

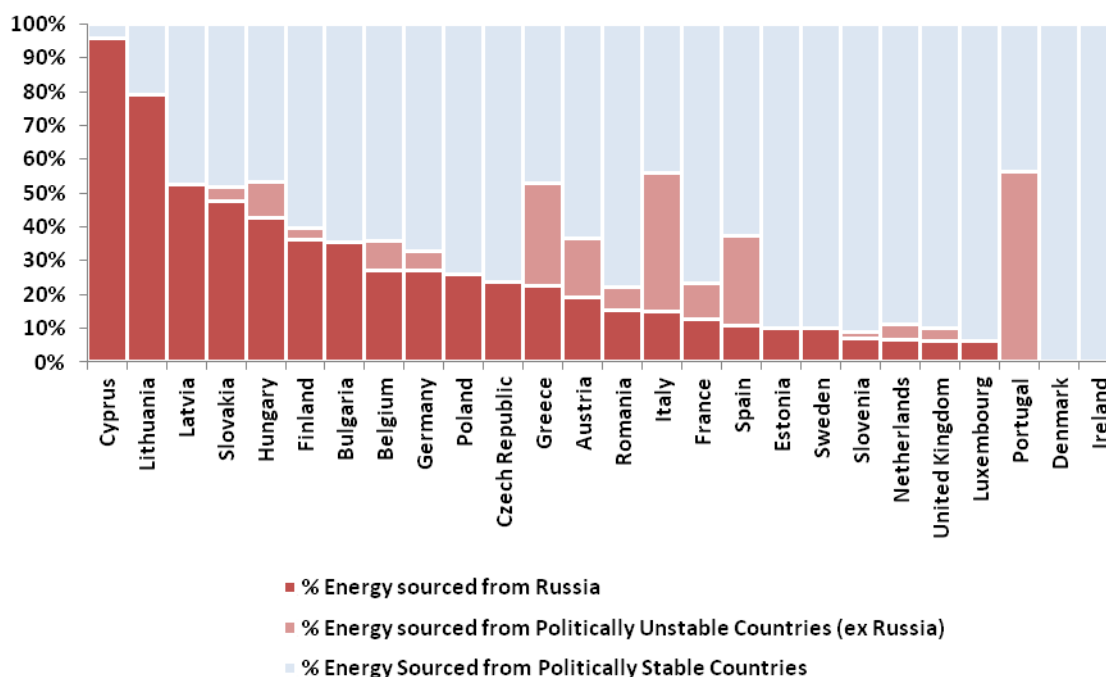
Oil Thirst and Political Instability: Energy Security in Europe

May 2014

The continuing Ukraine-Russia standoff has refocused attention to Europe's energy vulnerability. Dependence on Russian supplied oil and gas, particularly in Eastern and Southern European countries have made responses to Russian aggression an increasingly difficult balancing act. The conflict also reinforces concerns around energy security, particularly for countries sourcing significant portions of their energy needs from politically unstable countries. By combining energy source data against political instability, energy reserves, consumption trends, and renewable energy investment targets, MSCI ESG Research has identified countries it believes are well positioned to weather sudden political disruptions to energy supply and those who may be more energy vulnerable.

We analyzed oil and gas imports for 26 European countries using MSCI ESG's Sovereign Ratings data on political instability to understand the extent to which Europe relies on oil and gas supply that is potentially at-risk to political disruptions, separated into Russian and non-Russian imports (figure 1). While Russia clearly supplies the bulk of European oil and gas, countries like Italy, Portugal, and Greece stand out as having significant portions of oil and gas supply derived from non-Russian countries we consider politically unstable. Italy in particular faced the threat of sudden gas supply disruption just four years ago during the Tunisian uprising, a conflict which led to deteriorating security around Algerian pipelines that feed nearly 20% of Italy's energy supply.

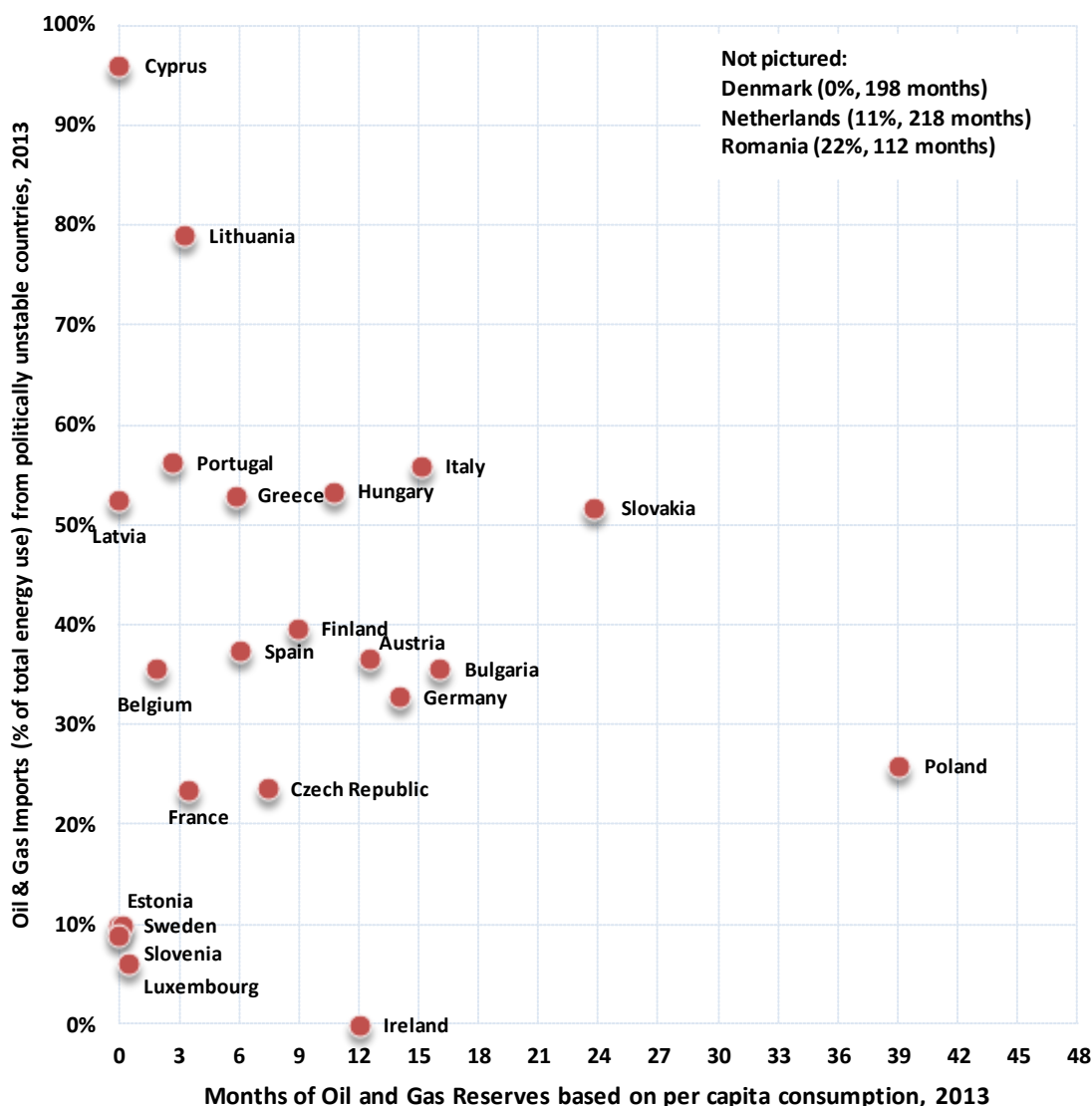
FIGURE 1 **European Oil and Gas Imports by Country, 2013**



Source: MSCI ESG Research

However, supply is only half of the equation – our data includes oil and gas consumption trends for each of the 26 countries. We isolated oil and gas energy consumption per capita by country and compared the results to available oil and gas reserves, both strategic and proven, to estimate the total time buffer the reserves buy in the event of sudden disruptions. The results, detailed in figure 2, highlight the gap between consumption and reserves – the median European reserves would last 8 months given consumption patterns, largely the result of strategic reserves, with a staggering 42% of the continent unable to supply even a single month of consumption before resorting to oil and gas austerity measures or forced change to import partners. Belgium, Latvia, Cyprus, and Lithuania are facing the issue in the immediate: Russian oil and gas account for more than a quarter of their respective energy needs and they have 3 or fewer months of reserves on hand to offset supply disruption.

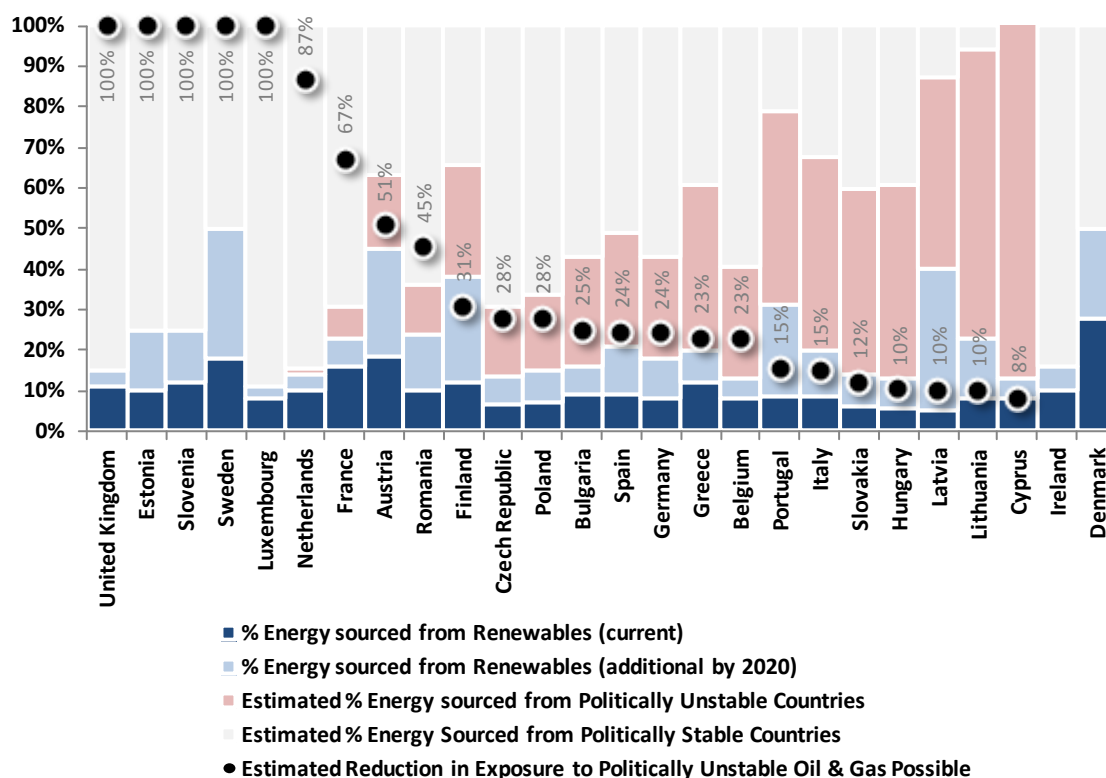
FIGURE 2 **Oil and Gas Imports vs. Reserve Consumption, 2013**



Source: MSCI ESG Research

A key differentiator going forward will be a focus on moving from potentially risky oil and gas suppliers to either lower risk suppliers with pipelines in secure countries or renewable energy investment and domestic sourcing. As to the former, Ireland stands out given a heavy reliance on coal and oil sourcing largely from Scandinavia. Of the latter, figure 3 illustrates the total possible effect renewable energy targets could have if used to offset politically unstable oil supply. Several countries could reduce their dependence on at-risk supply to zero, though these countries already had limited exposure to at-risk supply and generally strong reserves on hand. Finland arguably has the most to gain – the country currently sources just over a quarter of its energy from renewables, with a target of 38% by 2020. The 12% additional capacity domestically could offset as much as a third of the country's at-risk oil dependency. Renewables are not a panacea, especially given the continued need for fossil fuel transport and petroleum-based products. However, if used to offset domestic energy consumption linked to politically risky regimes, the effect could be dramatic in securing a longer-term sustainable and secure energy solution throughout Europe.

FIGURE 3 **Effect of Renewable Energy on Energy Security, 2013**



Source: MSCI ESG Research

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¹ As of September 30, 2013, as reported on January 31, 2014 by eVestment, Lipper and Bloomberg

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