying energy carriers as well as import sources reduces the country's vulnerability to supply disruptions and price fluctuations.

The country's oil consumption, however, remains high: every day, the United States consumes more oil than China, Japan, and Russia combined. It is likely to continue to import foreign oil, and the adjustment process will be long and expensive as oil refineries are specialised in the specific oil grades of their imports.

Furthermore, the US transport sector is still heavily dependent on oil, with petroleum accounting for 93% of energy consumption in 2012. While low gas prices are a strong incentive to switch from oil to natural gas, building the necessary infrastructure not only requires massive investments by both the public and private sectors but also the political will to do so. The same holds true for the expansion of renewable energies and energy efficiency efforts.

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Unlike gas markets, which have traditionally been organised regionally, the oil market is global. Supply disruptions and price shocks in one region thus have a much wider impact. The Persian Gulf will continue to be the backbone of global oil supply and the only source of low-cost oil for the foreseeable future. Until now, Saudi Arabia's spare capacity has been decisive in offsetting price and mass quantity fluctuations.

It remains to be seen whether US 'tight oil' production will function as a swing supply in its own right. Furthermore, the US depends on a certain oil price level for its own production to be cost-effective. Last but not least, the country is highly integrated into the world economy through trade and investment. Oil supply and price shocks which negatively impact its trading partners would therefore also hit the United States hard.

The US shale gas revolution has exacerbated regional divisions, increasing the already large price differences between the North-American, European, and Asia-Pacific markets. The United States is *the* strategic player that can make or break a global liquefied natural gas (LNG) market. Currently, the country only exports small amounts of oil and gas, and exports of crude oil are prohibited with very few exceptions. A liberalisation of the oil export regime, however, is unlikely, not only because of high prices but also because oil is very much perceived and framed as a security issue.

In order to export gas, two types of federal licenses are necessary: an exports permit from the Department of Energy (DOE) and a facilities permit from the Federal Energy Regulation Commission (FERC). If the recipient of the gas exports is located in a country with which the United States has signed a free trade agreement (FTA), the exports are deemed to be consistent with the public interest and a licence is granted without delay. In the case of gas exports to non-FTA countries, the DOE must first determine whether such exports are in line with the public interest. To date, 26 projects have received approval to export domestically produced LNG to FTA countries, while only four projects have received permits to export to non-FTA countries. The debate in Washington over gas exports is still in its infancy. The US government will most likely follow a step-by-step approach, carefully monitoring how domestically sourced LNG exports will affect gas prices and industry in the United States.

The combination of decreasing oil imports and increasing gas exports would have a positive impact on the US trade balance. In 2012, the country's merchandise trade deficit was $788.2 billion: net imports of petroleum and related products constituted more than one third (38.6%) of the deficit, while net imports of natural gas amounted to only 0.5%. Whether or not the energy boom would also improve the country's trade balance with its largest surplus country – China – is, however, uncertain.

That said, recent trends appear to confirm this development. US exports of petroleum products to China have increased significantly over the past decade and although exports of natural gas liquids to China are still fairly small, they are also on the rise. What is more, since the beginning of the shale gas boom, the US has been exporting excess coal to China. Energy, however, is just one piece of the puzzle: whether the trade balance will improve depends on a multitude of factors, economic growth and exchange rates being just two examples.

Shale revolution and foreign policy

President Obama is not only forced to conduct foreign policy in an increasingly multipolar world but is also constrained by two further factors.

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When Obama was elected in 2009, he inherited two ongoing and costly wars in Afghanistan and Iraq, while the country faced its worst financial and economic crisis since the Great Depression of the 1930s. These two factors put great strain on the country's finances – government debt reached 106.5% of GDP at the end of fiscal year 2013 – and there is now little appetite for military involvement abroad. Obama's motto is 'nation-building starts at home', and a new, more restrained US foreign policy could already be observed in the cases of Libya, Syria, and Mali.

A second core element of Obama's foreign policy is the so-called 'pivot to Asia' (meanwhile reframed as 'rebalancing'): the US is currently finalising the Trans-Pacific Partnership, a free trade agreement composed of 12 countries (including Japan, Malaysia, Vietnam) and is set to boost its military presence in the region with the aim of counterbalancing China's growing economic and political clout.

The energy boom alone is, however, unlikely to be a real game changer for US foreign policy. Instead, it appears to only be reinforcing current trends. Moreover, energy has always been a hot topic for US foreign policy and seems to be gaining greater prominence. In 2011, the Obama administration created a dedicated Bureau of Energy Resources (ENR) within the State Department. The ENR has identified two regions that require special attention where offshore energy resources already do (or could in the future) fuel tensions: the South and East China Sea, and the Arctic. To more effectively address these tensions, President Obama has repeatedly spoken out in favour of the US ratifying the United Nations Convention of the Law of the Sea (UNCLOS).

The Middle East is likely to remain a centre piece in the country's foreign policy agenda, even if Obama's team seems to be drawing up a lower-key (Greater) Middle East agenda. Iran's nuclear programme, Syria's chemical weapons, and the peace process between Israel and Palestine will continue to be priorities alongside ensuring stability in Iraq and Afghanistan. The reason for the scaling down of the US presence in the Middle East is again due to the military and financial overstretch of the past decade and has little to do with the decrease of oil imports from the region. Indeed, given the nature of global oil markets, Washington remains vulnerable to developments in the Middle East.

Protecting shipping lanes that run through key choke points – the Strait of Hormuz, the Suez Canal, and Bab-al-Mandeb – remains another strong motive for the US to stay in the Middle East. According to the International Energy Agency (IEA), 50% of projected global oil trade will pass through the Strait of Hormuz by 2035 (compared to 42% in 2010), making the global oil trade even more reliant on this route, and thus more vulnerable to regional disruptions.

While the IEA expects US oil imports from the Middle East to fall to only about 0.3 million barrels per day in 2025, more oil will flow from the Middle East to Asia. With more than 50% of China's crude oil imports coming from the Middle East in 2011, the country is likely to take a much greater interest in the region in the future. Given its often rocky relations with the United States, it also has a strong interest in being less dependent on the US Navy for securing the free and safe passage of oil. While supplying security in the region is indeed costly for Washington, it would be surprising if the US government chose to share its power with Beijing. Instead, the EU and its member states can expect to be asked to bear a larger part of the burden.

The same holds true for Europe's 'neighbourhood' (both in North Africa and for its eastern partners), where the EU will have to play a much more active

role than in the past, given that it will be forced to rely less and less on US support. While this is, in part, a consequence of the financial and military overstretch of the US, the redrawing of the energy map also plays a role.

For decades the US warned against Europe's reliance on Russian energy deliveries and supported diversification strategies such as the Baku-Tbilisi-Ceyhan oil pipeline, which connects the landlocked Caspian region (some of the world's largest oil and gas fields are located in and around the Caspian Sea) with Western markets. With American production overtaking Russian gas and oil/liquids production, US LNG might in the future compete with Russian LNG in the Asia-Pacific region or even with Russian pipeline gas in Europe. As a consequence, Washington might become less engaged in energy projects such as the Southern Gas Corridor.

Last but not least, while many factors speak against the shale revolution as a game changer for US foreign policy, the power of the narrative should not be underestimated: the promise of energy self-sufficiency – despite the many uncertainties, particularly with regard to oil production – can in and by itself create new realities. While the Obama administration has emphasised that the energy boom will not change its foreign policy priorities, other countries are already acting in anticipation of future changes; something which in turn might eventually cause the US to react itself.

A transatlantic energy agenda

What do these developments mean for the transatlantic relationship? EU-US 'physical' energy interdependence is low, even though US petroleum product exports to the EU have been rising steadily in recent years. America and Europe also seem to be on very different energy paths.

While the US is experiencing an energy revolution, the EU's import dependence is rising significantly as domestic fossil fuel production continues to decline. Moreover, the Union is struggling to stay on track with its integrated energy and climate policy, as relatively high energy prices pose a challenge to EU competitiveness. According to the IEA's World Energy Outlook (2013), European industrial consumers paid on average more than twice as much for electricity than their competitors in the United States. These different trajectories also create challenges for international energy governance as the United States and its European OECD partners have been major motors behind the IEA, the G8 and the G20 and their respective initiatives on energy cooperation.

Nevertheless, there is both need and scope for transatlantic cooperation in this field. As the world's largest energy producer, it is the responsibility of the United States to ensure credibility and confidence in the functioning of global energy trade. US export restrictions may result in a more fragmented global energy trade, fuelling a race for resources.

The current negotiations concerning the Transatlantic Trade and Investment Partnership (TTIP) create an excellent opportunity to address these issues. The transatlantic partners should also continue to use the US-EU Energy Council to discuss energy security concerns and promote energy efficiency efforts. Last but not least, the United States and European Union could promote global energy governance efforts – the EU might even consider proposing a new Energy Charter 'from Vancouver to Vladivostok'.

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